Reference & User Services Quarterly

Summer 2017
Volume 56, Number 4
ISSN 1094-9054
www.rusq.org

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

Why do Students Seek Help in an Age of DIY?

Brief Intervention to Change Students' Attitudes Regarding Library Research

Specialized Reference Services at Illinois

Hacking the Literature Review

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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. Subscription price: to members of RUSA, $25 a year, included in membership dues; to nonmembers, U.S. $65; Canada and Mexico, $70; and all other countries, $75. Single articles, $12.

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

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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.*

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Columns

224 From the Editor
BARRY TROTT, EDITOR

226 From the President of RUSA
Thoughts on Equity, Diversity, and Inclusion and Reference and User Services
ALESIA M. MCMANUS

228 Management
MARIANNE RYAN, EDITOR
Surviving and Thriving in an Acting Leadership Position
GREGORY MACAYEAL

232 Information Literacy and Instruction
ESTHER GRASSIAN AND SARAH LEMIRE, EDITORS
Teaching and Learning Alternatives: A Global Overview
ESTHER GRASSIAN

240 Amplify Your Impact
NICOLE EVA AND ERIN SHEA, EDITORS
Marketing Libraries is a Team Effort
CAITLIN COWART

245 Readers' Advisory
LAUREL TARULLI, EDITOR
Bad Boy Romances: Biker Boys and Mobster Royalty

249 The Alert Collector
MARK SHORES, EDITOR
Transgender Culture and Resources
JEANNIE BAIL AND AISLA CRAIG

255 A Reference for That
NICOLETTE WARISSE SOSULSKI AND DAVID A. TYCKOSON, EDITORS
Personal Service in an Impersonal World

Features

257 Why do Students Seek Help in an Age of DIY?
Using a Qualitative Approach to Look Beyond Statistics
MARC VINYARD, COLLEEN MULLALLY, AND JAIMIE BETH COLVIN

268 Specialized Reference Services at Illinois
Reference Transactional Analysis and its Implications for Service Providers and Administrators
JOE LENKART AND JEN-CHIEN YU

277 Brief Intervention to Change Students' Attitudes Regarding Library Research
STEVE BLACK AND ROSS KRAWCZYK

285 Hacking the Literature Review
Opportunities and Innovations to Improve the Research Process
JENNIFER LUBKE, VIRGINIA G. BRITT, TRENA M. PAULUS, AND DAVID P. ATKINS

Departments

Sources

296 Professional Materials
KAREN ANTELL, EDITOR

300 Reference Books
ANITA SLACK, EDITOR

Change Must Be Served

Barry Trott

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As I write this column in April, it is National Poetry Month, and I have been reading a lot of poems, old and new. I came across Ruth Lechlitner's 1938 poem "Change Must Be Served," in which she says, "They who fear change nest in the now-moment."[1] There is a lot of change going on in our world, in our communities, and in our libraries, and it becomes very easy to do just what Lechlitner describes. We often find it easier to turn away from the relentless and difficult questions that these changes raise than to reflect on what they mean for us as librarians and as members of a community.

Over the past several years, Joe Thompson, Anne Houston, and Alesia McManus, our three most recent RUSA presidents, have written thoughtful pieces for *RUSQ* about changes being considered in the organization. They and many others have covered everything from considering name changes to reflections on the nature of what we do as reference librarians. For some members, changing an organization that has been a home for them and for their work is a hard thing to contemplate. And considering all of these changes to a profession that we value and love can be difficult. Rethinking your work and your role in your institution is a scary thing. What if it means that you find that you no longer have a role? What if your long-held career plans are no longer viable because the work you wanted to do is not the work that needs to be done? It can be tempting to "nest in the now-moment" and pretend that things are not changing.

So, how do we make peace with the idea that, as Ruth Lechlitner said in 1938, "Change must be served?" Looking back after twenty years of work in reference librarianship, the common trait among the people I know who have been not only successful at their jobs but also happy in their work has been a willingness to find joy in learning new things. When I was fairly new to the profession, I used to worry that I did not have big plans for where I wanted to be five years down the road (that common interview question). I just do not really think that way, but I felt that I should, as it seemed to be expected.

I was fortunate enough to attend Snowbird Library Leadership Institute early on in my career, and there I heard George Needham talk about this concept. Needham said that rather than planning where he wanted to be in five years, he simply did the best job he could in his current position, tried to learn as much as he could about the institution and its users, and said "yes" when asked to do things. Then, when a new opportunity, a change, arose, he would be prepared to take it.

This was an epiphany; it has shaped my professional life.

Perhaps, then, it is best to look at change, in our profession, in our library, in our professional organization, not as something to fear and to hide from, but as a chance to learn something new about that profession, that library, or RUSA. I think that taking this approach makes the idea of change seem less overwhelming. It becomes instead an occasion to become a better librarian and to prepare yourself for the next opportunity that comes along.

With that in mind, I wanted to alert you all to some upcoming changes at *RUSQ*. I have had the pleasure and challenge of serving as editor of the journal for the past five years. But the editorial position is limited to two three-year terms, and so we will be looking for a new editor to take over the journal, becoming editor-designate on February 1, 2018, and assuming the position of editor following the 2018 ALA Annual Conference. In late summer or early fall of this year, we will send out a call for applications for the editor position, and I encourage anyone with a background in scholarly publication to consider applying. I would be happy to answer any questions about the position, so feel free to contact me at btrott@wrl.org or 757-259-7747.

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Thoughts on Equity, Diversity, and Inclusion in Reference and User Services

Alesia McManus

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As is often the case with publication timelines, I'm writing my last *RUSQ* President's Column in February but it won't be published until June. My columns this year have focused on opportunities and challenges for RUSA and this column is no exception. At the 2017 ALA Midwinter Meeting in Atlanta, ALA Council accepted a proposal to add a fourth strategic direction to ALA's Strategic Plan. Equity, diversity, and inclusion (EDI) is now the fourth strategic direction, joining advocacy, information policy, and professional and leadership development.

Here is a summary of the new strategic direction: The ALA recognizes that equity, diversity, and inclusion affect all aspects of work among members of the association, within the field of librarianship, and within the communities served by libraries. This work includes addressing, dismantling, and transforming policies, structures, and biases throughout both the organization and the field of librarianship. The ALA, through its actions and those of its members, is instrumental in creating a more equitable, diverse, and inclusive society.

This powerful statement is accompanied by specific goals for the association, including the following:

- committing to ameliorating marginalization and underrepresentation within the Association and the communities served by libraries through increased understanding of the effects of historical exclusion
- expanding the work of the ALA and its allies in building a diverse and inclusive profession
- providing context and understanding of the concepts of equity, diversity, and inclusion and recognizing their intersectional and complex nature
- empowering all ALA members to participate in the life of their organizations
- establishing resources and support so libraries and librarians can be effective advocates for the inclusion of all individuals in the life of their community
- establishing the ALA as a major voice for the values of equity, diversity, and inclusion in all areas of information policy
- providing a safe, respectful space for diverse voices and perspectives

This strategic direction is timely for many reasons given the current political situation in our country. Its implementation provides RUSA members with an opportunity for conversation about how considerations of diversity, equity, and inclusion affect reference and user services in libraries.

In June 2016, the ALA Task Force on Equity, Diversity, and Inclusion submitted a final report which provided a total of sixty recommendations for the association in areas of conference program planning, annual conferences, priorities and planning, membership and participation, and recruitment, education, and retention. One of the recommendations strongly encourages all offices, divisions, and round tables within ALA to audit their goals, strategies, and outcomes for diversity and inclusion every three years. The task force also provided definitions for the terms equity, diversity, and inclusion.[1]

Anne Houston, RUSA past president, shared an important article with the RUSA executive committee that examines how well the RUSA "Guidelines for Behavioral Performance of Reference and Information Service Providers" and RUSA "Professional Competencies for Reference and User Services Librarians" address societal racism.[2] In a 2015 article in *Library Trends*, Brook, Ellenwood, and Lazzaro use critical discourse analysis as a method for analyzing the RUSA documents using the lens of critical race theory.[3] In particular, the authors examine the principles of approachability, responsiveness, and objectivity in the documents and provide suggestions for an "antiracist reference practice."

The RUSA executive committee has just received the draft revision of the 2003 "Professional Competencies for Reference and User Services Librarians." The Task Force on Equity, Diversity, and Inclusion recommends that, after an initial review by RUSA board, the competencies be available for a specified period of time for member comments. With the help of RUSA board, I will be thinking of different ways that the RUSA membership can have a dialogue on equity, diversity, and inclusion and how we might develop actions for the RUSA strategic plan as well as reviewing the professional competencies in light of principles of EDI.

