Hitting our Stride: Reflections Four ears Later from a Born-Digital Medical Library

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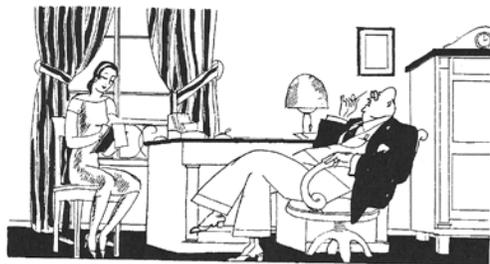
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Introduction

Four years ago, *ATG* published in its health sciences special issue a paper I wrote on founding a new medical school library.[1] Being that this year was my fifth anniversary as the founding library director at **Western Michigan University Homer Stryker M.D. School of Medicine (WMed)** library, I thought it was an appropriate time to share my observations and reflect on my experiences on managing an all-digital collection. A question I often receive from health sciences librarians at other new and developing schools is knowing what you know, would you have done anything differently in the setup of your library? My answer, confidently, is no. I still believe I have made all the correct decisions at the time, yet I will share that I never feel fully finished with building, implementing and shaping the library's digital collections and services. The digital library I have built for today will be obsolete tomorrow, but tomorrow's library will be far better than the one I have today. The born digital library is organic by nature, and being a steward of information, this means making the library's systems and website incredibly attractive and agile for all types of devices.[2] It can be hard at times, as you like to believe you're one step ahead of the user and that you've created a perfect information paradise for the medical school. When I hear a user say, "I wish the digital library could...," I see this as an invitation to adapt, evolve and reinvent how we interact with users to make it easier for them to find information. It also means empowering the library staff to be unafraid to construct and deconstruct library systems and web pages to ensure we are delivering seamless content without restrictive barriers.

The school's latest Independent Student Analysis (ISA) survey from January 2018 reported that 94.6% of students believe the electronic resources provided by the **WMed** library are easily accessible. That's monumental for a digital library with no archival or physical collections, as our content is supplied solely online through demand-driven systems, full-text aggregated databases and shared online collections. We purchase and subscribe to very little content. The library's collection is always in flux, so if a subscription is not renewed, or dropped by an aggregator's full text database, our instance of the **ProQuest** Intota knowledgebase is nimble enough to create a new connection point to the **CCC's** Get-It-Now document delivery service. If a link is broken in **ProQuest** Summon, the library staff is going to fix it and if it's not accessible in our collection, we're going to figure out how to get the content in the hands of students and faculty quickly. This empowerment is reflected in the ISA results, as 100% of students believe the librarians in the **WMed** library are supportive and helpful.

The Library is What You Hold in Your Hand

Although the physical library, and its Information Common, is a destination, the digital library is a transformative entity. The electronic library is now what you hold in your hand. It is accessible on your smartphone, tablet, and laptop and can be taken anywhere, yet network and connectivity barriers still exist. We should always seek innovative solutions to disseminate content, but I find the biggest barrier is how we authenticate users onto the network. Authorizing access to content based on IP address is too difficult and we need to look at other options. I spend at least a half-hour a month tinkering with the library's EZ Proxy software settings. I recently learned of the RA21 project and feel confident that another solution to identify our users is on the horizon. Simple solutions from the library generally do not exist for those who use mobile and tablet devices, nor are most librarians focused on making their websites incredibly attractive and agile for device use. Not all of the electronic resources the library maintains work well in the mobile environment. This is a missed opportunity for librarians and publishers, as clinicians will instead use the free integrated medical information applications found in the iTunes or Google Play store. These applications have branded their content as peer-reviewed and do a good enough job at retrieving answers to clinical questions. In reviewing **WMed** library's Google Analytics data, mobile and tablet devices make up 11% of online users, and these users spend approximately the same amount of time on the library's website as a desktop user. The use of mobile and tablet devices accessing the library's web pages has grown each year since 2015, but it has also has corresponded with the library's increased marketing of mobile applications and optimized websites for our learners and faculty who train in the clinical setting. Mobile devices are the preferred method of accessing quick lookup information in the healthcare setting, and I believe device use will continue to grow. This means making our web pages optimize preferably for devices rather than desktop users, which is a change in how we think about designing our site for our next page refresh.

Not All Solutions Fit a Born Digital Library

The solutions sold to academic health sciences libraries often command several full-time staff members to be responsible for their implementation and performance. As a profession we choose to implement complex library systems, layers of web pages and authentication software that often hinders rather than helps our users connect to content and services. The realization when managing a born-digital library is that most solutions available on the market are built for libraries that still have a significant print collection. The born digital library has fewer staff available to organize and manage collections and systems.[3] We are still, somehow, connected to our print collections, and demand high levels of control and record keeping of resources held. These solutions require several dedicated and expert staff members to manage their daily operations. Lean solutions are more often difficult to find, as the library profession has demanded behemoth solutions for tracking subscribed content. Few functions are automated leaving the library staff with complex workflows that makes managing the 21st-century digital library far more challenging than it ought to be. Disparate library systems still do not offer interoperability with each other. I fantasize for the day when the library's interlibrary loan, mediated article demand delivery services, and publisher turn away reports provide usage data for our subscription agent to analyze. It would be fantastic for our agent to be able to let us know if consideration should be taken to invest in an individual subscription, demand driven service, aggregated database, or journal package based on usage. Perhaps, help us consider if an Open Access membership is an appropriate solution for our institutional authors who keep requesting papers. Right now, I run separate reports from several different platform and publisher systems and print off spreadsheets as if they were astronomical charts to plot the direction of the collection. I spend several hours planning the course of providing seamless access to content for our users. We also should be asking that these solutions build nimble APIs to go after freely accessible content in institutional repositories, online academic collaboration and preprint websites. There are also other avenues to explore getting access to subscribed content. I find the feature on **ProQuest** 360 Link that sends the library's journal holdings to Google Scholar helpful in identifying both freely available and subscribed

content. I use it regularly to find content and have made it part of the library's link resolver option to our users. Recently, I learned about **Unpaywall** from **Impactstory** which works as a Chrome extension to locate freely available papers. These small changes to finding content on the web have proven effective for both librarian and user, and are quick to incorporate as part of the workflow in locating available content.

