LITA GUIDE

Jump-Start Your Career as a Digital Librarian

Jane Monson

LIBRARY AND INFORMATION TECHNOLOGY ASSOCIATION

Jump-Start Your Career as a Digital Librarian

A LITA Guide

Edited by
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Preface

The world of digital libraries is often a bit overwhelming. This is true even for those of us who make a living as digital librarians, but it's particularly so for professionals just entering the field. The skill set of the digital librarian is broad, intersecting with diverse subject areas both within library science (collection development, cataloging and metadata, archival management and preservation) and without (computer science, digital technologies, design and usability, copyright law). For the new professional, it can take significant time to find your bearings and understand how all the pieces connect. Where should you start? What are the topics that every digital librarian needs at least a basic understanding of in order to be effective in his or her work? This book is intended to provide you with answers to those questions, whether you are considering a career as a digital librarian or newly embarking upon one.

While many library and information science graduate programs now offer digital library tracks, it can nonetheless be difficult to gain exposure to all facets of digital librarianship in the course of two short years. Once you have that MLS in hand, you may still feel that there are gaps in your knowledge that need filling. At least, this was my experience, and there were often times as I started to put my training into practice that I wished for a road map to guide me or someone to sit me down and explain, in plain terms, the things that were still unclear (I sometimes still do). Some of us may be lucky enough to find an experienced mentor early in our career, but most must cobble together a cohesive understanding of this new and fast-changing field from disjointed sources. We may be the only digital librarian at our institution, expected to have all the answers but with no one to turn to with our own questions. Or conversely, we may be in such a specialized role that we have a hard time seeing the digital forest for the trees.

That's where this book comes in. It aims to be your mentor—or twenty-one mentors, to be precise, who present their collective wisdom to guide you through the first stages of your career and provide a clear, concise overview of the core concepts and competencies of digital librarianship. We don't assume you know much about librarianship at all, but also don't talk down to readers with experience. Are you thinking about going to library school, but aren't sure whether digital librarianship is really for you (or even what exactly it is)? This book can help you decide. Are you currently enrolled in library school and know that you want to be a digital librarian? This book can assist you in planning your coursework and getting a grasp of the field as a whole. Are you a new graduate starting out in your first digital library position, or a seasoned professional transitioning from a more traditional area such as cataloging or archives? This book will provide you with advice and best practices for succeeding at your new job duties. You may also be a librarian or information professional who has no plans to work in digital libraries per se, but you realize that knowledge of digital practices is of increasing relevance to everyone in the field. This book is for all of you.

Part 1 sets the stage with an emphasis on education and career planning. Chapter 1 begins by tackling the question, "What exactly is a digital librarian?" as the concept can be tricky to define. In chapter 2, we discuss tailoring your graduate degree in library and information science to give you well-rounded exposure to the theoretical and practical aspects of the field, preparing you to enter the job market and hit the ground running. Once you're ready to go after that first job, chapter 3 will give you realistic and useful advice to assist you in the process. For those readers who aren't new to the library scene but are facing a shift to more digital-oriented responsibilities in their current job (or are actively seeking out a digital library-related position), chapter 4 offers perspectives on making a smooth transition. In chapter 5, we present advice on advancing your career once you've established a foothold in the field.

In part 2, we roll up our sleeves and dive into more in-depth discussions of specific concepts and scenarios you will encounter on the job. Chapter 6 gives an overview of the basic technology competencies that every digital librarian should have, from HTML to XML. Chapter 7 is devoted to the fine art of managing digital projects. Chapters 8 and 9 talk about metadata, an essential topic for all digital librarians, beginning with a basic introduction and continuing on to a more practice-based analysis. In chapter 10, the changing world of scholarly publishing and the digital librarian's role in it are explained in straightforward terms. Collaboration being a key feature of many digital projects in libraries, chapter 11

discusses best practices for making these partnerships a success. Finally, chapter 12 offers an introduction to digital preservation, a topic of increasing importance in the digital library community.

These subjects are the ones we consider to be essential to understanding and succeeding at digital librarianship. It's true that there are others we don't cover, or mention only briefly—for example, digital humanities or the semantic web. However, a grounding in the above basics will provide you with the foundation you need to move on to more complex, specialized topics and emerging technologies. This touches on another issue faced by the digital librarian (and truthfully, most people with an Internet connection): information overload. Keeping up with new trends and developments and engaging in continuous self-education is essential for our line of work, and doing so successfully is one of the most important skills a new digital librarian can learn. But achieving this goal efficiently can be a challenge—sign up for a few random library blogs and discussion lists, and you could easily spend hours a day following (or simply being distracted by) the most recent discussion threads. To help you effectively target your learning, we recommend the most useful and up-to-date resources you can use to pursue further education on your own.

