5. Improve Society: Expect Grander

Let me be clear: talking about libraries improving society does not include jackbooted librarians marching down the street forcing citizens to properly cite works and read only approved books. I say this because there are those in the library community who think that when one's mission includes "improving society," it implies a fixed and somewhat authoritarian vision of improvement.

This suspicion is not completely unwarranted. For a good part of history, libraries were seen (and run) as elitist institutions that promoted reading the "right" literature. The right literature was often defined as material approved by white, male land owners. You may find this hard to believe living in an age of the Read posters, and the stereotype of librarians with noses deeply embedded in a good piece of fiction, but time was when the novel was considered at just about the same level of acceptance as online pornography today.

In his outstanding book on the history of public libraries in the United States, Wayne Wiegand chronicles the fight to get the "literary novel," what we simply refer to as a novel these days, banned from libraries. He quotes a newspaper article in 1882 on who reads novels:

"Schoolchildren; factory and shop girls; men who tended bar, drove carriages, and worked on farms and boats; and finally, fallen women, and, in general, the denizens of the midnight world, night-owls, prowlers, and those who live upon sin and its wages."

He writes of how the novel can push girls to think above their station, and giving boys dreams of the wild west instead of what they should be doing….toiling in the fields. Thank goodness that over the past century we all expected more of our libraries. Today we see the novel as a vital tool to inspire girls to achieve and boys to dream. This didn't happen accidently or quietly. It took librarians and the communities they serve to actively advocate for the power of the novel.

This elitism still shows up in some unexpected ways, however. There is still plenty of talk about libraries being authority sites that collect only high-quality resources, with "High Quality" normally being defined by the reputation of the publisher of a given work. Certainly, this is the perception of folks such as faculty, parents, and businessmen. If you want quality information, go to the library. The library is (or at least should be) a location to find quality information resources. But to fulfill its mission the library can't store only high-quality materials. There are two problems with storing only high-quality resources: universality and negative examples.

I've already touched on universality a bit. Can there ever truly be a universal definition of high-quality? When the President of the United States makes a statement, is that automatically high-quality information? Ask someone of the other political party or the president of Iran. We could try and get around this question by talking about universally recognized processes or markers of importance. So while we may not agree with a president, we can at least see his statement as important, right? In science, rather than talking about truth or quality, we talk about peer review, a process where a given community deems some idea as worthy. This is a great approach and one I advocate, but it is not universality—it is a community-based definition of quality. Quality, it turns out, is like pornography…you only know it when you see it.

Here's the second problem with the library as keeper of high-quality information: there are few places on this planet with a greater concentration of lies and untruths than a good academic library. Why? Because you need bad information to produce good knowledge. I know that sounds like a paradox, but stick with me for just a few more sentences. If you study evolution, you probably also read works on creationism—if only to disprove it. If you want to advance science, you often do so by disproving a previously held theory. History collections are filled with racist rants and skewed biographies. Education texts talk about dealing with "the retarded", and psychology texts can still be found talking about "hysterical women". You need this information to know your history and to track the progress of our knowledge of the universe.

Several years ago, the MacArthur Foundation funded research into credibility and youth.[83] Several authors (including myself) came to the same conclusion: K–12 public schools are potentially the worst place to teach kids about finding credible information on the Internet. Why? Because it is actually hard for students to access non-credible information. Teachers and school librarians can show kids good information, but in order to see negative examples kids have to go home where they often encounter bad content with no supervision.

I am not talking here about pornography, I'm talking about sites like MartinLutherKing.org. Not a typo. You see, the site is actually built and run by Stormfront, a white supremacist group. Of course you would never know that unless you clicked a little link at the bottom of the page. In schools, this site is most likely filtered out, but at home? The third link in Google. Teachers and librarians can't bring up the site to show students how racist groups can use the Internet to manipulate the young and unknowing.

Now here's one to twist your mind a bit: in some communities and for some questions the Stormfront MLK website is high-quality information. That community is not just the racist sect, but in your community as well. High-quality? Imagine a reporter looking for examples of how hate groups use the web for recruiting. Stormfront is one of the best resources for that reporter. However, it is not the best site to send to an eighth grader looking for after school activities. In discussions of quality, context matters.

