Reference & User Services Quarterly

The Journal of The Reference and User Services Association (RUSA)

Winter 2018
Volume 58, Number 2
ISSN 1094-9054
journals.ala.org/rusq

Reference & User Services Quarterly

The Journal of The Reference and User Services Association (RUSA)

Reference & User Services Quarterly is a continuation of *RQ*. The title change was effective with Volume 37, Number 1, 1997.

Please visit our website at https://journals.ala.org/rusq.

Circulation: *Reference & User Services Quarterly* (ISSN 1094-9054) is published quarterly (fall, winter, spring, summer) by the American Library Association (ALA), 50 E. Huron St., Chicago, IL 60611. It is the official publication of the Reference and User Services Association (RUSA) (formerly RASD, Reference and Adult Services Division), a division of the ALA. RUSQ became an open access, online-only publication with the Fall 2017 issue (57:1). Publication of this journal is supported by RUSA membership dues and advertiszing. Issues after 2007 (46:1) are available to read for free online. No print subscriptions are available.

Editorial Policy: *Reference & User Services Quarterly* is the official journal of RUSA. The purpose of *Reference & User Services Quarterly* is to disseminate information of interest to reference librarians, information specialists, and other professionals involved in user-oriented library services. The scope of the journal includes all aspects of library service to adults, and reference service and collection development at every level and for all types of libraries. The journal follows a policy of double-blind refereeing of articles in advance of publication.
—Adopted by RASD Board, June 27, 1989

Manuscripts: Prospective authors can review the "Instructions to Authors" found online at https://journals.ala.org/rusq/about/submissions.

Abstracting and Indexing: *RUSQ* is abstracted or indexed in *Arts & Humanities Citation Index*; *Book Review Digest Plus*; *Book Review Index*; *Computers & Applied Sciences Complete*; *Current Contents*; *Ebscohost Masterfile*; *Education Research Complete*; *Educator's Reference Complete*; *FRANCIS*; *Gale Cengage Expanded Academic ASAP*; *Gale Cengage General OneFile*; *INSPEC*; *Library, Information Science, & Technology Abstracts*; *Library Literature & Information Science*; *LISA: Library and Information Science Abstracts*; *Professional Development Collection*; *ProQuest Education Journals*; *ProQuest Research Library*; *Referativny: Zhurnal*; *SCOPUS*; *Social Sciences Citation Index;* and *Web of Science*.

Reference & User Services Quarterly

The Journal of The Reference and User Services Association (RUSA)

Winter 2018
Volume 58, Number 2
ISSN 1094-9054
journals.ala.org/rusq

Columns

Features

Departments

Everyday Decisions

Ann K. G. Brown

Ann K. G. Brown is the Research and User Services Librarian and Workshop Coordinator, George Washington University, Libraries and Academic Innovation; email: agbrown@gwu.edu.

RUSA, as defined by its vision, "is an influential and authoritative organization, essential to the work of anyone engaged in the practices of connecting people to resources, information services, and collections."[1] Since our vision was adopted in 2015 our world and that of libraries has definitively changed. We are fighting fake news, administering Narcan to overdosed patrons, and partnering with social services. This summer RUSA adopted a statement of equity, diversity, and inclusion.[2] Libraries can no longer choose not to see the inequities that broader structural systems perpetuate.

Often I hear, "What can I do? I'm just a librarian. I'm not the manager, the director, or a supervisor." But there are other things you can do to lead from where you are through everyday decisions. Decisions made with awareness will help each of us become more savvy allies and advocates. We need to do this work so libraries can remain a trusted space. Here are a few ways you can get started.

OUR COLLECTIONS

Representation matters and what we collect matters. When we collect diverse books by diverse authors, in all genres, our readers get to see themselves in the books they read. This refrain was echoed at Literary Tastes by author Thi Bui when she said "my family story is very common and I've been waiting my whole life to hear it."[3] She decided to fill that gap with her award-winning *The Best We Could Do*, detailing her life as an immigrant from Vietnam. But how are we finding and filling the gaps in our collection? As we know, collection development is a deliberate act that can both limit and expand a reader's horizon. And our purchasing can influence publishing. Where we spend our library dollars matters. There are a multitude of sites where one can learn more about purchasing diversely, and there are many places we can look for help in expanding our understanding of diversity, such as the nonprofit We Need Diverse Books (https://diversebooks.org/), which gives out awards for diversity in children's publishing. For more suggestions, check out the recommended reading list of diverse award winners from ALA.[4]

OUR POLICIES

The words we use matter. Look at your policies: Are they written in a way that is gender neutral? Are they written in plain language and avoid library jargon?[5] Many of our policies benefit those with insider knowledge and privilege. The path to inclusivity can be started by adopting these practices in our writing and even in our speech. Personally, I've had to learn how to drop idiomatic phrases from my teaching and to think globally when I use metaphors.

If you are in a position to lobby on bigger issues, think about library fines. Our own Ed Garcia, former director-at-large of RUSA, ALA executive board member, and director of the Cranston Public Library, was able remove late fees for teen and children's materials. He told a local news reporter that "the library noticed that fines had a become a barrier for some families from using the library. Many don't return to the library because of an inability to pay fines or for fear of accumulating them. Penalizing young people for late books makes libraries feel unwelcoming."[6]

OUR STAFF

At the ACRL 2017 conference, I was impressed with Vernā Myers' talk on diversity and inclusion. At that time, I was on research leave investigating how to implement cultural and intercultural competency training beyond a one-time training course. I particularly like Myers' book *Moving Diversity Forward: How to Go from Well-Meaning to Well-Doing* as an introductory read for both personal awareness and how to get others thinking about how diversity and inclusion is so much more than hiring a diverse staff. As she says, "Diversity is being asked to the party, but Inclusion is being asked to dance."[7]

So how do we get away from diversity being a tick box in the hiring phase? As we all know, librarianship is disproportionately filled with white women with a middle-class background. I read an interesting Twitter thread discussing how the privilege of being able to afford graduate school is an inequity in and of itself. It was an awakening for me, and I've been working on this for a while! We will always be learning. If you've never explored how privilege affects you, broaden who you follow on social media, as self-awareness is the first step. And remember that being uncomfortable is part of the process. I also recommend the article "White Privilege: Unpacking the Invisible Knapsack."[8]

CONCLUSION

These are just a handful of ways to do better.

What we do matters. How we do it matters. You don't have to be the manager to effect change. You can do it with everyday decisions.

References

1. "Our Purpose, Values, Vision and Operating Principles," Reference and User Services Association, accessed October 16, 2018, http://www.ala.org/rusa/strategic-priorities/purpose.
2. Ninah Moore, "RUSA Adopts Statement on Equity, Diversity and Inclusion," *RUSA Update* (blog), July 18, 2018, https://www.rusaupdate.org/2018/07/rusa-adopts-statement-on-equity-diversity-and-inclusion/.
3. Thi Bui, "Literary Tastes: Award Acceptance Speech" (speech, American Library Association Annual Conference, New Orleans, June 24, 2018).
4. "Recommended Reading: Celebrating Diversity," American Library Association LibGuides, last modified March 28, 2018, https://libguides.ala.org/c.php?g=488238&p=3530814.
5. To learn more about using plain language, see the Plain Language homepage, https://www.plainlanguage.gov/.
6. Bill Tomison, "Cranston Library Eliminates Late Fines for Kids,' Teens' Materials," WPRI 12 Eyewitness News, June 18, 2018, https://www.wpri.com/news/local-news/west-bay/cranston-library-eliminates-late-fines-for-kids-teens-materials/1246982070.
7. Vernā Myers, *Moving Diversity Forward: How to Go from Well-Meaning to Well-Doing* (Chicago: American Bar Association, 2012), 13.
8. Peggy McIntosh, "White Privilege: Unpacking the Invisible Knapsack," The National Seed Project, accessed October 16, 2018, https://nationalseedproject.org/white-privilege-unpacking-the-invisible-knapsack.

Managing Up as a Positive, Collaborative Approach

Elizabeth Leonard

Correspondence concerning this column should be addressed to Elizabeth Leonard, Assistant Dean of Information Technologies and Collection Services, Seton Hall University; email: RUSQCareerConvo@gmail.com.

Career Conversations connects what the research says about career issues with real-life experiences from librarians. Have a topic you'd like to explore? Email us at RUSQCareerConvo@gmail.com.—*Editor*

My boss never stays on topic in meetings. We never get things done that I need to do!" I've heard variations on this theme for most of my career. I've certainly said it many times, and I'll bet my staff has said it about me. The skill with which you manage such supervisors can make a huge difference in how you feel about getting up in the morning.

As I started to write this column, I assumed I'd speak with many librarians who would discuss creating a productive relationship with their bosses. I reached out to librarians on social media and asked them what they thought about managing their managers, or "managing up." What were their experiences, good or bad? I was surprised to find that (a) many people didn't want to talk about it, (b) those who did talk thought I was asking how to manage my boss and cautioned me that if I got caught I'd get in trouble, and (c) many respondents were overtly hostile to having the responsibility of "managing" their bosses. Even with assurances of anonymity, I struggled to find librarians to interview; several potential discussions fizzled. Most of the folks thought managing up was an onerous task that must be kept secret from one's supervisor and was only necessary in cases where the supervisor was lacking in some fundamental organizational, communication, or supervisory skills. Others thought managing up was analogous to another "up" term: sucking up. Most of these individuals indicated that it was only the supervisor's responsibility to ensure the supervisor and subordinate communicated well and that the subordinate received the necessary support from their manager. Those who thought managing up meant they were solely responsible, both for the relationship and for making the decisions for the supervisor, had bosses they described as reluctant, unwilling to embrace change or make decisions, and a negative drain on the resources around them. Personnel who attempted to improve situations like these developed resentment that they were the "real leaders" (without the pay) and feared for their continued employment if they were discovered to be what they perceived as manipulating.

I have sympathy for these librarians, for it was clear they were in challenging situations. No supervisor should devolve their full responsibilities on their subordinates, even under the guise of collaborative leadership. And no librarian should have to act as a puppet master to ensure their boss does their job and then watch the credit go to someone who would never have been successful without the behind-the-scenes efforts of others. Worst of all, an insecure leader—one you cannot communicate with or one who you constantly fear—is often fatal to good morale.

However, managing up is a real responsibility. Both Simpson and Rousmaniere write that one's success at work is often a matter of how well you can manage your manager. An employee who does the work well but has a fraught relationship with their supervisor is likely not to see as much credit as an employee who works well with their supervisor. These authors also write that it is important to create a compatible relationship with your supervisor; not, as some feel, to become a favorite but rather to work with your supervisor to create the best possible relationship that leads to a productive environment.

A POSITIVE PERSPECTIVE ON MANAGING UP

Managing up can be a positive experience for some librarians. Emma, a middle manager at a large urban university, stated, "I think the idea of 'managing up' sounds either sneaky or presumptuous, but it turns out it's mostly a way to take responsibility and accountability for your own happiness at work by coming up with ways to improve your relationship with your boss." Anna Elizabeth, patron experience associate at a large public library consortia, thinks managing up is so important it should be taught as part of library science professional development and through mentorship. She hopes library students will learn the skills to build relationships with directors. Anna Elizabeth has observed talented librarians who were unable to move forward or get recognition because they lacked the skills necessary to work with authority figures. Those barriers should not exist, she said. "Managers do their best work when they have relationships with all levels of staff." And while she agreed that a manager is responsible for a positive work environment wherein workers feel valued, "the reality is that managers get busy and sidetracked, and sometimes forget because they have other problems to focus on solving. At that point it is the employee's role to remind their manager that they are there, skilled, and happy to help as needed."

Managing up does not need to be obvious to your boss. As the examples that follow show, it is a communication tactic and relationship skill rather than a way to manipulate or subvert. Even managers who realize that their employees are managing up may be appreciative. Donna, a public services manager at a small university, said, "I have been the grateful recipient of managing up—an employee who lets me know that we need to check-in about a project, or lets me know that they are waiting on me for a decision or next step, or reminds me of something that I need to communicate to the rest of the team."

I agree with Emma, Anna Elizabeth, Donna, Simpson, and Rousmaniere. For the rest of this column, managing up is defined as the act of being an active and supportive participant in your relationship with your supervisor. It is not sycophantic, not a pathway to a teacher's-pet status, and, if done correctly, not subversive. What follows are some basic examples of how you can manage up without getting yourself kicked out.

Communication is Key

What is your boss's preferred communication style? What do they want to know? At what level of detail? How often? I've had supervisors who wanted weekly, monthly, and yearly written reports. Others wanted a formal sit down once a week with all the minutiae of the week included, while others just wanted me to pick up the phone whenever they called. What does your supervisor want? If you don't know, it is up to you to find out and to adhere to their style. You might prefer emails while they might prefer phone calls. Guess what? You'll be making phone calls. However, you don't necessarily need to give up your style. If you like written reports, write them to refer to as needed. I personally create outlined lists for myself for my weekly meetings with my dean; it keeps my abstract brain on task. My boss doesn't generally care about the list; he'd rather hear the information verbally.

While managing up entails some adaptation to your supervisor's workstyle, it is important to communicate what you need. This open communication may be appreciated. Donna said, "I'm usually tracking multiple projects and people, and I can lose sight of a detail or I might prioritize differently than the person working on the project. I would rather an employee let me know what is needed to keep them productive and happy rather than be idle or resentful that they don't have my full attention. Employees have one supervisor and I have many employees. Letting me know what they need from me is important on many levels." Everyone has their own personality, so there will be some interplay between you and your boss to find the right amount and type of communication that works. Donna added, "I would say that my best working relationships have been with employees who communicated not just about their tasks but about their work style and communication preferences. If I know this I can try and incorporate it into how I work with that individual—I guess that means she's effectively managed up."

Opening communications using your manager's preferred style can lead to other rewards. When Bernadette, the head of a gallery at a midsize private university, met her new dean, she quickly discovered that, while he had overseen art collections before, his knowledge was in art history rather than museum professions. As a result, he made decisions about the collection that she did not want, like asking untrained campus facilities personnel to hang rare art. Her attempts to have casual conversations to "correct" his actions were met with stonewalling. Rather than give up and label her boss negatively, she undertook to educate him on her area of expertise. She knew that he liked information in chunks, and over time she introduced him to the vocabulary of her area, tying it into the actions of the profession. Because she helped him grasp the nature of the challenges within her area, a strong trust relationship developed and positive outcomes flowed. Eventually, her staff tripled and she was able to gain better storage space within the neighboring special collections unit, which her dean also oversaw.

What Do They Want to Know?

Another important part is not just the what, but the how and the how much. How does your boss want the information? Do they want to provide yes or no answers? Is data required to make a decision? While my current supervisor has weekly meetings, he has perfected the "pop-in." If he has a question about some detail, he'll show up in my office without warning. Another supervisor preferred email only. Emma has struggled with a similar situation. She had a manager "who was consistently in panic mode—she would drop in to my office worrying about things that I pretty much always had under control." To help her manager reduce her panic (and to help Emma keep the interruptions to a minimum), she started "sending her regular updates via email on the things I was working on so that if something popped into her mind and she wanted to see if I had it handled, she could see in her inbox that it was on my radar and she didn't need to worry about it." The result was a happier and calmer supervisor, and Emma had more uninterrupted work time.

Deborah, a library administrator at a large research university, struggled to get her boss to meet with her. "I found that it was difficult to schedule regular meetings with him, and he would float in and out of my office without a regular schedule. I also found that if I sent email questions, he would send quite lengthy responses often when all I needed was a yes or a no." She had never worked with someone like this; her past positions were with supervisors who had similar communication styles. She finally realized that she needed to adjust to his working style. "I started keeping a prioritized, running list of issues I needed to talk to him about, and when I did have a complicated issue to present, I sent an email." This led to improved communications and a smother-running operation.

Your Boss's Goals are Your Goals

Align your priorities to your supervisor's. Is the board of trustees being difficult? What does your provost value in an academic library? What are the politics your director is struggling with? What is the wider reputation of the library in your setting? How does the head of your library want to change that, if at all? Having a better comprehension of these issues can help you support him. This is simple to understand but sometimes difficult to carry out. What is important to your supervisor? What goals do they need to meet? In the end, helping them meet those goals will help your boss. Some bosses are clear about such things. Our dean's office sits down each year with every faculty and administrator and reviews, in a collaborative environment, what they can and should work toward over the next academic year. These goals are always in line with the library's strategic plan. However, not all leaders are that clear. In most cases, you may have to ask your supervisor what they most want you to concentrate on. Katherine, an adult services librarian at an urban public library, knows that her boss gets bogged down in details but tends to lose the bigger picture. She balances this relationship by keeping her perspective more widely focused. It works well. "I found that I had to ask her directly, 'What are we trying to do? What are the details that you have that would help me help you?'"

TAKEAWAYS

Like it or not, making your boss's job easier is your responsibility. Using open, respectful communication, sharing the information they want to know, and respecting their positions are good ways to get started. By doing so, like Bernadette, you can turn the mutual respect into greater support for your endeavors.

The librarians who spoke positively about managing up universally mentioned it as a powerful tool. They also believed it made them better managers because they were more aware of the issues they had experienced. Good leaders see different perspectives as assets, not liabilities, and ideally both the leader and the employee look out for the goals of the organization, not for themselves. Managing up can improve your working relationship with your supervisor and in turn have a positive effect on your work and on your library

For more information on the topic, I'd suggest reading *Harvard Business Review*'s series on managing up (https://hbr.org/topic/managing-up).

To start the conversation between you and your supervisor or employee, see UC Berkeley's "Relationship-Building: Managing Up" (https://hr.berkeley.edu/development/career-development/career-management/relationship-building/managing-up).

A Community of Collaboration

Andie Craley

***Andie Craley** is Manager for Technical Services and Government Documents Librarian at Harford Community College Library.*

Correspondence concerning this column should be addressed to Marianne Ryan, Dean of Libraries, Loyola University Chicago, 1032 W. Sheridan Road, Chicago, IL 60660; email: mryan21@luc.edu.

Most of us are familiar with the scenario of institutional belt-tightening and the effect that it sometimes has on staffing. Reductions and reallocations of human resources can make it difficult to accomplish our work and can affect morale—but not always. In this column, Andie Craley describes the net positives of that experience at her institution. While still facing the reality of doing more with less, Craley identifies how its inherent challenges can present definite opportunities and foster a community of collaboration.—*Editor*

Having started as a library technician at Harford Community College Library (HCC Library) just seventeen years ago, I already find myself the third in seniority. Library staff size seems to diminish as additional job functions are assimilated into existing positions, reallocated as new library services are introduced, redeployed to other departments, or completely eliminated as staff retire or resign. The concept of wearing many hats is common, as is the expectation to take on "other duties as assigned." From networking with colleagues at other Maryland community college libraries, I know this situation is not unique. The current staffing reality both mirrors the evolution of the library's facilities and demands doing more with less, but it also provides individual and collective opportunities for growth, supporting a community of collaboration.

EVOLUTION OF THE LIBRARY

When then Harford Junior College (HJC) was established in 1957, classes were held at a nearby high school and the library was a small, shelved book collection. HJC moved to its own campus in 1964 and, three years later, the HJC Library was designated as a Federal Depository Library. As HJC grew into HCC, the library moved into the Learning Resources Center in 1976. That space was later renovated as the Student Center to allow the co-location of most student support services in one place. In 2000, the library moved to its current building, sharing space with the campus's Computer Technology Services and the president's office.[1]

The new HCC Library featured three floors containing a digital library lab with distance learning assistance, computer classrooms, patron computers, study rooms, circulation, and reference materials. Over time, Computer Technology Services and the president's office were relocated, library technicians working with distance learning became a separate department called eLearning with its own director in a remote location, and the office of Institutional

Research, Planning, and Effectiveness briefly shared library space before moving offsite. Currently the library additionally houses computer and digital media labs, a one-button studio, and individual and group study spaces; it also shares space with the campus's Learning Center and the new Executive Leadership Team. These new programs and units have required a new staffing model.

CHANGING ORGANIZATIONAL STRUCTURE

When I started at HCC the year after the library's move to its current building, I had just two major duties: processing and managing all interlibrary loan functions and helping to staff the Digital Library Desk, which for a brief time was co-staffed by the library and Computer Technology Services. I began as a paraprofessional who did not yet have an MLS degree. The library employed approximately six librarians and a combined thirteen library assistants and technicians, led by an administrative team. Eventually, the Digital Library Desk was moved under eLearning and renamed the Distance Learning Desk, and library staff no longer helped to staff it.[2] Under new library leadership, some library technicians retired or were internally reclassified as exempt positions as library services evolved. Once I had my MLS, I assumed the role of cataloging advisor. Later, I became manager for technical services/government documents librarian, inheriting the depository coordinator role when that librarian retired. A manager for circulation and acquisitions was hired, my counterpart once the technical services supervisor position was split into two professional positions.

Today I am one of two managers who work collaboratively to oversee services performed by employees cross-trained in the technical services and circulation processes. My main responsibilities are supervising processing and cataloging for all new materials. I also oversee all interlibrary loan functions and help train staff in services that form the backbone of technical services. As a professional librarian, I have assigned shifts at the reference desk. As depository coordinator, I supervise our Catalog Record Distribution Program (CRDP) profile and manage our item-selection profile. At a larger academic library, my array of duties would be parceled out to various specialized librarians, but my library affords me the opportunity to develop expertise in a variety of areas.

At my institution, there is clearly movement to meet principle and performance indicator number 8.8 of ACRL's Standards for Libraries in Higher Education: "Library personnel continuously examine and transform roles to meet the needs of the evolving organization."[3] Our library services now include three newer initiatives: the Library Computer Lab Desk (former Distance Learning Desk, given back to the library from eLearning); the Digital Media Lab/One Button Studio; and the preservation of the historic Hays-Heighe House, a campus structure that serves as an extension of the library as exhibit, classroom, and educational program space. Positions once assigned to technical services have been reallocated to support these service priorities. The Library Computer Lab Desk is staffed predominately by student workers, along with new Digital Media staff in reallocated positions. Cataloging duties have been parceled out to more part-time staff. Records for e-books and government documents are batch imported from vendors, and there is discussion that eventually more of our technical services processes will be transferred to vendors to be received as "shelf-ready" materials.

REDISTRIBUTION OF DUTIES

It is sometimes difficult to describe this intertwined mesh of circulation and technical services that is supervised by two managers and mainly performed by paraprofessionals. Processing is a shared responsibility. I process interlibrary loan requests and have trained three of the library assistants for this work, even though only two of those employees are my direct reports. I still oversee and train in all aspects of technical services support, working in collaboration with the manager of circulation and acquisitions to devise a schedule around the circulation duties that most of these library staff members perform under his direct supervision. Responsibility for cataloging the physical collections (print, nonprint, equipment, course reserves, specialty items, and government documents) rests with this combined circulation and technical services staff. Our library systems specialist, also in technical services, handles most of the e-book–record batch downloads into our catalog. Further cross-training exists among newer reclassified professional positions regarding our OCLC, e-book, Marcive, digital media, and archive services.

Staff routinely collaborate to cover other duties and services. Many of the full-time professional library staff titles are long and separated by slashes or conjunctions to describe the many hats that are worn. The silver lining is that they are not as separated into working silos, unlike in many libraries. Because of training across all aspects of library services, essential job functions and service desks can always be covered during both planned and unexpected absences.

HCC Library appears to be on the higher end of FTE staff compared with libraries at other Maryland community colleges that similarly have just one campus.[4] Our circulation desk, supervised by the manager for circulation and acquisitions, serves as what is typically known as access services in other libraries. It is staffed by a rotation of eight full- and part-time staff, including those who also work in technical services or the Digital Media Lab. Our public services, which we call Reference, fall under the direction of the assistant director for the library/collection development and reference. They are covered by a rotation of eight professional librarians, including me, serving at the reference desk and teaching information literacy. At the request of the administration, the library recently submitted a staffing analysis, requesting replacement of a library assistant who transferred to another department on campus and permission to hire as-needed reference librarians.

Now HCC Library still has three service points: circulation and reference desks located side-by-side and a Library Computer Lab desk. But there is an increasing cross-training and collaboration initiative underway for all three of these desks, especially during busy times. The reserves area at the circulation desk has grown beyond maintaining books for instructors; it now houses a large textbook reserve collection, multiple anatomical models for our vibrant nursing program, and a range of popular equipment from graphing calculators and laptops to digital cameras and tripods, all available for checkout. The college is moving toward a learning commons environment, and the current college president sees the library as the "heartbeat of the campus."[5]

SERVING COMMUNITIES AND PROMOTING SERVICES

Although some similar institutions in Maryland have dropped the term "community" from their names, HCC has kept it.[6] The reason may be seen in HCC's values of service ("We are accessible and responsive to our students, our community, and each other. Helping people achieve their goals is central to our mission") and collaboration ("We foster teamwork and partnerships. Working together enhances results and builds community.")[7]

By way of collaboration between our campus and the surrounding community, for years HCC Library and the county public library system have jointly covered the cost for a shared online public access catalog that supports reciprocal borrowing and a courier service for materials between our campus library and the twelve public library branches in Harford County. In addition to our campus student and staff patrons, those with the status of Community Borrower are entitled to circulation privileges, free access to government information, interlibrary loan, and reference services.

The Library Marketing and Programming Committee promotes services to the campus community each year, such as National Library Week events. Most professional library staff offer numerous workshops at Faculty Professional Development Days before the start of fall semester annually, showcasing our access points to library resources. Librarians are embedded into Blackboard courses and work with faculty in collection-mapping projects intended to streamline collection development with curriculum and course offerings.

All library staff who show an interest also help promote the library's services in the community. HCC Library raises awareness of borrowing privileges in county public libraries by providing library literature and giveaways in goodie bags to young patrons in the public library summer reading program. Staff help at promotional tables during the kickoff day event. Instructional librarians have collaborated with Harford County Public Schools' media specialists on ways to help better prepare high school students for college-level research. HCC promoted access to government information with the recent fiftieth anniversary celebration of our involvement in the Federal Depository Library Program at an event that saw attendance by several state and county government officials. Staff collaborate with the campus Office of Student Life and the Paralegal Student Association each year to observe Constitution Day.

COMMUNITY OF COLLABORATION

Throughout my years at the HCC Library, and despite the changes in duties, titles, and responsibilities, one thing has remained constant: the feeling of family. In our roles wearing many hats and juggling many tasks, it takes a close-knit, collaborative team to do right by our community of users. It also takes flexibility and compassion for each other so that personal needs are met along with professional ones. This is where cross-training is essential to ensure that every staff member is knowledgeable about others' work and able to fill in where needed without the loss of excellent customer service. Reallocation and reclassification of job titles and providing professional development opportunities to both full- and part-time staff is essential. The library's values run parallel to those of our institution: "We value teamwork and seek to build effective partnerships within our division, on our campus, and with local, national and global communities."[8]

References

1. Pam Schott, "Harford Community College Library: A Brief History," manuscript, January 20, 2010, Published on the Occasion of the Tenth Anniversary of the Library Building, Harford Community College Board of Trustees.
2. Schott, "Harford Community College Library."
3. Association of College and Research Libraries Board of Directors, *Standards for Libraries in Higher Education* (Chicago: Association of College and Research Libraries, 2018).
4. "Use the Data," National Center for Education Statistics, Integrated Postsecondary Education Data System, 2016, nces.ed.gov/ipeds/datacenter/InstitutionList.aspx; "Library Statistics Program: Compare Academic Libraries," National Center for Education Statistics, 2012, https://nces.ed.gov/surveys/libraries/Compare/Default.aspx.
5. "Achieving the Dream—Harford Community College," Achieving the Dream, 2018, https://www.achievingthedream.org/college_profile/17321/harford-community-college.
6. "The Colleges," Maryland Community Colleges, 2016, https://mdacc.org/the-colleges/.
7. "Mission, Vision, Values," Harford Community College, 2018, http://www.harford.edu/about/mission.aspx.
8. "Mission, Vision, Values," Harford Community College Library, 2018, http://www.harford.edu/academics/library/about/mission-vision-and-values.aspx.

Sources to Ponder

Developing a Meditation Collection

Brian Quinn

***Brian Quinn** is Collection Development Coordinator and Graduate Student Services Librarian at Texas Tech University. He is a certified meditation teacher and registered yoga teacher and has presented and published research on these topics as well as many other topics in the library field.*

Correspondence concerning this column should be addressed to Brian Quinn; email: brian.quinn@ttu.edu.

Meditation practices date back thousands of years to the forest-dwelling rishis of Asia who viewed it as a way to achieve spiritual growth leading to enlightenment. Meditation has today become an increasingly popular practice in mainstream western culture. News media continually churn out stories about the latest scientific results showing the physical, mental, and social benefits of meditating. Celebrities and athletes from the Beatles to David Lynch to LeBron James talk about how meditation has influenced their life and work. Meditation is practiced in corporations and boardrooms and is used in military training programs. Meditation has become commodified and commercialized, with meditation studios springing up in major cities, books about meditation hitting bestseller lists, and Silicon Valley engineers producing meditation apps by the dozens.

With all the attention being paid to meditation, library users will want to know more about what meditation is, the different kinds of practices, and how it can benefit them. There are various traditions and schools of meditation that emphasize concentration, while others emphasize a more open approach known as choiceless awareness. The objects of concentration can vary widely as well as the frequency and length of practice. Some traditions utilize frequent brief meditations of twenty minutes or so and others recommend longer durations. There are traditions of meditation, like Tibetan Buddhism, with rich and colorful pantheons of gods and goddesses and others, like Zen, that are stripped of most religious trappings and can have a more secular feel.

There are thousands of books that have been written about meditation, both popular and scholarly. The works included in this column are a small number of the many titles available. These titles were chosen because they were written by well-regarded authors, researchers, and teachers in the meditation community. Undoubtedly there are other worthy titles that may have been left out, as it is simply not possible to include everything. Some of these titles may no longer be in print but should be available in the used book market for librarians looking to build a collection in this area. There is an important experiential aspect to meditation, and books can be supplemented with recordings available through web resources that offer talks, lectures, and guided meditations by experienced and knowledgeable teachers. These audiovisual resources provide a useful adjunct to books, and they can enhance and accelerate the learning process for anyone trying to understand meditation and develop a practice.

REFERENCE SOURCES

With the exception of bibliographies and handbooks, there are relatively few reference works that have been written about meditation.

Brown, Kirk Warren, J. David Creswell, and Richard M. Ryan, eds. *Handbook of Mindfulness: Theory, Research, and Practice*. New York: Guilford, 2016 (ISBN: 978-1-4625-2593-5).

In the last century, scientists have begun studying meditation practices and subjecting them to the experimental method. Common to all of them is mindfulness. This handbook looks at how scientists have been studying mindfulness in the lab and in the clinic. Research on the neurobiological aspects of meditation, as well as cognitive and emotional benefits, are covered. There are also chapters on using mindfulness to reduce stress and improve positive functioning and its role in the treatment of psychological disorders.

Masuda, Akihiko, and William T. O'Donohue. *Handbook of Zen, Mindfulness, and Behavioral Health*. Switzerland: Springer International, 2017 (ISBN: 978-3-319545-95-0. E-book available through SpringerLink).

