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Disruptive Technology: Librarians Must Think Heretical Thoughts to Adapt

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in the new school going beyond the traditional boundaries of a librarian as I am committed to the success of the new school.

Right now, the library is focused on building virtual reference services utilizing Web conferencing tools, SpringShare online chat widget and individual consultations in the Clinic, student learning communities, and future laboratory and simulation spaces. The WMed librarians, with their hospital librarian partners, frequently make house calls to clinical faculty and support staff to address individual information needs. It is common for the librarians to provide services at multiple locations, equipped with tablets and laptops to quickly support the needs of users. There are no traditional reference hours or desk; the librarians are available on demand during clinic hours both in person and virtually.

My library's motto is "Climb to the top." My five-year-old daughter came up with this phrase one summer evening as I was working on the library's marketing plan. She drew a picture of a tree with several happy stick figures dancing around the words she inscribed. Every day I look at her picture and it inspires me to build the very best library for my users that I know how.



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BORN AND LIVED: Born in Buffalo, NY; lived in Boston, Chicago, Birmingham, and now Kalamazoo.

PROFESSIONAL CAREER AND ACTIVITIES: I am the primary liaison between the library and academic departments, residency and fellowship programs, clinics, leadership, administrative units, and student body at the school, and pivotal in expanding the library's role in supporting successful outcomes in medical education, patient care, and biomedical research. I ensure seamless integration of information resources by translating the needs of the **WMed** community and designing innovative services to connect library users to content and the expertise of the **WMed** librarians.

FAMILY: Husband, 2 kids, 2 dogs & 1 canary

IN MY SPARE TIME: Having fun with my family and writing a book.

FAVORITE BOOKS: LMNO Peas by Keith Baker.

PET PEEVES: Printer jams.

PHILOSOPHY: Love everyone.

MOST MEMORABLE CAREER ACHIEVEMENT: Building a library from scratch.

HOW/WHERE DO I SEE THE INDUSTRY IN FIVE YEARS: Per-article-purchases replacing subscriptions and big deals.



Disruptive Technology: Librarians Must Think Heretical Thoughts to Adapt

by Michelle A. Kraft (Senior Medical Librarian, Cleveland Clinic Alumni Library) <kraftm@ccf.org>

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Elizabeth

The sun is setting and it is getting a little difficult to see as darkness falls. Without even thinking I walk over and flip a light switch and I am able to see everything to continue working. Light has become so commonplace I don't even realize how much we rely upon it until it is gone. Power outage, camping, or a quick late-night trip to the bathroom, make me realize how this common item has become integral to our society. Yet this wasn't always the case. Before the common light bulb, people were only able to see in the dark using candles, lanterns, and gas lamps. None of those items produced much light nor were they easy to turn on with the flick of a switch. The light bulb made it possible for people to work after sunset, travel a little safer in the dark, and it eventually led to the invention of the electric power plant. Disruptive technologies change the very way society functions, altering the way people do things, their perceptions, and expectations. The light bulb was a disruptive technology. It has changed society's perceptions so drastically that light at night is considered a common expectation.

Just like the printing press allowed books to be mass produced and allowed for scientists to easily share their knowledge through scholarly journals, the Internet and personal computers further democratized knowledge and information far beyond books, journals, and other printed material. Tutorials, speeches, images, animation, etc. are all available online. Professionals were no longer necessary for publishing and mass distributing information; the average person could publish and distribute anything online for the masses. The personal computer provided the ability to access information on a much wider scale than the printing press but it was not mobile. While the laptop provided a bit of mobility, people didn't have it constantly on and next to them as they moved about the day. The smart phone and the tablet changed that.

Our library patrons not only have the ability to access information on the Internet but now truly they can, and do, do it any time and any place. The smart phone has changed the way people communicate, eat, work, play, and find information. Text and data usage continue to grow while talk minutes continue to shrink.¹ People now comparison shop for items on their phones while they stand in the aisles of stores. Maps and printed directions are replaced by smart phones, speaking directions to drivers. Since most people carry their smart phone with them at all times, the ability to get information is easy and always possible.