Ultimately, what constitutes improvement within society is a local definition. Is your library there to increase research, encourage economic development, improve the bottom line, improve testing performance, provide recreation, or most likely, do a combination of these things? The library's goals need to be aligned to the larger community.

Expecting More Than Pie and Prostitutes

In Ann Arbor, Michigan, the librarians have a suggestion box on their website. They asked members what would make the library better. One of my favorite responses was (I'm paraphrasing here): more pie and prostitutes. Probably a joke, but this response actually raises an important counterbalance to the jackbooted librarians with which I opened the chapter. The opposite end of the spectrum from authoritarian librarians dictating one vision of improvement is a sort of anything goes definition. There is danger in a consumer-driven approach run amok.

Throughout this book, I talk about expecting more out of the library, but for a moment I need to talk about how libraries and librarians need to expect more out of you. Seeing every community member as a consumer is

[83] Metzger, M. J., & Flanagin, A. J. (2008). Digital media, youth, and credibility. Cambridge, Mass: MIT Press.

expecting far too little of you. You are not a consumer or even a customer of a library. Most libraries will use the term "patron" when referring to the community. This is slightly better, but I would rather libraries be energized by their communities, not patronized. I prefer the word member.

This is an idea I owe once again to Joan Frye Williams. While working with several public libraries to create strategic plans, the question of what word librarians should use to refer to you came up, and she had a crazy idea… "Let's ask them." In an informal survey of people in the library the answer she got more than any other was "member." After all, "I have a card and I pay dues [in the form of taxes]." I like this term because it connotes co-ownership. Members of an organization don't just use the organization and leave. They vote, set policy, and help. In essence, they are part of the organization. You need to expect to be part of your library. You need to be part of the conversation of what improves society and how the library can contribute to that goal.

Further, you must expect more of that conversation and more of the library than simply identifying what is wrong with the community. Librarians are great problem solvers. They love problems. They love the challenge of a good reference question. They love the hunt of finding an item. They are born to serve and often because of that they focus on the problems of the community. Those problems are great, and that work is important.

However, we must never forget that our communities have aspirations and dreams. Though the diversity of our communities can make it difficult to agree on a single vision, we know it is possible. The library can bring our neighbors and colleagues and students and members together in a civil, safe, and inspiring space to dream.

A great dream has the power to move nations. A great dream has the power to transcend differences, problems, and challenges. A great dream lifts us up out of the routine and the weight of the everyday. A dream has the ability to point us forward and to improve society. That, ultimately, is the kind of services we need from librarianship—not to be constantly reminded of problems, but to be wrapped up in a dream of a better tomorrow.

Of the Community

You also must expect a library to do more than simply take a dream and make it happen. Great libraries help shape the vision itself. Notice I use the word "conversation" throughout this book. It is done intentionally, and when talking about how communities seek to improve themselves and the larger society. It is important to know why I use "conversation."

A conversation is a complex thing. It involves at least two parties. It involves the language used by these parties, but most importantly, it involves listening and talking. A conversation is an exchange of ideas where both

parties are shaped by the conversation and shape the other conversants. Without this willingness to listen, conversations quickly devolve into monologues and shouting matches.

In the conversation about what makes the community better and about the role of the library in that aim, we should expect libraries to shape themselves and their services to that vision of a better community. This is nothing particularly revolutionary. For decades, we have been talking about customer-driven approaches. In technology, we talk about user-centered design and user experiences. We should expect more than simply being consumers or users of the library; we should expect to be members—helping to shape the library itself.

This means we should also expect libraries and librarians to shape the conversation of a better tomorrow. Libraries need to be "of the community," not simply "for the community." On one hand that means they offer services shaped to best meet local needs. It means that library collections need to be as much (or more) about locally produced knowledge and resources as about materials from and about other communities. However, it also means that, as a member of the community, libraries and librarians have a voice in the shaping of the vision for a better tomorrow and in how the library achieves that vision.

Let me provide a current example: eBooks. Something very interesting is happening as books migrate from paper to electrons. Most folks focus on things like feature sets (highlighting, sharing notes, being able to sync where you are in a book across devices, multimedia) or devices (eBook readers, tablets). To be sure, these are some pretty major changes in how we think about and interact with books. But most people have missed a much more fundamental shift. As publishers have moved titles to the digital world, they have also changed their business model from selling books to licensing them.