I would like to thank the members of the RUSA Professional Competencies for Reference and User Services Librarians Task Force, including Nancy Huling (chair), Larayne Dallas, Robin Kinder, Jo Bell Whitlatch, and Beth Woodard, for their work on revising the Professional Competencies.

As always, I would like to hear your thoughts on this topic. Please send an email message to alemcmanus@ucdavis.edu. I look forward to the conversation.

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Surviving and Thriving in an Acting Leadership Position

Gregory MacAyeal

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Excelling at one's job can be a challenge. Trying to do it for two jobs—concurrently—can be beyond difficult, yet that situation is not uncommon in evolving organizations that utilize acting appointments to bridge gaps during periods of change. In this column, Greg MacAyeal outlines the many facets of acting appointments—both the positive and the less so. MacAyeal provides much food for thought for those who may be tapped to take on such roles or are already negotiating their way through them. His insights are worthy of consideration by anyone who is juggling an acting position or thinking about doing so, as well as by administrations who rely on this mechanism during times of transition.—*Editor*

In most organizations, interim employment assignments are not uncommon. While the for-profit world makes use of interim assignments to enable certain kinds of change or growth, higher education tends to use "acting" positions in a different way. In the business world, for example, there are individuals who make careers out of interim managerial assignments. Such people are hired guns who can step in, produce a desired or prescribed result, and head off into the sunset. Acting positions in higher education, however, tend to be filled by individuals who are already employed by the college or university. In most instances, a person filling an acting role (henceforth referred to as the actor) expects to continue to be employed by the same institution once the acting assignment has concluded. The responsibilities of the actor's "old" job, along with those associated with the acting position, are expected to be met with equal attention. Practically speaking, this is nearly impossible, but the work is there and needs to be done. Filling these positons may be a comparatively fast and simple process, which is advantageous to the organization. However, realizing success as an actor is not fast and can be riddled with complications. It is highly beneficial to the organization to support the actor. This article will describe potential hazards and suggest strategies to enable success in interim employment.

BACKGROUND

The library and managerial literature includes a handful of pertinent articles on this subject. Lisa German offers a practical approach in day-to-day leadership. She suggests that actors need to view their new roles with enthusiasm, and proceed with the intent to advance established goals, as opposed to simply maintaining operations.[1] Lynn Chmelir offers her perspective on being an interim director, something that happened twice in her career. In both situations, she was hired from the outside as an interim director, and her comments reflect the need to add stability to an unsettled situation.[2] Her commentary builds upon another engaging essay authored by Gail Munde, whose experience is in a large academic library. She describes "lessons learned" and covers time management, perceptions, and the experience of suddenly finding herself on the playing field of the whole university, not just the library.[3] Offering additional advice, Sandra Shell demonstrates how personal management style can positively impact a short-term assignment. She advises potential actors to be informed, do the work that needs to be done, and allow themselves to make mistakes while emphasizing the growth opportunity available to them.[4] Sandra Weingart's article provides a carefully written case study regarding her time as an academic library acting director. She describes the experience of suddenly leading a unit without the benefit of established goals.[5] Pat Newcombe and James Donovan describe a career path that leads from acting to permanent employment.[6] Overall, these excellent texts suggest a few common themes in the areas of communication, administrative support, time management, expectations and perceptions, and ultimately the potential benefits of accepting acting assignments. I will address these themes and others as informed by my own experience in an acting role.

I was named acting head of the Music Library at Northwestern University, an appointment that lasted roughly one year. At the end of my appointment, I was named permanent curator of the Music Library. Prior to my time as acting head, for six years I held the position of assistant head of the Music Library.

The title of Curator that I now hold came about as the result of a large-scale reorganization process. Beginning in 2014, Northwestern Libraries embarked on a robust plan with the stated purpose to revision the library as an outward-facing organization. A central goal of the reorganization was to consolidate like kinds of work into single workgroups across the library. For example, in the previous organization, the Music Library was a single department with responsibilities that included stacks management and cataloging. In the new structure, both of these functions were transferred to other units, bringing similar work together. The Music Library became a more service-focused unit. No longer a stand-alone department, it is now a unit within a larger workgroup called Distinctive Collections, but still keeps its mission of maintaining a world-class collection of music materials. Throughout the library, many staff members took on new or revamped responsibilities as a direct result of the reorganization. Several acting positions were created. My experience was not unique.

ALLEGRO NON TROPPO (FAST, BUT NOT TOO FAST)

As stated above, one benefit of appointing an existing staff member to an acting positon is that it can happen relatively quickly. The organization can begin working promptly where there is need or in entirely new areas. However, the downside to speed and flexibility is a deficiency in long-term planning. For newly created positons in newly formed units, acting leaders may begin their work with unclear relationships to administration, staff, and new reports. Administration may not have the time to look carefully at the strategic needs of new units, and thus may not be immediately able to deliver complete job descriptions or define competencies.

Another challenge is that newly formed units with acting leaders may not have the benefit of established access to materials and organizational resources. Acting unit leaders may be asked to hit the ground running with little more than an outline of their responsibilities. Budgets, workflows, and policies may not exist at the onset but instead come in time. The need to quickly solve practical, on-the-ground problems can cause a delay in long-term or strategic planning. This in turn can hinder the development of a vision for a permanent appointment. Solutions for practical problems can be definitive and stand as the lasting approach to addressing a particular need. It becomes difficult to make a change to that solution even when the opportunity to think strategically finally arrives.

COMMUNICATION

A key point taken from the existing literature is that excellent communication is imperative. Think of the actor as the central point in a communication chain that flows in a bidirectional manner, away from the actor to both administration and to staff. This of course is true in any leadership position, particularly in those often referred to as a mid-level. From the perspective of the actor, it is important to allow reporting staff to communicate openly and freely. If the actor is stepping into a breach, staff will express their concerns. The need to allow reporting staff to communicate their concerns is vital even when no immediate solution is clear or available. Especially in times of transition, people fundamentally feel the need to be heard.

MANAGING EXPECTATIONS

The impermanence of an acting role creates a unique situation related to expectations. Will the actor be expected to significantly advance already-established goals? Will the actor take on more of a maintenance role, with work limited to sustaining routine tasks? Staff may wonder if they should take the actor seriously, or ignore the actor and wait for a permanent hire. Administration can help tremendously by firmly communicating expectations, both to the actor and to the reporting staff. It is important for everyone to have a shared understanding.

Administration may expect an actor to continue to work at a high level. In instances where the expectation is to move unit goals forward quickly, the actor may not have time to develop relationships naturally. It may be difficult to know how to delegate work. Most likely, the actor will tend to work especially hard with those staff who will address pressing needs, but those needs may not be critical from a strategic perspective. The urgency of short-term gains can negatively impact long-range goals. In such a myopic situation, truly important relationships can go undernourished.

MANAGING PERCEPTIONS

Reporting staff will need to see the actor as a resource, no matter what expectation is understood, and how the actor is perceived is very important. If an internal appointment, the actor will undoubtedly carry some existing perceptions. The actor may also need to respond to perceptions related to the predecessor, if there is one. When perception of the predecessor is positive, everyone will want the actor to work in the same style. When negative, there will be hope for a departure. Good and bad, fair and unfair, how the actor is perceived defines how the actor will be treated. Some people may find it difficult to define themselves in new roles. The actor may be required to treat others differently because relationships have been redefined. Asserting an identity beyond any existing perception is a burden the actor must overcome, but one of vital importance.

AUTHORITY

More responsibility should lead to more authority, but this does not always happen—or happen fast enough. If we think of authority as a construct of responsibility, trust, and acceptance, we see that authority is both granted (by those who assign responsibility) and allowed (by those who accept direction). Administration will likely support the decision-making responsibility of the actor, but the actor will still need to earn administration's trust. It may take some time for administration to fully trust an actor to make important decisions. Without trust, the staff will not allow the actor to retain authority without some kind of intervention. If this intervention is required before the actor has gained the trust of administration, lasting problems may develop. Unresolved trust issues will impede the actor's authority, which can create a toxic situation. For the actor to be successful, the actor's authority must be accepted by everyone.

ONE PERSON, TWO JOBS, AND HOW TO FILL THE VOID

Many times, an actor will end up with two jobs. Administration may seek to reduce the work load of the actor, but often not much can done. Prior responsibilities will still need to be addressed. An acting position implies a vacancy, and these responsibilities will likely be distributed across the actor's permanent home unit and possibly the temporary unit. To fill the vacancy, unit responsibilities might be redistributed so staff members take on extra work. Addressing most critical needs can necessitate staff working beyond their strengths or primary areas of responsibility.