Resource Sharing in the 21st Century

I believe we need to increase the library's ability to market resource sharing to our users as another quick and efficient option. As I recently heard at the **Great Lakes Resource Sharing** conference, held June 7-8, 2018, interlibrary loan is the world's largest full-text database. There continue to be barriers to how this service is used due to a lack of knowledge of how the service works and the perception of turnaround time. With the advances being made in resource sharing systems to include cloud-based solutions, such as **OCLC's** Tipasa, articles can deliver with little mediation, making it easier for borrowers to get a hold of material quicker. Another answer I heard was from a librarian who increased the speed of her book delivery by instead purchasing the title on Kindle as it was more cost-effective and quicker to gift a digital copy to her borrower than to obtain the print material on loan. Thinking beyond traditional methods of providing content

not owned, and instead focusing on delivering seamless and fast service with applications users already know, leverages the library's ability to make itself part of a user's workflow.

With Google Analytics data, I have been analyzing with our library's digital strategist, both the pages as a whole and rankings of pages by those that users visit the most. For us, it is our online test preparatory collection to prepare medical students, residents, and clinicians to sit for their Step and Board exams. These materials can be expensive to purchase, so as a goodwill gesture, I buy as much study aid and test preparatory material that I can license for an institution. Students have reported they use library resources in conjunction with favorite third-party test bank sites to prepare for their exams. Using Google Analytics has helped us determine where attention should be placed to increase interaction with users on our web pages.

Skills Needed

I have always found it odd for the library and information schools not to partner with developers who work for library vendors to teach aspiring librarians about the technology behind library solutions available on the market. All practicing librarians very much need these skills if the profession is going to progress toward building and implementing agile platforms. I find current library solutions complicated to learn, but it is part of lifelong learning keeping up with new advances by attending vendor webinars, conference seminars and maintaining membership on over a

dozen discussion lists and blogs. The more I know about how online systems function and the role publishers and vendors play to supply content, the better I am connected to our users in understanding their frustrations when they find it particularly hard to access content.

Do I miss not having a print textbook collection? Yes. I have found students generally prefer print study aids to refer alongside their digital books and lecture notes. I think a small print collection is worthwhile to keep, but access to most of the world's recorded knowledge could best be maintained online. 🐾

Endnotes

1. **Lorbeer, Elizabeth R.** (2014) "Where to Start? Opening Day Collections and Services for a Newly Founded Medical School," *Against the Grain*: Vol. 26: Iss. 2, Article 13. DOI: *https://doi.org/10.7771/2380-176X.6698*

2. **Green, Anne-Marie** (2014) "Adapt, reinvent, evolve: a conversation with librarian Elizabeth Lorbeer," The Wiley Network. DOI: *https://hub.wiley.com/community/exchanges/discover/blog/2014/08/26/adapt-reinvent-evolve-a-conversation-with-librarian-elizabeth-lorbeer?referrer=exchanges*

3. **Hawkins, Donald T.** (2016) "Don's Conference Notes," *Against the Grain*: Vol.28: Iss. 3. DOI: *https://www.against-the-grain.com/wp-content/uploads/2016/07/ATG_v28-3.pdf*

Medical Institutional Repositories in a Changing Scholarly Communication Landscape

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Introduction

An institutional repository (IR) is an online digital archive that organizes, preserves, and provides access to the educational, scholarly, and research output of an institution. Medical libraries began establishing IRs more than a decade ago and these repositories have become an important component of scholarly communication outreach. In an article in the 2014 *Against the Grain* health and biomedical sciences special issue, **Palmer** (Palmer 2014) described institutional repository services provided by health sciences libraries, and the barriers and challenges to providing those services. What has changed since 2014? What is the current landscape for repositories in medical and health sciences libraries?

By the Numbers

*Open*DOAR, the Directory of Open Access Repositories, is an authoritative list of open access repositories around the world that was launched in 2005 and is maintained by the **University of Nottingham**. In December 2013, *Open*DOAR indicated that there were approximately 2,100 institutional repositories worldwide (Palmer 2014). As of May 2018, the number of institutional repositories

has grown to just over 3,000, with 338 of these repositories focused on health and medicine (University of Nottingham 2018).

In 2014, the **Association of Academic Health Sciences Libraries (AAHSL)** compiled statistics on services provided by their 129 members in the U.S. and Canada. Of these 129 libraries, 55.81% (72) reported offering institutional repository services, with 13.96% (18) adding or evaluating institutional repositories (Association of Academic Health Sciences Libraries 2014). This was a large increase as compared to **AAHSL's** 2010 survey, when 35.9% of libraries reported offering IR services and 34.2% were planning or considering (Palmer 2014).

More recently, in early 2018 the authors and a co-investigator surveyed the 151 libraries that are currently members of **AAHSL** about their institutional repositories. Of the 50 respondents, 68% had a live repository, 2% were implementing, 14% were evaluating, and 16% were not considering an IR (Kipnis, Palmer and Kubilius 2018). This data along with the official **AAHSL** statistics indicate an upward trend in the growth of institutional repositories in academic health sciences libraries in recent years.