I know business models are a lot less sexy than super-slim tablets, but here is why you should care. Even though you think you are buying a book for your device, you are not. You are agreeing to pay for the use of that book under a license. What's the difference? You get one set of rights when you buy something, and you only get the rights the owner of the eBook wants to give you under a license. For example, if you buy a physical book, you can lend it to a friend or even sell it to someone else. This is called the first sale doctrine, and not only does it create an amazing used market for textbooks in college, it is one of the pillars upon which libraries are built. If you buy a book, you can sell it, or lend it to a friend…perfectly legal. So can a library. However, you can't resell an eBook. Why? You don't own it.

When you got your new eReader, you probably clicked on what is called an End User Licensing Agreement. This is the pop-up that you see every time you create an account on a website. It is often pages long, and, if you are like the vast majority of "end users," you never read it. Notice that you don't have

to do this when you buy gum at the store. That agreement was a license, and with eBooks it pretty much says what you can and can't do with an eBook.

How does this play out in real life? In July 2009, two years after Amazon put out the first Kindle, many people bought an electronic copy of George Orwell's *1984*. The problem was that Amazon didn't have the right to sell it. So what did Amazon do? It remotely deleted the book from every Kindle that had purchased it. Only after the fact did Amazon let customers know it had done this and offer a refund. One commenter compared it to Ikea sneaking into your house late at night to repossess a bookcase.

What Amazon did was perfectly within its rights, because all the owners of Kindles had agreed to Amazon's policies and didn't own the book in the first place—they had only paid for the use of the book under the conditions that Amazon had set up.

So what does this have to do with libraries and the conversation about improving society? There is a growing demand for eBooks from library members, and publishers are getting increasingly worried about how they can make money off of their titles. Imagine if you could go register your eBook reader with your local library and seamlessly download any title you wanted free of charge. Why would you ever buy another book? Instead of selling a bunch of copies of the books, publishers would sell one to your library and be done. So publishers are seeking to introduce "friction" into this process. That is, they want to make it easier to license it directly from the publisher than to get it from the library. And most publishers are refusing to license eBooks to libraries at all.

Those who are agreeing to work with libraries are doing things like restricting the number of times libraries can "circulate" the eBook. So after 26 people have read a Harper Collins title, the library must license a new "copy." Random House had a simpler approach; it just raised the price of eBook licenses for libraries by 300 percent. In the physical ownership world, when the new bestseller comes out, you and a librarian can walk into the same bookstore and buy the same book at the same price—you take it home, and the librarian puts it on the shelf. But in eBook land, you can pay $10, and the library, if it can even get it, would pay $30.[84] And remember, these are the publishers that are willing to talk to libraries. This has led librarians to ask whether libraries (public, academic, school, etc.) should be in the eBook business at all. Some in the library community have started boycotts.[85]

Why this long story about eBooks? Because there is no question that communities of all sorts want eBooks in libraries. However, if the library simply does the best it can to meet this demand, two things may happen. The

[84] Matt Weaver, of West Lake Public Library in Ohio, told me of an order for eBooks that cost $926.58 in February, and $2,299.74 two weeks later.

[85] http://www.cbc.ca/news/arts/story/2012/04/02/ns-south-shore-libraries-boycot-random-house.html (accessed May 8, 2012)

first is that the community will be dissatisfied with the selection. Many of the titles they are looking for will not be available through the library because publishers won't license them. The second thing that might happen is that a community may greatly reduce the services available at the library because more money has to be spent on eBook licenses.

To be clear, I have an opinion on this matter, but I don't begrudge any company or industry trying to make a dollar. A number of industries, including libraries, publishers, travel agents, doctors, musicians, movie producers, and game makers, are in great flux and trying to find their place and business model these days. We should expect librarians not only to be aware of this issue, but to be well versed in it. We also should expect the library to actively inform and help shape a community's view on this topic.

As with the Freegal service I mentioned in Chapter 2, does our community want to spend our resources on eBooks that can disappear at any moment? More than that, does our community want to take a stand on this issue? If you are not pleased with the idea that Amazon, or Apple, or Barnes & Noble ultimately owns the things that you are paying for (and can delete them at any time), you should expect our library to aid the community in making that view known, and actively work to change it.