While it's wonderful to have staff who are willing to take on extra work, an incorrect sense of ownership can develop. It may create a "job creep" of sorts that will ultimately produce flawed workflows and enable on-the-fly decisions to become policy. When the time comes to reevaluate responsibilities and workflows, staff who have taken on extra work may not want to relinquish it, even to other more appropriate staff. Job creep can become permanent, with ill-suited employees juggling an odd array of duties.

THE SUCCESSFUL ACTOR

Completing an acting appointment with a successful outcome depends on a complex set of interdependent factors. How well administration supports the actor is key, as is how the actor develops relationships. Staff will help both themselves and the actor, if they are able to accept the actor and maintain reasonable expectations.

Administration can help actors by taking these steps:

- Setting well-defined and manageable goals. The sky will seldom be set as a limit for anyone in an acting role. Administration will help the organization by broadly communicating reasonable expectations which should align with the parameters of the temporary situation. With periodic review, goals can be altered to fit evolving needs.
- Setting the tone. By making sure the organization knows that the actor will be supported, administration will be able to establish authority and encourage staff to feel that the unit's success is a priority.
- Establishing a path to resources early in the actor's tenure. With newly defined roles, it may be unclear what budgets, facilities, and staff are available to help the actor. Having these questions answered early will help ensure that efforts are well supported.
- Making a timeline. Crucial to setting reasonable goals, an initial timeline will give the organization a sense of formal structure in an otherwise uncertain setting. Timelines should be reviewed periodically.

Actors can help themselves by taking these steps:

- Actively working to keep communication lines open. Developing relationships with staff is the most important initial goal. This is crucial to having the staff believe that the actor wants to listen and values all members of the unit.
- Asserting themselves. Actors need to communicate their expectations based on goals set by the organization and

the unit. They should allow their natural style to emerge without being overly critical of predecessors. Aside from not fully understanding the predecessor's decisions, actors may undermine the relationships they are trying to improve.
- Delegating appropriately. By assigning work where it is best suited, the long-term health of the unit will be strengthened. Actors must resist the urge to assign work solely to staff that are available, are friends, or have worked well in unrelated situations.

Staff can help actors by taking these steps:

- Allowing actors to be themselves. By resisting the temptation to make comparisons, staff will allow actors' natural styles to flourish.
- Accepting that any extra work may be temporary. Taking on new areas of responsibility is most successful when it's part of a larger strategic vision. Matching personal strength and interest with need is essential and should be targeted over convenience and speed.
- Keeping expectations in check. It will take time for the actor to secure all the resources needed to complete all tasks. Patience is always a virtue.

SURVIVING AND THRIVING

The upside for the actor is potentially high. An acting role may offer the chance to grow in areas that may otherwise be unavailable. By interacting with a fuller range of staff, the actor has the opportunity to create a new workplace context for him or herself. Performing at a high level while really holding two jobs shows administration an actor's high capacity and ability to adapt. These are "soft skills" that can normally be very difficult to demonstrate. The experience may very well evolve into a permanent situation, as in my case, or it may to lead to a different opportunity. Other leadership situations may arise, and with an established track record of positive growth, leadership experience, and willingness to take on challenging work, the actor is well poised to become a viable candidate. For opportunities that arise outside of the organization, the actor's CV will reflect the additional experience.

From the administration's perspective, there is also a potential upside. Acting assignments offer a unique opportunity to test out an employee's ability to grow. With only a short-term commitment, if the acting assignment is not a good fit, administration can choose to return the actor to the original role. If the actor is competing for a permanent positon, administration will have gained valuable insight which will inform the recruiting process. The chance to evaluate a staff member with on-the-job experience in an agile setting gives administration a staffing tool unlike any other.

There is a shelf life to all acting appointments. The longer the duration of acting roles, the more difficult success becomes for both the actor and organization. Ambiguity can lead to stress, temporary measures can become lasting solutions, and time slips away on strategic goals. With administrative help, actors will be successful and provide essential help to their organizations. Ideally, both the actor and the organization will have a good experience by the conclusion of the acting assignment. No matter what follows, the actor will have grown and demonstrated new abilities, and the organization will have gained valuable knowledge on which to base strategic decisions.

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Teaching and Learning Alternatives
A Global Overview

Esther Grassian

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Your communities need your help more than ever, in so many ways—job, healthcare, and college and occupational study applications, workplace research and problem solving, research paper and homework help, and many other community-related issues, like accessing laws and regulations. How do you address these needs when there are so many people needing your help, at any time of the day or night, almost anywhere in the world, but also right in front of you at a physical reference desk? Face-to-face personal help is still invaluable, but reference work has expanded in many ways. It includes, but goes beyond, fact finding. Reference librarians help people learn how to learn so they can participate fully in their societies as informed and knowledgeable citizens. This column takes a look at how librarians and others around the world are identifying what people need to learn for this purpose, and how to help them learn it. This column and the sites listed at the end of it provide ideas and approaches that could be used or adapted to help the people in your communities achieve this goal. Note: I gratefully acknowledge Susan Gardner Archambault (Loyola Marymount University), Dr. Jane Secker (London School of Economics), and Sarah LeMire (Texas A& M University), co-editor of this column, for their very helpful comments and suggestions.—*Editor, Esther Grassian*

Do you offer online or in-person classes, workshops, or credit courses on topics such as how to use the Internet, how to find credible information, and how to document and present findings? Do you go beyond fact finding in reference interactions by working with users to empower them with information-seeking skills of their own? If you answered "yes" to any of these questions, you are going beyond providing facts and answers to queries by teaching and helping others learn how to learn.

Labels for these kinds of help have varied and evolved over time, dating back many decades. These labels include both basic and more complex terms, such as "library orientation," "library instruction," "library skills," "bibliographic instruction" (BI), "digital literacy," "information literacy" (IL), "media and information literacy" (MIL), "metaliteracy," "critical information literacy," "health information literacy," "workplace information literacy," and "lifelong learning." Regardless of their level of complexity, these labels represent starting points and similar goals.

What are these goals, and why should any of this matter to you? In the current technology-focused environment, helping people learn how to learn at any age or educational level is more important than ever. Information literacy empowers people to make knowledgeable decisions for a lifetime, including personal and political decisions, and equips them to address educational needs. This includes instruction in public libraries, many of which have been focused more on efforts to address "information poverty" by offering access to information, and by helping people learn how to use technologies effectively, an essential prerequisite for informed participation in democratic societies.[1] IL/MIL, even when labeled with other terms such as those listed above, extends these essential skills by helping people learn how to pose critical thinking questions about information and the tools they use to find that information, including social media.[2] These questions include, What is the source of the information? What is its point of view and purpose? Is it designed to educate/inform, sell, or persuade? How accurate, up to date, and complete is the information? How does it compare to other sources on the same or similar topics?

This column outlines a selection of alternative teaching and learning approaches, concepts, and models related to information researching, developed in a number of countries and by national and international organizations. Some were designed for specific groups, such as schoolchildren, while others address teaching and learning for a lifetime. As a whole, they represent a welcome rise in consciousness worldwide of the value of an empowered citizenry who have learned how to learn, how to identify and locate useful information, how to manage and synthesize information, and how to communicate the results effectively and ethically with others.

How can this help you? Librarians, theoreticians, and researchers have developed a variety of frameworks for programs and individual efforts to help people learn how to learn.[3] In order to address societal change, including technological advancement, it is important for organizations and institutions to periodically review and revise their guidelines, and even the labels used to describe their efforts. Some of these updating exercises have been lengthy and contentious, such as ACRL's replacement of its "Information Literacy Competency Standards for Higher Education" with its "Framework for Information Literacy for Higher Education."[4]

It is not surprising that this process was contentious, especially given the lengthy history of the ACRL Standards and their highly significant and far-reaching impact on teaching, learning, and research worldwide. ACRL is currently developing support for the Framework in the form of teaching and learning materials, and research is likely to follow. A 2015 alignment chart is useful in illustrating that there are ways to examine, relabel, and reorganize what librarians are already doing to meet or enhance efforts related to the six concepts that compose the ACRL Framework.[5] At this point, it is too soon to say whether or not the Framework will have the immense worldwide impact that the ACRL Standards have had on programs and research, including doctoral studies. Currently, the ACRL Standards continue to serve an important purpose for those who require detailed and assessable national standards, similar to other national organizations' educational standards often used in accreditation, to support funding and staffing of instruction programs.[6] This is a highly compelling reason for reinstating them alongside the ACRL Framework, as both approaches offer great value in meeting differing needs.[7] However, it is also important for those interested in teaching and learning in libraries and information centers to be aware of and open to new developments, as well as historical efforts related to IL/MIL. Their support is crucial as we keep up with and anticipate continuous change worldwide, revising, adding to, and replacing even widely accepted documents, guidelines, and approaches.