What it Means for Libraries and Librarians

We as librarians need to re-think the way we have been providing resources and services. Our patrons are more mobile and connected. Simply having a Web presence is not enough. We need to look at how our patrons access and use information and we need to provide it in those ways. Five years ago, electronic books and electronic journals were easily accessible to people via their desktop or laptop computers. Now, the preferred methods of access have changed. People want to download electronic books to their mobile devices and they want to highlight and take notes in those electronic books. Apple Insider reports a survey by Black Book, that fifty-one percent of "office-based physicians said they use a mobile device to perform independent medical reference and Internet research."2 In a ComputerWorld article on the iPad Mini, one doctor describes his iPad as "full of medical apps for ultrasound regional anesthesia, anesthesiology textbooks, and medical calculators."3 Boruff and Storie surveyed medical trainees, graduate students, and faculty members on the use of smartphones and tablets to answer clinical questions and

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find medical information. The results from 1,210 respondents led Boruff and Storie to conclude that various technological and intellectual barriers do not appear to keep medical trainees and faculty from using their devices to find information. However, access barriers and lack of awareness "might keep them from using reliable, library-licensed resources."4 With the emergence of medical apps that provide drug information, guidelines, textbooks, and journals our patrons now have the ability to bypass our electronic front door, the library Website, for services and resources. Use of tablets by physicians doubled in 2012⁵ and use by clinicians probably continues to grow. This trend is also changing students' perceptions of textbooks. A survey from the Pearson Foundation revealed that a majority of college students prefer digital books over print, and both college and high school students believe tablets will effectively replace textbooks within the next five years.6

This presents a challenge for librarians because so much of what we do is creating easy access to information. We have made it so easy that many patrons do not realize their electronic journals, databases, and other resources are available because of the librarian. This does not mean that librarians should stop making things easier to use and find. On the contrary, our patrons already think Google is easy. We not only need to make our resources easier than Google, but we need to rethink how we provide services and resources and adapt to the changes technology has brought to society. History is full of professions that faded away as technology changed society. The switchboard operator, milkman, newspaper industry, reporters, and the postal service all have seen their industries drastically change as a result of technology and evolution of society.

As society has evolved, it has changed the way people do and perceive things. The word "Google" has evolved to be more than just the name of an Internet company. It has become a verb, used to indicate somebody searching for information on the Internet, just as "Xerox" was once a popular term used to indicate somebody making a photocopy. Patrons have changed the way they find information and librarians need to scrutinize every service and resource with future in mind. This means that traditional services, resources, and job duties that librarians were taught in library school may also need to be examined. The library catalog, information desk, instruction, tables of content services, acquisition, etc. are all traditional staples in the library and eliminating them might be considered a type of librarian heresy. However, librarians must think these heretical thoughts to adapt to changes.

The Uniqueness of Librarians and the Need to Rethink Services

Since most people can Google a question and get an answer, what makes librarians unique and important to their patrons? Librarians provide more in-depth, customized,

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help, and relevant information to their patrons than a search engine. The interactions between librarians and patrons are important to the future of librarianship. Librarians must ask the question, "What job duties take up most of my time that are not directly working with the patron?" Then they must ask the more difficult question, "Are those duties really essential?" The answer to those questions will vary between libraries and library staff. Part-time solo hospital librarians may find themselves spending too much time trying to catalog and process books. In that case, the hospital librarian may wonder whether it is necessary to even have a library catalog given the size of the collection and patron usage and browsing patterns. Perhaps a Web-enabled spreadsheet or a LibraryThing organizational account may adequately fill the role of a traditional catalog. Larger academic medical librarians have already begun to question the concept of maintaining and staffing both a reference and circulation desk, many have already merged the two desks into a single service desk or eliminated the reference desk entirely by having reference librarians available by appointment. Part of a service desk at Lamar Soutter Library (University of Massachusetts Medical School, Worcester, MA) was eliminated in order to support a new model of blended librarianship, one that is not

bound by the traditional library or library professional.⁷ The evolution of the reference desk to single service desk at **Jane Bancroft Cook Library** (a shared resource of **New College of Florida** and the **University of South Florida**) eventually led to the elimination of the circulation department. The circulation department's staff switched to focus on interlibrary loan and expanding into document delivery, something that had previously been impossible due to staffing arrangements.⁸