This same argument is now taking place in our universities around the issue of scholarly publishing. In Chapter 2, I showed you just a glimpse of the tremendous costs involved in licensing scholarly databases (note: licensing, not buying). Many universities are increasingly annoyed that the government funds a researcher to do a study, the researcher writes up the results, and then hands it over to a scholarly publisher for free, to include it in a journal. The scholarly publisher then charges libraries, scholars, and universities to "buy" the article back at escalating prices. What's more, since the library, university, or scholar doesn't own the work any more, they simply are buying the right to read it. If the university ever stops paying the publisher, the articles vanish.

This has led an increasing number of academics and librarians to seek alternative models of publishing. For example, there is a huge open access movement. In the open access model, articles are published on the web for free. The resources to edit and review the work come from either the author or from some association that acts as publisher.

How does your community feel about this topic? What do they want to do about it? Several large universities, like the University of North Carolina and Harvard, have passed policies that dictate all publications should be open access (with some exemptions, to be sure). While this is very much a conversation for faculty to have about peer review, criteria for tenure, and even the obligation of the scholar to participate in open debate of ideas, the libraries have a big role to play here. We should expect librarians to educate the community, talk about the risks and benefits, and help shape the conversation around open access and scholarly communication. Note that I

didn't say the library should determine a policy and enforce it. The library should enter into a meaningful conversation with the community where the library is shaped by the needs and desires of that community, but the conversation is also actively shaped with knowledge and expertise from the library.

Walled Gardens

EBooks raise another issue about expecting more from librarians in terms of educating and organizing our communities: walled gardens. Walled gardens are proprietary systems for housing and delivering content. For example, if you own an iPad or iPhone and you want to add an app, you have to go through Apple's App Store. No app can be added either directly to the device or to the App store, so Apple has nearly complete control of the apps that you can access.

This concept is being extended to content as well. For example, buying books for your Amazon Kindle. Barnes & Noble stores, which sell their own proprietary eReader, the Nook, now refuse to carry physical books if the eBook version is available only on the Kindle. In physical bookstores, this is not a problem because there are other places you can go (like a library or another bookstore). However, on your Kindle, you have only one source—you live in a walled garden. It may be beautiful and all you will ever need, but the walls are still there.

I have just spent a good part of this chapter on books digital and physical, yet I keep saying that we need to expect more from libraries than books. Libraries, and therefore their concerns for an improved society, are all about the community. Does this concept of walled gardens apply there as well? Yup.

There is a 50/50 chance that if you use the Internet, you use a social networking site,[86] and, if you do, there is a huge chance you are using Facebook. Facebook is a walled garden, but in reverse. Ever wonder why it doesn't cost money to use Facebook? Because you are the product, not the client. Unlike Apple or Amazon where you are restricted in what you can get from the garden, Facebook controls what groups can take from (or about) you in their walled garden.

Your browsing history, who you are friends with, even the photos you upload are owned by Facebook, and that information is then resold to advertisers and others. (Remember the example of governments monitoring social networking sites to predict protests?) Now, for the vast majority of us, including myself, the value we get out of Facebook is worth the cost to our

[86] Rainie, L. (2012). *The emerging information landscape: The 8 realities of the "new normal"* [PowerPoint slide 11]. Retrieved from Pew Internet & American Life Project: http://www.pewinternet.org/Presentations/2012/Feb/NFAIS--New-Normal.aspx

privacy. The rub is that many in the community are not aware that they are paying a price to begin with, and most of us get annoyed when Facebook exercises its rights to change the rules of engagement. This is particularly galling to folks who try to delete their Facebook account and find that Facebook has reserved the right to keep all of the status updates, pictures, and such in perpetuity (and use them in targeted advertisements).

Grand Challenges

So I come back to what we should expect from librarians in the conversation about improving society. There are clearly many aspects to the dreams of a community: economic, spiritual, recreational, scholarly, and so on. What aspects should we expect libraries to contribute to most? Rather than try and make a huge list of the areas where we should expect libraries to make a substantial community contribution, I prefer to talk about Grand Challenges.

A Grand Challenge is a fundamental problem with broad applications, which is answered by a wide array of approaches. It is an aspirational goal set by a community that seeks to help define and prioritize a field of study without dictating strategies and solutions. A Grand Challenge also serves as an invitation to institutions, scholars, industry, and governments across domains to meet the challenge. One of the best examples of this approach can be seen in biology and the mapping of the human genome.