Finally, this guide strives to provide you with an accurate assessment of career realities for the digital librarian, which you may not receive from library science programs or other literature about the profession. Particularly in the current economic climate, it behooves one to enter the field with a pragmatic view of the challenges that may be encountered on the road to career success. Embarking on your new path armed with a realistic understanding of the library job market, common stumbling blocks to project completion, and expectations you will face from employers, will help you proactively plan your career and avoid unpleasant surprises down the road.

With that said, digital librarianship offers many opportunities for career satisfaction and growth, and you will find few other professions that combine involvement in cutting-edge technology with the gratification of working for the public good. We hope this book will prove to be a valuable aid in your exploration of this exciting field, and wish you much success in jump-starting your career.

Jane D. Monson

Chapter One

So You Want to Be a Digital Librarian—What Does That Mean?

Jim DelRosso and Cory Lampert

If you've been to library school, then you've probably heard of S. R. Ranganathan and his Five Laws of Library Science: (1) books are for use; (2) every reader his (or her) book; (3) every book its reader; (4) save the time of the reader; (5) the library is a growing organism (Ranganathan, 1931). Times change, technology advances, but those laws remain relevant. Books are still for use, whether they're made of wood pulp, or read on an e-reader, or even if the "book" is actually a journal article, a blog posting, a digital image, or a sound file. Someone has to step up to connect these resources with readers, not just in terms of subject matter but also in terms of format. There is a glut of information available now, and as Steve Kolowich (2011) writes, even the "digital natives" need help sorting through it all. Someone needs to be there to save them time, and especially to save the time of those who have only limited access to those resources.

Ranganathan's fifth law—"The library is a growing organism"—is what this chapter is really about. Access to information has increased in amazing ways in the past couple of decades, and that doesn't eliminate the need for librarians; it gives us even more room to do truly staggering things. In fact, it's this recent explosion of information that has given rise to the newest iteration of our profession: the digital librarian. If you're reading this book, then you either are one of this new breed, or you want to be—or you suspect that you *might* be, and you're thinking about changing what it says on your business card. This chapter will set the stage. We'll define what it means to be a digital librarian and discuss the mindset, resources, and challenges specific to the role, as well as the connections it has to traditional librarianship and what sets it apart from what's come before.

DEFINING "DIGITAL LIBRARIANSHIP"

Defining the term *digital librarian* is not as easy as it might initially appear. You can't simply say, "It's a librarian who works with digital products or provides digital services," because digital products and services are a nearly ubiquitous part of the job these days. To further complicate matters, the job title *digital librarian* is often spotted in close proximity to a similarly hard-to-define term: *digital library*. There is a whole body of literature concerned with the definition of digital libraries and the issues surrounding the concept, and we will allow you to explore this research area as your interest dictates. But to help define the scope for this book, let's consider the two terms. While *digital librarian* often refers to the person (an individual and their work), *digital library* does a better job of getting at the larger impact beyond the responsibilities of digital resources and their management, encompassing the philosophy and practice of digitization, the infrastructure (technical and organizational) around the digital library, the functions of the library itself, and the users that form the digital library community. Certainly digital libraries are repositories of digital content. And yet, they are so much more. Digital libraries provide rich value-added services around digital content, they foster communication and interaction, and ultimately they are tools that can facilitate the transformation of digital raw materials into new knowledge.

Digital libraries vary widely in design and topical focus. They may focus on archival materials, academic scholarship, or serve as a central search portal for electronic books. They may also aggregate resources on a specific topic or provide researchers very specialized information like multimedia resources (see the end of the chapter for a list of examples of different types of digital libraries). Digital librarians do work with digital libraries, but their work does not stop at a nicely defined boundary. Instead the lines are becoming increasingly blurred between libraries, information technology, physical spaces, and virtual communities. Here are just a few examples of the prevalence of digital interactions in libraries today:

- Reference librarians frequently have one—if not several—browser windows open during a reference interview, to either help patrons use digital resources or locate appropriate print resources. Increasingly, reference interviews transpire through digital media: chat, e-mail, or even text message.
- Similarly, instruction librarians' presentations, and the content thereof, are often produced or delivered in a digital format.

- Selectors and collection development librarians not only spend increasing portions of their budgets on electronic resources, they frequently research and purchase those materials online.
- Catalogers have worked on computers for decades, and even now debate adopting new metadata standards to better reflect an increasingly digital world of information.
- Subject specialists would be hard-pressed to truly earn that title without familiarity with the electronic resources in their field.
- Libraries themselves often represent patrons' best means of accessing the Internet, which requires further, practical expertise on the part of librarians.