With this in mind, we should be aware that many alternative IL/MIL models, conceptual approaches, frameworks, and standards have been developed for different educational and age levels. Some have been rescinded, suspended, or replaced to address evolving pedagogical, technological, and societal developments, as well as lack of needed funding. Nevertheless, they are listed here for their importance as models for current standards, as well as inspiration for future iterations. We should also keep in mind that much of the content of this column relates to approaches published originally in English, though some have been translated into other languages, indicating their worldwide impact. Exploration of these general examples may broaden our knowledge and reveal ways of thinking that may be new to many of us.

As you look over the brief descriptions below, keep in mind that each model may be best suited to a different context. Some may work well in certain circumstances and for certain audiences, such as undergraduate students. Others may be applied more generally to a wider audience, including those of all ages and educational levels served by public libraries. Public libraries "have been effective at helping people learn how to use new technologies," but a recent Pew study indicates "just 7% say they have taken a library class on how to use the Internet or computers."[8] In many cases, whichever approach seems most appealing may still require discussion and adaptation to your own environment. This may include developing, testing, and assessing the effectiveness of pilot programs.

To get this started, you may need to make a major effort to focus attention on "information illiteracy" in your community and the benefits of an informed citizenry who have learned how to learn. This kind of discussion can take time, but I would urge you to think of it as an opportunity to reach out to and collaborate with others in your community, your institution, and beyond. You can work together to answer questions like these:

- What does "library instruction" mean to you and your community, however you label it?
- What do members of your community already know about information researching?
- What do you expect the learners in your community to know and be able to do on their own related to information researching, and at which age and educational levels?

The answers you develop together will help guide you and your communities as you consider, adapt, or create definitions and guidelines for supportive instruction, and as you plan to assess its effectiveness.

ASSESSMENT

In competing for scarce dollars and attention, individuals, institutions, and organizations need to assess their teaching and learning efforts to provide data regarding their impact and value. Each of the approaches described below requires staffing and funding of one sort or another, and funders at all levels, including participants, governments, and in a number of cases, families who pay fees, want to know what they are getting for their funding—that is, Return On Investment (ROI). For this reason, research and reporting require detailed measurements of qualitative, as well as quantitative, impact.

On a practical level, how do you assess the value of these efforts, some of which may have long-term impact? Qualitative data (user satisfaction) has gained in importance worldwide. It can be cited in addition to quantitative data (for instance, numbers on student success and equity). User satisfaction assessment can be useful for affective assessment, that is, whether or not individuals liked the program, materials, and instructor, as well as what they think they have learned. Angelo and Cross wrote the book, literally, on classroom assessment techniques that do just that,[9] and Bowles-Terry and Kvenild published a recent book on this topic devoted to librarians.[10] But what have participants really learned? Other, more formal means of assessment can help you find out. Examples include pre- and post-tests based on pre-established learning objectives and outcomes, standardized IL tests, and authentic assessment of real-world projects or assignments. In fact, assessment based on predetermined learning outcomes can provide meaningful data regarding the value of instruction.

The models below offer a variety of broad areas to target in order to help people learn how to learn. It will be much easier to design and develop assessment of instruction if you begin by selecting some broad target areas, writing learning outcomes for each, and then developing teaching methodologies to help people achieve those learning outcomes. A number of books, articles, and websites provide more information about standardized assessment tools, and assessment in the context of planning ahead.[11]

EXAMPLES OF IL/MIL MODELS, STANDARDS, FRAMEWORKS, CONCEPTS

Below you will find descriptions of overall issues in three categories: Lifelong Learning, Schools/K–12, and Higher Education. Each category contains selected examples with brief information regarding each, focused on the basic concepts, approaches, and key words used to describe them. Many similar concepts and wording appear here, some utilizing the same or very similar language. For instance, you will see frequent use of the following words and phrases, or others closely related to them:

- Identify Need
- Plan
- Access
- Search and Locate
- Evaluate
- Reflect, Manage, and Synthesize
- Apply/Use Effectively and Ethically

Yet these examples offer different approaches, including qualitative as well as quantitative aspects of IL/MIL, developed independently or adapted from other models. Some examples focus on particular educational or age levels, while others cover IL for a lifetime (also called "lifelong learning"), which could apply to almost any type of library or information center. As you review them, consider their primary audiences and how you might want to use or adapt one or another or some combination of them for your own user populations. They may work best in one-on-one reference or in group instruction in the form of in-person or online classes, workshops, credit courses, usage guides for library resources, subject guides, and social media.

Lifelong Learning: Issues and Examples

All types of libraries participate to some degree and at some level in learning, including public libraries, special libraries, and archives, as well as academic and school libraries. Some of the examples in this category provide detailed goals and expected learning outcomes for entire populations of many different age and educational levels, and can provide helpful examples when used in part or as a whole. In some examples, the word "national" or the name of a country appears in the title. This indicates an awareness of the need to look beyond institutions and specific levels of education to support and encourage information literacy among entire populations. Major challenges here include raising consciousness about the need for an information literate populace and seeking funding, and collaboration to help achieve that worthy goal.

CILIP (Chartered Institute of Libraries and Information Professionals), 2011, United Kingdom[12]

(Under review as of 2016, for possible revision.)

The UK professional organization for librarians lists "eight competencies / understandings that a person requires to be information literate.

- a need for information
- the resources available
- how to find information
- need to evaluate results
- how to work with or exploit results

- ethics and responsibility of use
- how to communicate or share your finding
- how to manage your findings."[13]

Information Literacy Framework for Wales, 2009[14]

Based on SCONUL 7 Pillars of Information Literacy—Welsh Information Literacy Project (initiated in 2009) Lifelong learning curriculum for ages 3–19 and beyond, including the workplace, with details available on their website:

- Plan
- Develop
- Reflect
- Oracy
- Reading
- Writing
- ICT Skills Framework [including Finding and developing information and ideas, and Creating and presenting information and ideas]
- Interpret and present findings

International Federation of Library Associations and Institutions (IFLA), "Guidelines on Information Literacy for Lifelong Learning," 2015[15]

"The IFLA standards are grouped under the three basic IL components.

a. ACCESS. The user accesses information effectively and efficiently
b. EVALUATION. The user evaluates information critically and competently
c. USE. The user applies/uses information accurately and creatively"

National Information Literacy Framework Scotland[16]

(Suspended as of 2013 due to lack of funding.)

Includes sequential information literacy levels for ages 8–12, Secondary Schools/Further Education Colleges, Further/Higher Education, Higher Education, Lifelong Learning, including Community and Workplace Learning.

Information Literacy "involves several skills and competences. These are an understanding of:

- a need for information
- the resources available
- how to find information
- the need to evaluate results
- how to work with or exploit results
- ethics and responsibility of use
- how to communicate or share your findings
- how to manage your findings

Attainment levels range from:

- learning and using individual information skills with assistance to
- using some information skills to perform a simple information task with assistance if required to
- efficiently and effectively undertaking a significant piece of research.

These levels are a graduation / progression in the development of Information Literacy skills from early learner/novice to expert."[17]

UNESCO Information for All Programme (IFAP), 2000[18]

"IFAP exists to be an advocate for all people on the wrong side of the information divide, whether they be in developed or developing countries. Of special concern are the needs of women, youth and the elderly, as well as persons with disabilities."

IFAP priorities include "Information Ethics" and "Information Accessibility," as well as "Information Literacy," with the latter defined as follows: "Information Literacy empowers people in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goal."

Schools/K-12: Issues and Examples

Tackling information literacy for an entire population can seem daunting, especially in large geographic regions. Starting at the kindergarten through high school (twelfth grade) level can have an enormous impact, given the fact that in many areas of the world, the lower the educational level, the greater the numbers of students and schools. Challenges in this arena include educating school administrators regarding the value of information literacy instruction, as well as educating teachers on how to help their students become information literate.

American Association of School Librarians (AASL), "Standards for the 21st-Century Learner," 2007[19]

(Learning Standards and Program Guidelines under review and revision as of 2016, but 2007 version will remain available on the site.)

1. Inquire, think critically, and gain knowledge
2. Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge
3. Share knowledge and participate ethically and productively as members of our democratic society
4. Pursue personal and aesthetic growth.

Big6: An Information Problem-solving Process, 1990, United States[20]

Primarily utilized in schools, described as "a process model of how people of all ages solve an information problem. . . . It encompasses six stages with two sub-stages under each:

1. Task Definition
2. Information Seeking Strategies
3. Location and Access

4. Use of Information
5. Synthesis
6. Evaluation"

iLearn, 2011, United States[21]

A combined information science and instructional design model with six iterative stages, designed for school library media specialists, and others, including higher education, with a focus on learning as the purpose behind information seeking.