Starting in 1990, scientists from around the world sought to map every part of the human genetic code, some 20,000 to 25,000 genes.[87] Partners from universities, government, and private industries believed that knowing the basic building blocks of life could unlock new treatments for disease, reveal new truths about evolution, and ultimately expand the capabilities of drug makers, doctors, and researchers. Over a period of 13 years, new technologies were developed and new understandings of how humans work at the cellular level were unlocked. The fields of biology, medicine, pharmaceuticals, criminology, and other fields will never be the same.

Are there some equally great challenges that we can expect our libraries to engage in? What are the Grand Challenges of library science, and how can we all work together to improve society? To answer that question, a group of librarians and information scientists gathered in Dallas, Texas in April 2011. What they came up with was a series of themes revolving around the central concept of the knowledge infrastructure.

The knowledge infrastructure is a rich mix of people, technology, sources, and permissions. Like DNA, the knowledge infrastructure is essential to your daily life, and, like DNA, you probably don't think about it that often. There are the obvious parts of the knowledge infrastructure, like your cell

[87] http://www.ornl.gov/sci/techresources/Human_Genome/home.shtml (accessed December 4, 2015)

phone. Of course, calling them cell phones is a lot like talking about "dialing" a phone these days. Over 64% of adults in this country own a smartphone[88], a phone they can use to surf the web and update social network sites like Facebook and Twitter. There are also other parts of the knowledge infrastructure we are getting used to, for example the digital networks that now deliver everything from texts, to movies, to music.

There are also parts of the knowledge infrastructure that we are becoming more and more aware of, such as policies and laws that affect how the infrastructure works. These days, when you hear about pirates, they are equally likely to be from Somalia as the suburbs where teenagers are downloading the Captain America movie over BitTorrent. There is a huge debate over who owns ideas and content and what citizens are allowed to do with it. This concerns our national knowledge infrastructure.

Some see the knowledge infrastructure being put in action when colleges and universities (and high schools) go online to deliver distance education. Some think of the knowledge infrastructure as the Internet, and some would include phone systems (which are, increasingly, the Internet). Some may add repositories of information like libraries and museums to the knowledge infrastructure.

However, here in North America the knowledge infrastructure has become much more diverse and woven into our lives. Take something as simple as driving to work. There is an excellent chance the car you are driving is controlled by a computer. Many new cars these days use a computer to regulate gas in the engine, monitor a suite of sensors so that it can text you if there is a problem, monitor wireless signals to unlock the car, and shut down the engine if the car is stolen. There are probably also other computers embedded in the car doing things like talking to satellites, and determining where you are (GPS) and what music you are listening to (satellite radio).

Your car is driving on top of a road that may look like it did 50 years ago, but that similarity is only surface deep—literally. If you are driving in a major city, you are driving on smart roads. Sensors embedded in the asphalt can detect how many cars are traveling on a road and at what speeds. They do this so that the streets themselves can control traffic lights to avoid congestion. These sensors are also being installed in remote rural roads so that if the road freezes, the road can call for salting, thus minimizing costs and impacts of over-salting on the environment.

Perhaps you are driving on an interstate on the east coast of the U.S., where you can drive through tollbooths without ever slowing down because an E-ZPass RFID system automatically detects your car and debits the toll directly from your bank account. You may not think of wireless toll systems as "knowledge" infrastructure, but recently, such technology has been used as

[88] http://www.pewinternet.org/fact-sheets/mobile-technology-fact-sheet/ (accessed December 4, 2015)

a data collector to supply evidence for use in divorce trials. Lawyers can subpoena the toll operators to determine exactly where you were and at what time you were there. And this is all while you are driving.

By one estimate, very soon every mile of road will generate a gigabyte of data a day. It is assumed that this number will become a gigabyte an hour. As there are nearly 4 million miles of highway in the U.S.,[89] that would be 3.4 petabytes of data per hour, or 28 exabytes per year. What's an exabyte? It's 10x10x10x10 megabytes. Five exabytes could store every word ever spoken by humans—ever. So 28 exabytes of data on U.S. highways generated every year—a lot of data just from driving will be lying around.