Although this is a scholarly work, it includes basic instructions in Zen meditation such as posture and the use of koans and mondo (an exchange between a Zen teacher and disciple). The book looks at psychological aspects of meditation such as desire and attachment, the role of self and personality, quieting the mind, and the role of forgiveness in supporting equanimity and healing. The role of Zen in applied health practices such as psychotherapy is examined, including cognitive behavioral therapy, and acceptance and commitment therapy.

HISTORY AND BIOGRAPHY

Although there are not many books covering the history of meditation, there are many biographies of meditation adepts and some of their more famous followers.

Engel, Klaus. *Meditation: Vol. 1 History and Present Time; Vol. 2: Empirical Research and Theory*. Peter Lang, 1997 (ISBN: 3-631-31600-3; 3-631-31690-9)

The first volume surveys the development of meditation in eastern and western cultural and religious traditions. It examines key figures in contemporary times from various schools of yoga, Buddhism and Christianity, and highlights where their paths converge and diverge. Volume two provides an in-depth look at empirical research in meditation with a particular emphasis on physiology and mental states.

Johnson, Willard L. *Riding the Ox Home: A History of Meditation from Shamanism to Science*. Boston: Beacon, 1982 (ISBN: 0-807013056).

In this work, meditation is traced back to its earliest origins in prehistory and shamanic tribal practices. The work is scholarly but accessible and documents the emergence of meditation in civilizations around the world. The author draws on classic works of philosophy, religion, and literature, as well as modern scientific findings, and looks at practical applications and benefits of meditation and its potential to transform the human psyche and spirit.

Mason, Paul. *The Maharishi: The Biography of the Man Who Gave Transcendental Meditation to the World*. Rockport, MA: Element, 1994 (ISBN: 1-85230-571-1).

The author was a follower of Maharishi Mahesh Yogi, the guru who introduced meditation to the Beatles and became the subject of mass media attention and popular culture. Beginning with his early years in India, the book follows the Maharishi to America and Europe and chronicles his efforts to create a worldwide movement centered around the practice of transcendental meditation. The author attempts to provide a critical assessment of Maharishi that includes both his accomplishments and shortcomings.

Nhat Hanh, Thich. *At Home in the World: Stories and Essential Teaching from a Monk's Life*. Berkeley, CA: Parallax, 2016 (ISBN: 978-1-941529-42-3).

This is an autobiographical collection of essays that recounts a lifetime of experiences by a Zen monk who was instrumental in introducing mindfulness to America. The book contains many stories and anecdotes told from the perspective of an experienced meditator who approaches life as a kind of meditation. Throughout the book, he uses his experiences to illustrate points about meditation and mindfulness that students of meditation will find valuable and instructive.

Thondup, Tulku. *Masters of Meditation and Miracles: Lives of the Great Buddhist Masters of India and Tibet*. Boston: Shambala, 1999 (ISBN: 1-57062-113-6).

Meditation is a central practice in Buddhism, and reading about the lives of adepts in the Buddhist tradition can teach one a lot about contemplative practice. There are many different meditation concepts and practices within the multiple traditions that comprise Buddhism, and this book focuses mainly on those originating in India and Tibet. This scholarly work may be of more interest to those who have some experience with meditation and want to delve deeper into its history and origins.

Williamson, Lola. *Transcendent in America: Hindu-Inspired Meditation Movements as New Religion*. New York: New York University Press, 2010 (ISBN: 978-0-8147-9450-0).

Much of the meditation literature is focused on Buddhism, and this book looks at some of the meditation practices that have emerged from Hinduism. It delves into the inner workings of influential meditation movements in America including Self-Realization Fellowship, Transcendental Meditation, and Siddha Yoga. It describes their meditation practices and places the movements in historical and social context. The author exposes both the positive and negative aspects of the large organizations that develop around popular meditation practices.

DEVELOPING A MEDITATION PRACTICE

There are many works devoted to establishing a meditation practice. Most of these are free of jargon and should be easy to understand.

Bays, Jan Chozen. *Mindfulness on the Go: Simple Meditation Practices You Can Do Anywhere*. Boston: Shambhala, 2014 (ISBN: 978-1-61180-170-5).

This book will help readers to think of mindfulness not as a separate practice apart from the rest of life, but as a continual way of being in the world. The reader is advised to add a new meditation exercise each week. They consist of things like using one's non-dominant hand for activities to enable us to experience life freshly and focus our attention on the present. Eating is another activity that the author encourages readers to try without multitasking.

Chodron, Pema. *How to Meditate: A Practical Guide to Making Friends with Your Mind*. Boulder, CO: Sounds True, 2013 (ISBN: 978-1-60407-933-3).

Meditation beginners who have basic questions about how to find the time, calming the mind, proper sitting posture and breathing will find them addressed in this book. There is much emphasis on the psychology of meditation, focusing the mind, managing distractions, and how to handle thoughts and emotions. There is also a section on working with the senses and perceptions. The author is adept at expressing complex mental processes with clarity.

Goldstein, Joseph. *Insight Meditation: The Practice of Freedom*. Boston: Shambhala, 2003 (ISBN: 1590300165).

The author begins the book by explaining central Buddhist concepts like dharma, enlightenment, and the Four Noble Truths. The book includes a chapter on how to practice meditation, emphasizing the importance of effort and surrender, acceptance, and coping with feelings related to progress or lack of progress. Things that hinder practice, including judgment and emotions, are addressed. Other chapters touch on ego and selflessness, karma, and how to remain in a meditative state when the formal practice of meditation ends.

Goleman, Daniel. *The Meditative Mind: The Varieties of Meditative Experience*. New York: Putnam, 1988 (ISBN: 0-87477-833-6).

In this work, the author examines a variety of meditation traditions including not only Buddhism and Hinduism, but Christianity, Judaism, Islam, and esoteric sects. Out of this survey, commonalities are identified and an outline of the process of meditation emerges. The book concludes by emphasizing the essential unity of all meditation paths, the health benefits of meditation, and practical suggestions for how to begin practicing.

Kabat-Zinn, Jon. *Wherever You Go, There You Are: Mindfulness Meditation in Everyday Life*. New York: Hachette, 2014 (ISBN: 978-1401307783).

This book outlines the basics of meditation, common forms of meditation, and how to extend meditation practice informally in day-to-day living activities such as cleaning the house, feeding pets, and parenting. The book also addresses meditation-related topics such as wholeness, interconnectedness, karma, and ahimsa (Sanskrit: "noninjury" or "nonviolence"). The chapters are brief and straightforward and the writing is clear.

Monaghan, Patricia, and Eleanor G. Viereck. *Meditation: The Complete Guide*. Revised Edition. Novato, CA: New World Library, 2011 (ISBN: 978-1-60868-047-4).

This encyclopedic work addresses many common questions that meditators have, including which technique to use, obstacles to meditation, and how to manage problems. The book looks at over forty meditation practices in different traditions, including Hinduism, Buddhism, Taoism, Judaism, Christianity, and Islam. The practices are covered in more depth than usual and include drumming, bodily positions, singing, painting, and poetry as forms of meditation. The authors also address contemporary practices such as free-form meditation and journaling.

Nhat Hanh, Thich. *The Miracle of Mindfulness: An Introduction to the Practice of Meditation*. Boston: Beacon, 1999 (ISBN: 978-0807012390).

This is one of the first books to popularize the practice of mindfulness and bring it to the attention of a wider audience. It makes the practice accessible by showing how to mindfully conduct everyday activities like walking, eating, drinking, and breathing. The book is full of stories and anecdotes from the author's experience that help to illustrate the concepts of Buddhist philosophy and concludes with a series of exercises that anyone can do to deepen their understanding of mindfulness.

Nhat, Hanh, Thich. *Making Space: Creating a Home Meditation Practice*. Berkeley, CA: Parallax, 2012 (ISBN: 978-1-937006-00-6).

How to create a space for meditation is one of the concerns that those undertaking a meditation practice often raise. To help to slow down from our busy, hectic lives, the author recommends placing notes at strategic locations throughout the house that will remind us to pause and be mindful. He discusses how to design a meditation space that is simple, peaceful, and conducive to meditation. Instructions for how to perform common meditation practices like Metta (Sanskrit: "lovingkindness") are included.

Osho. *Meditation: The First and Last Freedom*. New York: Saint Martin's, 1999 (ISBN: 978-0312336639).

This book is notable for its unconventional approach to meditation. What sets the book apart is the extensive collection of techniques and guided meditations. There are unusual meditation practices that involve laughing, crying, dancing, and whirling as well as more conventional ones. This work includes meditations focusing on the heart, on light, raising life energy, death, and love. There is also a section on meditation obstacles and answers to questions that practitioners commonly ask.

Ricard, Matthieu. *Why Meditate? Working With Thoughts and Emotions*. Carlsbad, CA: Hay House, 2010 (ISBN: 978-1-4019-2663-2).

Many of the basic questions that beginning meditators have, such as finding a teacher, choosing a suitable place to meditate, establishing the right posture, maintaining the appropriate attitude, and the frequency and duration of meditation practice, are addressed. Important issues having to do with finding the motivation to meditate are also covered. The author offers guidance in some of the more common forms of meditation. The book discusses dealing with obstacles such as boredom, thoughts, emotions, and the ego.

Suzuki, Shunryu. *Zen Mind, Beginner's Mind*. Boston: Shambhala, 2011 (ISBN: 978-1-59030-850-9).

This short work features brief chapters that cover the basics of meditation practice such as breath and posture. The simplicity of the book is deceptive, as subsequent chapters address complex issues like managing mental distractions, including thoughts and feelings, coping with errors in practice, and maintaining the proper attitude. Deeper philosophical aspects like non-duality, emptiness, and nirvana are discussed. The author emphasizes the practical aspects of meditation and the importance of making it part of one's everyday routine.

MEDITATION AND HEALTH

Meditation has many health benefits and these books document the scientific research conducted to investigate the effects of meditation on mind and body.

Fraser, Andy, ed. *The Healing Power of Meditation: Leading Experts on Buddhism, Psychology, and Medicine Explore the Health Benefits of Contemplative Practice*. Boston: Shambhala, 2013 (ISBN: 978-1-61180-059-3).

Among the topics covered are meditation as a form of medical treatment, the role of meditation in controlling emotion, how meditation affects the brain, and the neuropsychology of meditation. A separate section looks at the growing importance of mindfulness in psychiatry and medicine. It includes mindfulness to treat depression and in hospice care, as well as in the training of doctors, nurses, and prison guards to improve how they relate to those they serve and manage their work demands.

Goleman, Daniel, and Richard J. Davidson. *Altered Traits: Science Reveals How Meditation Changes Your Mind, Brain, and Body*. New York: Avery, 2017 (ISBN: 9780399184383).

The effects of meditation are not temporary but much more enduring. Numerous scientific studies suggest practitioners can better handle stress and endure pain, reduce reactivity, and recover from trauma. Psychological studies show that meditation makes one more empathetic, compassionate, and charitable, and others indicate meditation improves attention and concentration. Meditation helps in treating fibromyalgia, psoriasis, hypertension, as well as anxiety and depression. Intensive, prolonged meditation turns meditative states of attentiveness, contentment, and compassion into prolonged traits that spill over into everyday life.

Kabat-Zinn, Jon. *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness*. New York: Bantam, 2013 (ISBN: 978-0-345-53693-8).

This book is one of earliest to bring attention to the relationship between mindfulness and health. It is based on the author's program, called Mindfulness-Based Stress Reduction, which he created at the University of Massachusetts Medical School. The book outlines the basics of meditation and describes how to apply mindfulness in daily life. There is a discussion of the role that thoughts and emotions play in a person's overall health and how to work with stress and pain.

Kabat-Zinn, Jon, and Richard J. Davidson. *The Mind's Own Physician: A Scientific Dialogue with the Dalai Lama on the Healing Power of Meditation*. Oakland, CA; New Harbinger Publications, 2013 (ISBN: 978-1-57224-968-4).

The Mind and Life Institute invited the Dalai Lama to participate in a series of conversations with leading scientists in the field of meditation research. Their conversations are contained in this book and focus on how meditation helps to heal the mind and body. The role of meditation in treating stress, depression, cardiovascular disease, is discussed. The dialogues touch on many different subtle and sophisticated aspects of meditation, science, spirituality, and health.

Kingsland, James. *Siddhartha's Brain: Unlocking the Ancient Science of Enlightenment*. New York: William Morrow, 2016 (ISBN: 978-0-06-240387-2).

Written by a science and medical writer, this work focuses on the health benefits of meditation and highlights the research of Herbert Benson, Jon Kabat-Zinn, and other well-known researchers who study meditation. He describes their research on the cardiovascular and psychosomatic benefits of meditation, the usefulness of mindfulness in managing stress and pain, and the utility of mindfulness-based cognitive therapy in treating depression. Included are a series of guided meditations for practice.

O'Connell, David F., and Deborah L. Bevvino, eds. *Prescribing Health: Transcendental Meditation in Contemporary Medical Care*. Lanham, MD: Rowman and Littlefield, 2015 (ISBN: 978-1-4422-2626-5).

Stress has reached epidemic proportions in contemporary life, and chronic stress affects both physical and mental health. Coping mechanisms can include overeating and substance abuse. The book looks at how transcendental meditation can be useful in the treatment of anxiety, depression, addictive disorders, the health of children and the aged, and its role in preventive health and treating social problems.

Plante, Thomas G. E., ed. *Contemplative Practices in Action: Spirituality, Meditation, and Health*. Santa Barbara, CA: Praeger, 2010 (ISBN: 978-0-313-38257-4).

This scholarly collection of articles investigates meditative practices from Eastern and Western spiritual traditions and how they influence the well-being of practitioners. The practices explored in this work include mindfulness-based stress reduction, passage meditation, mantram repetition, and centering prayer. The authors show how these practices can be applied to daily living. Scientific studies measuring their effects on health are included. The book looks at these practices in the larger contexts of the spiritual traditions from which they emerged.

Singh Khalsa, Dharma, and Cameron Stauth. *Meditation as Medicine: Activate the Power of Your Natural Healing Force*. New York: Atria, 2009 (ISBN: 978-0-7434-0065-7).

The author, who is a physician and yogi, has developed a form of meditation designed to balance the mental and physical energies and harness them as a healing force. This is accomplished through a combination of breath work, posture, finger movements, and mantra, and detailed practices are described for each of them. Medical meditation affects the chakras or energy centers in the body by stimulating the endocrine system and nerve plexuses to raise energy and bolster immunity.

Weiss, Gabriel S. *The Healing Power of Meditation: Your Prescription for Getting Well and Staying Well with Meditation*. Laguna Beach, CA: Basic Health, 2008 (ISBN: 978-1-59120-246-2).

This book examines the role of meditation in treating cardiovascular disease, chronic fatigue syndrome, gastrointestinal illnesses, infectious diseases and mental illness. Principles of Zen Buddhism and how they can be applied to meditation and healing are explained. This is followed by meditations for managing anger, controlling pain, treating insomnia, and coping with stress. Meditative arts like calligraphy, haiku, and the tea ceremony can heal. A detailed description of the neurobiology of meditation and how it can help in healing is provided.

MEDITATION AND SCIENCE

The emphasis of these works is on the science of how meditation effects mental and physical states, including physiological and neuropsychological processes that underlie and contribute to meditative states.

McMahan, David L., and Erik Braun, eds. *Meditation, Buddhism, and Science*. New York: Oxford University Press, 2017 (ISBN: 978-0-19-049580-0).

In recent years, mindfulness meditation has shed its eastern religious trappings and become secularized and is now the subject of numerous scientific studies. This work examines how meditation is currently viewed and conceptualized in a variety of scholarly disciplines. In the process, many of the assumptions of current scientific approaches to the study of meditation are questioned. These include neuroscientific studies of the brain during meditation, mindfulness-based cognitive therapy, and culturally relative conceptions of self and happiness.

Murphy, Michael, and Steven Donovan. *The Physical and Psychological Effects of Meditation*. Sausalito, CA: Institute of Noetic Sciences, 1999 (ISBN: 0-943951-36-4).

This work reviews the scientific literature on the physiological and psychological effects of meditation. Review chapters are followed by an extensive bibliography of scientific meditation studies cited in the review chapters. Topics covered by the chapters include the cardiovascular system, the cortical system, blood chemistry, and metabolic and respiratory systems. The behavioral effects addressed are perception and cognition, including a chapter on subjective accounts on topics like bliss, hallucinations, dreams, synesthesia, and extrasensory experiences.

Wallace, B. Alan. *Mind in the Balance: Meditation in Science, Buddhism, and Christianity*. New York: Columbia University Press, 2014 (ISBN: 978-0-231-14731-6).

The author documents the scientific evidence that suggests that meditation practices can significantly affect the mind and behavior in positive ways. Each practice is followed by a historical survey of how the practice has been used in both eastern and western traditions. This work is notable for its ability to balance practice with theory, and to give the reader a sense of the transformative potential of meditation, its historical depth and scope, and its universality in human experience.

Wright, Robert. *Why Buddhism is True: The Science and Philosophy of Meditation and Enlightenment.* New York: Simon and Schuster, 2017 (ISBN: 978-1-4391-9545-1).

Using evolutionary psychology as a framework, the author examines the scientific aspects of meditation. Primitive fight-or-flight emotions like anger and fear can be better managed using meditation practices like mindfulness. Subtler emotions can similarly be observed rather than identifying with them. Meditation may not necessarily lead to enlightenment, but it can make one more enlightened incrementally, resulting in moments of clarity and insight that make the daily effort worthwhile.

Young, Shinzen. *The Science of Enlightenment: How Meditation Works.* Boulder, CO: Sounds True, 2016 (ISBN: 9781591794608).

The author possesses a deep understanding of the psychological processes involved in entering and maintaining states of meditation. He provides interesting techniques and insights for advancing one's meditation practice, including how to break down mental and physical sensations experienced while meditating to make them more manageable. Phases or levels of practice that progress from relaxation and clarity to deeper insight are outlined. Those looking for a structured way to approach meditation practice will find this book offers a useful blueprint.

WEB RESOURCES

Many interesting resources on the subject of meditation can be found online and can be useful for those who want to experience meditation firsthand in the form of guided meditations, along with lectures and videos related to meditation and meditation practice.

UCLA Mindful Awareness Research Center (http://marc.ucla.edu/)

This website offers information about classes, events, and research on mindfulness, and free guided meditations and weekly podcasts. They include basic meditations on the breath, sound, and bodily awareness.

Mind and Life Institute (https://www.mindandlife.org/)

The Mind and Life Institute is a useful resource for finding information about the science of meditation and contemplative practices. There are videos of conversations between scholars, scientists, and meditation teachers, information about books and videos, and an archive of full-text papers on meditation and science.

Omega Institute for Holistic Studies YouTube Channel (https://www.youtube.com/user/TheOmegaInstitute)

The Omega Institute's YouTube Channel includes many videos related to meditation. It encompasses a wide variety of meditation traditions and practices. Many of the practitioners featured are leading names in the field.

Spirit Rock Meditation Center (https://www.spiritrock.org/)

Spirit Rock offers classes, courses, and workshops on meditation. Their website features free videos on meditation by well-known teachers. There is also a larger collection of audio recordings on meditation and personal growth. The website includes a collection of full-text articles and a series of interviews with meditation teachers.

Insight Meditation Society (https://www.dharma.org/)

The Insight Meditation Society (IMS) has a website that offers audio recordings of teacher talks on meditation and Buddhist philosophy. It provides guided meditations and a reading list of works by IMS instructors. There is also a glossary of terms and a list of outside resources that features podcasts, meditation communities, and retreats.

Making a Place for Makerspaces in Information Literacy

Leah Mann

***Leah Mann** is Library Media Services Instructional Specialist at Lewisville Independent School District, Lewsville, Texas.*

Correspondence concerning this column should be addressed to Sarah LeMire; e-mail: slemire@tamu.edu.

In recent years, many libraries have experimented with the idea of creating makerspaces in their facilities. Library makerspaces provide patrons with opportunities to experiment not only with different technologies, but with different ways of thinking. In this column, Leah Mann explores the relationship between making and information literacy and describes how librarians can use makerspaces to create unique pedagogical opportunities to develop practical real-world skills, build problem-solving abilities, and enhance knowledge transfer. She explains how the maker movement can affect not only school libraries, but other types of libraries as well.—*Editor*

The maker movement has been gaining momentum in recent years, and librarians of all types have looked for ways to include makerspaces and maker activities into their programming while still addressing the more traditional aspects of the field. This article attempts to evaluate makerspaces and their place in libraries through the information literacy lens. While the bulk of the examples in this article are representative of school libraries, public and academic libraries can adapt these recommendations to fit their needs or use them as suggestions of how to support and partner with their school counterparts.

The American Library Association's (ALA) Libraries Transform campaign identifies a need for society to not only make things to tap into its creativity, but to learn to formulate its own questions and find ways to answer them.[1] While the idea of adding 3D printers, laser cutters, and sewing machines to the list of materials library users can check out and use might seem odd, it makes sense when considered through the lens of information literacy. For those who work in school libraries, the Future Ready Librarians framework, which is an extension of the Future Ready Schools initiative launched under President Obama in 2014, supports this by placing personalized student learning at the heart of a successful school library program. Makerspaces are a prime opportunity for libraries to address the personal needs of not only students, but all library users in all library environments.

Since 2006, and the inaugural Maker Faire in San Mateo, California, the maker movement has gained a large following among the library community. By 2014, there were roughly 135 million adults in the United States who identified as makers.[2] These individuals are do-it-yourselfers who look for ways to creatively build and design their own materials and resources, some for entrepreneurial purposes. Through access to 3D printers, laser cutters, and sewing machines, as well as other materials, technological and nontechnological Americans are coming together in their desire to make.[3] The idea of including makerspaces in libraries dates back to 2011 and is attributed to Fayetteville Free Library in New York, where library users were allowed to use the library's 3D printer.[4]

The US Department of Labor states 65 percent of today's school-age children will grow up to work in careers that do not currently exist.[5] It is no longer enough to only focus on the information-retrieval side of information literacy. Instead, librarians should broaden the definition to include the power of the maker movement to help library users locate, evaluate, and effectively use resources and materials to explore the world around them, tap into hidden passions and skills to which they can apply their learning. Making is an additional facet of information literacy, and it belongs in libraries. Whether through physical makerspaces, maker clubs, mobile maker labs on busses and vans, or maker kits circulated along with books, many school, public, and academic librarians have embraced the maker movement as another way to meet the needs of the communities they serve and prepare citizens for these future jobs. Additionally, many of the nation's state and national library associations, as evidenced by the programs and presentations offered at their conferences, are busily promoting the maker movement. For the past three years the Texas Library Association has highlighted makers in its Innovation Lab at their annual conference in April. This area is always popular with attendees, and the high attendance at the presentations in the lab is a strong example of the interest librarians hold in the maker movement.

MAKING AND INFORMATION LITERACY

According to ALA, information literacy is "a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information."[6] Traditionally, this definition has guided librarians in how they assist their library users with locating information through research and retrieval, and one of information professionals' main responsibilities is to teach others how to access resources autonomously.

Examples from the Field

Many public, academic, and school librarians bring makerspaces, information literacy, and subject-matter content together in unique ways. An example from school libraries, from a district in North Texas, is partnership between one of the district's librarians, fifth-grade science teachers, and the district's science department to review concepts that data had showed students were weak in. With this data and the science content in hand, the collaborative team planned maker stations that allowed students to construct meaning using traditional maker materials such as Makey Makeys, LED lights, coin cell batteries, and littleBits. Having a challenge in front of them and the opportunity to carefully evaluate and analyze materials provided to them gave students a real-word opportunity to apply testable material. Watching the learning take place was a feast for the eyes. Students were actively engaged, excited to learn, and expressed a better understanding of the concept they were reviewing.

Another example of how this same school district answers the call for deeper maker experiences is through their library department's Mobile Transformation Lab. This specialist-driven initiative coaches campus librarians and their collected team of teachers and content specialists in ways to embed maker learning in their lessons. One example of the lab at work involved seventh-grade math students who were challenged to solve a recycling problem on their campus. Using IDEO's Design Thinking framework,[7] students had to research feasible recycling receptacles they could design and 3D print to pitch ideas for possible implementation. The iterative process of brainstorming, prototyping, and testing, all while learning the math skills highlighted in the curriculum, gave students a real-world example of how math is used in design.

By approaching making in a way that is embedded in instruction with the guidance of coaches, the classroom teacher gained confidence in using a 3D printer as well as how to teach using it, and students had to apply information literacy skills to create their proposed product and solution. The supporting role played by the library department's specialists in implementing the technology and the processes made the teacher feel comfortable in trying something new. It was a great opportunity for the students to see math applied in true-to-life ways.

Information literacy, the real world, and makerspaces can be seen coming together at public libraries that host events where library patrons of all ages use app-making software to create apps to solve real-world problems. Another example is university library labs where students can use a wide variety of machines and equipment to build projects for their coursework. Both examples allow for more engaged library patrons who use the makerspace resources and programming available to them to connect their learning and interests to relevant issues and needs.

NEW LITERACIES

How do examples of instruction and activities like the ones above, and the maker movement in general, support and expand the idea of information literacy? One way is through technology literacy. The Colorado Department of Education defines technology literacy as "the ability to appropriately select and responsibly use technology."[8] The International Society for Technology in Education (ISTE) identifies technology literacy as the ability to demonstrate skills in several areas, including the following:

- **Creativity and innovation**: Students use technology to demonstrate creative thinking, problem solving, and knowledge construction.

- **Communication and collaboration**: Students use technology to communicate and collaborate in order to enhance their learning or the learning of others.
- **Research and information fluency**: Students use technology to find and use accurate, up-to-date information.
- **Digital citizenship**: Students understand what it means to be a citizen in the digital world and practice ethical behavior when they use technology.
- **Technology operations and concepts**: Students illustrate an understanding of technological systems and concepts.[9]

Using makerspaces to provide users opportunities to learn autonomously and hone their technology literacy skills carries many benefits, namely equalization of opportunities and a closing of the digital divide.[10] This occurs when library patrons of all backgrounds and experiences gain access to the resources they may not otherwise have. In the school setting, a student's schedule, socio-economic status, or language may keep them from taking the classes that allow them to learn to use traditional maker tools. However, when the library provides maker experiences throughout the day for little or no money, anyone can have a chance. Additionally, these opportunities place library users at the center of their learning and understanding and puts those users in the driver's seat.[11] This engages them more, which in turn encourages them to want to learn more, possibly leading to a future career or opportunities they may not have ever been able to consider.

Just as makerspaces help close the digital divide, they also provide opportunities for individuals to hone skillsets not typically available in the traditional classroom or academic setting.[12] Not every student has an opportunity to take Career Technical Education or vocational courses, whether due to their schedule or availability at their campus. Some people are more interested in training for a vocation, versus going to a four-year university,[13] and makerspaces can provide a launching point for them to discover what their future career could be.

Another way makerspaces support literacy is through tool literacy. Similar to teaching people how to identify when to use a database versus a search engine, makerspaces can be used to teach users how to decide when a physical tool is needed and which tool is best for the job at hand. This skill can be especially beneficial for students, as it prepares them to be independent adults with the life skills they will need, such as knowing which screwdriver to use and when.[14] Joyce Valenza likens tool literacy to the difference between a cook who follows a recipe and a chef who can create unique recipes using the ingredients they have in new and exciting ways.[15] Tool literacy boils down not just to real-life skills everyone needs at all stages of life, but focusing on the process at hand. Evaluating how a tool can be used in various ways teaches individuals how to engage in workflow and think critically about how they want to achieve their goal, which is higher-level thinking at its finest.

In the school setting, as students learn to use the tools and the technology, reading is involved. The ability to read instructional texts and infographics, which are often how instruction manuals are delivered these days, is just as much a part of information literacy as more traditional print. Anyone who has ever had to use the instructions to build furniture from IKEA can relate to this! When students have opportunities to read these kinds of texts in the context of making, they reinforce all literacy skills simultaneously.

MAKER LITERACY AND THE REAL WORLD

A white paper published by Discovery Education touts the need for students to learn to read and think like a real-world expert.[16] In it, Karen Beerer calls for more robust digital and media resources that bring everyday life into instruction and experiences through a variety of perspectives. Libraries can leverage hands-on maker activities to broaden the experiences and perspectives of the community they serve while exposing users to industry-specific vocabulary and knowledge. Through makerspace instruction, students as young as the primary grades express their learning through specialized vocabulary. First graders are fully capable of identifying when code they are using via code.org needs to be "debugged," and second graders have no problem explaining the "algorithm" they have created to express how they built a structure. While they are not explicitly learning a computer language, they are learning the tenets of computational thinking. What makes these statements from students so powerful is when the making is embedded in the instruction and where they can see the connection between what state standards require they know and what industry will want them to be able to do.

Students expressing their learning through real-world representations is nothing new. As professionals who have studied how to work with children of all ages and stages, teacher librarians are well versed in constructivist learning theories. If teacher librarians are truly preparing students to be future ready in accordance with the Future Ready Librarians Framework and are providing opportunities for them to compete in tomorrow's job market, then it is important to find ways for them to practice these skills in real-world settings where they have an opportunity to learn from failure. This preparation can be empowered when school, public, and academic libraries partner together to provide students robust access to a variety of resources, filling in where the other institutions leave off.

FAILURE AND INFORMATION LITERACY

Thanks in part to standardized testing, failure became a scary word that carries deeply negative connotations. Luckily, failure is making a comeback thanks to the maker movement, and it definitely has a place in information literacy.

What the maker movement, failure, and information literacy all have in common is an opportunity for library users to learn for themselves and choose how they want to learn from a mistake going forward. They can choose what they believe is the best tool for the job at hand, and if their project or design does not quite turn out as envisioned, they have the independence to decide what they will change next time. An example would be if a library patron's design using the Tinkercad 3D design tool did not print out the way they wanted on the 3D printer, they could use this knowledge to learn new skills for better print quality next time. As individuals experience these kinds of failures, they become more comfortable with things not always working the first time or how they envisioned. In simplified terms, if information literacy is about locating the right information using the right tool at the right time, there will be times people do not choose appropriately. The same can be said for making.

Another interesting point about failure is it provides an opportunity to seek out answers and practice giving and receiving feedback. The act of looking up instructions on how to troubleshoot a robot or how to correct a missed stitch in a knitted scarf provides individuals great opportunities to practice information retrieval that is relevant and more meaningful to them. In any library setting, these instances also allow users the means to seek out others whose experiences make them "experts," which is a great life skill.

TRANSFERRING KNOWLEDGE IS TRUE LEARNING, AND A NECESSARY SKILL

According to Scott Walter, "The abilities to strategize, search, evaluate, and engage information resources represent transferable skills relevant both to the workplace and to one's role as an engaged and informed member of our society."[17] This manifestation of information literacy is exactly what makerspaces are about. Makerspaces give library users the freedom to apply what they have learned in new ways. Designing a Makey Makey–powered cardboard instrument lets users explore their knowledge of circuits. Coding and computational thinking allow school-age members of the community to apply the story elements of sequence of events and cause and effect. Occasions to use knowledge in the real world are especially powerful when librarians collaborate to help solidify the relationship between making and information literacy.