"**I**dentify a problem or question that can be addressed through information.
Locate information that can be used to address the problem or question at hand.
Evaluate the information.
Apply the selected information to the learning task.
Reflect on both the product and the process of the preceding stages.
k**N**ow what has been learned so that it resolves the problem or question and so that it can be used to spur future knowledge generation."[22]

Higher Education: Issues and Examples

Academic libraries support research, teaching and learning among their potentially captive audiences of students, staff, and faculty. Some of the examples below state that they apply to specific sub-categories, such as undergraduates. However, many are generic enough to be applied to other higher education populations, such as graduate students. A major challenge here is sequential information literacy instruction—building on what may have come before (K–12 information literacy instruction), and supporting what comes after graduation at all educational and age levels. One example (ANCIL) mentions the school-to-higher-education transition, while another (SCONUL) offers expected learning outcomes for graduate employability.

American Association of Colleges and Universities (AACU), "Information Literacy VALUE (Valid Assessment of Learning in Undergraduate Education) Rubric," 2009, United States[23]

Offers sixteen VALUE rubrics, including an "Information Literacy" rubric with the following concepts:

- Determine the Extent of Information Needed
- Access the Needed Information
- Evaluate Information and Its Sources Critically
- Use Information Effectively to Accomplish a Specific Purpose
- Access and Use Information Ethically and Legally

A New Curriculum for Information Literacy (ANCIL), 2011, United Kingdom[24]

A model aligned with UNESCO's, with "three key attributes:

- Transitional
- Transferable
- Transformational

In terms of the content, the curriculum is divided into ten strands:

1. Transition from school to higher education
2. Becoming an independent learner
3. Developing academic literacies
4. Mapping and evaluating the information landscape
5. Resource discovery in your discipline
6. Managing information
7. Ethical dimension of information
8. Presenting and communicating knowledge
9. Synthesising information and creating new knowledge
10. Social dimension of information literacy"[25]

Association of College and Research Libraries (ACRL), "Framework for Information Literacy for Higher Education," United States[26]

This model, published in 2016, replaces the ACRL Information Literacy Competency Standards (2000) and offers the following six "threshold" concepts, published in alphabetical order, with much more detail available on each:

- Authority Is Constructed and Contextual
- Information Creation as a Process
- Information Has Value
- Research as Inquiry
- Scholarship as Conversation
- Searching as Strategic Exploration

Association of College and Research Libraries (ACRL), "Information Literacy Competency Standards for Higher Education," United States[27]

(Published in 2000, rescinded in 2016, and replaced by the "Framework for Information Literacy for Higher Education.")

The five Standards listed below all begin with "The information literate student . . . ," with much more detail available on each:

1. . . . determines the nature and extent of the information needed.
2. . . . accesses needed information effectively and efficiently.
3. . . . evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.
4. . . . individually or as a member of a group, uses information effectively to accomplish a specific purpose.
5. . . . understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally.

"Australia and New Zealand Information Literacy (ANZIL) Framework: Principles, Standards and Practice," 2001 (2d ed. 2004)[28]

The six Standards listed below are based on the ACRL Information Literacy Competency Standards (2000). All begin with "The information literate person . . . ," with much more detail available on each.

1. . . . recognises the need for information and determines the nature and extent of the information needed
2. . . . finds needed information effectively and efficiently
3. . . . critically evaluates information and the information seeking process
4. . . . manages information collected or generated
5. . . . applies prior and new information to construct new concepts or create new understandings
6. . . . uses information with understanding and acknowledges cultural, ethical, economic, legal, and social issues surrounding the use of information"

Society of College, National, and University Libraries (SCONUL), "7 Pillars of Information Literacy: Core Model for Higher Education," 1999 (rev. 2011), United Kingdom[29]

"SCONUL represents all university libraries in the UK and Ireland, irrespective of mission group, as well as national libraries and many of the UK's colleges of higher education." Also utilized as a basis for the 2009 Information Literacy Framework for Wales.

1. Identify
2. Scope
3. Plan
4. Gather
5. Evaluate
6. Manage
7. Present

In addition to the core model, SCONUL has created the following:

- Research lens
- Digital Literacy lens
- Open Educational Resources lens
- Evidence-based practice healthcare lens
- Graduate Employability lens

CONCLUSION

This column offers a big-picture view of IL/MIL models and standards developed and utilized worldwide, along with issues and challenges, through a selection of models and approaches developed in a number of countries. Each may be adopted or adapted for different environments, educational, and age levels, for one-on-one or group programs. Pilot projects can be a useful means for developing learning outcomes, and then testing and assessing various methods for helping people achieve those learning outcomes. Many academic and school librarians are experienced in teaching and learning, and could serve as mentors or advisors in this effort for those seeking to develop pilot programs. Many are already generously sharing their useful materials, tools, and teaching techniques through listservs, repositories, and online communities.[30] Considering these options, lesson plans, and a multitude of sample materials, as well as the models and standards described above and elsewhere, much more extensively,[31] opens the mind to the variety of approaches we can take in helping people learn how to learn. All of this becomes increasingly important as we grapple with inevitable change worldwide. This offers opportunities for creative thinking and the application of technological tools to support pedagogy, which, in turn, will empower us to participate in our societies knowledgeably and with respect for all.

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Marketing Libraries Is a Team Effort

Caitlin Cowart

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While some libraries struggle with the whole idea of embracing marketing, and others do it piecemeal off the side of their desks, San Antonio Public Library has dedicated an entire team to their marketing and communications. Read on to see how this unique arrangement works, and for some of the innovative ideas these non-librarians have brought to the library world.—*Editors*

San Antonio Public Library (SAPL) takes a nontraditional approach to library marketing: there are no librarians on our marketing team. We operate as an in-house boutique agency comprised of specialists in media, public and community relations, graphic design, marketing, and communications strategy. As the community and public relations manager, I oversee a team of seven that includes three full-time graphic designers, two marketing specialists, a public information officer, and a community relations coordinator. As a team we are responsible for marketing the entire SAPL system of thirty locations, including Central Library. Despite our independence, we would not be nearly as effective as a marketing team if we did not have many successful partnerships and collaborations with our librarians. They are brilliant, creative souls who know the library industry best and help us to be successful. We hope we do the same for them.

Our graphic designers are responsible for creating visually appealing pieces that range from directional signs to print ads, logos, and t-shirts. One marketing specialist is responsible for overseeing all logistics related to programing and rental of event space in Central Library. Among these job responsibilities is to serve as the main point of contact for the San Antonio Book Festival: a free all-day event that features over ninety national, regional, local, and emerging authors and welcomes more than 18,000 visitors. The second marketing specialist coordinates community outreach for the marketing team. She attends large city-wide community events as a representative of the library. She engages with the community regarding library resources and collects information about our community's needs. Our public information officer is responsible for writing press releases, finding news to promote, and cultivating and maintaining our relationship with the media. She also acts as the point of contact for other city departments and library partners. Finally, as the community and publication relations manager, I lead the strategic vision for the team and am responsible for internal communication between our department and the other units and departments within the San Antonio Public Library system. I also serve as liaison for any marketing

Marketing Team (left to right): Anna Farr, Graphic Designer; Regina Villalobos-Perez, Marketing Specialist; Giselle Weyte, Graphic Designer; Karla Vasquez (front), Marketing Specialist; Maria Garza (back), Graphic Designer; Caitlin Cowart, Community & Public Relations Manager; Marcie Hernandez, Senior Public Information Officer; Esther Sanchez, Community Relations Coordinator.

needs of our Library Board of Trustees and Library Foundation. Together, our team builds comprehensive advertising, marketing, and public relations campaigns for products, programs, and services.

In 2011, during the creation of the San Antonio Public Library's 2011–2016 Five-Year Strategic Plan, the library's board chair at the time, Jean Brady, recognized that the library needed to have a larger marketing team in order to make a bigger impact in the community. The strategic plan identified key strategic initiatives: support educational and learning opportunities, support workforce and economic development, foster community connections, increase public awareness, improve organizational health, and delineate roles of board of trustees and library support groups. Brady's background in public relations before becoming a school librarian inspired the push to build a robust marketing team. What she proposed was uncommon for libraries, but she championed it as a pioneer and visionary in believing it would work—and it did.

Until that point, the library humbly (and unfairly, in the marketing team's opinion) considered itself "the best-kept secret" in San Antonio. When I joined the library team as community and public relations manager in 2013, I knew we had to turn that perception around. If the organization's employees—one of the most important advocacy and PR assets we have—continued to perceive the organization as a secret, it would keep being a secret! For an organization to be successful in the public eye, the staff members need to feel the brand deserves to be seen, talked about, loved, and enjoyed. With one of the strategic plan's priorities being public awareness, we needed to build momentum inside the organization in order to enhance our presence in the community. We needed to start believing in ourselves and believing in the journey.