Once again, you may not think anything of this, but when you have all of this data from our daily actions being collected, things can get downright creepy. Charles Duhigg is an investigative reporter for the *New York Times* and wrote a book, *The Power of Habit: Why We Do What We Do in Life and Business*. He tells the story about how the data collected through all of these seemingly invisible networks and sources can be put to unexpected uses like helping Target, the retail chain of stores, determine when someone is pregnant.

Pregnancy is a time of great change in a woman's life, and Target wants one of the changes to be buying more things at their stores. Target uses all of the data it has on customers (What coupons have we sent them? Did they use the coupons? What email did we send them?) to better target (no pun intended) its marketing efforts. In a recent interview, Duhigg talked about how Target can figure out when a customer is pregnant:

"So one of the analysts - and I spoke to the guy who ran this program, who kind of built this model. One of the analysts figured out that women who start buying, all of a sudden, a lot of unscented lotion might be pregnant. And then they started looking at what else those women bought, and they were able to run these little experiments because they have a baby registry. So they have a whole bunch of people who they know are pregnant, who told them what their due date is.

And if you buy unscented lotion, and then all of a sudden you start buying certain vitamins like zinc or magnesium, then that means that you're probably pregnant, and you're probably in your second trimester. And if you wait a little while longer, and that same person starts buying washcloths and cotton balls and hand sanitizer, which they've never purchased before, then you can use this information.

And there's about 25 different products to figure out, within a two-week window, what that woman's due date is. So even if this person has never told you that they're pregnant, in fact maybe they haven't even told their parents that they're pregnant, Target, by looking at their shopping patterns, can figure out not only if they're pregnant but when their

[89] https://www.dot.ny.gov/highway-data-services (accessed December 4, 2015)

likely delivery date is, and that gives them an enormous power to send them coupons at precise moments."[90]

If Target can be so accurate, what else can you, your community, or others do with so much information—good and bad?

Now, here is the trick about our current knowledge infrastructure: it's broken. It may not seem like it. After all, our phones still work, the traffic lights get changed, and Target makes a buck, but it is broken.

To begin with, it is currently uncoordinated and often conflicted. While the infrastructure is, and will remain, a marketplace with a mix of public and private components, few policies exist to make it better. What's more, the knowledge infrastructure is greatly tilted in favor of a simplistic view of consumption and production. In this view, there are entities that produce content (books, movies, songs, etc.), and there are consumers who buy or acquire it. The problem is, this model does not make much sense any more. We are all producers and consumers. Even our cars are producers and consumers. We are participants in a conversation, not simply customers in a market.

Think about YouTube. It is a site where you can not only watch viral cat videos, but you can also add your own video. Now, take a look at the Internet connection you use to connect to YouTube. Odds are it is an asymmetrical line, which means that you can download information a lot faster than you can upload it. You can pull down that viral cat video in 10 seconds, but it might take you 10 minutes to upload it. Why? Because the assumption when allocating bandwidth is that you will consume a lot more than you produce.

This is true not only in technology, but in all aspects of knowledge infrastructure. Go to the library—check out a book. Easy, right? Now go back to the library and try to get them to shelve a book you wrote. Go to a college and take a class. Now go and ask to teach one. Or worse, go and propose to have a class with no teacher and just a bunch of students working on a project.

Where is it easy to put information into a knowledge system? Where that knowledge can be easily monetized. Now we're back to sites like Facebook that don't charge you because you are the product.

Now let me be clear: the reason we need a more participatory infrastructure is not because of some grand utopian vision of equity for all, though that would be nice. Think of it instead as a vested self-interest in entrepreneurship and innovation.

In rural New England, for instance, there was a man who loved snowmobiles. All his life he collected snowmobiles and snowmobile parts. He loved them so much that by the time he retired he had a barn full of old

[90] http://www.npr.org/templates/transcript/transcript.php?storyId=147192599 (accessed May 8, 2012)

snowmobiles and parts. One day his grandson, who was on break from college, came for a visit. With the permission of his grandfather, the college boy went into the barn with a laptop and a camera. Within a week (and with the permission of his grandfather) the boy had the entire barn inventoried and online. Overnight, this barn was transformed into a worldwide parts distribution center. One of their biggest customers was Siberia, where there were a lot of old snowmobiles, but not too many parts for them.

Without a more participatory approach to our knowledge infrastructure, these unexpected acts of entrepreneurship become more difficult. This also applies to things like the walled gardens I talked about previously. Without a balance of the proprietary and the open, the knowledge infrastructure breaks down.