YOU AREN'T ABANDONING THE PROFESSION!

It can seem as though librarians are abandoning their library and literacy roots to incorporate more emerging technology and maker resources. Luckily, library professionals don't have to choose one aspect of library instruction over another. Traditional literacy and makerspaces not only can both hold a place in our libraries, they can do so simultaneously.

When libraries include makerspaces, they have not only provided physical resources to their users but also have facilitated an opportunity for them to physically explore a topic of interest through provided resources rather than simply reading about it. What is especially exciting is when print materials and maker activities converge. There are many ways to approach makerspaces. It can be a complete learning area, a dedicated shelf of resources, a cart of supplies, and can be covered through various means of scheduling. All these ways are correct and have a place. It is best to start slow. Just because the space is built does not mean the users will come! It is a new journey for them, too, and it will take some time for them to learn how to fully harness what is available. It is important to have a vision of how the space to operate. For some, makerspaces provide a great club activity. Others choose to employ makerspaces as a once-a-week activity or reserved for specific grades or groups. Some makerspaces use more craft supplies, while others are technology heavy. Consider patrons' needs and use those to drive decisions about what is purchased and how the makerspace is scheduled.

As mentioned earlier, standardized testing has done a lot to create a lens through which activities and programs are evaluated in the school setting. Arguably the most powerful way to implement maker education at the school level, in a way that speaks to teachers and administrators, is through standards-based and curriculum-embedded maker education. This provides a rich opportunity for students to use their information literacy skills in a real-world, constructivist way while still mastering content required by state and national standards. Even without a physical space, or abundant maker supplies, information literacy can still be reinforced through maker education. Design thinking is a great way to facilitate opportunities for library users to think critically about a problem, and a paper and pencil are the minimum materials needed to engage in the process and think in new ways.

FINAL THOUGHTS

It can seem overwhelming and costly to take the plunge into makerspace programming. However, makerspaces can elevate library programming to new heights and can be a great way for library users to authentically learn and utilize information literacy skills. Luckily, the best way to start a makerspace is to do just that—start. Begin with an after-school making club, investigate ways to establish a culture of making using low- or no-tech resources, or weave making into instruction when teaching. No matter how small the start, or how access is provided, just jump in. The information literacy skills of your users will be greatly strengthened. The only thing necessary for a makerspace program to be successful is to be open to learning along the way, and keep what is best for the community at the heart of your maker journey.

References

1. “Libraries Transform,” American Library Association, accessed October 18, 2018, http://www.ilovelibraries.org/librariestransform/.
2. Tim Bajarin, “Why the Maker Movement is Important to America’s Future,” *Time*, May 19, 2014, http://time.com/104210/maker-faire-maker-movement/.
3. Bajarin, “Why the Maker Movement.”
4. Deborah Fallows, “How Libraries are Becoming Modern Makerspaces,” *Atlantic*, March, 11 2016, https://www.theatlantic.com/technology/archive/2016/03/everyone-is-a-maker/473286/.
5. Azadeh Jamalian, “The Role of School Libraries in the 21st Century Maker Movement,” white paper, littleBits, June 6, 2018, http://e.littlebits.com/librariansmakerspaces.
6. “Information Literacy Defined,” American Library Association, accessed October 17, 2018, http://www.ala.org/Template.cfm?Section=Home&template=/ContentManagement/ContentDisplay.cfm&ContentID=33553#ildef.
7. “Methods,” IDEO Design Kit, http://www.designkit.org/methods.
8. Caitrin Blake, “Defining Technology Literacy: Skills Students Need for Personal and Professional Success,” CBS Connects, accessed August 17, 2018, https://cbsconnects.org/21st-century-skills/.
9. “ISTE Standards for Students,” International Society for Technology in Education, accessed August 17, 2018, https://www.iste.org/standards/for-students.
10. Laura Fleming and Billy Krakower, “Makerspaces and Equal Access to Learning,” *Edutopia* (blog), July 19, 2016, https://www.edutopia.org/blog/makerspaces-equal-access-to-learning-laura-fleming-billy-krakower.
11. Jamalian, “Role of School Libraries.”
12. Diana Rendina, “3 Reasons Why Making and Literacy Aren’t Mutually Exclusive,” *Renovated Learning* (blog), January 20, 2017, http://renovatedlearning.com/2017/01/30/making-literacy-arent-mutually-exclusive/.
13. Mark Phillips, “Why We Need Vocational Education,” *Washington Post*, June 5, 2012, https://www.washingtonpost.com/blogs/answer-sheet/post/why-we-need-vocational-education/2012/06/04/gJQA8jHbEV_blog.html?utm_term=.5979d97552b8.
14. Rendina, “3 Reasons.”
15. Joyce Valenza, “Tool Literacy as a New Process,” *School Library Journal*, May 14, 2016, http://blogs.slj.com/neverendingsearch/2016/05/14/tool-literacy/.
16. Karen Beerer, “Disciplinary Literacy: Teaching Students How to Read Like Scientists,” *Discovery Education* (blog), September 29, 2016, http://blog.discoveryeducation.com/blog/2016/09/29/disciplinary-literacy-teaching-students-how-to-read-like-scientists/.
17. Scott Walter, “Information Literacy as a Transferable Skill,” *Library News for Faculty*, January 17, 2017, https://news.library.depaul.press/faculty/2017/01/17/information-literacy-as-a-transferable-skill/.

My Body is Ready

Best Practices for Using Memes on Library Social Media

Andy Woodworth

***Andy Woodworth** is a librarian and social media consultant. He has graced the reference desk at a public library for the last decade. He is a 2010* Library Journal *Mover and Shaker, award winning blogger, and occasional writer for library science journals and magazines. You can find him on Twitter @wawoodworth. Andy lives in New Jersey with two rambunctious toddlers and one very understanding wife.*

Correspondence concerning this column should be directed to Nicole Eva and Erin Shea; email: nicole .eva@uleth.ca and eshea@fergusonlibrary.org.

In this column, librarian and social media consultant Andy Woodworth gives an unexpected approach toward library social media strategy with the use of memes. Part whimsical and part informative, memes have the unique potential to go viral on the internet, thus introducing your library's brand to a much wider audience.—*Editor*

MEMES ARE INTERNET STREET ART

I don't always start a professional librarian essay with my conclusion, but to me it's important enough to throw all my chips on the table and use the following paragraphs to guide you to my point. Even if you've just decided, "Ok, I'm going to skip this one because I already don't like it," at least I've said what I've come here to say. For the rest of you that wish to soldier on, let's continue on our rhetorical journey.

Let's unpack last two words of that opening header.

Art is probably the most critical aspect as well as being the most unconventional. I have no art background to speak of, so I must appeal to your philosophical nature: that memes, like art, are images that convey an emotion, a message, or both. Memes can take on profound and lasting meaning or be fleeting in the moment. As visual media, they qualify to be judged as a work of art.

While they are closely associated with humor, they have been used to make serious points about topics such as politics, religion, and social justice. In the last election cycle, memes were used by Russian agents as part of an engagement strategy on social media to provoke users into hyperpartisan stances.[1] The number of captioned photos of American political figures reaches astronomical numbers in terms of search engine results and presents all varieties of the ideology spectrum. This penetration of memes can also be seen in all realms of pop culture and has continued to expand over time.

The notion of street art is all-inclusive, from the tags on street signs, to elaborate graffiti works, to complete building murals. It's art so pervasive that you can't miss it when you don't let it fade into the visual noise of modern life. As it literally surrounds us on our travels, so do memes during online sojourns. One cannot avoid them on their social media feeds, message board sites, or anything that touches upon internet culture. These are the streets of the online world and memes are a part of that landscape.

It's not a radical notion to think of memes as art because they meet all the qualifications listed when society talks about art. As the internet hinges on the visual, memes fulfill that artistic role as a communicator of ideas and emotions. With tools that make their creation readily accessible, memes are an artform for the masses to generate, share, and revel. They are the frescoes of the digital age.

WHY MEMES?

The origin of the term "meme" is from the 1976 book *The Selfish Gene* by Richard Dawkins.[2] The underlying concept draws parallels between genetic selection and cultural ideas; that they travel, morph, and have characteristics that change over time to their respective environment. Like their organic counterparts, a meme can take on new meanings and connotations as people use them to describe something, use them in a commentary, or otherwise repurpose them for other uses. The term has become synonymous with images with captions (either on, above, or below the image) that creates a narrative about a person, place, thing, or combination thereof.

Memes are highly adaptable, extremely relatable, and well suited for sharing on social media platforms. They have found their way into every aspect of online life as a vehicle for all forms of commentary and perspectives. Like its drawn cousins, a single captioned image can say more intellectually and emotionally than an entire essay. With a few mouse clicks, a meme can be created to fit any situation to convey any message.

Being relatable is one of the innate aspects of a meme. As human beings are visual creatures, communication through images comes naturally. If you think about it, an image with a line of text is how we are first introduced to the world of reading. It is one of the most popular forms of visual expressions throughout our lives, found in a variety of places such as cartoons, print ads, comic books, and instruction manuals. It is a format so familiar as to become near omnipresent, fading into the background of our daily lives.

Sharing is what makes the social media world go around, and memes are well suited for distribution. Sharing is built into the web to accommodate our social animal ways with widgets that will link pictures and stories across email, text messages, and social media.[3] As memes are generally pictures, this poses no great challenge to social sharing. This is important to any social media strategy in creating content, getting impressions or reactions, and building a following within the community. Memes are for sharing, sharing creates engagement, and engagement creates a following.

BUT WAIT, THERE'S MORE

One of the most important elements about using memes is ensuring that it meets the needs of your library's social media marketing strategy. It is important that it works with the staff time invested as well as the social media outcomes that are

Figure 1. Bad Luck Brian

sought. It is not simply feasible to post memes for the sake of memes, but in service of a greater goal of eliciting sharing, generating community buzz, and bringing people either to the library or the library's website to meet their individual needs. Memes are great, but without a coherent strategy and an explicit purpose in their use on your library's social media they are just a distracting novelty.

In embracing memes as part of a greater social media strategy, the medium demands a certain level of knowledge and attention. The knowledge component has two vital functions: making certain any memes you use are appropriate in terms of the image and text to their understood underlying meaning and the situation they are used, and to ensure that you are using memes that are not (for lack of a better term) inappropriate. Images in memes have underlying context that drives the text narrative;[4] in other words, you don't put an uplifting message on a Bad Luck Brian (figure 1) or make Doge (figure 2) speak in complete and coherent sentences. It goes against the commonly held meaning of the image and will be ignored or generate a negative response (even if you wanted to use it ironically). Context matters, and especially so in the world of memes.

Within the world of memes, there are images that have become associated with extremist ideologies and meanings. For example, Pepe the Frog has found heavy use in white supremacy online forums. Cropped stills of facial expressions from adult films in which the context (as well as the nudity) has been removed have found use as reaction memes on social media platforms such as Tumblr. While not every

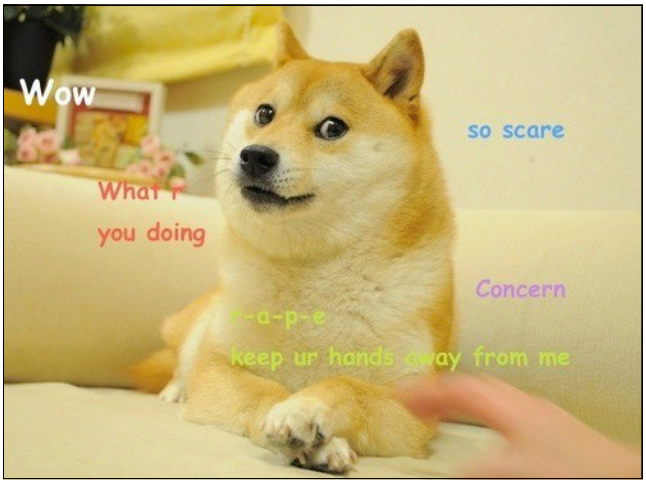

Figure 2. Doge

Figure 3. Invercargill City Libraries' Kardashian parody

image requires a thorough background check before it can be used on a library social media account, anything suspect can be checked.

Fortunately, there are websites and tools that can provide additional context and background for meme images:

- Know Your Meme (knowyourmeme.com): the most comprehensive online database for memes. It is a combination of staff curation and user submission with the former doing research into the origins of a meme while the latter provide discovery details and additional examples.
- Reddit (www.reddit.com): there are many groups known as subreddits that host meme creation. They are known by the subdirectory name, r/[name of group], which also indicates what topic they address within the group. r/funny, r/memes, r/memeeconomy, r/adviceanimals, and r/dankmemes are a few examples of groups in which memes can be found. While the search options are limited, they are excellent sources of what memes are currently trending online and how they are being used.
- Google Image Search (images.google.com): a reverse image search can provide additional examples as well as other uses of a meme. It is a good due-diligence tool for looking at the other ways an image has been used online. Simply upload a copy of the original image you want to use and it will provide matches.
- Search "#meme" on any social media platform: while the most ham-fisted of the due-diligence methods since it relies on people tagging posts correctly, it can provide broad overviews of what memes are being used on a social media website. As there is a risk of getting not safe for work (NSFW) results, it is recommended that such searches be done on back-office computers rather than on public desks.

SO YOU'VE DECIDED TO USE MEMES

The use of memes must be considered within the library's social media strategy. How will they be used online and on what platforms? Do you have the capability of a quick turnaround to find, adapt, and post memes that have just emerged? Or will they be used on planned posts? These are the kinds of questions that need to answered before any text is placed on an image.[5]

Memes should be another tool in the online engagement arsenal. Whether they are used frequently or sparingly, the end goal is to elicit shares and other forms of online engagement. The other important element is that they are manageable within established staff workflow and duties.

If you're still not certain about how memes can work with a social media strategy, here are a pair of libraries that have a strong meme game.

Invercargill City Libraries (https://www.facebook.com/invlibrary/) has a social media team that capitalized on rising memes very effectively. From their Kardashian parody picture (figure 3) to the "Laurel/Yanny" video, they've been able to both generate original content as well as use established memes effectively. As of the date of writing (August 9, 2018), their Kardashian photo has over twelve hundred comments and five thousand shares along with uncounted press mentions and media coverage. Their photo and video sections have many established memes with excellent captions and purposeful use. For example, a Grandma Find the Internet is used in conjunction with promoting technology and computer classes;[6] it is a good match of meme and content to generation comments and shares.

Kansas City Public Library (https://www.facebook.com/kclibrary/) utilizes animated gif memes in connection with library service and material promotions. As Facebook treats animated gifs as videos for no reason known to humankind, their video section is an excellent example of pop culture images paired with related posts. For example, a Justin Timberlake GIF goes with announcing programs in May by way of the misheard lyric "it's going to be me" as "it's going to be May." It is a good use of established memes to promote library content.

The Burlingame Public Library (https://www.instagram.com/burlingame_library/) is an excellent example of the

Figure 4. Shia LaBeouf meme parody

#bookface meme. #Bookface is the art of taking a book cover and lining it up with a person's face, body, or other objects to make it appear connected. The illusion creates thrilling and immediately sharable results that both promote the book and the library without resorting to the use of text. This is especially popular on Instagram with its own #bookfacefriday hashtag where booklovers and libraries can compete for the best photo.

THE RIGHT TOOLS FOR THE RIGHT JOB

Like all art, the tools that you use to create a meme are entirely up to you.

At the most basic level, there are websites such as Imgur, ImgFlip, and MemeGenerator that allow you to use existing meme images and provide text input boxes for quick creation. In exchange for a tiny website watermark, you get a final product as a link that you can either download the image to your own computer or insert into an appropriate email or social media post. They are simple, quick, and perfectly acceptable for creating a custom meme without using software or investing tremendous amounts of staff time.

There are many programs that can be used for the creation of memes. While they are not necessary to the basic meme formula (picture + text = meme), they do provide additional tools for more complicated meme creation.

Since the basic meme formula is "have picture, add text," any program that can handle this will suffice. Even system standard programs like MS Paint can accomplish this task. Once you start moving into the realm of more advanced editing and use, there are both paid and open source options. Paid programs such as Adobe Illustrator and Photoshop, along with their respective open source equivalents Inkscape and GIMP, provide more powerful tools that enable greater image manipulation. Customizing imagery, inserting library brand or watermarks, and even generating entirely new meme content are possible with enough staff time and a commitment to original content.

The use of animated GIFs (especially in providing reactions to tweets and posts) is also not out of reach for a library's custom content creation. Instagiffer, an open source program, offers the ability to turn video clips (either imported or as a link from an existing YouTube video) into short GIFs as well as being able to add multiple lines of caption text to create dialogue. Again, while the programs are open source (aka free), there is a staff-time cost that would need to be considered to make it function.

There are a range of tools that match the level of staff proficiency and time investment. It's up to each library to determine how best it fits into their social media strategy and online outreach. Memes may not fit into a library's broader online aspirations, but if desired they are available for enhancing engagement and building a library's brand.

SAY IT AGAIN: WHY MEMES?

Memes are a viable addition to any library's social media strategy due to their flexibility in use and connotations, innate ability to be shared, and high placement in online popular culture. With an easy entry level to content creation, they can fit any staff-time or technical-knowledge parameters that you want to assign them. With some knowledge, practice, and attention, memes can take your library's social media game to a new level that is contemporary, memorable, and (most importantly) shareworthy.

To quote that Shia Lebouf meme:[7] Just. DO. IT. (figure 4).

References

1. Aaron Mak, "Here Are Some of the Social Media Posts That Russia Used to Meddle in the 2016 Election," Slate, November 1, 2017, http://www.slate.com/articles/technology/technology/2017/11/here_are_the_facebook_posts_russia_used_to_meddle_in_the_2016_election.html.
2. Jenna Scarbrough, "Where Does the Word 'Meme' Come From?," Mentalfloss, July 1, 2017, http://mentalfloss.com/article/61843/what-is-a-meme.
3. Eileen Brown, "The Maths behind the Memes: Why We Share on Social Media," ZDNet, July 25, 2017, https://www.zdnet.com/article/the-maths-behind-the-memes-why-we-share-on-social-media/.
4. Nicki Lisa Cole, "What Makes Memes So Catchy?," ThoughtCo., December 28, 2017, https://www.thoughtco.com/science-of-memes-4147457.
5. Alex Yok, "Marketing Memes: Do They Work?," *Sprout Blog*, November 24, 2015, https://sproutsocial.com/insights/marketing-memes/.
6. "Grandma Finds the Internet," Know Your Meme, last updated May 20, 2014, https://knowyourmeme.com/memes/grandma-finds-the-internet.
7. "Shia LeBeouf's Intense Motivational Speech / Just Do It," Know Your Meme, last updated November 12, 2015, https://knowyourmeme.com/memes/shia-labeouf-s-intense-motivational-speech-just-do-it.

Connections, Conversations, and Visibility

How the Work of Academic Reference and Liaison Librarians Is Evolving

Anna Marie Johnson

Anna Marie Johnson *(annamarie@louisville.edu), Head, Research Assistance and Instruction, Ekstrom Library, University of Louisville.*

The work of reference, subject, and liaison librarians is evolving, rapidly in some cases. This article provides an overview of the new roles that these librarians are involved in based on an extensive review of the literature in these areas over the last ten years. While some of these roles have been extensively covered in bibliographic essays of their own (data management, changes to information literacy instruction), this article attempts to provide a broader view of the situation, along with highlighting salient examples of the ways that librarians are trying to forge new and different connections with faculty and students, facilitate important conversations, and stay visible and relevant on their campuses.

> The mind of the reference librarian is alive with the manifold and marvelous combinations and connections reference work affords, pathways that serendipitously intersect.[1]
>
> —Anthony Verdesca

Historically, reference, liaison, and subject librarians performed the role of connecting people to the information they needed in a visible way, sitting behind a reference desk or, since the 1970s, in front of a classroom full of students for information literacy instruction. Even the presence of print reference collections indicated the librarians who worked with those materials. As fewer reference librarians sit at public desks, as face-to-face instruction moves partially or entirely online, and as users simply click through a Google search to get to the information they need, how do academic reference librarians continue to be visible and connected to the students and faculty they are supposed to be helping? Some, like Tyckoson and Sousulski, argue that the goal of connecting people to the information they need hasn't changed, but that the methods employed have and will need to continue to change.[2]

This idea of the evolving role of the reference and liaison librarian is well rooted. More than seventeen years ago, Pinfield described how the work of subject librarians was changing and how it included all the traditional roles (collections, instruction, and reference work) along with new roles such as "more emphasis on liaison with users," "advocacy of the collections," the much more complicated "selection of e-resources," "working with technical [IT] staff," "organizing the information landscape," and "working with teams," among other things.[3] Twelve

Reference & User Services Quarterly, vol. 58, no. 2, pp. 91–102

years later, Jaguszewski and Williams stated that "the liaison role in research libraries is rapidly evolving," and they too called for liaisons to play two roles: advocate and consultant, "both with an emphasis on campus engagement."[4] Wilson also pointed to the role of the subject liaison as a consultant: "Consultants make connections, network, enhance fundamental facets of the organization, listen and ask pertinent questions to help the organization thrive."[5] This act of listening and asking questions is really the act of conversation, which is a goal common to many types of libraries and librarians, not just academic ones, but it is perhaps one too easily forgotten or lost in the drive to demonstrate our value with statistics. Lankes defined the mission of librarians as "improve[ing] society through facilitating knowledge creation in their communities."[6] He argues that people learn through conversation and that librarians both participate in and facilitate those conversations. This seems especially resonant in a higher-education environment that is becoming at once more interdisciplinary and more competitive.

On the basis of an extensive literature review from the last ten years, this article examines the current state of reference and liaison librarianship, including the challenges it faces, and highlights interesting ways academic librarians are working to remain visible, connected to students and faculty, and help facilitate important conversations. While many of these topics could be bibliographic essays in and of themselves (data management or changes in information literacy instruction, for example), this article is an overview intended to provide threads for readers to pursue further on their own.

REFERENCE LIBRARIANS, SUBJECT LIBRARIANS, AND LIAISON LIBRARIANS

In the literature, authors refer to reference, subject, and liaison librarians. While each of these positions can have slightly different sets of responsibilities, particularly at larger institutions, they all traditionally have the goal of connecting the university community with the information it needs, whether that is in the form of selecting books or databases or helping students and faculty learn to use them. At many institutions, reference librarians have had different combinations of these duties: collection development, reference, and instruction. Throughout the article, the terms "reference librarian," "subject librarian," and "liaison librarian" will be used interchangeably. At times, depending on the depth of their involvement or the preference of the library for particular terminology, these librarians might be referred to as "embedded."[7] While libraries are starting to change terminology, there is no consensus on what to call this evolving role, and the articles examined referred to them in all of those ways. Houston reports no agreement from a 2014 survey of RUSA members.[8] At many larger institutions, reference librarians tended to be more involved in instruction while subject or liaison librarians often were more involved in collections. At many small to mid-size universities, the reference department has historically filled all these roles, which are thus synonymous for the purposes of this review.

THE REFERENCE DESK: LIBRARIANS VISIBLE TO THEIR COMMUNITIES

Research support was most often and most visibly provided at a physical desk, but many articles cite the declining statistics at reference desks;[9] others note that the quality of online reference-desk alternatives to which faculty and students can turn for quicker answers is as high or higher than physical reference desks.[10] Combine this phenomenon with the twin emphases in higher education of the need for more accountability on the part of stakeholders and continually more research funding—which is simultaneously more competitive to obtain—and the situation for reference and liaison librarians becomes both a threat and an opportunity.[11] The hopeful viewpoint is that the liaison model is poised to be the library's bridge to these areas. As Kenney says in her report for Ithaka S&R, "Leveraging the liaison model will be critical to illustrating that the library is more than a purveyor of content and that its expertise is an essential component of the academic knowledge infrastructure on and off campus."[12]

For liaisons who consider themselves first and foremost tied to the research and instructional support aspects of the job, the reference desk features prominently in the literature. Some libraries have removed librarians from a physical desk, are in the process of doing so, or recognize the need to do so. The University of Central Florida Libraries reports that they reduced the hours that subject and reference librarians sit at the desk and that they are contemplating letting it go all together.[13] A University of Connecticut librarian described dismantling their reference collection and going to a distributed model of reference,[14] while a medical library discontinued their on-call schedule and then reinstated a hybrid model when problems arose.[15] Despite this clear movement away from the visible symbol of the job, the desk still looms large in the psyche of reference librarians. There are recent case studies,[16] opinion articles,[17] transaction analyses,[18] and even an ode that continue to discuss its presence in libraries.[19] For many reference librarians, the desk remains a tangible symbol of their mission and work, despite statistics that no longer support this model and the resulting call in the literature that it is time to let it go.[20]

The quality of the answers provided at the desk has long been a point of contention,[21] and now that there are alternatives such as collaborative answering services like Yahoo! Answers that outperform comparable library services (chat and email reference) in many factors, the decline in statistics is likely to continue.[22] In a national survey librarians in libraries where MLS-holding professionals were removed from the reference desks perceived that service level had declined, however the authors note that the comments from the survey indicated librarians looked to services provided by other libraries for comparison rather than their own user population expressing a need for an additional service. “This lack of identifying the need to solve problems or meet information needs suggests that many librarians’ judgements of quality may be comparative rather than based on objective measures of efficacy or impact.”[23] Another library that examined its own questions and answers received after librarians were removed from the desk found that the presence or absence of a desk made no real difference in the number of research questions received and that those questions still made their way to the librarians.[24] Other libraries that have studied the questions received at the desk report that only a small amount of “just-in-time” questions require a librarian.[25] In the end, each library has to consider the value of having librarians visible at a public desk in the context of its own services.[26]

The decline in reference desks staffed with librarians does not indicate the end of the reference librarian. Nolen notes that while many articles call for the end to a passive model of sitting and waiting for questions in a particular space (whether physical or virtual), few authors call for the complete end to librarians assisting people with their information needs.[27] Others note that helping people find and use the information they need, however that might happen,[28] and the need for humans to help students from diverse backgrounds will be still be important for a long time, especially in interpreting or finding hard-to-access information or simply understanding the increasingly complex information landscape.[29]

INVOLVEMENT IN COLLECTION DEVELOPMENT

The historical role that reference librarians have played in collection development is changing. With the advent of patron-driven acquisition as an addition to the long-standing and widespread use of approval plans, librarians’ involvement in title-by-title selection has dwindled. Reference librarians in particular are examining their print collections, and many are moving them or weeding them extensively, thus de-coupling reference librarians from the collections that shared their name.[30] In addition, as more libraries renovate to clear floors of books to make way for student study areas,[31] the visible link between librarians and specific collections of information is broken.

Certainly the reference librarians’ role as connector to a printed collection of materials is in the past as they unbind themselves from their eponymous collections,[32] and the luxury of a subject bibliographer with time to do title-by-title selection is quickly disappearing despite new evidence from one institution that firm orders circulate more than approval plan orders.[33] A 2012 survey of Australian librarians indicated that collection development would be less important in the future.[34] Others have predicted the future of collection development will look very different from its past,[35] and librarians will need to think creatively and add options such as print-on-demand to their collections toolbox. Faculty will continue to need access to research materials, and increasingly these materials are taking different forms such as data sets and streaming media; consequently, subject and liaison librarians must retain a role in and connection to the collection.[36] However the role of librarians in collections evolves, their knowledge of and advocacy for the collection will likely remain important for the foreseeable future. Performing higher-level statistical collection analysis may remain important, but librarians will be moving away from the granular, title-by-title involvement to a more data driven, birds-eye view. Examples of this type of collection analysis in the literature include the utilizing usage statistics to gauge the strength of the collection,[37] to provide comparison data with other libraries,[38] and to provide data for discussions with faculty about the types of assignments used in and thus resources needed for their courses.[39] Additional examples include database overlap comparisons,[40] analyzing reference chat transcripts to improve management of electronic resources,[41] and combining usage statistics with citation studies to evaluate a large journal package.[42] While these are just a smattering of examples, they represent attempts to match collections to curriculum and faculty research needs, and to provide librarians a more systematic way of crafting the best collection for the library’s constituents. Nevertheless, because of the new ways users often seamlessly connect to the library resources through the internet, the librarians’ behind-the-scenes analyses could easily remain invisible.

INFORMATION LITERACY INSTRUCTION

As the librarians’ role on the reference desk has declined, the role of instructional support or information literacy instruction has greatly increased. The literature on the reference and liaison librarians’ responsibility in information literacy and research instruction is voluminous.[43] Instructional support to both faculty and students has been the focus of much of reference librarianship since the 1970s.[44] Teaching in a variety of capacities—whether for-credit information literacy classes, one-shots, or online—has become a regular and often required duty of reference librarians.[45] There is a wealth of literature about instructional support; each year hundreds of articles discuss it,[46] and it has been viewed as a means to connect librarians to student learning outcomes.[47] Connecting reference and subject librarians to students’ academic success has been valuable for the profession’s visibility, and it clearly continues to be a promising avenue for the future.

Along with many articles about improvements to or assessment of the one-shot model of instruction, recent articles have started to emphasize the role of the reference or liaison librarian in research assignment design,[48] helping to design the entire course if the librarian is part of an instructional team,[49] or ways in which they support students that faculty may not be privy to, such as helping students focus their topics.[50] Others are working to increase the visibility of subject and reference librarians through instruction in general,[51] through genuine partnerships on instructional sessions as opposed to simply providing a "service,"[52] or demonstrating that the library's instructional role can impact retention and graduation rates.[53] Another approach that can positively affect the integration of information literacy instruction is placing instruction librarians on campuswide committees tasked with creating interventions to increase student success.[54] These instructional roles continue to be promising for campus visibility as librarians connect themselves to institutional efforts to focus on student learning outcomes and students' postgraduation success. The results of the most recent Ithaka survey show that faculty saw this role for librarians expanding.[55] While instruction continues to hold promise for reference and subject librarians, face-to-face instruction cannot be infinitely expanded. Online instruction will likely continue to grow, but librarians will have to be cognizant of the dangers of invisibility here, too.

If the historical role of reference desk staffing is disappearing and changes in collection development and instruction also have the potential to decrease reference and subject librarians' obvious and visible connections to their users, how do these librarians maintain their visibility and continue to demonstrate their value? To answer this question, the rest of this article examines the literature on reference librarians and the roles they are taking on to stay connected to their institutions' teaching and research missions.