These elements are not limited to any one type of library, but can be found in academic, special, public, and school libraries alike. With the work of librarians so pervaded by the digital, what sets a digital librarian apart from his or her peers? Luckily, there are some signs you can look for that will help you determine if you're a digital librarian. For example, you're probably a digital librarian if all or part of your job description simply wouldn't have existed prior to the digital information explosion of recent decades. It's also pretty telling when you're expected to be an expert in multiple areas of digital work, rather than only the one or two that happen to interact with the main part of your job description.

It's not particularly relevant if you need a computer to do your work—the truth is that many librarians find themselves with little to do if their Internet connectivity goes down (unless they've got a smartphone, of course.) What's more notable is if you find yourself taking point on digital projects: when it comes time to plan, design, implement, and manage the kinds of digital services we've discussed thus far, digital librarians tend to be on call. Within the library, your position may also be situated in the primary location where conversion of analog materials to digital, processing of born digital materials, or management of digital initiatives takes place. This doesn't mean you're all techie, per se; the amount of programming or coding ability possessed by digital librarians can vary. But a passing familiarity with those concerns goes a long way, and you will likely have to study such matters in library school. If this sounds like you, you might be a digital librarian. And if it sounds like what you want to be doing, then the chapter you're reading should help you get a better understanding of your future job.

If digital librarians take point on digital projects, and digital projects are now a ubiquitous part of library functions, that means digital librarians will often find themselves in positions of leadership, even if it might not be obvious from their job title. Digital librarians are increasingly the people charged with pulling organizations into the future (or, arguably, the present). This might be limited to a working group or department, or it might affect an entire library, or even library system. Digital librarians will often be called upon to research and plan new services and systems. This can involve focusing on creating new workflows and infrastructures to support these new offerings, or all too often, grafting these new duties onto their existing job description. That job description may contain all or some of what we've described here; it might be explicit about such duties, or leave them somewhat implicit and vague. It may be topped with a variety of titles, some of which say more about the specifics of the duties than others: digital projects librarian, digital initiatives librarian, digital collections coordinator, metadata librarian, digital archivist, digital preservationist, emerging technologies librarian, scholarly communications librarian, digital resources librarian . . . the list goes on and on.

What these positions have in common is that they revolve around technological means of sharing and storing information that didn't exist until relatively recently. They're the ones working to create communities whose members may or may not ever physically step into the library. They're the ones defining the word *librarian* for a generation of young patrons who grew up believing that all the world's knowledge was one Google search away.

Survey Says—Favorite Aspects of the Job

We asked the other chapter authors just what it was about being a digital librarian that they found most rewarding. Here are a few of their answers:

- Every day brings a new challenge
- Building respect, collaboration, and synergy with IT professionals
- Creativity and experimentation with technology is encouraged
- Collaboration and communication with diverse stakeholders
- Providing seamless online access to valuable content
- Problem-solving to get collections online
- Always learning, troubleshooting, adapting, and evolving

THE WORK OF THE DIGITAL LIBRARIAN: FUSING TRADITIONAL ROLES WITH TECHNOLOGY

You probably started thinking about library work with some vision of what you might do every day in your newly chosen career. Did this nascent vision include tasks like evaluating competing technology tools, gaining buy-in from diverse groups for large-scale library initiatives, conceptualizing and creating value-added online services and publications, or leading colleagues to embrace future-oriented user services? If so, congratulations—you are a visionary librarian and we can't wait to meet and work with you!

But if these weren't the things that immediately came to mind, never fear. Many of us share your experience. Many of us approached this field because we just plain enjoy being around the world of information (maybe you even have a strong fondness for actual, *print* books). In addition, some of us live for the challenge of seeking out answers, or relish ferreting out a hidden fact. You might be the creative type that likes to play around "making stuff" with all sorts of online tools and toys. Some of us get a thrill out of sorting chaos into order and great satisfaction from providing structure to the nearly limitless amount of information being produced. Or perhaps you are drawn to the service aspects of librarianship and feel compelled to serve others and build communities. You will be happy to hear that these aspects of the profession are alive and well, and more important than ever. The digital library has not done away with them; rather, these type of roles have expanded into fascinating new places: digital, virtual, learning, mobile, cloud, social, and personal are just some of the myriad spaces where digital librarians are pioneering new solutions. Challenges are an accepted part of the game, as additional spaces emerge and are defined only by what can be imagined.

In short, the traditional roles of librarianship remain at the core of the profession, with physical spaces and face-to-face interactions continuing to provide value to users. As a profession, we are all striving to take these shared goals out of the library and beyond it, to where users currently are—and where they want to be in the future, reinventing them along the way. In today's information ecosystem, digital librarians are often the ones keeping an eye on the horizon and helping to define the course to take. Let's begin by taking a moment to consider a few of our profession's fundamental information roles, and consider how technology and digital communication have redefined what the view looks like through the eyes, and from the desk, of today's digital librarian.