Sacred Cows and Heretical Thoughts

A recent discussion of medical librarians on Twitter focused on the "sacred cows" of librarianship, services or resources once so important and ingrained in library tradition that it is unthinkable to eliminate them. Yet these librarians discussed the unthinkable and the heretical librarian thoughts did not just stop with the idea of removing the reference desk. Some discussed eliminating regularly scheduled educational classes in lieu of customized classes scheduled by appointment or online only classes. The idea of moving to only an electronic book and journal collection was discussed. Other collection development ideas discussed included moving to patron-driven acquisition, thus switching the power of purchasing books from the librarian to patron.

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Change is scary. Thinking heretical library thoughts by evaluating the library's sacred cow services and resources is even scarier. Many of these items were woven into the fabric of librarian education as librarians pursued their degrees. Ten years ago the thought of eschewing a library catalog for a simpler system would have been difficult to envision. It would have been unthinkable in the 1980s when it seemed the goal of every library was to have an Online Public Access Catalog (OPAC). While technology has made some services and resources outdated it has also provided librarians with opportunities to adapt to those changes. The library's electronic resources have made the library available outside of the walls of the library, enabling librarians and patrons to access them anywhere any time. In the past librarians participating on rounds would have had to scurry back to the library to do the research; now they can pull out their iPad and find the answers within minutes. Electronic medical records provide caregivers with access to patient health information. Librarians working with the electronic medical record teams have been able to set up evidence-based resources within the electronic medical record. This opportunity for providing library resources at the point of care would not have been possible without advances in technology.

Heresy or Evolution?

Heresy can be defined as any belief that is strongly in opposition with established beliefs or customs. Disruptive technology changes society and as a result established beliefs and customs change as well. Therefore, is it really heresy for librarians to question and examine long-established resources and services, or is it evolution brought on

by technology? While rethinking the validity and usage of library resources and services may be considered heresy to some, it is actually evolution. All professions must evolve with society and technology. Librarians are no exception. Accountants use computers and financial programs to conduct business; they are not using an abacus. Librar-



ians must think of disruptive technologies as opportunities. They provide librarians the

opportunity to shape their destiny by providing tools and services that are now possible due to technology.

> Evolution is not perfect. Not every change brings about a positive result. Mistakes will be made. However, "Failure is not fatal, but failure to change might be." - John Wooden, former UCLA basketball coach. 🍖

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You Gotta Go to School for That? — The National Media Market: Screening Films on a Real/Reel Screen

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ust prior to being swept into the glory that is the Charleston Conference this year, I J attended the National Media Market in Charleston, South Carolina on November 3 - 7. The NMM actually overlapped the Charleston Conference by a few days, thus further complicating my decision about which conference's interesting and gala events to attend.

The National Media Market is in its 35th year of bringing together educational film producers and distributors to connect with librarians and media professionals. Other technology-related companies attend as well, including media management and captioning and description services. This is not a film festival. As Ursula Schwarz, executive of the National Media Market says, "This is a film screening and buying event." As the Charleston Conference brings together librarians and publishers to engage and exchange ideas on a level playing field in a stimulating atmosphere, so the National Media Market does for librarians and other media buyers and vendors in the film production and distribution industry. This year Schwarz coordinated with executive

director Katina Strauch of the Charleston **Conference** to bring the **NMM** to Charleston just ahead of the Charleston Conference.

It is nice to attend a conference and be pleasantly blown away by concepts and ideas. The Charleston Conference never disappoints in this regard. However, the NMM was all the more amazing to me because I went to this conference as a bit of a cynic about the whole idea of what (I thought) the Market was about. Why, in this era of online Amazon ordering,

do distributors and buyers of media even need



to gather in one physical location to view and buy media? Why indeed? This National Media Market

experience showed me how misguided my thinking was.

Unlike a traditional conference one would find in a conference center, the National Media Market is held in an all-suite hotel. This allows each exhibitor a space to set up individual, semi-private areas that allow preview stations for on-demand screening of their titles. More importantly, these suites allow spaces for the exhibitors to personally engage librarians and other current and potential users of their ser-

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