ENGAGED LIAISONS AND EVOLVING WORK

In 2001, Frank called for a more "dynamic, communicative, and customized approach" to the traditional liaison role that he referred to as *information consulting*.[56] More recently, Case wrote that it is imperative that libraries become involved in the faculty research process, noting that "if we remain distant providers of electronic resources and the occasional instructor in the classroom, we run the risk of losing faculty support in tight budget times. . . . We must be visible; we must be at the table—both for the sake of the long-term survival of digital scholarship and of ourselves."[57] Auckland articulates this same sentiment as she describes her report for the Research Libraries of the United Kingdom (RLUK): "Research libraries and their Subject Librarians face the challenge of ensuring that they remain relevant and visible in this environment of diverse support and service provision."[58]

Some reference librarians are taking on this challenge. For example, George Washington University's health science reference librarians reported on their new roles in curriculum development, publishing support, technology support, admissions and compliance, and consulting in African countries.[59] Auckland's report sees potential roles for involvement in systematic reviews, knowledge of datasets, metadata creation, virtual networking advisory, data mining, involvement in measuring effect and quality of research, and data preservation.[60]

Providing new and innovative support for faculty and student research still involves the concept of connection, the traditional role of reference librarians. Reference librarians as connectors was a theme in several articles. Sullo and Gomes point to this in their experience as health science reference librarians.[61] Whatley notes, "Building relationships is becoming the essence of what it is to be a liaison librarian—one that connects users with their information needs, whatever the format and whatever the technology."[62] In the words of LaRue, "The profession is all about connection. . . . Visible librarians link a bustling central hub to the community. They are readily available . . . and highly expert."[63]

These are different ways of talking about the same work and skillsets. Building relationships, listening to people's information needs, and making the connection to an information source are all skills that reference and liaison librarians have. But how will reference librarians manifest these skills in this new information landscape? What does this work look like? Although Jaguszewski and Williams aspirational "engaged" liaison is one who "seeks to enhance scholar productivity, to empower learners, and to participate in the entire lifecycle of the research, teaching, and learning process," the current reality is that while the profession might be moving in that direction, most institutions are not quite there.[64]

REWRITING THE JOB DESCRIPTION OF THE REFERENCE AND LIAISON LIBRARIAN

Many library administrators have been contemplating the work of their liaisons in light of obvious need to provide research support in a different way. Goetsch proposes four new roles for what she terms "renaissance librarians": consulting, information lifecycle management, networked and unique collection building, and information mediation and interpretation.[65] In the RLUK report from 2012, Auckland says "a shift can be seen which takes Subject Librarians into a world beyond information discovery and management, collection development and information literacy training to one in which they play a much greater part in the research process and in particular in the management, curation and preservation of research data, and in scholarly communication and the effective dissemination of research outputs."[66] University of Minnesota was one of the first to realign their liaisons' work to incorporate scholarly communication, a strategic focus for the library.[67] The Duke University Library includes engagement, teaching and learning, research services, collection development, digital tools, scholarly communication, and possibly other areas depending on the position.[68] Several other libraries have recently rewritten liaison librarian position descriptions to include these types of activities. Examples include Ohio State, Grand Valley State, and the University of Washington.[69] MIT Libraries recently published an article describing a "paradigm shift" in their liaison program while the University of

Texas describes two iterations of liaison reorganization in the past two years.[70]

SUBJECT LIBRARIANS VERSUS FUNCTIONAL EXPERTS

Additionally, libraries are reconsidering the structure of liaison programs including the roles of both functional and subject expertise. Functional experts include librarians with a high level of proficiency in areas such as online learning, technology, programming, scholarly communications, assessment, etc. Although a few libraries are moving away from a model of subject expertise, most seem to be retaining this model.[71] The question then becomes twofold: (1) Do functional experts work within the same department, often a reference or instruction-type department, alongside subject experts or does this expertise exist elsewhere in the library? (2) If the latter, how is communication structured between these groups to support smooth and consistent customer service? One recommended approach is "teaming," where groups of librarians come together over particular projects as opposed to being assigned to ongoing, fixed groups.[72] Hansson and Johannesson discuss the competencies of liaisons versus functional specialists in their examination of the actual daily work of Swedish librarians in supporting faculty research and publication.[73] Macaluso and Petruzzelli consider it best if functional expertise is in the reference department, but if it can't be, everyone has to be on the same page about the type and level of service provided in that functional area to make appropriate referrals.[74]

Restructuring and considering new models are foundational work for liaison programs, but what is the work that these "engaged liaisons" are doing? The literature contains many examples. Gibson and Mandernach surveyed ten library websites and followed up with phone calls. They found most of the libraries had removed librarians from their reference desks and were being proactive about offering a broader suite of research services, including "grant support, user experience, better instructional support, basic data management services, copyright consultations, focus on scholarly communications, digitization projects, digital centers that assist with data software, embedding information literacy into the curriculum, and digital scholarship."[75] Other articles gave more specific examples of new(er) work for subject and liaison librarians. Colding and Venecek, for example discuss the Subject Liaison Initiative, which was part of a multiyear plan across the University of Central Florida Libraries to "increase the libraries' impact on student engagement, learning, retention and graduation . . . and faculty teaching research, publications, and grant success."[76] Their plan included more visibility for librarians by highlighting them on digital signage, a new website, and newsletters. The librarians themselves created in-depth profiles of faculty and departments, met one-on-one with faculty when possible, and mapped the curriculum to find places where research instruction might be needed.

BEGINNING A CONVERSATION: LISTENING TO FACULTY NEEDS

Another means of discovering new roles is to begin conversations with the faculty. Brewerton, in summarizing the 2012 RLUK report, noted that many libraries are not starting with the needs of the researcher in mind but rather simply extending the traditional work of subject librarians.[77] Efforts are beginning to be made to correct this problem. At the University of Kansas, librarians conducted a survey of faculty which they followed up with focus groups and individual interviews. Their findings showed that faculty lacked time to explore what the library could do for them and that they struggled with data management and saw the library as a connector to other important resources that could assist their research.[78] Other researchers advocate getting outside the library and/or talking directly with faculty. Falciani-White interviewed nine faculty members about their research, while the University of Nottingham has a team of librarians whose job is simply engagement and relationship management with faculty and other campus entities.[79] Falciani-White suggests "Ask specifically how faculty organize their research and what they wish could be improved. Find out ways in which partnering with the library would improve faculty productivity and ultimately better meet the needs of their students."[80] Kenney notes that the literature on the liaison model is starting to call for a shift "away from the work of librarians to that of scholars" and letting that guide the liaison work.[81]

So, what do scholars need? Results from a survey of faculty at HBCUs show that faculty say they need "library staff with technical and scholarly expertise and reference or research librarian[s]"[82] Faculty reported needing a statistician, expertise in software use, computer programming, and database administration, web development. Change is slow to come however. Phoenix and Henderson's survey of HBCUs indicated that library liaisons most often were engaged with faculty regarding collections but that they also performed instruction to support research, organized library services for and/or with an academic department, and provided literature review assistance. Further down the list with 30 percent or fewer respondents reporting this type of assistance were: how to get research published, how to write research reports, how to plan research, and how to organize research documentation.[83]

NEW WORK: FACULTY RESEARCH AND STUDENT SUCCESS

Despite an uneven start, it is evident libraries are becoming more heavily involved in the faculty research process and with teaching as well as student success. The following sections are not intended to be a comprehensive literature review but rather to provide salient examples from the literature of reference and liaison librarianship as to what the future might hold for reference librarians freed from a desk but who want to retain their visible position to be of the most assistance to the students and faculty they serve. The sections start with articles grouped around faculty-focused services and then move into efforts geared more toward supporting universities student success initiatives, although the two are at times intertwined.

Copyright/Open Access/Scholarly Communication/Publishing

Malenfant describes a sea change at the University of Minnesota where supporting aspects of scholarly communications including education and promotion was made a part of every liaison librarian's job duties. Malenfant says that this involved the librarians "adopting a new skill set—advocacy and persuasion—and developing a new knowledge base around the system of scholarly communication" noting that "these are two very substantial endeavors."[84] Eddy and Solomon describe how they helped migrate a journal to open access platform; made very in-depth recommendations; and performed co-citation and co-word analysis. This is one of the better (if not slightly daunting) examples of new and innovative work by librarians supporting faculty in their research.[85] Librarians at Cornell used the Web of Science database to see if authors from their institution were complying with copyright when Elsevier launched a takedown campaign after having found its articles freely available.[86] The Cornell librarians saw this as opportunity to educate faculty on author publication agreements, open access journals, and copyright.

Data Management/Data Curation

Consulting with faculty on data management, curation, and preservation is widely discussed in the LIS literature. In their faculty focus groups and interviews, librarians at the University of Kansas found that "five of the top 10 challenges participants discussed revolved around data." They noted that "Data issues described by participants varied widely, consistent with a broad range of discipline-specific needs and corresponding definitions of 'data.'"[87] The most cogent argument for why reference librarians could and should be involved in data management or preservation was made by Carlson in the article "Demystifying the data interview: Developing a foundation for reference librarians to talk with researchers about their data." He argues that because of their reference interviewing skills, reference librarians are well positioned to take up data management interviewing and consulting. He says "reference librarians in particular are well-suited to raise awareness and identify researcher needs; skills that are essential given the diversity and variability of these needs." The skills include "negotiation skills, coordination of practice across an institution, advocacy, promotion, marketing, raising awareness, and complaints and expectation management. Carlson notes that there are not yet any disciplinary data standards and hardly any patterns can be discerned in how researchers in different disciplines deal with data."[88] So much work remains in this area as Cox explains, and Awre explores data management as a "wicked problem"[89] but the University of California, Berkley describes a training program they instituted to provide their liaisons with skills in data management from a subject perspective as one means of tackling the data issue.[90] Given that data is not a passing fad, reference and liaison librarians need to consider the role they want to play in this area if they are to be visible and connected.

The need to move into this area is clear. As Gabridge states, "It is important to realize that services like this are a major component of libraries' future. Ensuring that the complex output of the research enterprise is collected and is reusable by others is central to the ongoing mission of research libraries."[91]

Other Involvement in Faculty Research

As early as 2005, Goetsch notes that MIT and Purdue libraries were including "research partner" as part of the roles in their job advertisements,[92] but no literature was found that discussed how to track or monitor faculty research and teaching even though many authors noted this as part of liaison librarians' work. While Case mentions creation of metadata and advising on preservation of research outputs being requested by faculty,[93] and Aukland names these as areas where research or subject librarians could assist faculty,[94] there were no case studies in the literature specific to reference or liaison librarian involvement. It is possible there are examples in the archival literature but that was beyond the reach of this review. Health science librarians have long been involved in systematic reviews and are now involved in scoping reviews.[95] Social sciences librarians have supported these kinds of reviews too.[96]

Some libraries have a service to provide customized searches and delivering of the results in citation managers such as EndNote. One example is the University of La Trobe (Australia) conducted a pilot of the service to all faculty and documented the number of searches and amount of hours spent, which averaged a little more than 8 hours per search. In addition, this same university initiated a Research Impact Service which initially involved creating several LibGuides directing faculty and graduate students to the various tools they could use to demonstrate their research impact and many workshops to highlight the LibGuides. These efforts led to the creation of the Research Impact Service wherein librarians complete a report for a faculty member.[97]

Learning Commons

Surprisingly, while the literature on learning commons is extensive, articles on the role of reference or subject librarians in the learning commons were harder to find. Older articles discussed the user preference for meeting with a librarian at a desk in the commons,[98] but ten years later that is no longer a popular option and doesn't reflect the current trend of moving librarians off the desk.[99] One article noted the collaboration skills of reference librarians being essential in the functioning of a productive learning commons,[100] but a more recent article was less hopeful, arguing that geographical proximity of learning commons partners is not nearly as effective as organizational proximity where all partners are under the same organizational structure. With organizational proximity, the entities involved can "transmit knowledge, learn from each other, develop a shared understanding for innovation, and collaboratively develop deeper integration for holistic learning."[101] This is essentially the facilitating conversation aspect of liaison and reference librarians' evolving roles.

Textbook Cost Reduction Efforts/ Open Educational Resources (OER)

Goodsett offers a case study of a subject librarian working with a faculty member at Cleveland State University to create an OER. The library had hosted a workshop on open textbooks that had sparked the faculty member's interest.[102] North Carolina State University's science research librarians worked with a faculty member to create a textbook that covered the emerging interdisciplinary field of biotextiles for which no textbook existed.[103] This was a part of NC State's Alt-Textbook project.[104] Libraries can also be leaders in a larger OER movement. Examples include the University at Buffalo and Buffalo State University Libraries who both have webpages educating faculty about the OER movement as a part of a larger New York State educational initiative.[105]

Makerspaces

Reference librarians' role in makerspaces seem to be minimal at this point, although in at least one case, the makerspace is housed in a reference department. Indiana University, as a part of their Reference Services and Scholars' Commons area has a librarian with a "maker cart" who conducts programming for students and faculty on the possibilities of new and emerging technologies.[106] At the opposite end of the spectrum, Appalachian State University's Belk Library contains a makerspace that includes both old and new technologies including a sewing machine as well as a 3D printer. The space is staffed by IT staff and while it is located inside the library, it does not have close ties to the reference/research librarians.[107] Meanwhile, both of North Carolina State University's libraries have makerspaces with extensive arrays of equipment with multiple exhibit areas to display students' work resulting from the use of the libraries' makerspaces. The space is staffed with personnel from a makerspace unit and from the Learning Spaces and Services unit and are separate from the work of the reference and liaison librarians.[108]

Learning Analytics

Learning analytics involves tracking student learning data and analyzing it with the goal of improving student achievement and retention. While libraries are already doing this on a limited basis, at least one article was found where learning analytics and library services, including specifically library workshops, were integrated into the university's larger data warehouse providing weekly updates that could be used to steer students toward use of the library when it would be beneficial to them.[109] Oakleaf notes an increasing trend in higher education to use learning analytics. One of her articles on this topic provides guidance on questions to ask and ways to prepare librarians to be a part of these campus-wide discussions and ultimately this work, while the other establishes a more detailed and concrete model of what this integration could look like.[110]

NEW CHALLENGES

The aforementioned areas represent a variety of new work that reference and liaison librarians can possibly undertake and in many cases already are undertaking. It is important, however, to examine the additional challenges of assessment, workload, and skill acquisition that are present in this transition.

Assessment

Although many articles touch on the idea of assessing liaison and research services and clearly many are thinking about the importance of the impact of this work,[111] no one model has emerged for doing so. Broughton at Ohio University worked with colleagues to develop a matrix to measure librarian engagement on campus. Librarians rated their departmental relationships after one year as to whether they were emergent, generative, or productive as defined by the matrix.[112] She noted that the value was in the conversation that the librarians had to create the matrix. Kenney provided an example assessment for determining "Base Level, Good, and Better" in aligning liaison activities with library goals.[113] Probably the most comprehensive resource at this point is the 2014 book from ACRL *Assessing Liaison Librarians: Documenting Impact for Positive Change*. Examples from The Ohio State Libraries highlight programmatic evaluation which attempts to measure effectiveness by looking at "How many undergraduate students consult a librarian for help to write a paper or report greater than 5 pages" or "are faculty working with liaison libraries to plan and deliver information literacy instruction." These evaluation questions make it evident that they are thinking in terms of information literacy and more traditional research consultations.[114] Later in the text White provides more of a focus on other aspects of the "research suite of services" by including rubrics for the different areas of liaison work including expectations, organizational and individual activities. An example of an expectation would be "keep abreast of emerging and waning research and teaching interests and develop appropriate strategies" while the individual activities would include "Monitor and read professional literature of the disciplines. Participate in departmental activities. Meet with faculty and students individually to understand research needs."[115] Perhaps more manageable for most libraries, Mack offers good advice "start small and start immediately."[116] As a starting point, Cornell modified their Reference and Instruction tracking system (called Count-It) to track interactions with faculty.[117]

Increasing Workload and Additional Skill Sets

While the possibilities for working more closely with faculty and students are exciting, the problem continues to be how do librarians manage these increased workloads? Church-Duran raises this point when she notes the need for strategic direction.[118] So, on the one hand librarians need to move quickly and be experimental but not take on too much at once. Still, something will likely have to give. Time associated with a service desk, is a likely candidate, followed by individual title selection in collection development and these trends are already evident and documented earlier in this essay. Will that be enough though?

Additionally, what new skills does this work encompass? Tyckoson says that for reference librarians "the ability to work with the user to figure out what information they really need—the reference interview—and the ability to search the Web and other sources to find material to meet that need" should be the focus of their training.[119] Houston highlights the skills that, while not new, are becoming increasingly important: consulting, teaching, interpreting, advocating, programming, user experience, and design thinking.[120]
How does one liaison librarian have all the skills needed, especially since Aukland notes that so few training and professional development opportunities exist?[121] Jaguszewski and Williams argue that the "base level of knowledge that a liaison must possess is much broader than familiarity with a reference collection or facility with online searching; instead they must constantly keep up with evolving pedagogies and research methods, rapidly developing tools, technologies, and ever-changing policies that facilitate and inform teaching learning and research in their assigned disciplines." They note that while librarians won't have to be "experts in these areas," they will need to have a "fundamental understanding" in order connect patrons to the best experts possible such as experts in copyright, data, and software.[122] This shift to new work "represents a significant rewrite of the basic skills and services typically associated with liaison librarianship."[123] Efforts such as ACRL's data workshops may provide a way forward, but likely more will need to be done in this regard.[124]

Connecting the Need with the Service

The literature demonstrates that while many are calling for change, that change is slow to occur. Hollister and Schroeder, for example, conducted an exploratory survey of sixty education faculty, the majority of whom believed librarians could be helpful in the following areas: information access and retrieval; grant-related activity, management of literature, selection of traditional or alternative publication venues, management of intellectual property, copyright, publications, postprints; storage, management or analysis of research data; increased professional visibility; promotion and tenure support. With the exception of information access and retrieval though, a much small number of faculty reported actually receiving help from librarians in those areas.[125] So, while there appears to be a need expressed by faculty for assistance in this areas, it is unclear if librarians do not feel they have the training to meet these needs, if they are unaware of them, or if they simply are not able for organizational reasons to respond.

Cox and Verbaan shed light on why this might be from their survey of librarians, information technology staff, and research administrators at one university in the United Kingdom. They found that librarians and information technology staff thought about research support predominantly in terms of infrastructure and that many other differences between the conceptions of research support existed. They argue that "all these differences reflect fundamental gaps between librarians' conceptions of research and that of researchers themselves."[126] They point out that this gap exists in part because libraries and IT view faculty researchers as just one set of clientele. Libraries also serve faculty who are teaching, students, and the community for example. It would seem though that faculty researchers who are central to the goals of a research university are clientele who should be a priority for librarians at those institutions.

CONCLUSION

It is clear from this review that reference and liaison librarianship is in flux and faces threats in the forms of invisibility and disconnection. For liaison librarians trying to establish more productive partnerships with faculty, the reality is that most librarians are in the position of Olivares when she describes herself as "sufficiently embedded" meaning she does instruction, creates guides, has good relationships with several of her departments.[127] It seems imperative if reference and liaison librarians are to remain vital to their academic mission, that they find a way to look beyond "sufficiently embedded" to explore what it might look like if they were to inextricably link themselves to the research and teaching enterprise in a systematic way. For many liaison programs though, there are significant challenges. Cornell librarians concluded after an environmental scan, "most liaison programs in polled institutions are informal, fluid, with no dedicated funding, no formal training, no assessment tools, and no measures of performance."[128] Although measuring the power of relationship building may remain elusive, certainly many of these aspects can be addressed by reference and subject librarians as they move toward this work and these new roles.

The skills of listening, conversing, and making creative connections along with consulting, negotiating and managing expectations are all vital to reference and liaison librarians remaining a visible and thriving part of the academic community. The ways they are doing this have been highlighted in this review. Globally, they include becoming more closely and intimately involved in faculty research and teaching and being involved at the university level in efforts toward student retention and engagement. In these capacities, librarians can continue to make themselves visible to their community even if they are no longer at a public desk. Being visible to the community of faculty, staff, and students they serve is critical. "The visible librarian has a prominent seat at the community decision-making table, actively clarifies choices, provides reputable and relevant information, and through every action trumpets the unique contribution of the professional."[129]

References

1. Anthony Verdesca, "What's in a Word: Coming to Terms with Reference, Part Two," *Reference Librarian* 56, no. 3 (2015): 216–22.
2. David A. Tyckoson and Nicolette Warisse Sosulski, "'What Are We Stopping?' And 'What Is Shifting?,'" *Reference & User Services Quarterly* 56, no. 2 (2016): 87–90.
3. Stephen Pinfield, "The Changing Role of Subject Librarians in Academic Libraries," *Journal of Librarianship and Information Science* 33, no. 1 (2001): 32–38.
4. Janice M. Jaguszewski and Karen Williams, "New Roles for New Times: Transforming Liaison Roles in Research Libraries," report, Association of Research Libraries, August 2013, p. 16.
5. E. Michael Wilson, "The Role of Library Liaison as Consultant," *Kentucky Libraries* 77, no. 1 (2013): 14.
6. R. David Lankes, *The New Librarianship Field Guide* (Cambridge, MA: MIT Press, 2016), 17.
7. Abdullah Abrizah, Samaila Inuwa, and N. Afiqah-Izzati, "Systematic Literature Review Informing LIS Professionals on Embedding Librarianship Roles," *Journal of Academic Librarianship* 42, no. 6 (2016): 636–43.
8. Anne M. Houston, "What's in a Name? Toward a New Definition of Reference," *Reference & User Services Quarterly* 55, no. 3 (2016): 186–88.
9. Stephen P. Buss, "Do We Still Need Reference Services in the Age of Google and Wikipedia?," *Reference Librarian* 57, no. 4 (2016): 265–71; Steven J. Bell, "Technology Killed the Reference Desk Librarian," *Reference Librarian* 48, no. 1 (2007): 105–7; Scott Carlson, "Are Reference Desks Dying Out?," *Chronicle of Higher Education* 53, no. 33 (2007): A37–A39.
10. Pnina Shachaf, "The Paradox of Expertise: Is the Wikipedia Reference Desk as Good as Your Library?," *Journal of Documentation* 65, no. 6 (2009): 977–96.
11. Megan Oakleaf, *The Value of Academic Libraries: A Comprehensive Research Review and Report* (Chicago: Association of College and Research Libraries, 2010).
12. Anne R. Kenney, "Leveraging the Liaison Model: From Defining 21st Century Research Libraries to Implementing 21st Century Research Universities," Ithaka S+ R, March 25, 2014, p. 11.
13. Linda K. Colding and John Venecek, "There's Going to Be an Evolution: The Subject Librarian Initiative in Review," *Reference Librarian* 56, no. 2 (2015): 133–45.
14. Scott Kennedy, "Farewell to the Reference Librarian," *Journal of Library Administration* 51, no. 4 (2011): 319–25.
15. J. D. Feldman et al., "Making It Work for Everyone: An Evolving Reference Service," *Medical Reference Services Quarterly* 37, no. 1 (2018): 10–18.
16. Martin Garner, "Whither the Reference Desk 20th Century Values in a 21st Century Service Model," *International Information & Library Review* 48, no. 3 (2016): 211–16; Timothy Peters, "Taking Librarians Off the Desk: One Library Changes Its Reference Desk Staffing Model," *Performance Measurement & Metrics* 16, no. 1 (2015): 18–27; Rosanne M. Cordell, *Library Reference Services and Information Literacy: Models for Academic Institutions*, Advances in Library and Information Science (ALIS) Book Series (Hershey, PA: Information Science Reference, 2013).
17. Steven J. Bell, "Who Needs a Reference Desk?," *Library Issues* 27, no. 6 (2007): 1–4; Glenn Masuchika, "The Reference Desk, Points-of-Sale, and the Building of Loyalty: Applications of Customer Relationship Management Techniques to Library Marketing," *Reference Librarian* 54, no. 4 (2013): 320–31.
18. Emily K. Chan, "Analyzing Recorded Transactions to Extrapolate the Required Knowledge, Skills, and Abilities of Reference Desk Providers at an Urban, Academic/Public Library," *Journal of Library Administration* 54, no. 1 (2014): 23–32; Amy Gratz and Julie Gilbert, "Meeting Student Needs at the Reference Desk," *Reference Services Review* 39, no. 3 (2011): 423–38; Heather Empey, "Transaction Analysis of Interactions at the Reference Desk of a Small Academic Library," *Partnership: The Canadian Journal of Library & Information Practice & Research* 5, no. 2 (2010): 1–17.
19. Ron Russ, "Ode to a Reference Desk," *Arkansas Libraries* 72, no. 4 (2015): 6–6.
20. Sarah Barbara Watstein and Steven J. Bell, "Is There a Future for the Reference Desk? A Point-Counterpoint Discussion," *Reference Librarian* 49, no. 1 (2008): 1–20.
21. David A. Tyckoson, "Issues and Trends in the Management of Reference Services: A Historical Perspective," *Journal of Library Administration* 51, no. 3 (2011): 259–78.
22. Chirag Shah and Vanessa Kitzie, "Social Q&A and Virtual Reference—Comparing Apples and Oranges with the Help of Experts and Users," *Journal of the American Society for Information Science & Technology* 63, no. 10 (2012): 220–36.
23. Jason Coleman, Melissa N. Mallon, and Leo Lo, "Recent Changes to Reference Services in Academic Libraries and Their Relationship to Perceived Quality: Results of a National Survey," *Journal of Library Administration* 56, no. 6 (2016): 694.
24. Hazel McClure and Patricia Bravender, "Regarding Reference in an Academic Library," *Reference & User Services Quarterly* 52, no. 4 (2013): 302–8.
25. Debbi Dinkins and Susan M. Ryan, "Measuring Referrals: The Use of Paraprofessionals at the Reference Desk," *Journal of Academic Librarianship* 36, no. 4 (2010): 279–86.
26. Buss, "Do We Still Need Reference Services."
27. David S. Nolen, "Reforming or Rejecting the Reference Desk: Conflict and Continuity in the Concept of Reference," *Library Philosophy & Practice* (2010): 1–9.
28. Tyckoson and Sosulski, "'What Are We Stopping?' And 'What Is Shifting?.'"
29. Aditi Bandyopadhyay and Mary Kate Boyd-Byrnes, "Is the Need for Mediated Reference Service in Academic Libraries Fading Away in the Digital Environment?," *Reference Services Review* 44, no. 4 (2016): 596–626.
30. Anna Marie Johnson, Susan Finley, and Claudene Sproles, "Dismantling the Reference Collection," *Reference Librarian* 56, no. 3 (2015): 161–73.
31. Marcene Robinson, "UB Reopens Silverman Library after Two-Year $7 Million Renovation," *UBNow*, August 24, 2016, https://www.buffalo.edu/ubnow/stories/2016/08/silverman-reopening.html.

32. Johnson, Finley, and Sproles, "Dismantling the Reference Collection"; Kennedy, "Farewell to the Reference Librarian."
33. Irene Ke, Wenli Gao, and Jackie Bronicki, "Does Title-by-Title Selection Make a Difference? A Usage Analysis on Print Monograph Purchasing," *Collection Management* 42, no. 1 (2017): 34–47.
34. Gaby G. Haddow, "Knowledge, Skills and Attributes for Academic Reference Librarians," *Australian Academic & Research Libraries* 43, no. 3 (2012): 231–48.
35. Rick Anderson, "Collections 2021: The Future of the Library Collection Is Not a Collection," *Serials* 24, no. 3 (2011): 211–15.
36. Cheri Jeanette Duncan and Genya Morgan O'Gara, "Building Holistic and Agile Collection Development and Assessment," *Performance Measurement & Metrics* 16, no. 1 (2015): 62–85.
37. Maggie Liu, "Collection Analysis on Social Work: A Cost-Effective Approach," *Collection Building* 34, no. 2 (2015): 59–64.
38. Raine Wilen and Anneli Ahtola, "Collection Evaluation: Micro and Macro Levels—Preliminary Guidelines and the Results of a Pilot Study of Two Finnish University Libraries," *Signum*, no. 3 (2006): 39–43.
39. Karen C. Kohn, "Usage-Based Collection Evaluation with a Curricular Focus," *College & Research Libraries* 74, no. 1 (2013): 85–97.
40. Karen R. Harker and Priya Kizhakkethil, "The Quick and the Dirty: The Good, the Bad, and the Ugly of Database Overlap at the Journal Title Level," *Serials Librarian* 68, no. 1–4 (2015): 249–54.
41. John Kimbrough, "Technical Services and the Virtual Reference Desk: Mining Chat Transcripts for Improved E-Resource Management," *Serials Librarian* 74, no. 1–4 (2018): 212–16.
42. Stephanie H. Wical and R. Todd Vandenbark, "Combining Citation Studies and Usage Statistics to Build a Stronger Collection," *Library Resources & Technical Services* 59, no. 1 (2015): 33–42.
43. Latisha Reynolds et al., "Library Instruction and Information Literacy 2016," *Reference Services Review* 45, no. 4 (2017): 596-702.
44. Hannelore B. Rader, "Information Literacy 1973–2002: A Selected Literature Review," *Library Trends* 51 (2002): 242.
45. Robert Detmering and Claudene Sproles, "Forget the Desk Job: Current Roles and Responsibilities in Entry-Level Reference Job Advertisements," *College & Research Libraries* 73, no. 6 (2012): 543–55.
46. Reynolds et al., "Library Instruction and Information Literacy 2016."
47. Megan Oakleaf, "The Library's Contribution to Student Learning: Inspirations and Aspirations," *College & Research Libraries* 76, no. 3 (2015): 353–58; Oakleaf, The Value of Academic Libraries.
48. Ielleen R. Miller, "Turning the Tables: A Faculty-Centered Approach to Integrating Information Literacy," *Reference Services Review* 38 (2010): 647–62; Jesús E. Sanabria, "The Librarian and the Collaborative Design of Effective Library Assignments: Recommendations for Faculty on Question Design for Student Success in Research Assignments," *Collaborative Librarianship* 5, no. 4 (2013): 243–45.
49. Alex Mudd, Terri Summey, and Matt Upson, "It Takes a Village to Design a Course: Embedding a Librarian in Course Design," *Journal of Library & Information Services in Distance Learning* 9, no. 1/2 (2015): 69–88; Peggy A. Pritchard, "The Embedded Science Librarian: Partner in Curriculum Design and Delivery," *Journal of Library Administration* 50, no. 4 (2010): 373–96.
50. Dennis Isbell, "What Happens to Your Research Assignment at the Library?," *College Teaching* 56, no. 1 (2008): 3–6.
51. Eugene Barsky, Kevin Read, and Aleteia Greenwood, "Teaching Matters: Increasing Library Visibility through Integrated Classroom Instruction," *Partnership: The Canadian Journal of Library & Information Practice & Research* 6, no. 1 (2011): 1–5.
52. Yvonne Nalani Meulemans and Allison Carr, "Not at Your Service: Building Genuine Faculty-Librarian Partnerships," *Reference Services Review* 41, no. 1 (2013): 80–90.
53. Jesus E. Sanabria, "The Library as an Academic Partner in Student Retention and Graduation: The Library's Collaboration with the Freshman Year Seminar Initiative at the Bronx Community College," *Collaborative Librarianship* 5, no. 2 (2013): 94–100.
54. Vickie Lynn Mix, "Library and University Governance: Partners in Student Success," *Reference Services Review* 41, no. 2 (2013): 253–65.
55. Judith A. Wolfe, Ted Naylor, and Jeanetta Drueke, "The Role of the Academic Reference Librarian in the Learning Commons," *Reference & User Services Quarterly* 50, no. 2 (2010): 108–13.
56. Donald G. Frank et al., "Information Consulting: The Key to Success in Academic Libraries," *Journal of Academic Librarianship* 27 (2001): 90.
57. Mary M. Case, "Partners in Knowledge Creation: An Expanded Role for Research Libraries in the Digital Future," *Journal of Library Administration* 48, no. 2 (2008): 145.
58. Mary Auckland, "Re-skilling for Research: An Investigation into the Role and Skills of Subject and Liaison Librarians Required to Effectively Support the Evolving Information Needs of Researchers," *Research Libraries* UK, 2012, p. 4.
59. Elaine Sullo and Alexandra W. Gomes, "A Profession without Limits: The Changing Role of Reference Librarians," *Medical Reference Services Quarterly* 35, no. 2 (2016): 145–57.
60. Auckland, "Re-skilling for Research."
61. Sullo and Gomes, "A Profession without Limits."
62. Kara Whatley, "New Roles of Liaison Librarians: A Liaison's Perspective," *Research Library Issues* no. 265 (August 2009): 29.
63. James LaRue, "The Visibility and Invisibility of Librarians," *Library Journal* 135, no. 19 (2010): 10.
64. Jaguszewski and Williams, "New Roles for New Times," 4.
65. Lori A. Goetsch, "Reinventing Our Work: New and Emerging Roles for Academic Librarians," *Journal of Library Administration* 48, no. 2 (2008): 157–72.
66. Auckland, "Re-skilling for Research," 5.
67. Kara J Malenfant, "Leading Change in the System of Scholarly Communication: A Case Study of Engaging Liaison Librarians for Outreach to Faculty," *College & Research Libraries* 71, no. 1 (2010): 63–76.
68. Linda Daniel et al., "Engaging with Library Users: Sharpening Our Vision as Subject Librarians for the Duke University Libraries," Collections and User Services Council, January 14, 2011, https://libcms.oit.duke.edu/sites/default/files/dul/about/subject-librarian-report-2011.pdf.
69. Ohio State University Libraries, "The Framework for the Engaged Librarian: Building on Our Strengths," May 2016, http://cgs.illinois.edu/files/2016/05/Engaged_Librarian_FrameworkPDF.pdf; Ashley Rosener et al., "A Tale of Two Position Descriptions: Writing a New Liaison Librarian Position Description," *Library Leadership & Management* 30, no. 4 (2016): 1–11; University of Washington Libraries, "Subject Librarian Position Description Framework," http://staffweb.lib.washington.edu/units/cas/sl-portal/knowing/position-description-framework.
70. Karrie Peterson and Ellen Finnie, "MIT Libraries Liaison Program: A Paradigm Shift," *Research Library Issues* no. 294 (2018): 16–30; Jenifer Flaxbart, "Iterative Evolution of the Liaison Librarian Role: A Brief Case Study," *Research Library Issues* no. 294 (2018): 72–75.
71. Jaguszewski and Williams, "New Roles for New Times"; Laura Banfield and Jo-Anne Petropoulos, "Re-visioning a Library Liaison Program in Light of External Forces and Internal Pressures," *Journal of Library Administration* (2017): 1–19; M. J. D'Elia and Doug Horne, "Leaving Liaison Behind: Reflections on the Last Decade," *Research Library Issues* no. 294 (2018): 8–15.