Based on the foundation of the library's strategic plan, the marketing team created a marketing plan that identified key audiences and four areas of strategic focus to build on over the next two years: message alignment among external and internal stakeholders, strengthened public awareness and community engagement, identifying new audience segments, and leveraging promotional endeavors with strategic partners. This also included an updated logo and website launched in the summer of 2016.

The Digital Library Community Project wallpapers serve as a gateway to San Antonio Public Library's Digital Collection. Pictured: Digital Library wallpapers at local community centers and the Henry B. Gonzalez Convention Center.

To align our message among external and internal stakeholders, we began by offering media and marketing training to our library administrative team and other library supervisors working on location with the frontline staff. The goal of the training was to encourage leadership to cultivate an environment of open communication among staff. It was important to engage the staff as our frontline advocates in the process. The marketing team worked with the library's Organizational Health Unit to support their efforts to communicate with employees. The focus of Organizational Health is to address and support the needs of SAPL employees with effective and continual communication throughout the organization; to promote creative thinking, innovation, and cohesion; and to support employees' personal career goals. Our partnership with this unit and the coupling of their mission to our own areas of focus allowed internal stakeholders to feel involved and bolstered positive attitudes. We also worked individually with members of our Board of Trustees, the San Antonio Public Library Foundation, and the Friends of the San Antonio Public Library to create targeted and succinct messages that could be shared with local leadership, donors, and others.

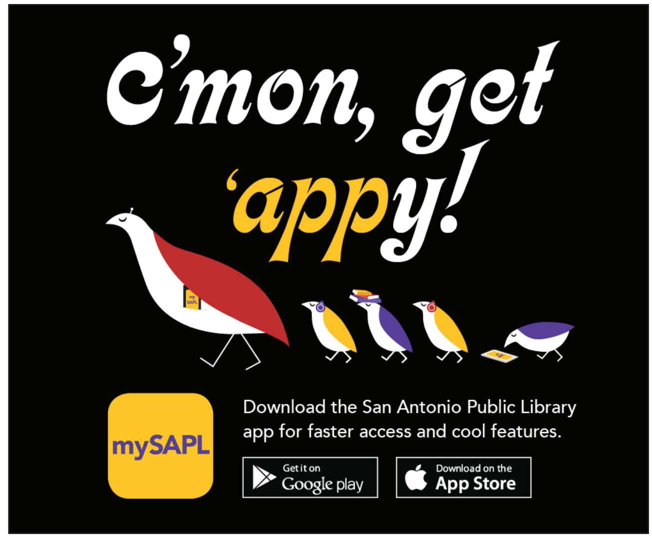
Our next goal, strengthening public awareness and community engagement, advanced with the creation of the Digital Library Community Project in 2014. The Digital Library Community Project, the recipient of the American Library Association's 2016 PR Xchange Award and 2016 TLA Branding Award, is a promotional initiative that was created to boost public awareness of the library's digital resources. The project is made up of a collection of Digital Library wallpapers, designed to look like bookshelves, placed city-wide at various community partner locations and three digital touch-screen kiosks at San Antonio International Airport that provide direct access to our digital collection of e-books and e-audiobooks for download. The project is key to promoting the library system's Digital Library and showcasing all that is available to the community with a free library card. We have seen a steady rise in the use of our digital collection (approximately 50 percent) since the project's 2014 launch. In fiscal year 2016, the digital collection received a 22 percent increase over fiscal year 2015. In fact, if SAPL's Digital Library were a physical location, it would have the highest circulation of all thirty library locations. Increasing the use of our Digital Library was truly a collective effort between our Digital Services and Collection Development departments and frontline advocates.

This project is a prime example of how San Antonio Public Library continues to deliver the latest on-demand products that meet the needs of an ever-mobile, internet-connected world. The initial launch of Digital Library wallpaper installations included local YMCAs, senior centers, Central Library, and the Haven for Hope homeless campus in downtown San Antonio. Since the launch, the wallpapers have expanded to twenty locations, including the Henry B. Gonzalez Convention Center, the DoSeum children's museum, and numerous public parks. The San Antonio Public Library Foundation and the Friends of the San Antonio Public Library have generously funded this project.

The creation of this project has put San Antonio Public Library at the forefront of the national library discussion by offering traditional library services outside the walls of the library. The purpose of many of SAPL's marketing campaigns is to increase public awareness in this way, and to increase use of the library's digital collections and services. We have connected with many library peers to respond to questions and exchange ideas about the project.

The Digital Library Community Project allowed us to segue into our third goal of identifying new audience segments. Because both the wallpapers and digital kiosks allowed non-SAPL cardholders access to our digital collection, we had a great opportunity to showcase our resources and services to people from San Antonio and all over the world. We were able to track usage of the Digital Library wallpaper installations by their locations, thanks to the unique QR codes on each title, to determine patterns that would lead us to increase access to service and resources in certain areas of

Anyone travelling through the San Antonio International Airport can access the San Antonio Public Library's digital collection with or without a library card. Pictured: Digital Library Kiosk in Terminal B at San Antonio International Airport.



This popular marketing campaign to promote the Library's mobile app resulted in over 528,000 in-app sessions in 2016.

the city. Recently, we have experimented with collaborations with other city departments and local community partners to offer curated collections for local themed events. For example, the local coffee festival and featured art exhibits now come with a curated digital collection link on their marketing materials. The lists are created in partnership with OverDrive and allow us to connect with new audiences in a different way.

We also followed the digital trend by investing in the creation and expansion of the San Antonio Public Library's social media presence. By developing our voice we were able to better communicate the library's mission and vision while building relationships with both cardholders and non-cardholders through Facebook, Instagram, Pinterest, Snapchat, Twitter and YouTube. SAPL has been able to cultivate relationships with millennials who we know are early adopters of technology. Tapping into this audience segment has allowed us to innovate in the way we offer traditional library services.

Our largest audience on social media is women between the ages of twenty-five and forty-four who typically engage with us most frequently on posts that highlight children's events, programs, and resources. Knowing this, we have made sure to include children's titles on the digital library wallpapers. We have also worked with children's and teen services staff to develop eReading lists for their perspective audiences. Another aspect of the library's social media presence that has proved to be successful is direct interaction between our followers and librarians and library staff. Individuals are able to build relationships with staff throughout the system, not just those who work in their community library. Social media's digital "word of mouth" marketing system has allowed our messages to spread far and wide throughout the community. Considering that 62 percent of U.S. adults consume news through social media, we know that this outlet is effective.[1]

Another development within the San Antonio Public Library system that allowed us to identify new audience segments was the creation of an adult services coordinator role to facilitate adult programming throughout the system. In partnership with this librarian, the marketing team was able to collaborate more effectively to create unique and innovative marketing materials to distribute for programs and events. For example, after the installation of the initial Digital Library wallpapers in 2014, the library designed and released a mobile app that allows patrons to browse, place holds, access account information, and more via mobile devices. To develop awareness of the app, the marketing team created a campaign called "Come on get 'appy" that featured retro, Partridge family–inspired graphics on t-shirts, branch signage, shelf talkers, and printed material. The "throwback" style seemed to resonate with millennials, and in 2016 the MySAPL app hosted over 528,000 sessions. While we had worked with children and teen adult services coordinators, this was the first time that the library had this role for adult-focused programs. Since we have been working together, we have seen a more than 30 percent increase in attendance for library programs.

We also began to work more closely with the San Antonio Public Library Foundation's First Edition Society. This group of young San Antonians supports the mission of the San Antonio Public Library Foundation by working to engage and cultivate the next generation of young leaders. They host events that raise money for and awareness of our library system. We have been collaborating with leaders of the group to educate their members about library programs, events, and resources that they can help us to spread the word about. In October 2016, the marketing team hosted a Harry Potter–themed Snapchat release party in partnership with the First Edition Society. Almost one hundred people attended the event, which resulted in six hundred views and

The Potranco Branch Library is the 29th location in the Library's citywide footprint. This unique and innovative space offers access to a dynamic family of services and resources and is serving as a prototype for possible future joint partnerships.

twenty-six uses of our first Snapchat filter.

Finally, we knew that to be successful we needed to leverage promotional endeavors with strategic partners. Partnering with community organizations with similar missions allows us to reach demographics that might not yet be key users of the library. This expands our reach and introduces new audiences to our services.

As previously mentioned, partnerships with our San Antonio Public Library Foundation and Friends of the San Antonio Public Library have proven to be successful. Our relationship with the Foundation, a charitable organization that works to augment the San Antonio Public Library's budget with support from individuals, corporations, and charitable foundations, has resulted in the addition of playgrounds and technology upgrades at branches, as well as purchasing advertising, marketing collateral, and social media support for the marketing team. Their members allow us to build relationships with individuals and corporations who believe in the mission and vision of the San Antonio Public Library.