Traditionally, the definition of library science has reflected roles that librarians take in relationship to information. The *Online Dictionary of Library and Information*

Science defines library science in part as "the professional knowledge and skill with which recorded information is selected, acquired, organized, stored, maintained, retrieved, and disseminated to meet the needs of a specific clientele, usually taught at a professional library school" (Reitz, 2010). This definition still serves, but out in the real world the jargon associated with these tasks has most definitely changed (like hemlines and automobile colors, library initiatives experience an ebb and flow of trendiness). At the time of this writing, you can't walk through a library conference without hearing certain terms repeated over and over. One-stop, aggregated searching is referred to as "web-scale discovery." "Disruptive technology" is just another way of talking about innovation. "Transliteracy" is a term coined to cover new forms of multimedia communication initiatives; while models from the corporate world like LEAN and "value stream management" are applied to departments and "customers" in our libraries. Translating trends and seeking out the familiar information concept within them, as well as the "librarian skill set" behind them, is all in a day's work for a digital librarian. How? The digital librarian hones in on the information principle at hand (e.g., organization, dissemination, evaluation, etc.), identifies the problems or challenges that technology presents (e.g., retrieving relevant search results, delivering content to online users, or providing online tools to help users easily sort through a large amount of information to get to what they really want), and works to brainstorm innovative solutions.

And as you do that work, you will see that Ranganathan's underlying principles of librarianship that we alluded to back at the start of this chapter—and that were more recently updated for the Web by Alireza Noruzi (2004) and for media by Carol Simpson (2008)—stand the test of time. The sensibility stays constant, with the execution evolving over time. So what does this evolution look like on the ground? Here are just a few examples of how the familiar roles of the print world librarian are being adapted to meet new and emerging needs of the profession. Every one of these "digital challenges" can be mapped to a previous tenet of librarianship. It is the vision and the creativity of librarians like you—librarians who have taken up this new role—that has defined new structures and workflows in the field of digital librarianship.

Selection (Collection Development/Management) has evolved to include selection for what should be digitized and how it should be presented online.

Acquisition (Materials Ordering and Receiving) still exists, but deals more and more with born digital items or the processing of collections for digital conversion.

Organization (Cataloging/Technical Services) and its traditions of managing information have morphed into the vibrant new field of metadata, with emerging standards that better meet the needs of authority control and access in the online environment.

Storage, Maintenance, and Dissemination (Systems and Library Technology), including the housing, shelving, maintenance, and circulation of materials, has moved past the stacks, self-check station, and electronic document delivery to more and more instant, full-text access. Sometimes this on-demand, online, global access is provided via subscription. Other times, the information is free to anyone with an Internet connection and working software to view it, and is made possible through digitization initiatives. Librarians have become key participants in the development and deployment of these systems. They may conceptualize a system and build it in-house, or purchase a vendor-provided system. Either way, digital librarians are critical partners in successful information provision via technology systems.

Evaluation and Assessment are natural extensions of collection maintenance, and take the work beyond periodic weeding of print materials to a larger realm of continuous improvement and ongoing assessment. More and more often this involves the upkeep and refreshing of a website or upgrades and enhancements to software packages.

Beyond traditional reference (Public Services—including the online public), the digital librarian is poised to provide all sorts of innovative user services such as social media, mobile interactions, and creation of digital publishing products that contain value-added packaging (learning objects attached to digitized primary materials, new features like user tagging for a scholarly communications repository, etc.).

As digital content grows exponentially, conservation of books and printed materials (Preservation and Conservation/Special Collection and Archives) has evolved into the challenging world of digital preservation. Data migration, format and technology obsolescence, and many other preservation problems present critical issues for the sustained access and stewardship of digital collections.

All this change and evolution has left some libraries (and not a few administrators) struggling to play catch-up to refresh strategic plans, define new positions,

and hire qualified staff. Pity the new graduate sifting through an RSS feed of job ads, trying to decipher just what is expected of the incumbent in these positions. Question the search committee doing the hiring, and you may receive more than one answer. Checking with the supervisor can be enlightening, but use caution, because the vision of the dean or director may go in a totally different direction. Often, it will be up to you (yes, the librarian who just arrived on site) to define the role and, whatever it is, make it work!