72. Lisa Norberg and Deb Wallace, "Report on External Review: University of Toronto Libraries Liaison Librarian Program," 2015, https://librarians.library.utoronto.ca/wp-content/uploads/UTL-Liaison-Program-Review_Final-Report_May_15_w_cover_email2.pdf.
73. Joacim Hansson and Krister Johannesson, "Librarians' Views of Academic Library Support for Scholarly Publishing: An Every-Day Perspective," *Journal of Academic Librarianship* 39, no. 3 (2013): 232–40.
74. Stephan J. Macaluso and Barbara Whitney Petruzzelli, "The Library Liaison Toolkit: Learning to Bridge the Communication Gap," *Reference Librarian* 43, no. 89/90 (2005): 163–77.
75. Craig Gibson and Meris Mandernach, "Reference Service at an Inflection Point: Transformations in Academic Libraries" (paper presented, ACRL 2013 Conference, "Imagine, Innovate, Inspire," Indianapolis, Indiana, April 10–13, 2013).
76. Colding and Venecek, "There's Going to Be an Evolution," 137.
77. Antony Brewerton, "Re-Skilling for Research: Investigating the Needs of Researchers and How Library Staff Can Best Support Them," *New Review of Academic Librarianship* 18, no. 1 (2012): 96–110.
78. Amalia Monroe-Gulick, Greta Valentine, and Jamene Brooks-Kieffer, "'You Need to Have a Street Beat': A Qualitative Study of Faculty Research Needs and Challenges," *Portal: Libraries & the Academy* 17, no. 4 (2017): 777–802.
79. Jeanette Eldridge et al., "Strategic Engagement: New Models of Relationship Management for Academic Librarians," *New Review of Academic Librarianship* 22, no. 2/3 (2016): 160–75.
80. Nancy Falciani-White, "Understanding the 'Complexity of Experience': Modeling Faculty Research Practices," *Journal of Academic Librarianship* 42, no. 2 (2016): 125.
81. Kenney, "Leveraging the Liaison Model," 4.
82. Sandra Phoenix and Mantra Henderson, "Expanding Library Support for Faculty Research in Historically Black Colleges and Universities," Journal of Library Administration 56, no. 5 (2016): 582.
83. "Expanding Library Support for Faculty Research," 583.
84. Malenfant, "Leading Change in the System of Scholarly Communication."
85. Mark A. Eddy and Daniela Solomon, "Leveraging Librarian Liaison Expertise in a New Consultancy Role," *Journal of Academic Librarianship* 43, no. 2 (2017): 121–27.
86. Kenney, "Leveraging the Liaison Model."
87. Monroe-Gulick, Valentine, and Brooks-Kieffer, "'You Need to Have a Street Beat,'" 796.
88. Jake Carlson, "Demystifying the Data Interview: Developing a Foundation for Reference Librarians to Talk with Researchers About Their Data," *Reference Services Review* 40 (2012): 10–11.
89. Andrew M. Cox et al., "Developments in Research Data Management in Academic Libraries: Towards an Understanding of Research Data Service Maturity," *Journal of the Association for Information Science & Technology* 68, no. 9 (2017): 2182–99; Chris Awre et al., "Research Data Management as a 'Wicked Problem,'" *Library Review* 64, no. 4/5 (2015): 356–71.
90. Jamie Wittenberg, Anna Sackmann, and Rick Jaffe, "Situating Expertise in Practice: Domain-Based Data Management Training for Liaison Librarians," *Journal of Academic Librarianship* 44, no. 3 (2018): 323–29.
91. Tracy Gabridge, "The Last Mile: Liaison Roles in Curating Science and Engineering Research Data," in *Research Library Issues: A Bimonthly Report from ARL, CNI, and SPARC*, ed. Karla Hahn (Washington, DC: Association of Research Libraries, Coalition for Networked Information, Scholarly Publishing and Academic Resources Coalition, 2009), 15.
92. Goetsch, "Reinventing Our Work."
93. Case, "Partners in Knowledge Creation."
94. Auckland, "Re-Skilling for Research."
95. Joey Nicholson, Aileen McCrillis, and Jeff D. Williams, "Collaboration Challenges in Systematic Reviews: A Survey of Health Sciences Librarians," *Journal of the Medical Library Association* 105, no. 4 (2017): 385–93; Martin Morris, Jill T. Boruff, and Genevieve C. Gore, "Scoping Reviews: Establishing the Role of the Librarian," *Journal of the Medical Library Association* 104, no. 4 (2016): 346–53; Genevieve C. Gore and Julie Jones, "Systematic Reviews and Librarians: A Primer for Managers," *Partnership: The Canadian Journal of Library & Information Practice & Research* 10, no. 1 (2015): 1–16; Susan A. Murphy and Catherine Boden, "Benchmarking Participation of Canadian University Health Sciences Librarians in Systematic Reviews," *Journal of the Medical Library Association* 103, no. 2 (2015): 73–78.
96. Diana Papaioannou et al., "Literature Searching for Social Science Systematic Reviews: Consideration of a Range of Search Techniques," *Health Information & Libraries Journal* 27, no. 2 (2010): 114–22.
97. Sharon Karasmanis and Fiona Murphy, "Emerging Roles and Collaborations in Research Support for Academic Health Librarians" (paper presented at the Australian Library and Information Association National 2014 Conference, 2014).
98. Elizabeth B. Fitzpatrick, Anne C. Moore, and Beth W. Lang, "Reference Librarians at the Reference Desk in a Learning Commons: A Mixed Methods Evaluation," *Journal of Academic Librarianship* 34, no. 3 (2008): 231–38.
99. Michael LaMagna, Sarah Hartman-Caverly, and Lori Marchetti, "Redefining Roles and Responsibilities: Implementing a Triage Reference Model at a Single Service Point," *Journal of Access Services* 13 (2016): 53–65.
100. Wolfe, Naylor, and Drueke, "The Role of the Academic Reference Librarian in the Learning Commons."
101. Jo Ann F. Murphy, "A New Student Learning Focus for the Academic Library: From Geographical Proximity of the Learning Commons to Organizational Proximity within the Library," *Journal of Library Administration* 57, no. 7 (2017): 754.
102. Mandi Goodsett, Barbara Loomis, and Marsha Miles, "Leading Campus Oer Initiatives through Library–Faculty Collaboration," *College & Undergraduate Libraries* 23, no. 3 (2016): 335–42.
103. Alex Carroll, "When the Textbook You Need Hasn't Been Written Yet," North Carolina State Univeristy Libraries, January 19, 2017, https://www.lib.ncsu.edu/stories/when-the-textbook-you-need-hasn%E2%80%99t-been-written-yet.
104. "Alt-Textbook Project," North Carolina State University Libraries, accessed Octobe 30, 2018, https://www.lib.ncsu.edu/alttextbook.
105. "Open Educational Resources," University at Buffalo University Libraries, accessed October 30, 2018, https://library.buffalo.edu/scholarly/oer/; Buffalo State E. H. Butler Library, "Accessible Learning Materials Initiative," The State University of of New York, 2018, https://library.buffalostate.edu/almi; Carl Staumsheim, "A Mean Amount of Money," Inside Higher Ed, April 14, 2017.
106. "Maker Mondays," Indiana University Libraries, accessed October 30, 2018, https://libraries.indiana.edu/event-categories/maker-mondays.
107. Leslie Farison, interview by Anna Marie Johnson, October 6, 2017.
108. "Makespace at Hunt," Hunt Library, accessed October 30, 2018, https://www.lib.ncsu.edu/do/make-at-hunt.
109. Margie Jantti, Stephen Town, and Jennifer Heath, "What Role for Libraries in Learning Analytics?," *Performance Measurement and Metrics* 17, no. 2 (2016): 203–10.
110. Megan Oakleaf, "Getting Ready & Getting Started: Academic Librarian Involvement in Institutional Learning Analytics Initiatives," *Journal of Academic Librarianship* 42, no. 4 (2016): 472–75; Megan Oakleaf et al., "Academic Libraries & Institutional Learning Analytics: One Path to Integration," *Journal of Academic Librarianship* 43, no. 5 (2017): 45461.
111. Gibson and Mandernach, "Reference Service at an Inflection Point."

112. Kelly Broughton, “Developing a Matrix and Using Self-Reported Scoring to Measure Librarian Engagement on Campus,” *Performance Measurement & Metrics* 17, no. 2 (2016): 142–49.
113. Kenney, “Leveraging the Liaison Model.”
114. Sarah Anne Murphy and Craig Gibson, “Programmatic Assessment of Research Services: Informing the Evolution of an Engaged Liaison Librarian Model,” in *Assessing Liaison Librarians: Documenting Impact for Positive Change*, ed. Daniel C. Mack and Gary W. White (Chicago: Association of College and Research Libraries, 2014), 31.
115. Gary W. White, “Professional Development of Liaison Librarians: Fostering Skills for the Twenty-First Century,” in *Assessing Liaison Librarians: Documenting Impact for Positive Change*, ed. Gary W. White and Daniel C. Mack (Chicago, IL: Association of College and Research Libraries, 2014), 126.
116. Daniel C. Mack, “Assessing Liaison Librarians: Documenting Impact for Positive Change,” in *Assessing Liaison Librarians: Documenting Impact for Positive Change*, ed. Daniel C. Mack and Gary W. White (Chicago: Association of College and Research Libraries, 2014), 139.
117. Kenney, “Leveraging the Liaison Model.”
118. Jennifer Church-Duran, “Distinctive Roles: Engagement, Innovation, and the Liaison Model,” *portal: Libraries & the Academy* 17, no. 2 (2017): 257–71.
119. Tyckoson, “Issues and Trends in the Management of Reference Services,” 269.
120. Houston, “What’s in a Name?”
121. Auckland, “Re-Skilling for Research.”
122. Jaguszewski and Williams, “New Roles for New Times,” 6.
123. Whatley, “New Roles of Liaison Librarians,” 29.
124. Abigail Goben and Megan Sapp Nelson, “Teaching Librarians About Data: The ACRL Research Data Management Roadshow,” *College & Research Libraries News* 79, no. 7/8 (2018): 354–57.
125. Christopher V. Hollister and Robert Schroeder, “The Impact of Library Support on Education Faculty Research Productivity: An Exploratory Study,” *Behavioral & Social Sciences Librarian* 34, no. 3 (2015): 97–115.
126. Andrew M. Cox and Eddy Verbaan, “How Academic Librarians, It Staff, and Research Administrators Perceive and Relate to Research,” *Library & Information Science Research* 38, no. 4 (2016): 324.
127. Olivia Olivares, “The Sufficiently Embedded Librarian: Defining and Establishing Productive Librarian-Faculty Partnerships in Academic Libraries,” *Public Services Quarterly* 6, no. 2/3 (2010): 140–49.
128. Kenney, “Leveraging the Liaison Model,” 5.
129. LaRue, “The Visibility and Invisibility of Librarians,” 10.

Data Seeking Behavior of Economics Undergraduate Students

An Exploratory Study

This article investigates the information seeking behavior of undergraduate economics students to determine their effectiveness in locating data sets for a multiple regression analysis assignment and seeks to discover how students pursue the process of learning to find and use data. A study was conducted in fall and spring 2015 to find out (1) what influences affect students' ways of seeking data sets; and (2) what changes occur over the course of students' data search. The findings say that while only about 10% of students started with the library, either a library database or a librarian, nearly half eventually used the library in some form for this course project. The conclusion reached as a result of the survey was that undergraduates have widely varying data search concepts, that more of the students look for personal interest data than business discipline data, and that the searching part of economics students' first regression project can add a noticeable amount of time to the assignment before they can even get started working on the regression itself. Included are ideas for further research and ways to reach students before data searching gets frustrating, as well as thoughts on how to structure data search learning and how to use insights into student behaviors to overcome the reluctance of some faculty.

Data are everywhere. It is impossible to get through the day without hearing about so-called alternative facts with misused statistics, seeing an infographic or chart to explain a theory or trend, or studying data as proof of a concept, either on television news, online news, on Facebook, or on websites visited frequently. Quantification adds clarity to our often confusing, disorganized, and increasingly interdependent world.

In order for undergraduate students at university to be considered well-educated and highly employable for consideration of the best paying jobs in today's employment market, they must be data literate, "the ability to understand and use data effectively to inform decisions."[1]

Data skills are considered mandatory in many fields of employment.[2] Economists, for example, use data to offer solutions for problems in government, international trade, finance, the environment, agriculture, immigration, climate change, and more. Students pursuing an economics degree are required to show proficiency in working with data. As economists, following graduation, they will be

Betty Garrison and Nina Exner

Betty Garrison *(bgarrison@elon.edu) is the Business Research Librarian at Elon University.* ***Nina Exner*** *(nexner@vcu.edu) is the Research Data Librarian at Virginia Commonwealth University.*

Reference & User Services Quarterly, vol. 58, no. 2, pp. 103–113

dependent on those data skills to a greater degree than in many other professions.

A study was conducted in 2015 at Elon University, a mid-sized private university in the Piedmont region of North Carolina, with economics undergraduates in a required statistics course to find out how the students search for data sets on self-selected topics to complete a required regression analysis assignment. The authors hoped to find out what influences affect students' ways of seeking data sets, and what changes occur over the course of students' data research. Our intention was to better understand what affected how often students were successful finding the anticipated data set on their own and use that insight to understand ways to optimize data literacy interventions from a librarian.

BACKGROUND: THE IMPETUS FOR THE SURVEY

A few economics undergraduate students per semester find the business librarian's office, usually after stopping by the information service desk in the library to ask for help finding data sets for their class, ECO 203 – Statistics for Decision-Making. A typical student usually begins the research interview by saying that he has already spent hours looking for relevant data sets, has been unsuccessful, and is hopeful the librarian can help him. Often the librarian can elucidate the information request and provide the resource needed in short order.

Data reference interviews require special skills.[3] Unlike most reference interactions, data reference interviews involve significant discussion back and forth between student and librarian regarding what data the student hopes to find, what he hopes to prove with it, and articulating the boundaries surrounding the types of data he requires, including time or date range, geographic location, whether data sets or statistics, the units of analysis, and the type of data, for example demographic or financial.

Ideally, an economics professor teaching a statistics-heavy research methods course would request the economics liaison librarian's collaboration on the section of their course that requires students to locate and manipulate a data set, especially considering the complex and often laborious nature of locating data. The professor describes the data assignment, in this case a regression analysis, explains how the assignment broadens the students' knowledge of the subject matter, then requests not only the librarian's expertise and assistance in formulating the assignment, but also requests data literacy instruction in the classroom.

For the eight sections of the course ECO 203, the assistance of the economics liaison librarian was not requested. By not collaborating in the classroom, the opportunity to enlighten students about search strategies for data information retrieval was missed. As noted previously, the importance of data literacy in being an informed citizen, in making life decisions, and in competing in the job market cannot be overstated. MacMillan writes, "As research in many fields becomes increasingly dependent on large data sets, librarians need to make students aware of these resources as part of their information environment, to better prepare them for graduate work and/or their working careers."[4]

What's more, a great deal of valuable time is lost for faculty, librarians, and students by not cooperating during the planning, learning, and execution stages of research. The cost/benefit analysis of information seeking and time constraints, and factoring in the waste of time, resonates with undergraduate students. When faced with any assignment requiring research from secondary sources, students will often weigh the merits of time spent seeking information with the finite amount of time available to complete the assignment and, as humans, the amount of time available for other pursuits.[5]

The catalysts for the study were curiosity about student data search habits and what the findings from a survey might achieve to bring about more collaboration in the classroom. We examined syllabi from 2 professors' course sections which offered insight into how students are directed to begin their data research. When offering advice to students about the process, one professor teaching the economics course wrote on her syllabus that it was not her job nor that of the library staff to do the students' research. She also suggested that a Google search might find the appropriate data. Another professor on her syllabus mentioned the business research librarian as a good resource. On the syllabi of these two professors, library databases and resources were mentioned as possible data depositories while offering no specific resources by name.

The assignment instructions included language promoting use of library resources, but students could choose to conduct their search however they wanted. The professors offered advice about how to conduct data research:

- Professor 1's assignment advice from their syllabus:
  - "There is a good chance the data is available through one of the library databases."
  - "Try doing a Google Search on your topic. A lot of data is available on the web."
  - "Please keep in mind that it is your responsibility to collect your data. If you need data that is business, economic, or financial in nature, I may be able to point you in the right direction, however it is not my job (nor any of the library staff) to find data for you. This is part of the assignment."
- Professor 2's assignment advice from their syllabus:
  - "Elon has a considerable number of data resources. Betty Garrison in the Library is a wonderful resource."

LITERATURE REVIEW

Undergraduate students have not been exposed to most of the topics they encounter at university and are not expert searchers. Partlo notes, "Since undergraduates are emerging as researchers they do not have experience to guide them in areas more experienced researchers take for granted."[6] When they approach research on an unfamiliar topic, they have few familiar resources to draw on to begin their research, not having accomplished the level of knowledge that comes with advanced studies, only what they have recently been exposed to in the classroom, according to Leckie.[7] She says that students "do not think in terms of an information-seeking strategy, but rather in terms of a copying strategy." Kellam relates that while students in a social sciences research methods class might be taught how to analyze data, "they leave the class without having gained the ability to find data on their own."[8] The result is that data search and discovery is a serious challenge for some students and that they often come to it without guidance.

It is not good enough to just be information literate. Stephenson explains that in order to grasp the concepts being taught and develop critical thinking skills in the social sciences, students must become data information literate and understand numerical concepts as "an integral component of information literacy for these disciplines."[9] To go further, students will utilize their learned data literacy to become more informed citizens. Successful data interpretation can lead to progress in political discussion, community building and issue awareness and debate.[10]

Accessibility is of paramount importance to the student researcher. Kim says, "Inaccessibility might be a critical barrier to the use of sources that might otherwise be appropriate for a particular task."[11] Unfortunately, the current disorganized nature of data storage is such that discoverability for the data illiterate undergraduate student is difficult or impossible without the benefit of some data literacy instruction or possibly the mentorship of a data-knowledgeable librarian or educator.

Students don't necessarily view library resources or the librarian as convenient or the first place to start their data research. Of primary importance to students is the convenience factor of an information source and cannot be overstated.[12] Gravitation towards a search engine as a starting point can be surmised because search engines are convenient and students know how search engines work.[13]

Numerous studies have been conducted by librarian scholars to discover how faculty view librarians and why they aren't interested in collaboration.[14] A review of the literature found reasons to be varied, including no sufficient subject expertise, librarians are seen as auxiliary services only, students are capable of locating relevant research on their own or they already have the necessary skills, students have been given adequate information literacy instruction previously, there isn't sufficient time in a crowded class schedule to include a subject librarian, lack of faculty awareness of librarian information instruction or they themselves provide research instruction, or simply difficulty scheduling a class research session with a librarian.

Frequently, the lack of collaboration between librarians and faculty leads to a vacuum in student information literacy. Learning occurs in scaffolding, building layers of knowledge over time. But without integrating information literacy and data literacy skills into classroom curriculum, students are not being exposed to information research methods that work, that save time, and that are efficient. One successful way to influence students to seek the advice of an information professional is for faculty to advocate the value of consulting university librarians.[15]

A review of the literature finds a dearth of analysis on the data research methods of undergraduate students, much less researchers as a whole. But all data researchers, whether undergraduate or skilled professional, face similar data discovery problems. Researchers often search for data that has never been created, the data may lack the necessary conditions like time period or geography, reviewing multiple data sets from various sources can waste valuable time, the data archive being searched might not house the data, and time spent searching leaves less time for researchers to further their research.[16]

The motivations of the undergraduate data researcher will vary somewhat from that of more experienced researchers in several ways. They may have a class project to locate data on topics that they did not choose, and they may be working on a shorter time frame assignment. And students might only need to locate a certain numerical count of data for use on a statistical assignment and not need to focus on the subject matter of the data. This makes it critical that novice data researchers get advice and assistance, and greatly improve their data research results with the benefit of at least an introduction to data literacy.

METHODS

This study was driven by the overall research question, "How do economics students pursue the process of learning to find and use data?" This question was looked at in three ways, by examining: (1) what influences affect students' ways of seeking analyzable data sets; (2) how does working with the library affect the process of learning to work with data; and (3) what changes occur over the course of students' work with data searching?

The study was conducted in the spring of 2015 and again in late fall semester 2015. The participants of this study ranged from freshmen to juniors. This study sought to explore the information seeking effectiveness of the students after at least one session searching for data sets to extract data for their case analysis.

A survey was administered to students in eight sections of ECO 203, "Statistics for Decision Making." This survey was reviewed and approved through the campus Institutional Review Board. The survey was distributed electronically after the students completed their final assignment. Students were not required to answer the survey, and they did not receive any inducement for participation.

Students majoring in economics at Elon University are required to take the course "Statistics for Decision-Making."

Students in eight sections of this course complete, as their final assignment, a multiple regression analysis paper involving several datasets with one dependent and three independent variables. Datasets had to be substantial instead of small personal surveys, with at least 30–35 observations in the dataset. Topics were not assigned, and students had the latitude of choice.

All students in eight class sections taught by two professors were asked to participate in this survey. All participants had completed an assignment to search for a dataset and answer a question using variables from that dataset. The survey, included as appendix 1, was filled out in specific reference to this assignment. Participation was voluntary and all questions were optional. Out of the 230 students, 178 completed enough of the survey to be included in one or more of the analyses. So our response rate was 77 percent, which is high enough to think that the responses represent the population of all students taking this class.

Most responses were analyzed with graphs and descriptive summaries. A question about time spent searching was converted from categories to a scale for inferential analysis. An open question about the student's research topic was coded inductively for topic area and like topics were synthesized. No participants were excluded, but incomplete responses were excluded for descriptive and thematic analyses as well as any statistical test where one or both variables in the test were unanswered. Please note, that means that the n for each question varies due to partial responses. To help preserve overall privacy, we did not collect demographics or other personal data.

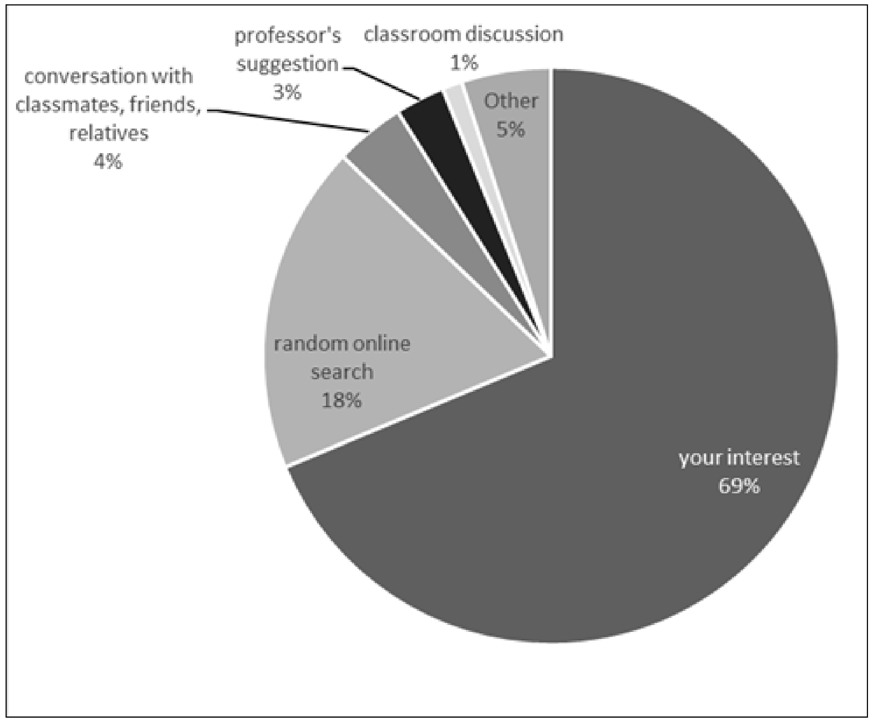

Figure 1. What factor most influenced your research choice?

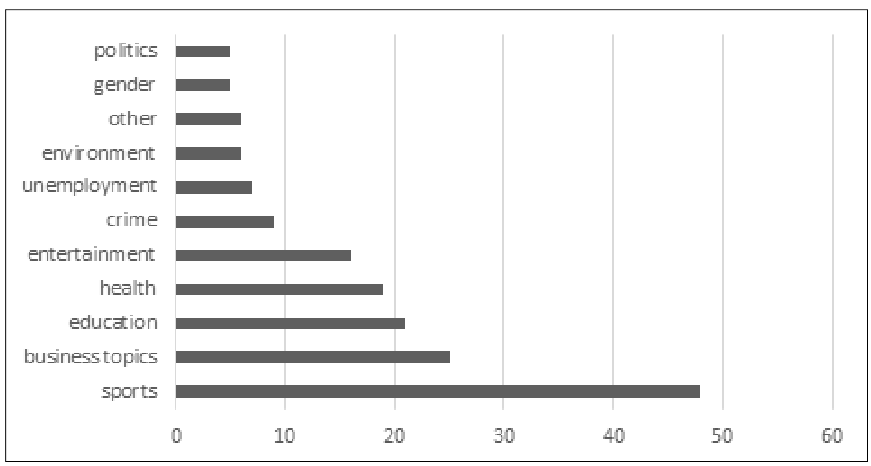

Figure 2. Most popular data topics

RESULTS

Ways of Seeking Data

It was most important to us to understand students' information-seeking interests. Students were encouraged by their professors to try to find appealing datasets. Therefore, one of the survey questions was "What factor most influenced your research topic choice?" Understanding students' data interests could help make examples and projects more engaging to students in the future. Figure 1 summarizes responses about what factors influenced their topic choices.

Students had many different topics of interest, many of which were unique or specific to that student. However, some topical themes did emerge. Figure 2 summarizes themes of topics where the students replied what their final topic or question ended up being. From these results, we see that personal interests were the most common topics, with "random" web searches the next most common.

Another important question about data-seeking is how long it took to find a usable dataset. The amount of time taken can tell us how long to expect similar projects to take, and it sets a benchmark for comparison in future studies. Table 1 summarizes the overall distribution of time taken in the project.

A third question about data-seeking is how students began their data search. Students took different ways to start looking for their data. Understanding what sources the students started with gives us insight into how data strategies are first applied by students. That helps us to understand what they find instinctively easiest or most comfortable. Figure 3 summarizes the students' initial data search strategies.

Most students took an hour or less to find a dataset for their dependent variable, but around a third took more than an hour. Search engines were the most common starting place, followed by specific websites the students already knew.

Working with the Library

As the data above shows, around 10 percent of the students started with the library (either a library database or a librarian). Over the course of their searches, however, nearly half eventually used the library in some form. Figure 4 shows the change from whether students used a librarian or library database as their first source in searching for their data, to those who received help from the library at any point during their data search.

The impact of working with the library on time was tested. Table 2 shows the results of the χ^2 test (calculated in SPSS 24.0.0.2). With a significance of $p = 0.719$, no significant difference at the 0.05 level was found between users of the library via databases or consultations and non-users of the library. A summary crosstab shown in table 3 shows the distribution of time across users and nonusers of the library, with slightly greater numbers of non-library-users in the shorter times and a slightly larger number for the longer times.

Issues During the Data Search

Another issue to be investigated was whether students encountered troubles during their data search. To investigate that, we asked two survey questions: (1) "Did you have difficulty finding data for your dependent variable?" and (2) "Did you change your topic at any time during the research phase?"

As figure 5 shows, just over half of the students (94, or 53 percent) did not report difficulty or change their topic while searching for data. 27 students (15 percent) had difficulty finding data but did not change topics. 29 students (17 percent) changed their topic at some time while researching but did not report difficulty in finding data. A final 27 students (15 percent) reported both difficulty finding data and having changed their topic over the course of the research project. Two students did not complete both questions on the survey.