The Friends of the San Antonio Public Library offer support in the form of promoting public use of the library and appreciation of its value as a cultural and educational asset to the community. With this as their mission, they act as a volunteer marketing "army," working within their individual networks to build public awareness of the library and its resources.

We are also leveraging a partnership in a new way with our co-located Potranco Branch Library at the Mays Family YMCA at Potranco. As a partnership with the YMCA of Greater San Antonio, this library serves as a destination for the Westside community and provides endless opportunities for learning and living well. This unique and innovative space offers access to a dynamic family of services and resources. Potranco Branch Library is made up of an exterior courtyard, an interactive makerspace, a quiet study area, an expanded-hours self-service lobby, and a children's discovery area. The library also provides a full-service computer area and free Wi-Fi, and of course a collection of popular materials, including vinyl records, for check out. Thanks to this project, the community can explore all that the San Antonio Public Library and the YMCA have to offer families.

This partnership has created new outlets for marketing the Library as a destination for living well. The marketing team has enjoyed brainstorming with YMCA employees to create inviting and inspiring marketing images and messages to bolster membership sales and library card sign ups.

We have other similar partnerships with groups, organizations and media partners that allow us to expand our audience reach. For example, our partnership with *Alamo City Mom's Blog*, a community of mommy bloggers, has allowed us to build upon their current knowledge of early literacy and story times and introduce them to our resources that they can use as entrepreneurs, creators, DIYers, readers and more. Another example of a media partnership is with the *San Antonio Current*, the local free publication that focuses heavily on events in the community. We were able to partner with the magazine to offer a mini-performance of the Nutcracker that drew families to Central Library and provided free advertising in exchange for the performance venue. We have also developed partnerships with organizations like the Briscoe Western Art Museum (where we have a small-scale digital library) and the Office of Historic Preservation that allow us to reach individuals with interests in history and genealogy.

Overall, we have learned that marketing libraries really does take many people working together, and we know that has been essential to our success. We attend as many of the wonderful webcasts as we can that are available through library organizations and we also seek out learning opportunities to stay ahead of trends in marketing and public relations. The library inspires us as communications professionals to continue learning and studying, always advancing in how we interact with the community. We continue to look for new ways to innovate and find unique ideas that are cost-effective and impactful. I can see a big change in San Antonio Public Library's popularity not only in numbers but in the general buzz of having the word out there more often in more places. The best way to market is to put the word out there and do it consistently in various ways—doing this, success is inevitable.

Reference

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Bad Boy Romances

Biker Boys and Mobster Royalty

Laurel Tarulli

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There is no question that the romance genre continues to grow in popularity. In part, this is because romance writers have been quick to explore new avenues for their stories. Here, column editor Laurel Tarulli takes a look at one of the newest trends in romance fiction: bad boy romances. While there have always been some dodgy romance heroes, Tarulli notes the rapid rise of bikers and Mafiosi as romance leads. Tarulli discusses the elements of this increasingly popular subgenre of romance and offers the readers' advisor some sound advice on working with romance readers.—*Barry Trott,* RUSQ *editor*

In 2015, Mary K. Chelton wrote an article for this column called *Readers' Advisory: There Seem to Be More SEALs in Romance Fiction Than in the US Navy, and If So, Why Does It Matter*? I remember when Chelton and I discussed the idea for the article, considering the wildly popular *Fifty Shades* phenomenon among readers, and this subtle shift of a powerful alpha male into the world of SEALs. During that time, we saw an increase in romances featuring "good guy" alpha males, who were often military men or involved in law enforcement and had a strong moral or ethical code—even if the female characters challenged their chivalry!

Over the Christmas 2016 holiday, I decided to escape into some romance, and started exploring what was new or popular in the genre. Were SEALs romances still enjoying the same popularity, or was there something new to explore? For me, romance is my way of escaping from the everyday YA and children's materials that I focus on at work. To my delight, I noticed a new and growing subgenre exploding onto the scene: bad boy romances. These bad boy romances fascinated me because the bad boy in question is almost always likeable and has a soft spot that the reader can't help swoon over.

In particular, over the past couple of years, there has been growth in the publication and popularity of biker gangs and mafia romance. And I'll admit, I'm a sucker for a strong, Italian alpha male. It's not a new subgenre, but I can't recall when it has ever been this popular. And, fortunately for me, I *had* to read a variety of these books for this column, to see what was new or different about them. But even if romance isn't your preference, it's interesting to note the presence of this subgenre, and the variety that is offered. More about that in a minute. First, I wanted to know if my hunch was true, and if this subgenre really was enjoying a newfound popularity.

Looking at the publication dates of bad boy romances, it appears that they first started showing up significantly in

2013, with a marked increase in 2015 and 2016. Bad boy romance enjoyed an extremely successful year in 2016, with an abundant number of titles published. With the number of new titles set to be published this year, the popularity of this subgenre doesn't seem to be slowing down.

BAD BOY POPULARITY

I have a very good friend who works as the primary fiction processor for our local public library. Since the cataloguing and processing department is a centralized service for approximately fourteen branches, she often knows as much as frontline staff, if not more, about what's happening in circulation. As an experienced processor and an avid reader, she touches more books in the system than any subject cataloguer or purchaser. This gives her insight into what's new, what's trending, what needs replacement, or what's being phased out or discarded. I value her input when negotiating purchasing choices and identifying themes. So, on one of our frequent get-togethers, our conversation naturally led to books and what we've been reading. I decided to ask my friend what she's observed regarding patron reading habits, and if she's seen an increase in romance novels focusing on the mafia and biker gangs. As it turns out, she has seen a marked increase, with many more making their way across her desk than ever before. Indeed, if you search the various library catalogues, you'll notice holds on these romances, not only on the ones already available for borrowing, but on the latest titles.

In fact, the authors have been clever in building a following. Most of these romances are written as stand-alone books within series. These series are focused on stories within a specific mafia family, location, or ethnic group (Italian mafia, Russian mafia, etc.). The biker gang books fall under the umbrella of the gang in question, often first exploring a variety of romances within one gang where characters are related, and then subtly shifting to another series of books branching off to a rival biker gang. This can hook a reader into reading eight, ten, or more books by the same author, with all of the stories and characters interrelated. And yet, many of the books are written to be approachable: if you don't want to invest in all of the books, you can read one as a stand-alone and not feel as though you've missed too much of the story.

What's also notable is their availability in e-book formats. In addition to the hard copy publications that are *also* being sold digitally, many romance novels are being published as e-books only. These offer the advantage of allowing individuals to explore their reading indulgences without the paperback's tell-tale romance cover illustration. They also offer the convenience of obtaining the next book in a series with the click of a button.

But, why are these books gaining such popularity? What sets them apart? They give readers what they look for in a variety of ways: romance, suspense, danger, factual information and history on the inner workings of the mafia and biker gangs, and yes, even erotica.

THEMES AND STORY LINES

La Cosa Nostra and Biker Gangs

When I settled in to read my first mafia romance, I must admit, my expectations weren't high. I thought I was in for a light romance in the usual formula with characters in a mafia environment. While I did run into the usual formulaic romance publications, I also found myself drawn into the mafia world and La Cosa Nostra ("this thing of ours"). Many of the Italian mafia romances focus on La Cosa Nostra and the inner workings of the mafia. There are descriptions of the hierarchy of La Familia ("the family") and how men become "made men." In many of the romances, the male characters have more depth than I've experienced in other romance subgenres, and the authors take their time exploring the inner workings of the organizations as well as the characters within them. They don't shy away from describing the brutality of the organizations, and they recognize the conflict that a man or family struggles with in being a part of them. In many of the better-written mafia romances, we see the man's struggle to separate his family from his mafia family, and the strife born from expectations about tradition and violence. In many ways, this is what snagged me. I must admit, the romances had me seeking out books and documentaries on the actual organizations and personal stories of true mafia members.

There are definite parallels between biker gang romances and mafia romances. Many readers might be inclined to separate these two subgenres, and while it can be argued their characters and general feel offer a somewhat different experience, there are many similarities beyond the "bad boy" theme. My colleagues and I have talked about biker gangs being portrayed as a brotherhood, with similar expectations of loyalty, trust, respect, and duty placed on the male character. In the biker gang romances, there is also an introduction to violence and, in some cases, the legitimate business of these organizations that still attract unsavory characters. Through it all, we again experience the characteristics of a well-developed male character.