Digital librarian positions can be found in all varieties of cultural heritage institutions (museums, libraries, historical societies, government, etc.). Within the organization chart, they may fall under an umbrella emphasizing the "digital" part, say in the technology division. Or they may fall under the content owners in the library and be positioned in archives and special collections. Sometimes intellectual control is the focus, and digital librarians are found within technical services. Other times, digital librarians are firmly situated in user or public services departments. Basically, pick an organization chart, close your eyes and point—the position could be in almost any functional area.

There isn't one blueprint for the digital librarian seeking employment (see chapter 3 for a more detailed discussion of the job market), so one of the most important competencies a candidate brings to the interview is a demonstrated ability to keep up on trends in the field, know the jargon, and intelligently define expectations. It will be up to you to determine what success looks like to the people paying your salary. Above all, remember to exhibit a sense of adventure, be an active participant in defining your role, and don't get too comfortable, because the only thing that is certain in this profession is that it's certain to change.

RIDING THE CURRENT: DIGITAL LIBRARIANS AND TECHNOLOGY

Discussing technology in the context of digital librarianship is almost as difficult as defining digital librarians in the first place, and not for dissimilar reasons. Technology is, as we've mentioned, a fundamental part of defining what a digital librarian is; it's even baked into the term itself. But as Lankes (2011) notes, technology is moving fast enough that anything we write about it can become outdated very quickly. The programs and applications you use today can—and often will—be replaced or updated beyond recognition just as you start to get comfortable with them.

But that turbocharged obsolescence should not be denied, or seen as a bug to be worked around. It defines digital librarian skill sets far more than any given technology could. What's vital to being a digital librarian is your *attitude* toward technology, rather than your mastery of any given one. So that's what we're going to discuss here. But, being realists, we'll also discuss several areas of technology that you'll want to have a handle on for any job interviews or discussions with your boss that may happen within a year or so of publication.

Bill LeFurgy wrote an excellent blog post on this topic for *The Signal,* the digital preservation blog of the Library of Congress, entitled "What Skills Does a Digital Archivist or Librarian Need?" We recommend reading it in its entirety, but here's one key passage:

> Archives and libraries depend ever more on technology-driven systems to accomplish their mission, and those systems are ever evolving. Staff with an eagerness to help refine how things are done are especially prized. Deep technical expertise is optional here. The most important thing is a basic understanding of how the different system parts—both automated and manual—contribute to doing the job at hand. (LeFurgy, 2011)

You should be looking for and trying to develop this in yourself in order to be an effective digital librarian. As we said earlier, the digital pervades every aspect of library work. In addition to looking for new things we can do for our patrons, we also need to look at how we can do what we're doing better. Technology helps with that; you need to choose the right tech, and implement it.

Of course, determining which technologies are the right ones will also fall into your job description; at the very least, you'll be called on to make recommendations, either on your own or as part of a committee. Even without the obsolescence issue, we'd be out of line in calling out specific technologies here, because while we can talk about the work to some extent, we can't talk about your communities. To quote Lankes again, "The mission of librarians is to improve society through facilitating knowledge creation in their communities" (2011). That statement forms the backbone to his book *The Atlas of New Librarianship*, and while you might quibble with some elements, the dedication to community is one that you should take to heart. You need to look to the constituencies you serve to determine the best technologies to implement at your library. And while we're not going to try to dictate the specific technologies you need to look at, there are some areas that

you're likely going to need to know about if you're pursuing these jobs in the next few years.

The Care and Feeding of Digital Objects

As Google continues its knock-down, drag-out fight with publishers over the digitization of millions of library-held books and Amazon tries to sell folks on their Kindle Lending Library, libraries are trying to figure out how to handle digital objects, and turning to digital librarians to come up with a plan. There's so much going on in this area that we're going to resort to bullet points and let the folks writing the rest of this book flesh out the details.

Electronic journals: They keep getting more expensive, the publishers keep bundling more and more together to make sure you have to buy a ton of them, and if you stop paying you generally don't get to keep anything. Plus, especially in an academic setting, your patrons will *expect* you to provide them. Which is unsurprising, because as anyone who's tried to do a literature review in the last two decades can tell you, they actually *are* that useful.

E-books: No one knows how e-books and libraries are going to work together in the years to come. You've got publishers testing libraries' reactions to desperate measures to preserve a revenue stream, e-reader producers vying for library business, and libraries finding few allies when it comes to taking advantage of the ways in which e-books remove the physical limitations of hard copy. And it's going to fall to you to ensure that when a patron wants to read about the romantic adventures of vampires and werewolves on a screen instead of a page, they can do so without a hassle.

Digital collections and repositories: If you aren't already engaged in the conversion of physical collections to digital (and all the project management, metadata knowledge, and technical expertise that entails), chances are good that someday, someone will bring you a big batch of digital objects that have been created or inherited by your library and tell you to "do something" with it. It might be a collection of digital images or documents; it might be accessible online or it might be living on a dark server in a basement; it might represent the scholarly output of a university or it might be scanned letters from a donor who died in 1953. But if it says

"digital librarian" on your business card, you're probably the one who's going to figure out how best to deal with it.