Overall, students who reported difficulties started similarly to those who did not, but with a few noticeable differences. Figure 6 shows the starting strategies of students who encountered difficulties. The most noticeable difference is that a much lower percentage of students started with a specific website. Proportions of students who started with search engines and library databases were higher than the same proportions among the respondents overall. Figure 7 shows the same proportions, as a chart alongside the proportions of the starting sources of students who did not report difficulty finding data. The overall shares of resources

Table 1. Frequencies of time spent searching

How much time did you spend searching (total) for your dependent variable?	Responses ($N = 178$)
0–30 minutes	66 (37%)
31–60 minutes	50 (28%)
61–90 minutes	22 (12%)
91–120 minutes	14 (8%)
121–150 minutes	11 (6%)
151–180 minutes	3 (2%)
>180 minutes	12 (7%)

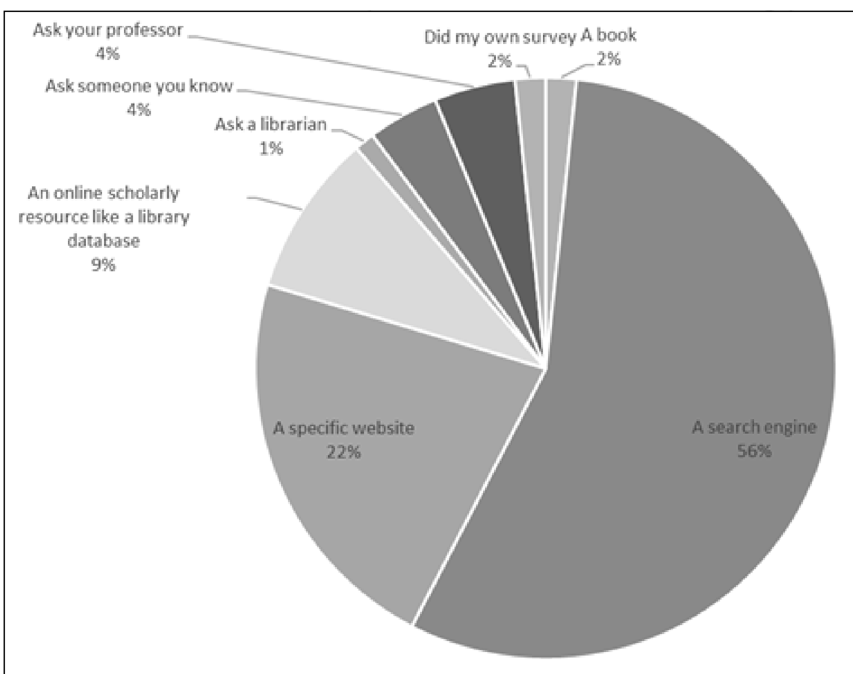

Figure 3. What was your first method of researching your topic?

used are similar, but noticeably students with difficulties had higher percentages of trying specific websites and asking someone they knew.

Students stating that they changed topics were asked to (voluntarily) explain why they changed. Forty of the students that had changed topics gave reasons similar to, *Not enough data on my original topic* (including variations in phrasing such as *not enough information on first topic*). A very few gave further explanation, such as:

> The data for my previous topic was harder to convert to excel and much harder to read. My newer topic was easier to find data for and it was already in Excel.

> I had tried and researching numerous topics. I wasn't sure about how to effectively execute the research process. I assumed you would be able to pull an entire data set but in reality we needed to manually enter our data.

> It was hard to find statistics on animal abuse there was percentages but I couldn't find a website that had the cases. So I switch back and forth with different ideas until I decided to stick with my original idea [animal cruelty crimes].

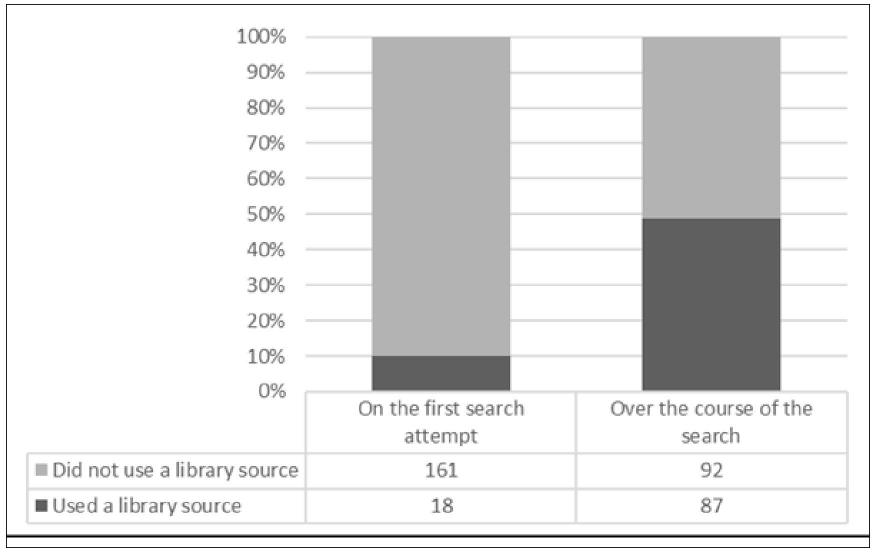

Figure 4. Started with library sources versus used library sources in the data search

Table 2. Chi-Square test of time spent searching

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.687[a]	6	.719
Likelihood Ratio	3.724	6	.714
Linear-by-Linear Association	1.982	1	.159
N of Valid Cases	178		

a. 2 cells (14.3%) have expected count less than 5. The minimum expected count is 1.47.

Table 3. Time spent searching, by users versus nonusers of the library

How much time did you spend searching (total) for your dependent variable?	Did you use a librarian or library database? (composite variable)		
	Yes	No	Total
0–30 minutes	37	29	66
31–60 minutes	27	23	50
61–90 minutes	9	13	22
91–120 minutes	7	7	14
121–150 minutes	5	6	11
151–180 minutes	2	1	3
> 180 minutes	4	8	12
Total	91	87	178

DISCUSSION

Although the students in the survey all started from a similar level of data-search instruction or lack of, they used many strategies to start looking for data. The responses indicate that students use a combination of Googling or personal past experience in a topic area and most students started with a search engine or a specific website. Not many students started with the library, but close to half turned to the library at some point. This puts the burden on the students and seems inefficient. We suspect that there is a more strategic way to embed data search and data use into the course so that students are developing their ideas of what data looks like and where it can be found alongside the process of learning what to do with the data. Librarians at other institutions have found success as the conduit to student learning in data literacy by approaching faculty with a variety of classroom instruction options, related learning outcomes and meaningful assessment goals.[17]

According to the survey, many students looked for data on personal, not scholarly, interests. Even business topics were relatively few as one might assume that business school students would have more business-related interests.

Therefore, examples and practice activities involving data should include popular topics like sports and entertainment, as well as relevant student concerns like tuition and employment. Libraries can assist by adding datasets and data resources that provide data of interest to students. These are not always the same datasets that faculty would recommend because their interests are so different. Data collection policies need to balance faculty research interests with engaging topics that students can use to understand the personal value of data.

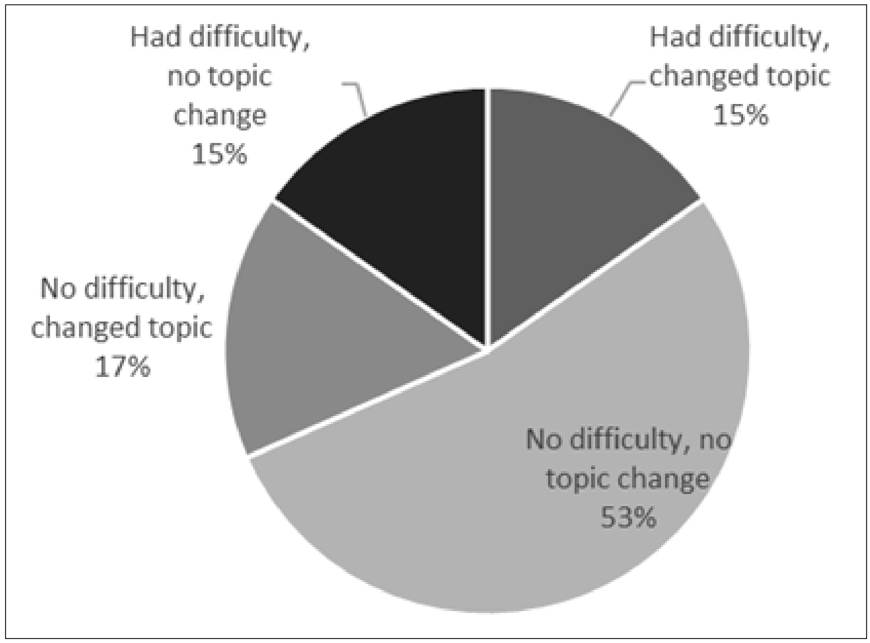

Figure 5. Change and difficulty while searching for a variable

Close to half of the students either changed their topics or had difficulty with their search. Students who reported difficultly with their data search were less likely to have started with a specific website than the students who had an easier time locating data. This adds to the idea that a more strategic involvement of the library with economics courses is needed. But it also points to a trade-off: students could start with a more limited choice of data such as a specific website to learn what to do with data, or they can learn to work with data the way that it really occurs even when that means messy or unsatisfying data.

An important factor for this particular course is understanding that if students need a certain number of variables (in this case 4 variables), they probably need to find a single table or dataset that has that many variables all in the same table or dataset. The librarian must also be familiar with some useful databases and websites for data. Twenty-two percent of our participants used specific websites to start with; we consider this a valuable strategy and believe that more students would benefit from starting with specific data websites such as the American Community Survey Public Use Microdata Sample.

We suggest that a scaffolded strategy could be used for librarians to collaborate with interested faculty and to teach data literacy. The amount of in classroom time or the level of embedding would determine how much could be accomplished. A series of short face-to-face sessions during class time would be the best scenario, but it might be easier in some cases to design this collaboration around online videos and formative assessments as exercises to help the students work through the process on their own time or to use those in conjunction with in-class instruction. The format, goals, and scope are all parts of the planning discussion to have between the librarian and the faculty member when collaborating on a data literacy classroom session. Regardless of format, we propose the following steps:

1. Identify a dataset with microdata (also called case-level data) available on a range of student-friendly dependent variables. If the library subscribes to datasets, those are a good starting point. If not, the IPUMS data at https://www.ipums.org/ might be a good choice if two or more full class sessions are available for practice. If not, the ACS PUMS data would be a faster alternative requiring less hands-on exploration and set-up time from students.
2. Create a demo of an example question. This should be centered around topics that students are interested in like sports, entertainment, student life or social issues.
3. Present (or record) the demonstration. Include how to find the dataset and qualities of the dataset that make it useful or interesting. Demonstrating the search process would also be valuable. For example, compare a search for *data on business jobs* versus *microdata on employment site:.gov*.
4. Have students do a series of tasks in order. The exact tasks will depend on the faculty instructors' goals but breaking down the subtasks and performing a formative assessment would keep students on track for success.
5. Task series example:
   a. locate the dataset and codebook
   b. choose the exact variables
   c. download the dataset
   d. create a cross-tabulation
   e. create a regression.
6. Finally, assign a data analysis (as a summative assessment) where students produce and interpret a regression.

Some of the steps are more clearly in the realm of the work of the faculty instructor and other parts would be covered by the librarian during the in-class or online instruction but there is overlap and areas for collaboration. For example, the librarian and faculty member might choose a dataset together and discuss the demo question before class. The librarian might present the demo question, search process, and lead the students in finding the dataset and working with the variables during a hands-on session. The faculty instructor might participate in teaching the students about choosing variables and creating a cross-tabulation and regression. In this way the faculty and librarian reinforce each other and if questions arise during the use of the data set the faculty member can clarify the statistical concepts. The final data analysis assignment is likely the final project or a step toward the final project and is designed and assessed by the faculty instructor.

Acknowledgement in a class course management system like Moodle or Blackboard is another effective way for the librarian to be included.[18] The librarian can post a discussion board thread for students to ask questions and for the librarian to share ideas and suggestions with the class. This gives students advice on easier, faster ways to get their data search started and concluded so that they can concentrate on practicing the data analysis they are supposed to be learning. Of perhaps the greatest benefit to librarians in reaching students is the faculty endorsement, whether in a classroom collaboration, in a class course management system, or in consultation. Including the librarian in the classroom would help students save time, even if it is only for a brief introduction to data resources.

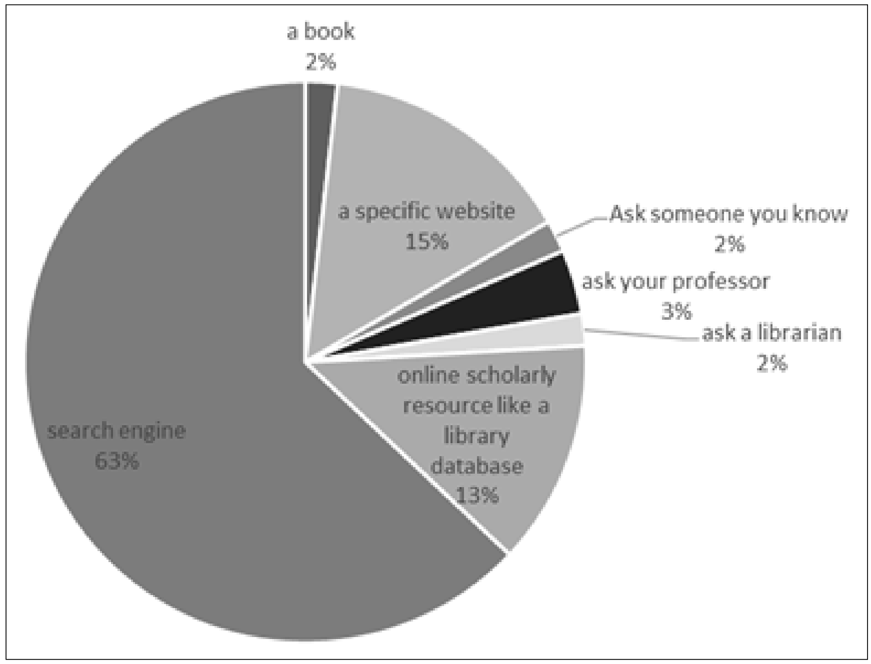

Figure 6. What was your first method of researching your topic? (only students who had difficulty)

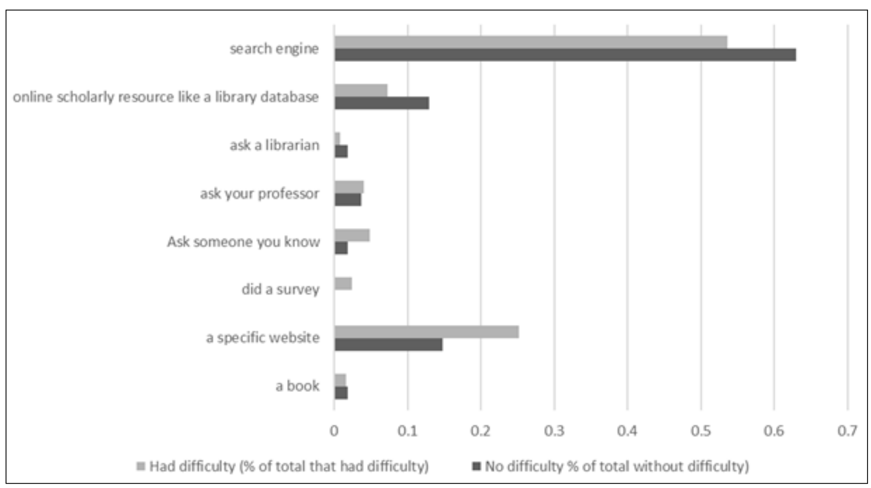

Figure 7. Starting strategies of students who did and didn't have difficulty finding data

At some point, students will need to learn to work with data "in the wild." The proportion of students that had to change their topics makes us wonder what the best road to data literacy is. Is it better to start students with controlled datasets to understand how variables relate to each other first or is it better to start with real data—as these classes did – and learn to find and work with it as the data really exists? Much of the current literature on data literacy practice suggests easing students in to working with data such as having students in a data literacy session evaluate specially selected resources.[19] This study was not designed to test different approaches but this question arose as we assessed our data. We see this as another area of data literacy instruction research that is needed. Learning that data is not always available for every question is a valuable lesson and one which students at some point need to know to be truly data literate. Fully data literate students need to be able to compose a plausible data question and recognize usable datasets "in the wild."[20]

Even if employing a guided and scaffolded strategy as previously described, it would be wise to follow-up with a hands-on exercise searching for datasets that are not from a predetermined source. A formative assessment after this search assignment can help show whether students are still on-track with learning goals. After adjusting trajectory and giving any needed assistance, the students would be more prepared for the graded assignment of finding and analyzing their research question.

The overall time taken by students in locating data seems to point to a need for more engagement between librarians, faculty, and students to create a more seamless connection. Millennial and post-millennial students value speed in their searching. Adding an hour or more of data discovery for just the initial phase of a homework task (not the regression that was the main point of the assignment) can become a barrier and a frustration. An hour may not seem like a lot of time but within the perspective of the very broad assignment finding any four variables should take far less than an hour. In another way of looking at it, that hour could have been a class hour where students not only get their four variables but also learn strategies to help in future tasks. This might be a more productive and less frustrating hour for students than time spent fruitlessly searching and changing their topics. Millennials are often underprepared for complex interpretation in their search tasks.[21] Because datasets involve the intersection of complex search with data literacy, librarians and faculty need more effective ways to integrate these tasks.

This study also informed about students' data interests such as careers, sports, and student life. Identifying these interests can help with data resource purchases by the library and populating research guides. Using popular topics to frame data instruction also is a good way to engage students, as mentioned earlier.

Data specialists and data non-specialists in libraries will need to work together to find new, effective ways to address challenges in search, subject outreach, and applying data.

CONCLUSION

The results of the survey tell us that undergraduates tend to take a leap into the data unknown by beginning their data discovery via a search engine and bypassing libraries and librarians. Thus, accessibility and convenience are chosen first over expert or knowledgeable guidance.

The disconnect between students and the library as the go-to knowledge bank can be attributed to, in large part, a failure of outreach concerning both data resources and librarians as an expert resource. It continues to be the responsibility of liaison librarians to initiate contact with their departments, with in-person contact providing the most effective results. More faculty interaction, especially good working relationships and focused outreach, will yield the highest rewards for gaining a collaboration with faculty.[22] These interactions may start simply as acquaintance but can ultimately lead to mutually beneficial collaborations for the benefit of the students' research and possibly the faculty member's own scholarly output.

In the case of particularly difficult research such as data discovery, students would greatly benefit from a working session with a knowledgeable librarian. Because a substantial number of students were found to have challenges in their data search experience, including those who changed their topic because their searches were unsuccessful, we conclude that it would be a big benefit to students to have earlier access, specifically to data-knowledgeable librarians. Students having trouble with a data search who consult a librarian ideally get help not only with locating data but learn why their search was unsuccessful, whether it is because the search itself was flawed or because the data does not exist. These interactions become excellent teachable moments which benefit the student as well.

One of the challenges in this context is that Elon University does not have a data librarian. Subject librarians in this situation must have some basic data knowledge and data research skills. They also need to be made aware of the parameters of specific data assignments and how to address requirements such as finding a particular number of variables. Even for libraries with data librarians, other librarians are likely to encounter these questions if it is an assignment for a lot of students so training and information sharing among librarians is essential.

Beginning data literacy and learning among economics and business majors needs additional study. One of the challenges we had in interpreting our findings was that we are left without a good understanding of why students did what they did. Qualitative methods like interviews or search diaries would give us a richer understanding of what is happening with student searchers, both the efficient and the inefficient searchers.

Research into student data discovery needs is a much needed and neglected area of investigation at the intersection of (but different from) search behaviors and data literacy. This study is a single case and only beginning. Much of the research literature focuses either on data literacy instruction methods, expert researchers discovering data, or a focus on institutional data repositories. The gap in the literature is on the data search process of the novice. We believe that future investigation of data search will be especially useful as millennials and post-millennials pursue degrees for employment in newer data-driven business environments.

Finally, in the age of big data, librarians with strong information literacy skills but not quantitative backgrounds must increase their data skills in order to keep up with and to support data-focused coursework, data literacy, and data management. As data literacy expectations and use of data across disciplines grows, more research on how librarians without data specialties are experiencing and responding to these changes is needed. Librarians should remain engaged in this area and build knowledge and strategies to address the data needs of their community.

References

1. Ellen B. Mandinach and Edith S. Gummer, "A Systemic View of Implementing Data Literacy in Educator Preparation," *Educational Researcher* 42, no. 1 (January/February 2013): 30–37.
2. Thomas H. Davenport and D. J. Patil, "Data Scientist: The Sexiest Job of the 21st Century," *Harvard Business Review* 90, no. 10 (October 2012): 70–76; Cory Koedel and Eric Tyhurst, "Math Skills and Labor-Market Outcomes: Evidence from a

Resume-Based Field Experiment," *Economics of Education Review* 31, no. 1 (February 2012): 131–40.

3. Kristin Partlo, "The Pedagogical Data Reference Interview," *IASSIST Quarterly* 33, no. 4 (Winter/Spring 2010): 6–10.
4. Don MacMillan, "Data Sharing and Discovery: What Librarians Need to Know," *Journal of Academic Librarianship* 40, no. 5 (September 2014): 541–49.
5. J. David Johnson, "Controlling the Flood: When More of a Dose Is Less," *Journal of Documentation* 70, no. 3 (2014): 330–45.
6. Partlo, *The Pedagogical Data Reference Interview*, 8.
7. Gloria J. Leckie, "Desperately Seeking Citations: Uncovering Faculty Assumptions about the Undergraduate Research Process," *Journal of Academic Librarianship* 22, no. 3 (May 1996): 201–8.
8. Lynda M. Kellam and Katharin Peter, *Numeric Data Services and Sources for the General Reference Librarian* (Oxford: Chandos, 2011), 49.
9. Elizabeth Stephenson and Patti Schifter Caravello, "Incorporating Data Literacy into Undergraduate Information Literacy Programs in the Social Sciences: A Pilot Project," *Reference Services Review* 35, no. 4 (2007): 525–40.
10. Leanne Bowler et al., "'It Lives All Around Us': Aspects of Data Literacy in Teen's Lives," 80th Annual Meeting of the Association for Information Science & Technology, Washington, DC (2017), 27–35; Robert Gould, "Data Literacy Is Statistical Literacy," *Statistics Education Research Journal* 16, no. 1 (May 2017): 22–25.
11. Kyung-Sun Kim and Sei-Ching Joanna Sin, "Perception and Selection of Information Sources by Undergraduate Students: Effects of Avoidant Style, Confidence, and Personal Control in Problem Solving," *Journal of Academic Librarianship* 33, no. 6 (2007) 655–65.
12. Lynn Sillipigni Connaway, Timothy J. Dickey and Marie L. Radford, "'If It Is Too Inconvenient I'm Not Going after It:' Convenience as a Critical Factor in Information-Seeking Behaviors," *Library and Information Science Research* 33, no. 3 (2011): 179–90.
13. David Bawden, "Digital Libraries: To Meet or Manage User Expectations," *Aslib Proceedings* 58, no. 4 (2006): 346–54; Connaway et al, "If It Is Too Inconvenient I'm Not Going after it," 180.
14. Kate Manuel, Molly Molloy and Susan Beck, "What Faculty Want: A Study of Attitudes Influencing Faculty Collaboration in Library Instruction," Proceedings of the ACRL Eleventh National Conference, Charlotte, NC (April 10–13, 2003), 2; Claire McGuinness, "What Faculty Think: Exploring the Barriers to Information Literacy Development in Undergraduate Education," *Journal of Academic Librarianship* 32, no 6 (November 2016): 573–82; Kristin Anthony, "Reconnecting the Disconnects: Library Outreach to Faculty as Addressed in the Literature," *College & Undergraduate Libraries* 17, no. 1 (January 2010): 79–92.
15. Judith Mavodza, "Information Seeking Behaviour of Library Users at Metropolitan College of New York," *Reference Services Review* 39, no. 4 (2011): 643–53.
16. V. M. Megler and David Maier, "Data Near Hear: Bringing Relevant Data Closer to Scientists," *Computing In Science & Engineering* 15, no. 3 (May/June 2013): 44–53.
17. Katharine V. Macy and Heather L. Coates, "Data Information Literacy Instruction in Business and Public Health: Comparative Case Studies," *IFLA Journal* 42, no. 4 (2016): 313–27; Katharin Peter and Lynda Kellam, "Statistics & the Single Girl: Incorporating Statistical Literacy into Information Literacy Instruction, *LOEX Quarterly* 40, no. 1 (2013): 2–3, 10.
18. Beth E. Tumbleson and John Burke, *Embedding Librarianship in Learning Management Systems: A How-To-Do-It Manual for Librarians* (Chicago: Neal-Schuman, 2013), 6.
19. Kellam, *Numeric Data Services and Sources for the General Reference Librarian*, 85; Stephenson, "Incorporating Data Literacy into Undergraduate Information Literacy Programs in the Social Sciences: A Pilot Project," 531.
20. Tibor Koltay, "Data Literacy: In Search of a Name and Identity," *Journal of Documentation* 71, no. 2 (2015): 401–15.
21. Lucy Holman, "Millennial Students' Mental Modes of Search: Implications for Academic Librarians and Database Developers," *Journal of Academic Librarianship* 37, no. 1 (January 2011): 19–27.
22. Larry Hardesty, "Faculty Culture and Bibliographic Instruction: An Exploratory Analysis," *Library Trends* 44, no. 2 (Fall 1995): 339–67; Paul Hrycaj and Michael Russo, "Reflections on Surveys of Faculty Attitudes toward Collaboration with Librarians," *Journal of Academic Librarianship* 33, no. 6 (December 2007): 692–96.

APPENDIX 1. ECONOMICS DATA RESEARCH STUDY

Select your class section.

a. A
b. D
c. E
d. F
e. G

Topic Selection

What is your research topic for the data analysis assignment in Statistics for Decision Making (ECO 203)?

What factor most influenced your research topic choice? [choose one]

- textbook or assigned readings
- random online search
- classroom discussion
- your interest
- class lecture
- professor's suggestion
- conversation with classmates, friends, relatives
- other:

Did you change your topic at any time during the research phase?

- yes
- no

If you replied YES to the previous question, explain why you changed your topic. [free-text field]

Conducting Research

Which of these sources did you use when researching your topic? [Choose all that apply]

- a book
- ask a specialist in your topic field of study
- ask your professor
- a specific website
- ask a librarian
- search engine
- online scholarly resource like a library database
- ask someone you know
- other:

What was your FIRST method of researching your topic? [choose one]

- ask someone you know
- ask your professor
- a book
- search engine
- a specific website
- ask a librarian
- ask a specialist in your topic field of study
- online scholarly resource like a library database
- other:

Dependent Variable Research

How much time did you spend searching (total) for your dependent variable?
[choose one]

- 0–30 minutes
- 31–60 minutes
- 61–90 minutes
- 91–120 minutes
- 121–150 minutes
- 151–180 minutes
- More than 180 minutes

Did you have difficulty finding data for your dependent variable?

- yes
- no

Name the source of the dependent variable dataset you used for the class Statistics for Decision-Making. [free-text field]

Outstanding Business Reference Sources 2018

BRASS Business Reference Sources Committee

BRASS Business Reference Sources Committee contributing members: Holly Inglis, selections editor; Felipe Anaya, Chair; Adele Barsh, nominations coordinator; Tom Diamond; Wendy Girven; Julia Martin; Lauren Reiter; Genifer Snipes; and Kendra Spahr.

Correspondence concerning this column should be addressed to Holly Inglis, Public Services Librarian, Milt Harris Library, University of Toronto, Toronto, Ontario, Canada; email: holly.inglis@rotman.utoronto.ca.

Each year, the Business Reference Sources Committee of BRASS selects the outstanding business reference sources published since May of the previous year. This year, the committee reviewed twenty-one entries; of these, one was designated as "Outstanding," seven as "Notable," and two as a "Notable New Edition." To qualify for the award, the title must meet the conventional definition of reference: a work compiled specifically to supply information on a certain subject or group of subjects in a form that will facilitate its ease of use. The works are examined for the following: authority and reputation of the publisher, author, or editor; accuracy; appropriate bibliography; organization; comprehensiveness; value of the content; currency; distinctive addition; ease of use for the intended purpose; quality and accuracy of index; and quality and usefulness of graphics and illustrations. Additional criteria for electronic reference titles are accuracy of links, search features, stability of content, and graphic design. Works selected must be suitable for medium to large-size academic and public libraries.

OUTSTANDING

Routledge Companion to Business Ethics. Edited by Eugene Heath, Byron Kaldis, and Alexei Marcoux. New York: Routledge, 2018. $220 hardcover (ISBN: 9781138789562) Contact the publisher for e-book pricing. (ISBN 9781315764818).

This single-volume reference handbook covers the field of business ethics, describing key concepts and outlining its themes by placing them in their broader economic, political, legal and cultural contexts. In doing so, this handbook provides a current snapshot of global business ethics practices and scholarship, and highlights key trends. The intended audiences are students new to business ethics, scholars and the interested layperson. Its contents include 39 chapters that tell the history of business ethics as a discipline, its philosophical and economic underpinnings, core concepts and international perspectives. An international group of three editors and 46 contributors addressed the established principles, then went out of their way to author new content, specifically re-examining the canonic assumptions. This *Routledge Companion* easily becomes the latest entry among the respected one-volume reference works explaining business ethics, such as *Oxford Handbook of Business Ethics* (2010), *Oxford Handbook of Corporate Social Responsibility* (2008) and *Blackwell Encyclopedia of Management: Business Ethics* (1997, 2005).

The *Companion*'s contents fall into eight thematic units: development of the discipline and its pedagogy; foundational theories about moral philosophies and business; business ethics theories; other key concepts influencing business ethics in organizations; economic institutions; roles and responsibilities within the firm; multinational corporations and globalization; and business ethics in emerging and transitional geographic regions. Across the eight themes, each individual chapters' contents are detailed yet wide-ranging, and concludes with a bibliography that highlights essential readings and points to related topics contained within the *Companion*. It has a 27-page index, which is linked in the e-book format. The level of indexing is strong, and fits well the complexity of content, and most chapters also have well-indexed reference work elements, such as definitions, taxonomies and tables. Although this handbook is not arranged as a ready-reference collection of definitions, its indexing aids that function well.

Notable chapters include updated treatments of the impact of feminist ethics on the field, and business ethics through the lens of the major world religious beliefs. Emerging topics appear integrated within their larger thematic context, e.g., the ethical aspects of business innovation within the economics chapter, and the money and finance chapter goes beyond its expected focus on the ethics of markets to address the roles of financial intermediaries, crowdfunding and alternative finance. This *Companion* also covers the state of the business school curriculum debate (stand-alone ethics course vs. ethics integration throughout the curriculum) that has been ongoing for 20+ years, addressing current thinking in a useful way that brings the reader quickly up-to-speed.

What is outstanding is that this handbook achieves its goal to break ground by refreshing entries on the canon of business ethics, while offering a broad geographic and cultural context for understanding the field. There is a good mix of academic and applied material, but its point-of-view is decidedly academic in nature. The academic theory may not interest all public library patrons, but its succinct treatment makes its contents accessible to both academics and laypeople, making the *Companion* excellent for both academic and larger public libraries.—*Adele L. Barsh, UC San Diego*

NOTABLE

The Cambridge Handbook of Consumer Privacy. Edited by Evan Selinger, Jules Polenetsky, and Omer Tene. Cambridge, UK: Cambridge University Press, 2018. 601 p. $150 hardcover (ISBN: 978-1-10718-110-6). Contact the publisher for e-book pricing. (ISBN: 978-1-316-85927-8).