Is My Library that Grand?

What does this Grand Challenge tell us about how libraries can work within communities to improve them? To begin with, libraries have historically been a large part of this knowledge infrastructure. While they play a much smaller role today, they are still vital. You can start with the fact that 99.3% of public libraries offer free public Internet access and 64.5% of public libraries report that they are the only free provider of Internet access in their communities.[91] Furthermore, as local, state, and even the federal government are turning to the Internet as a means of doing business, libraries of all sorts are being called upon to provide access and support to the public. Where once there was some local governmental office available to help with problems, now you have a local library with a computer and librarians to help.

Libraries play a substantial role in the knowledge infrastructure in other ways. For example, the Copyright Office of the United States of America is an office within the Library of Congress. This office doesn't simply register someone's ownership of a work; it sets policy as to what constitutes fair use and infringement of the copyright law.

From its website:

"The Copyright Office provides expert assistance to Congress on intellectual property matters; advises Congress on anticipated changes in U.S. copyright law; analyzes and assists in drafting copyright legislation and legislative reports; provides and undertakes studies for Congress; and offers advice to Congress on compliance with multilateral agreements, such as the Berne Convention for the Protection of Literary and Artistic Works. The Office works with the executive branch's Department of State, the U.S. Trade Representative's Office, and the Department of Commerce in providing technical expertise in negotiations for

[91] http://www.plinternetsurvey.org/analysis/public-libraries-and-community-access (accessed December 4, 2015)

international intellectual property agreements; and provides technical assistance to other countries in developing their own copyright laws."[92]

When Google expanded its mission to make all of human knowledge available, it showed up at the doorsteps of libraries. Academic libraries hold a huge portion of the research record of the past millennia. This doesn't even take into account the role that libraries of all types play in educating the population on how to engage, use, and create knowledge. Suddenly, all those justifications for the library discussed in Chapter 2 take on an increased importance when put in the light of the knowledge infrastructure that represents a huge and increasing portion of our national economy.

Yes, the idea of the knowledge infrastructure is grand. You may wonder, can I really expect my local librarian to play a role? Yes. School librarians can be instrumental in the shift away from heavy static textbooks to more authentic ways of learning and a much more diverse pool of resources (including experts and other students). In fact, that is exactly what is called for in the new Common Core academic standards being adopted by many states. Today's schools are being asked to shift from teaching a body of facts and formulas to teaching inquiry and process. What better place to support students in learning through process than a library, whose basic mission is the process of finding and making sense of knowledge?

Academic librarians can advocate for open access to scholarly knowledge in order to increase the rate of discovery and exploration. Government librarians can provide citizens with easy access to the inner workings of government, bringing sunlight to our democracy. Corporate librarians can ensure the proper management of intellectual assets so that companies can improve their bottom line.

Communities, Conflict, and Equity

As you have figured out by this point, I am using community in a broad sense. I do not restrict the word to mean the public or a geographic locale. Communities are groups of people that have come together around some common variable. That variable may be where they live, or the school they attend, or the institution they work for. In all cases, I assume that members of a community are conscious of this variable, that they are deliberately part of a community. So if you attend or work at a university, that university is a community. If you pay dues into a membership organization like a club or professional association, that, too, is a community.

Note that you are not restricted to a single community. You may be part of a community at work, part of one where you live, part of another that is a professional association, and so on. Not all communities need libraries. But in

[92] http://www.copyright.gov/circs/circ1a.html (accessed December 4, 2015)

the ones that do need them, the library is part of that community, and you should expect that library to have a voice in improving the community.

Communities have aspirations and dreams. You should expect the library to help refine and facilitate those dreams. Communities also have problems and challenges, and you should expect the library to not only help solve these problems, but to document the way it helps.

We also know a few things that communities should expect from their libraries. Libraries should be places for knowledge creation and sharing, not just consumption and checking out books. We know that the function of a library must transcend the boundaries of walls. Communities should expect libraries to provide service to our increasingly on-the-move population. That means that students should be able to access library services from home. Employees should be able to access their library from their smartphones. Citizens should be able to interact with the public library on the web, in community centers, and in city hall.