Digital preservation: Finally, once you have this stuff, you're going to need to figure out how to keep it safe. (Assuming you *do* actually have it; for electronic journals and books you probably won't have a copy you keep on a server locally; this doesn't absolve you of responsibility for its safety, it just means you'll have to make sure whoever you're licensing it from is doing the job right.) There are many tools out there for handling this issue, but many of them will involve working with vendors or setting up partnerships with other institutions to ensure that if something happens to the aforementioned basement server, all those digital objects aren't lost forever. See chapter 12 for further discussion of these issues.

Social Media

This one's been on librarians' minds for quite a while now, and while former giants of the field have fallen (MySpace, Friendster), others have managed to not just survive but also thrive long after their foretold deaths (Twitter, Facebook). We've even seen new contenders like Google+ arrive and make major inroads. While initial studies indicated that patrons weren't interested in the library invading social media spaces like Facebook (De Rosa et al., 2007), more recent insights—from members of the patron groups themselves—have indicated a possible change in attitude (Gagliardi, 2011). And that's not even touching on the importance of social media to modern library networking, especially among those librarians who deal with digital projects. The authors have witnessed Twitter handles scrawled onto conference badges and business cards, and hashtags have become important parts of conference branding and discussion. And that's not even getting to those archaic forms of social media like blogs, which have been reported dead for years and yet still somehow not only persist, but seem to be a major avenue for modern librarians to communicate their thoughts to their peers.

Of course, there are also many collaborative technologies that skirt the edge of social media, allowing librarians and their patrons to work together on written documents, images, and multimedia works. We discuss collaboration more elsewhere in this chapter, but we'd be remiss if we wrote about social media and failed to acknowledge how many of the collaborative tools you'll want to be familiar with—for yourself, your colleagues, and your patrons—are now a part of the larger

social media and networking world. As we're increasingly called on to work with colleagues far removed geographically, tools like Google Docs and Dropbox become more and more a part of our day-to-day work. In short: try to keep abreast of the big players in social media, dip your toes in yourself, and be ready to use them to discuss library issues and communicate with your patrons and peers.

Mobile Apps

Recent reports from the Pew Internet & American Life Project (Smith, 2011) indicate that a third of American adults now own a smartphone, and two-thirds of *those* folks use that phone to access the Internet or e-mail every day. As we noted above, that's far from universal, but it's still too large a constituency to ignore; some even speculate that smartphone adoption may someday bridge the oft-discussed digital divide (Hood, 2011). What this means for you is that in many job situations, you're going to be expected to have some handle on mobile technologies: what's out there, what tends to see use, and how your library can incorporate it. Or, to put those elements together in a more pragmatic way, you need to be able to figure out how to incorporate your library into how your patrons use mobile tech.

Again, this is about knowing your community, and being flexible. Throwing QR codes—those small, square bar codes which you may have seen folks scanning with their smartphones—onto your stacks won't do any good unless you know what information your patrons want to be able to get out of their mobile device while they're standing in your stacks. Having librarians ready and waiting for texted reference questions only works if patrons know about that service and actually find it helpful. And looking beyond the question of what to offer, there's the issue of *how* to offer it. Do you build an app? For which platforms? Maybe just create a mobile version of your website? Or is it easier to just make sure your website works on mobile devices? You may not be the one writing the apps or coding the websites, but you should be prepared to talk about mobile delivery.

Assessment

Assessment is another term that's getting a lot of attention in libraries these days, and not without cause. The notion that we should be analyzing how well we do the things we do is a strong one as budgets, payrolls, and hours are cut in many libraries. This enters the digital librarian's purview in two ways: (1) using digital tools to assess library services, and (2) the assessment of digital services. In the first

case, you may be called upon to help librarians decide which tools will best allow them to assess their impact on patrons without unduly undermining their ability to work. You'll need to advise them on whether to use web-based tools, something installed only on certain computers, or maybe even a mobile app. (Be careful of recommendations which assume that everyone at your library owns a smartphone unless you're also recommending that your library *buy everybody a smartphone.*)

And when you're doing your own digital projects, you'll be called upon to assess their impact as well. Many licensed products will come with their own assessment modules; you'll need to be able to analyze them and see if they'll do a good enough job, and often find ways to supplement them. If you're building something in-house, then you'll have the freedom to create your own assessment modules, but also the responsibility to do so. There are also tools available that you can apply to many digital products, such as Google Analytics and Survey Monkey. But despite the ability to grab information on hits and views and unique visits, even web-based projects should be evaluated by opening up a conversation directly with their users. We may know the site received lots of page views, but just because a user got to the information doesn't mean that it had an impact on their research, and stats don't say much about how information is being used. We can (and should) be asking if we are providing the right digital information to users such that they can use it in a meaningful way. There are digital tools that can help with this goal. Don't eschew them just because their results are harder to throw into a graph. In the end, it all comes down to communicating the value of libraries, and as a digital librarian you will have lots of evidence of value. Just don't assume people see it, be ready to craft a message, and don't hesitate to advocate for it.