The collecting, analyzing, and processing of consumer privacy information is leading policymakers to discuss the thorny and complicated legal, ethical, economic, and technological issues of protecting the public's best interests and balancing the pragmatic and legitimate interests of businesses and governments to use this information. With the implementation of the European Union's (EU) General Data Protection Framework, which streamlines the usage of individuals' personal information by businesses, and the furor over Cambridge Analytica's usage of users' Facebook information, consumer privacy issues are now hot button discussion topics. Cambridge University Press's *The Cambridge Handbook of Consumer Privacy* is a welcome and much needed comprehensive review of consumer privacy issues.

The *Handbook*'s collection of thirty-two contributed chapters is carefully crafted by three consumer privacy scholars: Evan Selinger (Rochester Institute of Technology), Jules Polonetsky (CEO of the Future of Privacy Forum), and Omer Tene (International Association of Privacy Professionals). Selinger and Tene are also senior fellows at the Future of Privacy Forum.

The editors enlist the contributions of scholars, business leaders, and policymakers to tackle a wide variety of consumer privacy topics. Other topics discussed include big data analytics, student privacy, Do Not Track, consumer protection, privacy statements, privacy notices, the role of the Federal Trade Commission, and the EU's Right to be Forgotten. Each chapter provides footnoted resources, including court cases, for the reader to pursue for additional information. The print source regrettably lacks a comprehensive index, but the electronic version does provide a keyword search tool.

The usage of personal information for political, economic, and socioeconomic purposes is fast becoming a mainstream issue and deserves greater scrutiny. The *Handbook* is an excellent and unique one-stop source for researchers, privacy advocates, and legal scholars to delve into these issues. The breadth and depth of topical coverage signifies the critical importance of consumer privacy in the digital age. This book would be an excellent addition to academic, law, and corporate library collections.—*Tom Diamond, Louisiana State University*

The Cambridge Handbook of Research Approaches to Business Ethics and Corporate Responsibility. Edited by Patricia H. Werhane, R. Edward Freeman, and Sergiy Dmytriyev. Cambridge, UK; New York: Cambridge University Press, 2017. 322 p. $125 hardcover (ISBN: 9781107150690), Contact the publisher for e-book pricing. (ISBN: 9781108548670).

The Cambridge Handbook of Research Approaches to Business Ethics and Corporate Responsibility is a compilation of overviews on a wide range of research approaches and methods used in business ethics scholarship. As a multidisciplinary and growing area of study, the editors note that business ethics does not have an established set of research approaches, and this text provides a starting point and reference tool for those embarking on research, as well as those interested in new methodologies to employ in the field of business ethics.

Strengths of *The Cambridge Handbook of Research Approaches to Business Ethics and Corporate Responsibility* include the organizational structure and distinctive expert content, which allow this handbook to function well as a reference resource. The text's twenty chapters are organized into three parts. Part I covers philosophical approaches, with chapters on historical and normative approaches; Part II introduces empirical methods, including chapters on qualitative, quantitative, mixed-method, experimental, and case study approaches; and Part III comprises chapters on the role of the business ethics researcher. In Parts I and II, each chapter provides an in-depth overview of a specific research approach and the chapter titles help clearly identify the research approach under discussion (ex. "Quantitative Content Analysis as a Method for Business Ethics Research"), which, along with the index, make the resource easy to navigate and explore.

The Cambridge Handbook of Research Approaches to Business Ethics and Corporate Responsibility is an excellent addition to an academic business library. It would be most useful for advanced students and researchers in business ethics and related fields.—*Lauren Reiter, Penn State University*

The Handbook for Market Research for Life Science Companies: Finding the Answers You Need to Understand Your Market. By Jean-François Denault. CRC Press, 2017. 201 p. $149.95 cloth (ISBN: 978-1138713574). $59.95 paper (ISBN: 978-1138713567). Contact the publisher for e-book pricing. (ISBN: 9781315198606).

Jean-François Denault's handbook is an excellent resource for health science researchers who are new entrepreneurs and unfamiliar with market research. It is designed to help scientists see the importance of product markets and link market needs to product success. First, primary and secondary research are explained. In the chapter on primary research, designing a data collection tool (including defining context, building a question bank, and building the questionnaire), validating the tool, formulating questions (including how to use close-ended, open-ended, projective, and choice modeling questions), things to watch for, and incentives are discussed. Data collection methods such as in-depth interviews, focus groups, traditional surveys, online surveys, the Delphi method, observation, and mystery shopping are explained.

Next, both straightforward secondary information sources such as government information and more circuitous ways to glean information, such as from companies and online communities are suggested. The following chapter discusses analyzing data using traditional statistical methods for quantitative and qualitative research. Perhaps new to scientists, but familiar to those in business, the following chapter describes common business models (SWOT, SCORE, TAM-SAM-SOM, Kano, and the strategic triangle) as a framework for telling the market's story. He concludes with tips on presenting information, especially to potential financial supporters, rather than scientific colleagues. The book is very well organized with information divided into easily digestible sections with helpful tables and figures to illustrate concepts. Mr. Denault's fifteen years of working with innovators and entrepreneurs in the life sciences has resulted in a handbook that any scientist taking on market research for the first time will find helpful.—*Julia Martin, University of Toledo*

Handbook of Research on Gender and Leadership. Edited by Susan R. Madsen. Cheltenham, UK; Northampton, MA: Edward Elgar Publishing, 2017. 496 p. $290.00 hardcover (ISBN: 9781785363856), $65.00 paperback (ISBN: 9781788119740). Contact the publisher for e-book pricing. (ISBN: 9781785363863).

Despite the progress in increasing the number of women in leadership positions, women are still underrepresented at the top in all types of organizations. The *Handbook of Research on Gender and Leadership*, edited by Susan R. Madsen, Orin R. Woodbury Professor of Leadership and Ethics at Utah Valley University, provides new insights as to why challenges remain with providing women leadership opportunities and proposes new solutions to advancing women in organizations.

Organizationally, the handbook is divided into five parts. The first section reviews the current status of women leaders and describes why this work remains an important subject. Next, women and leadership theories are examined through six viewpoints: overarching, social psychology, sociology, sociolinguistics, organizational behavior, and human resource development. Part three looks at women's aspirations and motivations to take leadership positions, while the next section examines some of the unique challenges and barriers women face. Each of these four parts leads to the final section, "Developing Women Leaders," which provides guidance for preparing and supporting women for leadership positions. This section covers the importance of fostering developmental relationships and networks, the place of women-only leadership programs, and future strategies for developing women leaders. In addition, these strategies can be applied across a variety of organizations, from the corporate setting to nonprofits and academia. While this handbook succeeds in providing an overview of the issues surrounding women and leadership, it could be better at addressing the unique challenges women of color face in gaining leadership positions and provide solutions. The twenty-seven chapters of this handbook are written by over fifty contributors at institutions both within the United States and abroad. References at the end of each chapter and an index are also included.

While there is a growing body of scholarship on the subject of gender and leadership, there remains a need for additional thinking and solutions. The *Handbook of Research on Gender and Leadership* provides scholars and practitioners with the tools to begin new conversations and seek answers for improving the status of women in leadership. This work is a noteworthy resource for inclusion in business collections at academic libraries.—*Felipe Anaya, Seattle University*

Research Handbook on Entrepreneurship and Leadership. Edited by Richard T. Harrison and Claire M. Leitch. Cheltenham, UK: Edward Elgar Publishing Limited, 2018. 512 p. $240 Hardcover (ISBN: 9781783473755). Contact the publisher for e-book pricing. (ISBN: 9781783473762).

The authors of the *Research Handbook on Entrepreneurship and Leadership* state that the handbook "for the first time produces a systematic overview of the entrepreneurial leadership field," intended to bring together existing theory and encourage new thinking in this area. It is divided into six parts, including the introduction and the future directions that the book closes with. In between are sections on theoretical perspectives on leadership and entrepreneurship, leadership in entrepreneurial contexts, applications of entrepreneurial leadership, and entrepreneurial leadership and learning.

The research throughout includes experiences of female entrepreneurs; a step outside of Euro-American concepts of entrepreneurial leadership to look at Islamic entrepreneurship leadership; strategic leadership; leadership in developing a venture; and developing leadership in sustainable organizations.

Part 6, Future Directions, discusses the issues in entrepreneurship leadership that focus on a masculine leadership style and outline a research agenda for a gendered analysis of entrepreneurial leadership that could also be used for additional diversity studies.

There are two chapters that will be of particular interest to post-secondary researchers studying entrepreneurship leadership. Chapter 14 is a review of entrepreneurship leadership learning in universities, looking at student leaders of university entrepreneurship clubs and projects and chapter 18 analyses issues of entrepreneurial universities for not only universities, but policy-makers and other stakeholders.

The index could be more in-depth (for example, it is missing university but does have entries for entrepreneurial university) but users should be able to navigate to find what they need.

The global scope of the contributors, primarily from the UK as well as Switzerland, the US, Europe, the Middle East, Asia, Australia and New Zealand, adds to the appeal for researchers looking for an international perspective. Recommended for academic libraries interested in entrepreneurship research related to leadership, both in theory and in practice.—*Holly Inglis, University of Toronto*

The SAGE Handbook of Qualitative Business and Management Research Methods. Edited by Catherine Cassell, Ann L. Cunliffe, and Gina Grandy. Thousand Oaks, CA: SAGE Publications, 2018. 2 vols. 1056 p. $325 hardcover (ISBN: 9781473926622). Contact the publisher for e-book pricing. (ISBN: 9781526430243).

In the introduction to *The SAGE Handbook of Qualitative Business and Management Research Methods*, the editors state that it is their intention to provide a comprehensive overview of the traditions that inform qualitative research in business and management as well as to highlight contemporary methods that are being used by researchers today. Interest in qualitative research in business and management is growing, and qualitative methods are now used by scholars in sub-disciplines of business, such as accounting and finance, that have typically been associated with quantitative analysis. The editors have put together a collection of chapters that address common debates around qualitative research (i.e., philosophical approaches and quality criteria) as well as represent the diversity of methods, both traditional and innovative, that are being used by researchers. Quality criteria debates around qualitative research in business and management have focused on how quality is defined and whether standardization of criteria by journal editors will inhibit creativity. Methodological developments covered by the *Handbook* include sewing, collages, ethnographic documentaries, netnography, and fuzzy set qualitative comparative analysis.

The *Handbook* is arranged into two thematic volumes: "History and Traditions" and "Methods and Challenges." Volume one covers the foundations of qualitative research in business and management and is divided into four parts: "Influential Traditions," "Research Designs," "The Researcher," and "Challenges." Volume two is focused on methods and arranged into three parts: "Contemporary Methods," "Visual Methods," and "Methodological Developments."

The *Handbook* would be valuable for a range of researchers, from advanced undergraduate or graduate students who want to familiarize themselves with foundational philosophies and commonly used qualitative methods in business to experienced researchers who are interested in emerging trends and innovative methods. Each chapter has an extensive reference list for readers who want to explore a topic further. This book would be an excellent addition for academic libraries with business programs.—*Kendra Spahr, Kansas State University*

The SAGE Handbook of Small Business and Entrepreneurship. Edited by Robert Blackburn, Dirk De Clercq, and Jarna Heinonen. London: SAGE Publications, 2018. 680 p. $175 hardcover. (ISBN: 978-1-473-92523-6)

Within the fast-moving evolution of entrepreneurial studies, the strong established link between entrepreneurship and small business remains relevant. As noted by the editors in the introduction of *The SAGE Handbook of Small Business and Entrepreneurship*, "the field of entrepreneurship and small business studies has been one of the most vibrant and expansive in business and management." Breaking down the literature into topics, the *Handbook* is divided into four parts comprising People and Entrepreneurial Process, Entrepreneurship and Small Business Management Organization, Entrepreneurial Milieu, and Researching Small Business and Entrepreneurship. Each section of the volume explores the existing and future research directions, while also detailing the topics and subfields linked to entrepreneurship and small business that have emerged and developed over the last decade.

The goal of the *Handbook* is to take stock of past research and push the research agenda forward, while also giving a foundational base for the multidisciplinary researchers who engage with the discipline as it grows in both practice and within the higher education curriculum. The *Handbook* has an impressive and diverse international panel of academic contributors, each of whom bring expert knowledge and global perspective to this evolving discipline.

With the increased landscape of research on the field, distinct and nuanced areas have emerged. The *Handbook* explores areas including leadership, family, business, entrepreneurial learning, and critical perspectives, which capture a comprehensive view of the scholarly developments. Exploring these topics from a variety of methodologies and contexts, the *Handbook* is an ideal book for researchers, analysts, and postgraduate students as well as others who seek to understand the foundation and future of entrepreneurship in the small business context.—*Wendy Jo Girven, University of New Hampshire*

NOTABLE NEW EDITION

A Dictionary of Finance and Banking. Edited by John Law. London: Oxford University Press, 2018. 511 p. $19.95 paperback (ISBN: 978-0-1987-8974-1). Contact the publisher for e-book pricing. (ISBN: 978-0-1918-3143-0).

In the five years since the 5th edition of *A Dictionary of Finance and Banking* was published in 2014, the global finance scene has undergone significant global expansion and seen the development of many new banking practices and technologies. Accordingly, the sixth edition of the *Dictionary* has been fully revised and updated with 150 new entries related to Brexit, international accounting terminology, and emerging finance and banking topics such as bitcoin, Pac-Man defense, and development banking. Due to these significant changes, the sixth edition of the *Dictionary of Finance and Banking* deserves recognition as a notable new edition.

The *Dictionary* is available in both print and online format through the Oxford Reference platform. The print edition is a basic alphabetically ordered dictionary with cross-referenced terms embedded in individual entries, but no other indexing system. The online version, as expected, offers more advanced discovery features including a complete A-Z index for easy browsing and searching. The Oxford Reference platform's search algorithm allows for some automatic word variation and word stemming as well as full-text searching, increasing its usefulness for finance and banking terminology novices. Within individual entries, linked cross-references connect entries with other terms and concepts defined elsewhere in the dictionary.

Although the new edition still contains much of the same information as the previous edition, its value is significantly increased by its expanded coverage of global finance and development banking terminology just as these concepts are becoming more visible in the classroom and discussions of the field. Due to its concise definitions and non-technical examples, the *Dictionary of Finance and Banking* would be most useful in academic or public libraries looking to provide their undergraduate and public patrons with an expert and understandable introduction to the terminology of the banking and finance world.—*Genifer Snipes, University of Oregon, Eugene, Oregon*

Encyclopedia of African American Business. Updated and Revised Edition. Edited by Jessie Carney Smith. Santa Barbara, CA: Greenwood, 2018. 555 p. $198 hardcover (ISBN: 978-1-44085-027-1). Contact the publisher for e-book pricing. (ISBN: 978-1-4408-5028-8).

Entrepreneurial and leadership activities are integral components that weave their way throughout African American history. From the 18th century to the present, African American business owners, business leaders, and businesses owned by women played and are still playing an essential role in the development of the black community. This history needs to be continually written and shared with the global community. The Encyclopedia of African American Business performs this service in an admirable fashion.

Jessie Carney Smith, PhD, continues to serve as the editor of this updated and revised edition and assembles a stellar group of librarians, archivists, university professors, and business leaders who contribute entries.

Each entry includes references (e.g., books, articles, web pages) for the reader to obtain additional information. The electronic version includes a source citation in MLA 8th edition and links to other entries that relate to the entry being viewed. The updated and revised edition includes new biographical information such as fashion designer Zelda Wynn Valdes in the Fashion Industry entry, separate entries for new topics such as Social Media and Marketing, and an added emphasis on African American women entrepreneurs. A six-page Selected Bibliography at the end of the set provides an additional wealth of resources for the curious or the serious researcher.

The two-volume set is very well indexed. The indexes include an alphabetical list of entries for each volume, a guide to related topics (e.g., Financial Institutions/Investments; Religion, Philanthropy, Entrepreneurship; Women), and African American business leaders by occupation. An excellent comprehensive index rounds out the second volume; the electronic version provides links to the topics and subjects. The indexing is one of the strengths of this work.

The *Encyclopedia of African American Business* is an outstanding collection of stories that document the critical role of African American businesses, entrepreneurs, and especially women entrepreneurs. This is a perfect resource for academic and public library collections.—*Tom Diamond, Louisiana State University*

Sources
Professional Materials

Calantha Tillotson, Editor

RUSQ considers for review reference books and professional materials of interest to reference and user services librarians. Serials and subscription titles normally are not reviewed unless a major change in purpose, scope, format, or audience has occurred. Reviews usually are three hundred to five hundred words in length. Views expressed are those of the reviewers and do not necessarily represent those of ALA. Please refer to standard directories for publishers' addresses.

Correspondence concerning these reviews should be addressed to "Professional Materials" editor, Calantha Tillotson, Instructional Services Librarian, East Central University; email: ctillotsn@ecok.edu.

A Practical Guide for Informationists: Supporting Research and Clinical Practice. By Antonio DeRosa. Sawston, Cambridge: Chandos Publishing, 2018. 100 p. Paper $79.95 (ISBN-13: 978-0-0810-2017-3).

The Chandos' book series is designed to help the overworked librarian with practical advice using extensive case studies. The book begins with defining "informationist" and outlining the transformation from a traditional reference librarian to an informationist. The theme of the book deals with filling "information" gaps and each chapter focuses on different types of services that can help fill information gaps at a variety of health institutions.

In chapter 2, Rachel Pinotti from Levy Library at Icahn School of Medicine uses the "information needs continuum" by Strauss to outline how the information needs of medical students shift over time. The author also suggests specific outreach strategies, such as tips for presenting and forming professional relationships. Limitations of the chapter were the lack of sources supporting her suggestions compared to other chapters with more extensive bibliographies and the text heavy training worksheets, but this may have been a limitation of the publisher.

Chapter 3, authored by Diana Delgado and Michelle Demetres from Weill Cornell Medicine, describes the lifecycle of how to publish a paper. They discuss using the FINER criteria, issues of registering for a patent before publication, and evaluating factors in choosing the right journal for publication. They finish their chapter with a case study showing how an informationist can make a difference for a psychiatrist seeking to publish a rejected paper.

Chapter 4, written by Christopher Belter from NIH, is the most comprehensive chapter with 45 references on bibliometric analysis. The chapter discusses the importance of bibliometrics, how it is being used to evaluate researchers, and why informationists as ideal candidates for bibliometric analysis. The chapter wraps up with an NIH case study discussing the four types of services provided, including consultations, training, core analyses, and custom analyses. It is an exceptional chapter, but the print copy included 4 pages from another Chandos publication on "Inhaled Pharmaceutical Product Development Perspectives" (41–44).

Chapter 5, written by another NIH all-star Lisa Federer, addresses data management and visualization. As the author notes, data has exploded, and the ability to help manage and visually represent data is where informationists can make a difference. She posits that many researchers and clinicians do not have the time or the required skills to so on their own. A limitation involves the lack of color in figure 5. The chapter wraps up with a case study of the author helping a researcher manage their data and creating a publishable visual.

Keeping up-to-date is the focus of chapter 6, authored by Sarah Jewell from Rutgers. Jewell outlines the key attributes for a successful current awareness program: "(1) speed, (2) ease of use, and (3) relevance" (63). The author recommends surveying users and embracing social media platforms to "embed themselves virtually into these research communities" (66). The chapter concludes with a community current awareness case study from UConn.

In chapter 7, the librarians at Memorial Sloan Kettering Cancer Center describe how they have been actively involved in two programs: the Clinical Medical Librarian (CML) Program and their Systematic Review Service. Ironically, the authors mention how systematic reviews and metanalysis are "fading" due to a movement toward "aggregating individual patients genomes..to develop drugs and therapies to target those genes" (74). Nevertheless, the authors do a nice job in detailing how they have embedded in various clinical departments with a focus on "ensuring search methods" and that "documentation were properly adhered to" (77).

This book provides librarians with the names of informationist leaders who can provide guidance, and even though the chapters were uneven in their bibliographies, the case studies provide a solid road map for how to transform from a traditional "librarian" into an informationist.—*Daniel G. Kipnis, Life Sciences Librarian, Rowan University, Glassboro, New Jersey*

Assessing Library Space for Learning. Edited by Susan E. Montgomery. Lanham, MD: Rowman & Littlefield, 2017. 260 p. Paper $45.00 (ISBN-13: 978-1-4422-7927-8).

In *Assessing Library Space for Learning*, Susan E. Montgomery has assembled a collection of articles from a broad range of practitioners, including educational development, psychology, architecture, user experience, and librarianship generally. The rich mixture of backgrounds delivers more than the promise of its title, offering the reader deep insight into the practical aspects of academic libraries. A welcome contribution in the field, addressing what is largely a dearth in the library literature regarding library space assessment generally—much less, its use for learning. What is available is generally not reflective of the substantial change that has been underway for decades: the "big shift" from a formerly "singular focus on books to a much more dynamic and ever-fluid emphasis on user experience" (53). This book brings together a working understanding of the role of library as place, with practical assessment along multiple learning axes.

Overall, the goal of the book is to help readers better understand *how* to think about library space within the context of learning. Comprised of three sections, the first section provides a much-needed backgrounding, building from a thorough literature review of learning theory, the psychology of approaches to library spaces, and the evolving role of architecture in library design. Together, a solid foundation from which the second section springboards into real-world application: from library space assessment and accreditation to student success and library space redesign. Noteworthy chapters include assessment and institutional alignment, and separate explorations of library space and resource usage from the standpoints of liberal arts students, STEM students, and student athletes. The closing section tries to take the library space assessment beyond the one-off case study and incorporate assessment into the day-to-day routine of library operation but comes across as a bit light with only two chapters.

Rich with anecdotes, quotes from end users, and numerous examples of signage and survey instruments, the book is both readable and browsable, offering the type of practical utility that is too-often missing from academic literature. The work has potential to be of use in any library but is highly recommended to practitioners of academic libraries. Whether a library has already transitioned to active collaborative learning space(s) or is merely considering, the role of today's academic library goes beyond merely accommodating researchers' information needs. Active support of learning and collaboration needs have become critical, and this book can offer much-needed insight.—*Tod Colegrove, Head of DeLaMare Science and Engineering Library, University of Nevada, Reno, Nevada*

Encourage Reading from the Start. By Pat Scales. Chicago: ALA, 2018. 228 p. Paper $49.00 (ISBN-13: 978-0-8389-1650-6).

Fans of Pat R. Scales are already familiar with her work for both *Book List* and *School Library Journal*. As a collection of her articles, essays, and interviews, *Encourage Reading from the Start* supports librarians working with children's and young adult literature. In "How Reading Shapes Us," Scales discusses how the concept of "family" has evolved into a more diverse definition. Scales highlights authors, like Patricia Polacco, who have built a career drawing on family stories, leading readers to expand their world views through exposure to both familiar and diverse familial structures. For example, the interview with Elana Arnold insightfully compares her own writings with classic young adult works, such as *Bridge to Terabithia* and *Missing May*. Scales' suggests stories, such as Polacco's and Arnold's, as effective fuel for reading with students, as well as embedding into book talks to encourage students' independent reading. Current refugee struggles are highlighted in "What History Tells Us," which ties current literature to historical works in a way that connects and invigorates. "No One Wanted Us" is an especially topical chapter, as it connects Kerr's *When Hitler Stole Pink Rabbit* and Crew's *Children of the River* to current stories about refugees and displaced children, like those in Gratz's *Refugee*.

Anyone who is just learning about sharing literature with young people can build skill and confidence reading this book. Veterans of the field will enjoy remembering old friends and connecting new publications. The chapter seamlessly blends paired titles, questions for discussion, and activity ideas to inspire readers to respond to their own reading. Scales has put together a collection that feels like a warm blanket and excites ideas for new discovery. This book is highly recommended for librarians, teachers, and others in the educational field.—*Lisa Hunt, Librarian/Media Specialist, Apple Creek Elementary, Moore, Oklahoma*

Financial Management for Libraries. By William W. Sannwald. Chicago: ALA Neal-Schuman, 2018. 199 p. Paper $73.00 (ISBN-13: 978-0-8389-1560-8).

Function benchmarking, NPV, GASB—the vocabulary of budgets and finance can often seem like another language. *Financial Management for Libraries* clarifies these concepts by putting them in the context of real-life public and academic library management. For many years, the author, William Sannwald, presented budgeting workshops for the Library Leadership and Management Association (LLAMA), and he based this book on his teaching experience. Written for library science students and the accidental administrator faced with creating a budget, the book can serve as a primer to the entire process of financial management or as a reference resource to consult for guidance. As an aid to library school instructors, each chapter opens with learning objectives and closes with suggested exercises. Chapters also include helpful lists of references for more in-depth information on the topics covered.

The topics discussed include accounting concepts, the budgeting process, library performance measures, forecasting, and finding sources of financing for the inevitable large capital projects. Taken together, they provide the big picture of managing library finances. Where jargon is inevitable, the terms are placed in context and explained in plain English.

A major strength of the book are its actual library budgets from an academic library, a public library, and a district library. From these illustrations of widely different libraries, readers get a sampler of the various methods used to create and present a budget. These real-life examples are based on the author's personal experiences as both a city librarian and, later, assistant to the city manager. This background is evident in the chapter titled "Budget Approval and Control," which discusses communicating with stakeholders—a vital step in having a budget accepted. Especially helpful are bulleted lists of common questions to expect from governing bodies during the budget approval process. This chapter also gives tips on preventing fraud when creating a budget.

According to Sannweld, "A budget is a plan driven by the vision, mission, goals, and objectives of the library" (2). Viewed this way, the whole process of creating a budget becomes much more palatable, and *Financial Management for Libraries* goes a long way to making it simpler. Budget novices, as well as library science students and their instructors, will find this book a reassuring guide for their financial education.—*Ann Agee, Librarian, School of Information, San Jose State University, San Jose, California*

Framing Information Literacy: Teaching Grounded in Theory, Pedagogy, and Practice (Vols. 1–6). By M. K. Oberlies & J. L. Mattson. Chicago: ACRL, 2018. 1066 p. Paper $200.00 (ISBN-13: 978-0-8389-8937-1).

This series successfully multitasks as a resource for lesson plan ideas while also teaching instructional theory and pedagogy. With one volume for each of the six frames in ACRL's *Framework for Information Literacy for Higher Education*, this set is about practical applications of the frames in academic library instruction. Each volume includes complete lesson plans, including handouts and assessment ideas. The plans are grouped by discipline and the beginning of each plan designates the intended population and the learning theory, pedagogy, or instructional strategy used in the lesson. What is missing from these descriptions is whether the lesson is best suited to one-shot or multiple sessions, ideal class size, and how long the lesson takes. While such notations would make it easier for readers looking for ideas to quickly implement, this series is better suited to readers looking for clever concepts that they can adapt to their needs.

What makes this series unique from lesson plan databases, such as CORA or the ACRL Framework for Information Literacy Sandbox, is that it informs readers of teaching theories and pedagogies. Some of the concepts covered in the series include meta-literacy, constructivism, scaffolding, and transformative learning. These explanations precede each lesson plan, which reinforces comprehension by allowing readers to see what the concept looks like in action. Every lesson plan also includes an interpretation of the frame covered in each volume, which helps facilitate in-depth understanding of the framework through interesting perspectives from fellow instructing librarians.

The majority of the lesson plans are designated for undergraduate students, however the explanations of the concepts behind the lesson empower the reader to adapt as needed. Many of the lessons are the kinds of ideas that make me want to revise all the lesson plans I'm currently using. I appreciate the broad survey of pedagogical theories, as I can easily compare different approaches and gage the success of my own teaching strategies accordingly. As an academic librarian fascinated by (but lacking the necessary education in) instructional theory and pedagogy, I want to keep this set on my office bookshelf for frequent reference.—*Marla Lobley, Public Services Librarian, East Central University, Ada, Oklahoma*

Helping Patrons Find Their Roots: A Genealogy Handbook for Librarians. By Janice Lindgren Schultz. Chicago, IL: ALA, 2018.240 p. Paper $59.00 (ISBN-13:978-0-8389-1644-5).

Janice Lindgren Schultz had a distinguished career at one of the most well-known genealogical libraries in the United

States. Her years at the Midwest Genealogy Center in Independence, Kansas, more than prepared her to write *Helping Patrons Find Their Roots: A Genealogy Handbook for Librarians*. Schultz focuses on all areas of genealogy research and her coverage is exhaustive. She begins with the purposes and methods of research, followed by a detailed consideration of all kinds of records useful to genealogists. She ably explains the importance of the proof and reliability of resources standards used by expert genealogists.

Schulz describes the choices necessary in hiring new staff, describing the dilemma of choosing between an experienced librarian with no knowledge of genealogy or an experienced genealogist who needs training in library procedures. Schulz also offers guidelines for developing genealogy collections. She encourages collecting in-depth local history materials, local vital records, cemetery inventories, church records, and county records of all kinds.

Most public librarians, however, are general information specialists. Their task in serving genealogy researchers is limited to helping them get started by providing resources and teaching basic skills in searching, including both print materials and online databases. Also, Schultz's extensive "core collection" would require dedication of significant resources. Most local public libraries have broader missions.

This handbook is a perfect resource for experienced librarians with limited knowledge of serious genealogy research who wish to work in genealogical libraries. The information covered is meticulously discussed and could prove to be a valuable resource for a librarian working in this field. However, most of the language in this handbook seems to assume an audience of researchers rather than librarians. Given that, perhaps, its real usefulness would be as part of a basic genealogy collection for customer use.—*Kathryn Ramsay, Local History and Genealogy Resources Librarian, Pioneer Library System, Norman, Oklahoma*

Leveraging Wikipedia: Connecting Communities of Practice. Edited by Merrilee Proffitt. Chicago: ALA, 2018. 256 p. Paper $68.00 (ISBN-13: 978-0-8389-1632-2).

The refrain that reappears throughout *Leveraging Wikipedia* is that Wikipedia and GLAM (galleries, libraries, archives, museums) are natural allies and a fair amount of text is dedicated to convincing the reader of this. It promises practical strategies for putting this alliance to work and ultimately delivers on that promise, if in a circuitous and somewhat repetitive way. After the first few chapters it becomes clear that there are only so many established ways for library professionals to harness the audience and infrastructure of Wikipedia for the benefit of their library. The authors offer a wide array of examples for how they tailored these tried and true methods for the specific niche of their work. The task of building on this existing foundation with innovative new partnerships between Wikipedia and libraries rests on the shoulders of the reader.

This book is not an introduction to Wikipedia. The authors write for an audience of their peers, GLAM professionals of all kinds who use Wikipedia every day. Nevertheless, most of the essays introduce parts of the broader Wikimedia empire that may be less familiar, such as Wikidata, Wikiprojects, or the Wikipedia Library Project. A veteran Wikipedian may find the explanations of these different projects tedious. Reading this collection of essays cover-to-cover will mean that even a novice is in for the occasional slog through a chapter that is barely relevant to their day-to-day work. Eventually, academic and public librarians alike will find at least one strategy described in this volume that will work well in their own library.