There is another necessary attribute of a community: they must share limited resources. So a town must allocate land and tax dollars (pay for the police, and sewers, and library). Universities must share space. One of the primary resources shared in school settings is time. How much time will students spend on math, languages, etc. Businesses share authority and budgets. This is not always an easy process and often leads to conflict.

A colleague once asked me if Google and Amazon were competitors of public libraries. I responded no, librarians use both regularly. The true competition for a public library is often the Parks office, or sewers, or roadways. How a community divides up limited resources is part of what defines a community. Is it done through elected representatives (a town board, a faculty senate)? Is it done in a top down fashion (the principal, or the partners of a law firm)?

Your library also needs to have a clear and observable method of identifying and addressing different groups within your community. For example, in an academic library what services does the library have for students? Faculty? Staff? Even here, does the library serve graduate students and undergraduates equally well? The short answer is probably not, and that's to be expected.

"Wait?! Aren't you supposed to say 'they must serve them all well and we should expect that?"

No. While equal service to the entirety of the community may be an ideal to strive for, it is virtually unattainable for a community beyond 5 or 6 people. Take a public library. What sub-groups are in that community? Parents, children, seniors, business professionals, teens, government officials, lawyers, doctors…we could go on for a long long time. One public library I worked with along the I95 corridor in Connecticut did this exercise. Aside from parents and seniors, they identified commuters that have to drive into

New York City; skateboarders; gardeners; tutors; and teachers. In an academic setting you might break faculty into teaching faculty and research faculty; or physical sciences versus the humanities. For just about every community there is a near infinite way to sub-divide them (age, height, country of birth, salary, education).

No one can expect their library to serve all of these populations equally. You should, however, expect your library to treat them equitably. The difference between equal and equitable? The same (equal) versus fair (equitable). Equal service to a community almost always means ideal service to a sub-group, and variable usefulness to every other segment of that community. For example, letting anyone in a community borrow books is equality. Providing Braille books to the blind is equitable. Book borrowing, equal, home delivery to the housebound, equitable.

For example, take access and the Internet. Most libraries offer equal access to the Internet within their physical walls. It is equal because, like the lights and heating, it is simply provided without differentiation. However, libraries also provide access via the Internet. That is you can use the Internet to access library services at home or through your phone. Here the access is far from far from equitable. Putting aside that most library websites provide meager service to mobile users versus those with desktop systems. Instead think about those who have no access to the Internet, much less the library, from home.

For some communities this may not be a problem because community members have easy access to the physical library. However, in many cases physical access to the library is not so easy. In many urban settings there is simply inadequate transportation from poor parts of town to libraries (and places of employment). In a college or in a business setting, much of the population may be traveling or work off-site. Does a library work to provide those folks with equitable access?

In New York City there are estimated 730 thousand households with no Internet access in the home[93]. Internet access is hardly a luxury for these kids. Schools are increasingly moving textbooks and curriculum materials online. Parents don't have ready access to government services, or job opportunities online. Further, getting to the library can be difficult, or even dangerous for some. So the New York Public Library decided that equal access to the Internet through their buildings was not enough. The library began to loan out Internet hot spots.

A hot spot is a small device that connects to the Internet through the cell phone network, and then shares that Internet connection out through Wifi. New York residents could now borrow the device and bring it home for months and get access. They could access library services, yes, but also the

[93] http://www.pbs.org/newshour/bb/internet-scarcity/ (accessed December 5, 2015)

entirety of the net. Rural libraries are looking to start similar services. In rural Illinois a group of libraries brought hot spots to farmers markets and soccer matches. All of these libraries saw the library not confined by physical walls, but by the boundaries of the community. You should expect the same.

There is no one-way of defining equitable service. Ultimately it is a sort of social compact between the different segments of the community and the library. You should expect your library and librarians to fully engage all sectors of the community to determine what that community considers equitable service. You should expect this engagement to be transparent and ongoing.

The future of our economy, our democracy, our education, and our daily lives is increasingly dependent on and interwoven with the knowledge infrastructure. We need to expect our libraries to prepare and equip us for participating in this infrastructure. If your library thinks itself too small to make an impact in this Grand Challenge—expect more. If your library treats you like a consumer or limits its vision to the assets under its roof—expect more. If your library says it treats the entire community equally—expect more. Your community is too big to fit in the confines of the library, but too important to not have the library acting as your advocate in the larger world. Expect more.