FINDING YOUR INNER LEADER: A FEW THOUGHTS ABOUT COLLABORATION

So, technology is cool. It is! And with a well-developed sense of curiosity and the help of some social networks, user groups, technical software documentation, and a sandbox to play in, many of the skills required to implement digital projects can be learned on the job. But that won't get you all the way. In the library world, there is nothing more valuable (and nothing more difficult to teach) than the interpersonal skills that contribute to successful collaboration. Digital librarians absolutely must cultivate these skills and seek to continuously develop and hone them, if they are to be effective in their positions.

Most digital librarians are in the middle of a maelstrom of activity: scanning, software management, content selection, web design, publicity, outreach, usability testing, technical troubleshooting, committee service appointments . . . oh, and presenting and publishing to boot, if you have a job in an academic library and want to keep it. So, to stay sane and keep the projects moving, the savvy digital librarian has to develop and cultivate an individual toolbox equipped with technical proficiencies, problem-solving skills, all that theory you learned in library school, and the practical ability to "learn everything that you are supposed to know as soon as someone identifies that you are one who should know it" (i.e., copyright law, how to use the new content management system, managing the student workers and volunteers scanning the collections, designing press materials, and so forth).

What is often overlooked is that these are *not* the skills that are fundamental to collaboration. What really matters when running an effective team is leadership and all the "soft skills" that go along with it. It doesn't help to have a fantastic digital librarian who can program in ten languages or knows fifteen metadata standards, because if the local museum whose collections you are digitizing ends up feeling marginalized and bulldozed after a huge political gaffe during a grant project, you've blown a huge opportunity. Navigating the hidden pitfalls of group dynamics, sensing the best messaging to use in the right situation, and using the powers of gentle persuasion to keep a project within a timeline without creating enemies, are all skills they don't teach in library school and have rarely figured out how to package for on-the-job training. You just have to dive in and figure it out. This is not to say we haven't all made our mistakes along the way. We have, and we're happy to share our stories. Regardless, it is essential that digital librarians figure out a healthy way to learn from their mistakes so that they can build a reputation as a dependable, trustworthy, and competent colleague; a colleague that excels in the areas of collaboration and leadership.

It's true that there are probably colleagues in our organizations that don't have a clue how much value digital librarians bring to the table when it comes to group decision-making and gaining consensus. Often, we are thought of as "behind the scenes" or "techie" or "that person that scans all that cool stuff we put online." Sadly, even some of our more forward-thinking colleagues may just frown and shrug when asked what a digital librarian "does." But we owe it to ourselves to promote ourselves and our specialized skills. We get stuff done, often on a tight timeline and across departmental, campus, or regional boundaries. We manage diverse staff personalities and translate complex technical concepts. We see the big picture and handle the details. As a by-product of these skills, we can be some of the best

people in the library to have on a committee (so learn to say "no" or risk becoming overcommitted!). Digital librarians work in a hybrid world that, to many, is the future of librarianship. So don't be afraid to embrace the future and straddle the boundaries. It isn't always easy being a pioneer, but the view can be pretty rewarding.

FUTURE DIRECTIONS

One of the most rewarding aspects of this type of work is that you get to spend time imagining what might be coming next. Sometimes you feel as if your job isn't really all that far from a juicy science fiction novel and you actually get *paid* to ponder the role libraries will have in this future. Granted, libraries aren't the fastest-moving organisms, but as a digital librarian, you will be one of the people who are expected to be conversant with future trends and you should always have a mental list at the ready. You never know when a donor or administrator might ask, "So what's on the horizon that I should care about?" Knock their socks off, digital librarian!

Here are just a few trends to be excited about in the future:

- Digital curation and preservation
- User-generated content and greater interactivity
- New metadata standards and schemas to leverage data
- Mass digitization and aggregation of content
- New interfaces (3D, surface computing, mobile devices)
- The semantic web

What are some of the trends that excite you? If you can conceptualize it, communicate it, and commit to its value, than you have what it takes to join the ranks of digital librarians everywhere who are building a dynamic future for our profession.