Although each chapter offers a unique perspective, the authors largely offer the same few suggestions: host a Wikipedia edit-a-thon, establish a Wikipedian in Residence, or use Wikipedia to teach information literacy. *Leveraging Wikipedia* is less a handy toolkit for the library professional who is ready to begin implementing these programs in their own library and more a source of encouraging testimonials.—*Natalie Mahan, Undergraduate Learning Specialist, University of Kansas, Lawrence, Kansas*

Sustainable Thinking: Ensuring Your Library's Future in an Uncertain World. By Rebekkah Smith Aldrich. Chicago: ALA, 2018. 194 p. Paper $49.99 (ISBN-13: 978-0-8389-1688-9).

Although the concept of "sustainability" has many possible meanings, its connection to environmental issues is perhaps the most familiar. Thus, a reader coming across Rebekkah Smith Aldrich's new book might assume that it is primarily about how libraries can best demonstrate stewardship of environmental resources. While this is certainly one important piece of the discussion, *Sustainable Thinking* has a much larger goal: advocating the capacity of libraries to build communities, whether it be through environmental, financial, leadership, political, or other initiatives.

As a long-time advocate for libraries and sustainability, Aldrich has a wealth of experience in library advocacy and communicates her message well. This book is comprised of several easy-to-read and brief chapters (no more than five pages), with a thought-provoking exercise at the end of each reading. Section One, "Situation Report," sets the stage: use of public libraries is down, although people still have generally favorable opinions of them. It's necessary for librarians to be aware of the many disruptions—political, economic, technological, environmental, and societal—surrounding them and their institutions to develop effective strategies for survival.

Section Two, "The Strategy," outlines ways that libraries can inventory themselves, their communities, and their values. Particularly interesting in this section is Aldrich's construct of the Three E's of Sustainable Libraries: Empower, Engage, and Energize, which serves as a focal point around which libraries can self-inventory their connection to their communities. Section Three, "The Tactics," builds on the preceding discussions of environment and mission to help libraries develop their own action plan to connect with and build their communities.

Aldrich has an engaging, conversational writing style, and packs quite a lot of useful information into a few pages. The worksheets, checklists, questions for discussion, and other supplementary material are useful exercises for individual and group discussion. *Sustainable Thinking* is a thoughtful, well-written workbook for anyone interested in library sustainability on an individual and institutional level.—*Jennifer A. Bartlett, Interim Associate Dean of Teaching, Learning, & Research, University of Kentucky Libraries, Lexington, Kentucky*

Sources
Reference Books

Anita J. Slack, Editor

RUSQ considers for review reference books and professional materials of interest to reference and user services librarians. Serials and subscription titles normally are not reviewed unless a major change in purpose, scope, format, or audience has occurred. Reviews usually are three hundred to five hundred words in length. Views expressed are those of the reviewers and do not necessarily represent those of ALA. Please refer to standard directories for publishers' addresses.

Correspondence concerning these reviews should be addressed to "Reference Sources" editor, Anita J. Slack, Liaison and Instruction Librarian, Capital University 1 College and Main Columbus, OH 43209 email: aslack8@capital.edu.

100 Great War Movies: The Real History Behind the Films. By Robert Niemi. Santa Barbara, CA: ABC-CLIO, 2018. 374 p. Acid-free $94 (ISBN 978-1-4408-3385-4). E-book Available (978-1-4408-3386-1), call for pricing.

The one hundred films covered by Robert Niemi's *100 Great War Movies: The Real History Behind the Films* were selected using an eclectic array of criteria (the preferences of the author based on his experience as a film teacher, the preferences of his friends and colleagues, and a survey of numerous best-of lists), and the result is of course a rather eclectic collection of entries. Coverage includes famous well-regarded films that most readers will expect to find in a collection such as this: *The Bridge on the River Kwai, From Here to Eternity*, and *Saving Private Ryan*. But readers will also encounter films with which they may not be as familiar, such as *Merry Christmas, Mr. Lawrence* starring David Bowie, and the film adaptation of Kurt Vonnegut's *Slaughterhouse-Five*. The films included also cover a wide range of ideological viewpoints: from patriotic World War II–era films to more recent films that take a more skeptical view of warfare.

The aim of the book is "to present a wide sampling of the best of the genre and to provide sufficient background information about how the film came into existence and how it relates to the real history it purports to represent in either broad or very specific terms" (x). Each entry is comprised of the following sections: "Synopsis," "Background," "Production," "Plot Summary," "Reception," and "Reel History Versus Real History." The "Reel History Versus Real History" sections are especially interesting since they provide detailed discussion of how well or how poorly the films reflect the historical events upon which they are based. Not surprisingly, the demands for a marketable story often lead to inaccurate portrayals of people and events. A good example of this is the discussion of the movie *Patton*, in which the author reveals many of George S. Patton's traits and actions the filmmakers ignored in an effort to portray Patton as a sympathetic character.

Niemi does not shy away from criticizing those whose work and ideologies he finds objectionable. This will often lead to insightful discussions such as his observations on John Wayne's role in glamorizing combat despite Wayne's never having served in the military. But Niemi's antipathies can also prompt him to go out of his way to offer debatable opinions, such as his claim that Wayne would have been a poor choice for the starring role in *Patton* because the title character was "markedly more educated and intelligent" than Wayne (243). In his discussion of *Sands of Iwo Jima*, he dismisses Wayne as "rather old" for the role and credits only the screenwriters for making Wayne's character "believably flawed" rather than the "cardboard hero he so often played" (271). Many would no doubt question this dismissive view of Wayne's performance given Wayne's Oscar nomination for the role.

100 Great War Movies is recommended (with the above reservation) for academic and public libraries. Libraries are also encouraged to purchase the comparable work *The Hollywood War Film* by Robert Eberwein (Wiley, 2009), which covers far fewer films but offers a lengthy historical overview of the war movie genre.—*Edward Whatley, Instruction and Research Librarian, Georgia College & State University, Milledgeville, Georgia*

Artifacts from Ancient Egypt. By Barbara Mendoza. Daily Life through Artifacts. Santa Barbara, CA: Greenwood, 2017. 339 p. Acid free $100 (ISBN 978-1-4408-4400-3). E-book available (978-1-4408-4401-0), call for pricing.

Artifacts from Ancient Egypt, a new title in the Greenwood *Daily Life through Artifacts* series, utilizes objects of daily life from ancient Egypt to illuminate the ways in which material culture reflects the lifeways of the people who produce it. In keeping with the general outline of the series, author Barbara Mendoza, a Berkeley-trained specialist in ancient Egyptian and eastern Mediterranean art and archaeology, has selected 45 pieces that reflect the customs, beliefs, and practices of ancient Egyptians from the earliest Predynastic era (ca. 5000 BCE) through the late Graeco-Roman period (ca. 300 CE). The material culture of ancient Egypt is particularly adapted to this kind of treatment, given its deeply ornamented and symbolic nature, and is an excellent beginner's guide to understanding and interpreting how material culture reflects the society that created it.

In the introduction, Mendoza gives a brief overview of Egyptian historical periods and discusses the limitations and problems of Egyptian historiographic evidence. She then has a section on evaluating artifacts, not just the who, what, where, when, and how of interpretation but also the *why*: why artifacts are vital to understanding the culture and lives of ancient societies and why their interpretation is so important. Included is a section on Egyptian chronology which is within the standard range of a reasonable low Egyptian chronology.

The artifacts themselves are arranged topically, covering areas such as beauty and clothing; household items and games; literacy and writing; and death and funerary equipment. There is a large black and white photograph of each object being discussed, and each article has an introduction, description, and significance section, as well as a list of further reading. In the "Death and Funerary Equipment" section, for example, a lovely set of alabaster canopic jars from the Twenty-First Dynasty are featured. The introductory section explains the purpose and history of canopic jars. The description section describes the jars, their lids fashioned in the form of gods, and their composition. The significance section explains why canopic jars were important in Egyptian funerary practice and the symbolic meaning of the gods that traditionally decorated them. Additionally, a breakout section gives an excerpt from the *Egyptian Book of the Dead*, which describes the heart weighing ceremony by the god Thoth, and explains the importance of the heart in Egyptian religious belief. The volume ends with a more extensive bibliography and an index.

This series, and this volume in particular, is a wonderful tool for exposing younger students to primary source materials and guiding them in their interpretation. As with the other titles in this series, color pictures would have been useful but the photographs of the artifacts are adequate. The choice of some of the translations of ancient texts is a bit puzzling, as there are better and more modern translations available for Egyptian literature. However, while there are thousands of books and articles written about Egyptian material culture, for younger students learning to work with primary materials for the first time this is a very accessible and student-friendly teaching tool. While not sufficient for scholarly research, this is a great resource for secondary and college students, and a good choice for undergraduate archaeology or art history departments.—*Amanda K. Sprochi, Health Sciences Cataloger, The University of Missouri, Columbia, Missouri*

American Women Speak: An Encyclopedia and Document Collection of Women's Oratory. By Mary Ellen Snodgrass. Santa Barbara, CA: ABC-CLIO, 2016. 2 vols. Acid free $189 (ISBN 978-1-4408-3784-5). E-book available (978-1-44083-785-2), call for pricing.

American Women Speak provides brief biographies and oratorical samples for American women notable for their use of the spoken word from the 1630s through the present. Aside from brief front and back matter, including a subject guide and chronology, the book consists entirely of biographical sketches of the women along with, for most of the women, examples of their oratory. The examples include excerpts from and the full text of speeches, testimonies, and interviews. They cover a wide range of progressive topics, including women's rights, environmentalism, pacifism, and gun control. Only two of the included women are activists for conservative causes.

The title's main weakness is the fact that a speech is not included for each woman profiled. Of the 184 biographies, slightly under one-fourth (43) are not accompanied by any piece of oratory. Undoubtedly, the task of tracking down transcripts or recordings and obtaining reproduction rights for speeches from all 184 women would have been difficult. In addition, including a speech for every woman would have made the text quite lengthy. Nevertheless, in a work specifically created to highlight women's voices, it seemed odd and frustrating that some of those voices were not present.

In addition, when a speech was present, it was sometimes difficult to understand the reason for its inclusion, especially when other speeches were mentioned that seemed more notable. For example, the biography for AIDS activist Mary Fisher describes her speech "A Whisper of AIDS" from the 1992 Republican National Convention as numbering in the "ranks of America's most treasured oratory," yet the speech that follows the biography is an excerpt from Fisher's testimony during a congressional hearing on AIDS legislation (252). There were certainly good reasons for choosing each piece of oratory. However, the title would have been improved significantly with the addition of the explanations for those choices.

Among similar titles, *American Women Speak* appears to be the largest in both scope and size, as other books are more subject-specific, highlighting women from one period or demographic, and include far fewer women. For example, *From Megaphones to Microphones: Speeches of American Women, 1920–1960* by Sandra J. Sarkela, Susan Mallon Ross, and Margaret A. Lowe, (Praeger, 2003), reproduces speeches from the so-called "quiet" years between the passage of the Nineteenth Amendment and the second wave of feminism. Robbie Jean Walker's *The Rhetoric of Struggle: Public Address by African American Women* (Garland, 1992) focuses on black women. *Great American Conservative Women: A Collection of Speeches from the Clare Boothe Luce Policy Institute*, by Patricia B. Bozell (Clare Boothe Luce Policy Institute, 2002), records speeches given by conservative women between 1999 and 2002. Finally, while it covers a broad period (1851–2007), *Great Speeches by American Women* by James Daley (Dover, 2008) only includes twenty-one women. Despite its shortcomings, its extensive coverage makes *American Women Speak* a recommended addition to collections, in particular for high school and college libraries serving speech classes and communications departments.—*Bethany Spieth, Instruction and Access Services Librarian, Ohio Northern University, Ada, Ohio*

Climate Change: An Encyclopedia of Science, Society, and Solutions. By Bruce E. Johansen. Santa Barbara, CA: ABC-CLIO, 2017. 3 vols. Acid-free $309 (ISBN 978-1-4408-4085-2). E-book Available (978-1-4408-4086-9), call for pricing.

An up-to-date and critical examination of international issues is essential as climate change creeps higher up the global agenda every year. While there are many works on this topic, circumstances change so quickly that it can be difficult to capture in this format. Author Dr. Bruce E. Johansen, the Fredrick W. Kayser Professor of Communication and Native American Studies at the University of Nebraska at Omaha, offers up this timely three volume set as an investigation into societal impact, science, and solutions. This is the author's fourth encyclopedic work on the topic of climate change and global warming. The work's intent is to address the disconnect between scientific study of climate change and the language of popular discourse and policy making. To that end, many of the topics are inherently political and they have far-reaching global impact, the solutions for which take up a large amount of political real estate.

The three volumes are laid out topically ("Land and Oceans," "Weather and Global Warming," "Human Impact and Primary Documents") rather than chronologically which suits the subject matter well for beginning researchers who are having difficulty narrowing in on manageable research topics within an area as complicated and broad as climate change. Although some of the major topic sections are vague ("Terrain," "Flora and Fauna," "Global Warming" for example) they are laid out clearly by subtopic in the table of contents. While the scope of these three volumes is wide and ambitious, it is in no way an exhaustive study of every aspect of climate change. It offers case studies and examples selected by the author to illustrate the social and scientific contributors to climate change as well as future solutions. Subtopics range in specificity from vast (Coal, Automobiles, Solar Power, for example) to quite focused (Wine Grapes and Warming, Allergies, and Pine Beetles), offering a variety of entry points. Related topics are referenced at the conclusion of each entry, though researchers will have to refer to the index to locate page numbers. Each subsection includes a bibliography for further reading.

As to be expected on a topic as far-reaching as climate change and environmental impact, there are many reference texts on this subject, several of which that have been published in the last two years. Another similarly all-encompassing and introductory set on climate change is the second edition of Steven I. Dutch's *Encyclopedia of Climate Change* (Salem Press, 2016), another three-volume set in this arena that markets itself toward high school students and undergraduates with easy to use, topically organized essays with glossaries and bibliographies.

There are other recent and similarly organized texts on this subject matter, but this three-volume set is recommend for two- and four-year institutions with introductory courses in environmental studies as it offers accessible snapshots of various topics under major subheadings and gives researchers a broad yet thorough examination of topics related to climate change.—*Mandy Babirad, Instructional Services Librarian, SUNY Morrisville, Morrisville, New York*

American Colonial Women and Their Art: An Encyclopedia. By Mary Ellen Snodgrass. Lanham, MD: Rowman & Littlefield, 2018. 383 p. $110 (ISNB 978-1-4422-7096-1). E-book Available (978-1-4422-7097-8), call for pricing.

American Colonial Women and their Art: An Encyclopedia has a unique focus, which makes it an interesting addition for most libraries. Though there are reference works that explore women and art and reference works that cover the American colonial period, there is not a work that focuses specifically on the art of colonial women. In addition to the distinctive topic, this one volume edition not only includes recognizable names such as Abigail Adams and Phillis Wheatley, but also less well-known women, such as Mary Roberts (miniaturist), Sarah Bushnell Perkins Grosvenor (painter), and Elizabeth Foote Huntington (needle worker). This reference work should make for a great tool for any researcher wanting to discover the artistic contributions of specific women.

Coverage spans from 1610 to 1789. A great variety of arts are featured, such as stitchery, quilting, rug hooking, painting, sculpture, sketches, essays, poems, novels, dancing, acting, oratory, musical compositions and performances, and more. It is arranged chronologically, with each year including major events and developments outlined by months and in some cases, specific dates. Many entries provide an image of either an artist or her work, which helps to illustrate what is being discussed.

Though the chronological arrangement makes for lively reading and helps to show the development of women's artistic skill and prominence during this period, it does make it hard to locate specific women a researcher may be interested in learning more about. The index becomes a very necessary tool for finding people and events in this text. There are two appendixes at the back that are also very helpful in identifying specific women: Art Genres and Artists by State.

Other valuable features are the glossary and the bibliography. The glossary is very useful for understanding unfamiliar terms and concepts from the period, such as "aubade" and "peplum," and it is written in a way that makes the concepts easier to understand. The extensive bibliography includes sections for Historical Periodicals, Tracts, Essays, and Letters, Historic Books, Secondary Sources, Periodicals and Theses, and Electronic Resources. The many details throughout the book and the bibliography suggest that the author delved deeply into primary sources in the writing of this reference work.

The target audience for this reference work is college students, art scholars, women's studies scholars, and historians. Anyone wishing to learn more about the contributions and impact of women during the colonial period will find this chronological encyclopedia a valuable resource.—*Arianne A. Hartsell-Gundy, Librarian for Literature and Theater Studies, Duke University, Durham, North Carolina*

Encyclopedia of Classic Rock. By David Luhrssen with Michael Larson. Santa Barbara, CA: Greenwood, 2017. 430 p. Acid-free $89 (ISBN 978-1-4408-3513-1). E-book available (978-1-4408-3514-8), call for pricing.

David Luhrssen (arts and entertainment editor of *Shepherd Express,* Milwaukee, WI) and Michael Larson (instructor, songwriter, recording artist, and attorney) have compiled a reference guide to the artists of what they call "classic rock." Admitting that the meaning of the term "classic rock" is disputed, they explain that one of their aims is to rescue it from "careless usage" (xxi). Rock and roll, they assert, "reached a new level of ambition by 1965 and entered a period of remarkable innovation and expressiveness that lasted through 1975" (xxi). And although rock and roll was regarded as simple entertainment and usually took the form of the single, the newer form—rock—"aspired to become art" and tackled "the wider canvas of the long-playing album" (xxi). While the authors concentrate on the period 1965–1975, they discuss the later careers of those who have continued to write and perform. As appropriate, they include artists who began recording before 1965, but not those whose first albums appeared after 1975. They also devote entries to a handful of others, such as Leonard Cohen, whose music was important to the popular culture of the period.

Encyclopedia of Classic Rock opens with a "Contents" page listing all entries, a "Preface," an "Introduction," and a year-by-year "Chronology" of pertinent events in rock and the wider world. It continues with some three hundred alphabetically arranged entries devoted to groups and individual artists, along with a handful describing forms (Blues, Punk Rock), geographical groupings (Eastern Bloc Rock), and so on. The entries are written in an engaging style and conclude with short lists of "Suggested Albums" and, when appropriate, "See also" references. Thus, the two-page entry on the Velvet Underground closes with a list of the band's most important studio and live recordings and directs readers to entries on John Cale and Lou Reed, both of whom continued to produce important work after the Velvets' dissolution. A short bibliography is followed by a sixteen-page index covering groups, individuals, and concepts, with the page numbers for main entries boldfaced.

As the authors point out, there have been several reference works devoted to rock, each of which, in their opinion, has certain drawbacks. They fault the most recent, the third edition of the *All Music Guide to Rock: The Definitive Guide to Rock, Pop, and Soul* (All Media Guide, 2002), for its overly expansive coverage and its inconsistent viewpoint. But while that work compares favorably with the *Encyclopedia* in terms of entry length, its perspective is now dated and its coverage of later careers limited.

Given its focus, its coherent and consistent approach, and its currency, the *Encyclopedia of Classic Rock* is a good choice for high school, public, and undergraduate libraries.—*Grove Koger, retired reference librarian, independent scholar, Boise, Idaho*

Etiquette and Taboos Around the World. Edited by Ken Taylor and Victoria Williams. Santa Barbara, CA: Greenwood, 2017. 373 p. Acid-free $100 (ISBN 978-1-4408-3820-0). E-book Available (978-1-4408-3821-7), call for pricing.

"Etiquette is a code of behavior that defines expected, conventional social behavior according to contemporary norms within certain cultures, classes, and groups of people" (xi). This sentence describes the content of this one volume reference book, covering countries in North, Central, and South America, Europe, Asia, the Middle East and Oceania on this topic. The information presented in this book is appropriate for the research needs of high school and early college students. There are no other similar books available, so this fills a gap in the literature.

The Introduction at the beginning of the book offers a necessary detailed survey of the history of etiquette and taboos which helps create relevance for this information. This history becomes confusing toward the end when Dr. Williams unnecessarily discusses modern etiquette through the lens of political correctness and social media, which is a topic which belongs in another book. The true strength of this book is the detailed, credible information, written by well qualified contributors about the nuances of social etiquette and taboos within each country. This book extends beyond what would be found in an internet search.

The alphabetical entries appropriately range between six and ten paragraphs. Each entry has a "Further Reading" list. The entries describe the country itself and the characterizing etiquette and taboos which include but are not limited to clothing, dating, table manners, handshakes and other greetings, food, hospitality, religion, marriage, birth, and death customs. There is a "Culture Shock!" text box with a small globe icon connected to some entries. The "Culture Shock!" information is a helpful paragraph on a little-known aspect of the country's culture. The title, "Culture Shock!" with the small globe icon seems unnecessarily contrived and should have been more simply stated. There is a selected Bibliography in the back of the book. The index has a listing of the more specific elements of the country's etiquette and taboos under the name heading, which will be of great help to students.

A niche subject area like this will be the future of successful print reference books. The one volume format makes the book accessible for student checkout. This is an excellent topic for a print book format because etiquette and taboos changes slowly and less dramatically than other topics such as politics. This means greater longevity on the library shelf.—*Terry Darr, Library Director, Loyola Blakefield, Towson, Maryland*

Japanese Americans: The History and Culture of a People. Edited by Jonathan H. X. Lee. Santa Barbara, CA: ABC-CLIO, 2017. 462 p. Acid-free $105 (ISBN 978-1-4408-4189-7). E-book Available (978-1-4408-4190-3), call for pricing.

Japanese Americans: The History and Culture of a People is a single-volume comprehensive resource that addresses many aspects of Japanese American history and culture, and "reveals the long, hard, and aching struggling of Japanese Americans to be treated as Americans" (xiii–xiv). Editor Jonathan H. X. Lee begins the preface with a brief overview of Executive Order 9066 authorized by President Franklin D. Roosevelt in 1942, which enforced a mass incarceration and relocation of approximately 120,000 Japanese Americans. Lee compares this to the modern-day Executive Order 13769, "Protecting the Nation from Foreign Terrorist Entry into the United States" issued by President Donald Trump, which is the travel ban that prevents seven Muslim-majority countries from entry into the United States.

This work is organized into four parts that cover Japanese Americans' emigration to the United States, political involvement and economic endeavors, cultural heritage and religious traditions, and their contributions to the arts, literature, popular culture, and sports. A table of contents lists all the entries alphabetically under each part. Each part begins with a historical overview, and the entries cover key events, places, and figures that capture the unique and complicated experiences which have shaped the Japanese American identity. Broad subjects like "Japanese American Exclusion," "Buddhist Churches of America," and "Japanese Transnational Identity," are addressed, while other entries cover specific topics like the "No-No Boys," "Yamato Colony of California," and "Floral Arrangements/Ikebana." The entries were written by seventy-six contributors and their institutional affiliations are listed at the end of the book. Entries conclude with "See also" cross-references to related articles and suggestions for "Further Reading." These along with a separate extensive "Selected Bibliography" allow for more in-depth exploration. Additionally, a detailed "Chronology of Japanese American History" is included following the preface, and the work concludes with the text of fifteen primary documents, such as "The Treaty of Kanagawa, March 31, 1854," "Immigration Act of 1917," and the "Executive Order 9066, February 19, 1942."

Many libraries may already own Brian Niiya's single-volume *Encyclopedia of Japanese American History: An A-to-Z Reference from 1868 to the Present*, published in 1993 by Facts on File in partnership with the Japanese American National Museum, with an updated edition published in 2001. This encyclopedia was one of the first of its kind to provide a comprehensive overview of the Japanese American experience. The entries in this encyclopedia are arranged alphabetically by title, making *Japanese Americans: The History and Culture of a People* a little easier to browse since the entries are thematically organized. But overall, these encyclopedias complement each other and could be used concurrently to gain an even richer understanding.

Lee fears that history is repeating itself but believes with learning and (re)educating ourselves of past oppressions, forward progress and change is achievable. Lee hopes that *Japanese Americans: The History and Culture of a People* "will be a useful resource for students who wish to learn about the contribution and history of Japanese Americans," so that "we remember our history and use it to guide our future as a country of immigrants, a place where liberty, freedom, and the pursuit of happiness is available to all" (xv). *Japanese Americans: The History and Culture of a People* is highly recommended and would be a welcome and valuable addition to any academic or public library.—*Megan Coder, Associate Librarian, State University of New York at New Paltz*

The Routledge Handbook of Language and Professional Communication. Edited by Vijay Bhatia and Stephen Bremner. London, UK: Routledge, 2014. 584 p. $204 (ISBN 978-0-415-67619-9)

The contributors in this single-volume handbook thoroughly examine the pedagogic and practitioner interpretations of language and professional communication, as well as the theoretical frameworks of related disciplines: business communication, management communication, workplace communication, corporate communication, and organizational communication. Further, the handbook "is an attempt to introduce current research and practice in the field of language teaching and learning in professional contexts to a wider audience" (xvi).

The thirty-five chapters tend to be quite lengthy—some extending to over twenty pages and contain standard sections such as, "Related topics," "Key readings," and "Bibliography." Four major sections organize the handbook: "Approaches to Professional Communication," "Practice," "Acquisition of Professional Competence," and "View from the Professions," which contains interviews with practitioners from the banking, law, accounting, and public relations fields. The handbook concludes with a handy index. All the chapters are jam-packed with useful references for further research.

Contributors to the handbook include both international scholars and practitioners. The information in the handbook is highly technical and may not be as accessible to the traditional undergraduate student; hence, the introduction notes that the audience for the handbook are "newly initiated professional communicators, teachers, and trainers, but also researchers in the field of professional communication" (xvi).

The Routledge Handbook of Language and Professional Communication differs from other works such as the *Encyclopedia of Communication Theory* (SAGE, 2009) in that it is not a browseable encyclopedia that provides quick overviews of communication theories and thus may not appeal to a general audience. Instead, this handbook is exceptionally specialized and will appeal to only those who are scholars or practitioners in the professional communication realm. Recommended for reference collections of academic libraries with graduate programs in professional communication or linguistics.—*Colleen Lougen, Electronic Resources Librarian, SUNY New Paltz, New Paltz, New York*

Sacred Texts Interpreted: Religious Documents Explained. By Carl Olson. Santa Barbara, CA: ABC-CLIO, 2017. 2 vols. acid free $198 (ISBN 978-1-4408-4187-3). E-book available (978-1-4408-4188-0), call for pricing.

Sacred Texts Interpreted (*STI*) is a collection of religious texts from a variety of different religions. It begins with two brief chapters introducing this work and providing some general insight regarding how one should read sacred texts. The remaining thirteen chapters provide sacred texts from different religions: Baha'ism, Buddhism, Christianity, Confucianism, Daoism, Hinduism, Islam, Jainism, Judaism, Mormonism, Shinto, Sikhism, and Zoroastrianism.

The purpose of this work is to provide a collection of sacred texts from differing religions in a single publication. Each section begins with a brief historical overview of a religion and the sacred texts that it uses. Each section assumes the reader knows very little about a specific religion and subsequently provides some basic background information on that religion.

The remainder of each chapter is sacred text, texts which serve a foundational role, from that religion. After each portion of text, *STI* provides commentary from the editor, Carl Olson. Olson is a professor of religious studies at Allegeheny College in Meadville, Pennsylvania. The comments vary in length anywhere from a sentence or two to a half-page. They typically provide a summary of what the passage stated, with a handful of interpretive comments throughout.

While the work generally meets the purpose of providing a collection of sacred texts in one book, it would have limited uses in many libraries. Some may find the subject index helpful, particularly when perusing certain inquiries, such as, what the Mormon texts say about Jesus Christ. For this inquiry, the subject index points the reader to the various sacred texts in Mormonism that address this query. Unfortunately, however, this is the only index embedded into *STI*. Could it have included an index of the sacred texts which *STI* includes? Or, at least list the texts as part of the table of contents? This would have made it easier for a patron looking for the primary text of Sikhism's Siddh Gosh 12 to know that *STI* includes it.

For a collection of historical texts, a timeline showing the chronological relationships between these differing religions, including the estimated times in which these various texts were written, would be incredibly beneficial. Unfortunately, *STI* does not include anything of this nature.

The final drawback of this work is the fact that many English translations of these primary religious texts are available online at no cost. As many academic libraries face stagnant or declining acquisition budgets, what would lure academic librarians to purchase this work for their institution? Unfortunately, the attractions are minimal.

While academic libraries may not find this work beneficial, it may be different for public and K12 school libraries. For a high school student coming to a K12 school library needing a quick bit of information on what Confucianism teaches, this may be a great asset to assisting that student. Likewise, public libraries may find it helpful for general queries relating to religious texts, particularly for patrons who are hesitant to use online sources.

Overall, *STI* provides access to religious texts with brief introductions and commentaries. Due to the lack of tools (i.e., multiple indexes, charts, etc.), the usefulness of *STI* is limited to basic inquiries, which may be more common in the context of K12 and public libraries than libraries at post-secondary institutions.—*Garrett B. Trott, University Librarian, Corban University, Salem, Oregon*

Today's Environmental Issues: Democrats and Republicans. By Teri J. Walker. Across the Aisle. Santa Barbara, CA: ABC-CLO, 2018. 382 p. Acid-free $97 (ISBN 978-1-4408-4709-7). E-book Available (978-1-4408-4710-3), call for pricing.

Walker is an associate professor of political science at Elmhurst College. This volume is part of a series titled "Across the Aisle." The other titles cover Social Issues, Economic Issues and Foreign Policy Issues. The preface is written by Lindsey Cormack, an assistant professor of political science and director of the Diplomacy Lab at Stevens Institute of Technology. She goes on to state that members of Congress "do not dedicate the same amount of time and focus to each pressing environment issue." (vii). Cormack presents some tables that contain both topics covered by party e-newsletters and keywords that are used most by each party. The preface also gives an overview of each party's platform pertaining to environmental issues in 2016. The introduction states that this volume "examines the proposal and positions of the two parties—both the profound disagreements and the areas of common ground between the two parties." (xviii).

The volume starts with a table of contents and has an alphabetical list of entries. Each signed entry is several pages long and contains an extensive list of "Further Reading" resources. The entries are all structured the same and start with an "At a Glance" summary of the topic. There are bullet points to summarize each party's positions and then an overview of the subject. Each party's platform is then covered in-depth.

A sample of topics include "Climate Change," "Grazing," "Mining," "National Parks," "Solar Energy," and "Wetlands." Under "Grazing," the reader learns that livestock grazing in the Western US has divided the Democrats and Republicans for years. Democrats are in favor of higher grazing fees and stricter regulations while Republicans see higher fees and stricter regulations as harming the competitiveness of ranchers and farmers. There is a separate section within "Grazing" that describes the standoff between the Bundy family and government agents in Nevada.

The end of the volume contains an extensive glossary, a short selective bibliography, an index, and biographical information about the contributors.

There is a series called "Taking Sides: Clashing Views" published by McGraw Hill that covers environmental issues in several different volumes. There is one devoted solely to environmental issues while some of the other broader titles (World Politics, Sustainability) touch on the environment. This title has a unique focus of covering both political parties and is recommended for all libraries. It presents both sides of an environmental issue in a neutral fashion and would be a very useful reference source for anyone interested in how their political leaders view the subject.—*Stacey Marien, Acquisitions Librarian, American University, Washington, DC*