FINAL THOUGHTS

We've tried to give you the basics in this chapter. We hope we've placed digital librarianship into the proper context relative to the profession as a whole, given you some food for thought about what digital librarianship actually looks like, and touched on two areas that help define this type of work (technology and leadership). We hope we may have piqued your interest with some examples

Survey Says—Future Trends

We've surveyed the authors of this book and asked them, "What future opportunities in digital librarianship are *you* most excited about?" Here are some of their responses:

- Digital librarianship and digital curation merging and blending
- Ways that technology is initiating change in the field of librarianship
- Collaboration and development of partnerships to move initiatives forward
- Working with linked data; semantic web technologies
- Improving user experiences in the digital environment
- Improved scanners and software for digitization activities
- Innovative delivery of digital content
- Increased access to rich, unique digital research content

of future directions and augmented these lofty ideas with insights from some of today's digital librarians.

The world is changing, and we leave you with some thoughts about navigating this future, from Lankes (2011): "Librarians have not only an opportunity, but an obligation to find their center and the means to continue a centuries-long mission to use knowledge to better understand the past, make a better today, and invent an ideal future." If you can connect to the traditions of librarianship, bring energy to the digital initiatives of today's libraries, and aren't afraid of embracing (and creating) tomorrow's information services, then digital librarianship may be for you.

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EXAMPLES OF DIGITAL LIBRARIES

World Digital Library: www.wdl.org/en/

Internet Archive: www.archive.org

Mountain West Digital Library: http://mwdl.org/

California Digital Library: www.cdlib.org/

Nevada Digital Collections Portal: http://omeka.library.unlv.edu/omeka/

eCommons@Cornell: http://ecommons.cornell.edu/

DigitalCommons@ILR: http://digitalcommons.ilr.cornell.edu/

Civil Rights Digital Library: http://crdl.usg.edu/?Welcome

International Children's Digital Library: http://en.childrenslibrary.org

Project Gutenberg: www.gutenberg.org/

Western Soundscape Archive: http://westernsoundscape.org/

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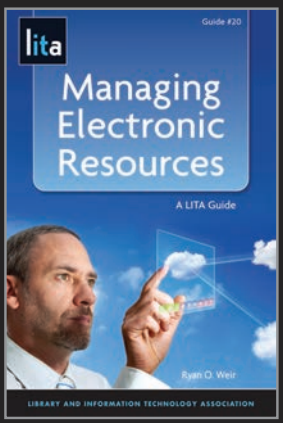

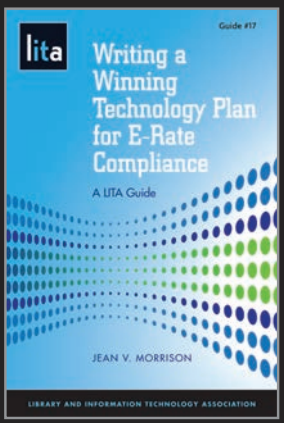

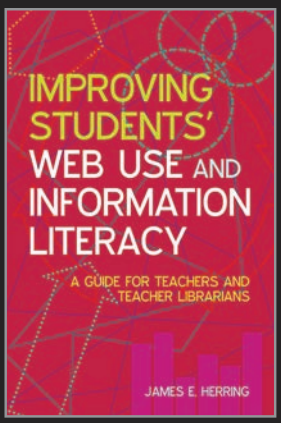

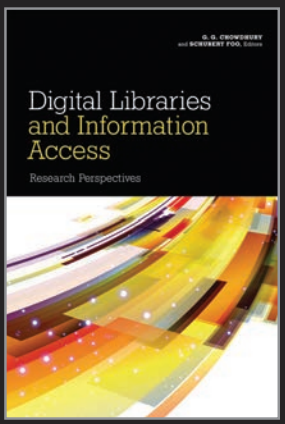

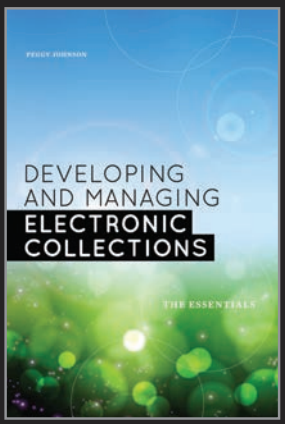

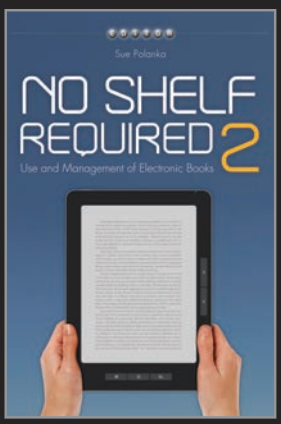

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