This is especially significant because these romances deal with real-life issues. Domestic violence, gangs, trust, respect, and honor are just some of the values and struggles readers face in their everyday lives. Indeed, it is easy to paint the figure of the biker or mafioso as a caricature, sometimes even as a monster, without acknowledging that the real-life counterparts of their organizations involve actual men, women, and families. It's intriguing how authors of this subgenre explore the humanity within these organizations (with, of course, the freedom to fictionalize them, making them easier to love!). While there is often a happy ending, it is not always without some personal loss, death, or shift in a character's development.

Genres within the Subgenre

Bad boy romances are often lumped in with dark romance or erotica, but that isn't always the case. In some ways, this genre is so varied that navigating it is not easy, because the only common themes are "bad boys," romance, and bad language. The other content and story lines vary widely, from extremely violent and containing erotica, to tales full of suspense, romance, and mild bedroom scenes.

Exploring the publication of these genres, and specifically the mafia romances, I noticed that many of the authors were male. What attracted me to these romance novels—and author W. S. Greer does this especially well—was the experience the reader has not only with the characters but with the life of the organization itself. Two of Greer's mafia romances, *Kingpin* and *Long Live the King*, demonstrate how a man becomes absorbed into the mafia and its way of life, whether it is through friends or family. However, they also allow the reader to glimpse the less glamorous side of this world, where your life is always at risk and violence is accepted as normal. It reveals the changes that newer members try to enact and the strength of the traditional mindset within these organizations. These novels have made Greer an international bestselling author, and they're not his only mafia romances.

In many of the publications in this subgenre, male authors tend to provide more suspense and insight into the organizations and how they function, without losing the romance and yes, even the bedroom scenes. The depth of the male characters is also stronger, perhaps because the author is male. The stories also tend to take place over a longer period of time. Sometimes, the stories start out when both main characters are young, and we are taken with them through their life experiences before settling into the main plot.

However, women authors are no less valuable in their contributions. The majority of these titles are written by women and they certainly don't lack in quality. The bedroom scenes and language tend to be more intense, and specific "series" tend to have more installments. The authors include many characters who are woven together so that they can re-introduce them in later books. Like the male authors I've read, these authors also provide some insight into these organizations, although not with the same depth. I've found that women tend to focus more on the characters, emotions, and events within the story. One of the first authors that comes to mind in the mafia romance subgenre is Michelle St. James. She has written a series of books, broken into trilogies, that let the reader experience the mafia, as well as a touch of law enforcement.

Biker Boys vs. Mafia Royalty

While the similarities between these bad boy romances have been discussed, it is important to note some very different characteristics. Not all readers will enjoy both the biker gang romances and the mafia romances. And indeed, even in the mafia romances, there will be preferences based on ethnicity or age—Italian vs. Russian mafia, soldiers vs. bosses, and young love vs. mature relationships.

In the Italian mafia romances, I noticed the refinement and emphasis on tradition. The books are chock full of nice cars, impeccably dressed men, excellent food, and beautiful homes. In biker gang romances, the men are grittier and rougher and the settings are far more unpolished and tangible. There are backyard barbeques, beer, and television channel surfing. Yes, stereotypes are evident throughout! This is noteworthy, as one experience might speak to or resonate with a reader more closely. And that in itself is something to discover in a readers' advisory interview. If an earthy, roadside bar or a grittier lifestyle is what a reader is used to, that reader may very well want to escape into a mafia romance. Or, it might be easier for the reader to become immersed in story of a biker gang romance, because it is more familiar.

No matter who the male character is, coarse language abounds. If hard-core swearing is a turnoff to a reader, I would hesitate to recommend this subgenre. You can't escape the male characters' dirty mouths, and may find an Italian mafia boss mixing Italian endearments with the dirtier side of our English language. However, between the two, the biker gang romances contain language that might be much more offensive to sensitive readers; this must be remembered.

So, why would these alpha males attract our readers? Even with their dirty mouths, they're prone to moments of tenderness that attract our human nature. They harbor hidden weaknesses that they slowly reveal to the women they fall in love with. Sometimes, the key is in the description of a glance, a hesitation, or a touch that is expressed even in an environment that isn't romanticized or glamourized. The reader is moved by the male character's struggles with duty, loyalty, and respect. And, how many romance readers don't want their heartstrings tugged by a bad boy who can be redeemed? Or if not redeemed, then made captivating by a tantalizing glimpse of softness and distinguished by their fierce protection of those they love?

Biker Chicks v. Mafia Princesses

The female characters in this subgenre are no less interesting. While I cheekily use the term "biker chicks," the women introduced in the biker gang romances can vary from a sweet artist and baker to a feisty young woman who is just trying to find out who she is and what she wants. There are also women who suffer from extreme abuse and become stronger, not because of the bad boy, but because they have been written as strong and tenacious. Michelle St. James's mafia romance series includes a female protagonist who is one of the bosses; a confident, beautiful, strong, competent, and extremely intelligent woman. In others, the females are innocents in a crime family in which they have no knowledge. While a reader can find an innocent, meek female character in some of these books, many of the female protagonists in this subgenre are strong and independent and need to be so in order to deal with their alpha male counterpart.

In almost all of these romances, the story is told by both the female and male characters, offering distinct perspectives on the same situation and providing opportunities for all of the characters to be developed more fully.

CONCLUSION

The romance book industry is a large one, and keeping up on trends as a romance reader can be difficult. If you're not a romance reader yourself, it can be even more difficult to navigate and understand what the differences are between the subgenres! This genre can also present significant problems with our readers because the readership is so varied. Romance fans can be grandmothers, teens, mature adults, professionals, and everything in between. And, as with all large genres, romance is not one-size-fits-all. In fact, romance novels can present an even trickier issue because of the wide range of content found within the subgenres. It's easy to offend sensibilities or shock a reader if we suggest a book that doesn't fit the reader's tastes. But I think we face this struggle on a daily basis.

My hope in writing this article isn't simply to write "another romance genre piece" but to demonstrate that this shift in romance should be noted on two levels. As with the law enforcement and military subgenres, we are dealing with alpha males who demonstrate strong loyalty, respect, and a sense of duty, albeit while participating in not-so-legal activities. But these two subgenres can also be a starting point for readers to learn more about real-world biker gangs and La Cosa Nostra. If we find readers who are enjoying the titles which explore the inner workings of these organizations, this opens a variety of opportunities for us to find other books, in the romance, suspense, and narrative nonfiction genres, that may capture readers. The possibilities are there, as we explore the increasing popularity of these two genres and the biker boys and mafia princes who bring these stories to life.

Transgender Culture and Resources

Jeannie Bail and Ailsa Craig

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In recent years, there has been an increasing awareness of transgender culture, issues, and experiences. In popular culture, trans celebrities such as Laverne Cox, Chaz Bono, and Janet Mock have been a part of this shift, often acting as celebrity spokespeople to increase understanding of trans issues. Even with the greater visibility of trans lives in popular culture, ongoing court battles like *G.G. v. Gloucester County School Board* (a US case centered on trans students' rights to use communal bathrooms congruent with their gender) demonstrate the need for greater understanding and acceptance.

As co-authors, we have had the privilege of working with materials on loan from the Transgender Archives at the University of Victoria (Canada), the largest transgender archive in the world. This experience, which included collecting comments from library patrons who viewed the collection materials, highlighted for us the role that libraries and archives play in laying the groundwork for increased diversity, awareness, and inclusion related to trans lives, culture, and community. It is not only a matter of meeting the information needs of those who are coming out as transgender, but the wider community of family (spouses, children, parents, etc.), friends, and allies. And, alongside the value of providing information with direct practical application, patrons' comments underscored how the inclusion of trans resources at the library enriches our cultural imaginary, and creates the space for imagining and living what they have sometimes felt to be "impossible lives."

As discovered through our work on this column, there are some excellent resources to recommend to collection development librarians. Two that particularly guided our work are *TRANScending Identities: A Bibliography of Resources on Transgender and Intersex Topics*, which was compiled for the American Library Association's (ALA) Gay, Lesbian, Bisexual, and Transgender (GLBT) Round Table by Nancy Silverrod of the San Francisco Public Library (last updated 2008),[1] and *Beyond Caitlyn Jenner* by K. R. Roberto.[2] This column hopes to add to, and build upon, the work already done by Silverrod and Roberto, and is careful not to duplicate titles (although a few snuck in there).

In addition to the titles listed below, there are several prominent authors for whom it is challenging to single out individual titles. The body of their work is important as a whole, and many of them have received awards and appeared in Gender Studies and Sociology reading lists at universities across North America and beyond. These authors include **Kate Bornstein** (*My New Gender Workbook*; *A Queer and Pleasant Danger*; *Hello, Cruel World: 101 Alternatives to Suicide* *for Teens, Freaks, and Other Outlaws*; *Gender Outlaw*), **Ivan Coyote** (*Tomboy Survival Guide*; *Gender Failure* (with Rae Spoon); *Missed Her*; *One in Every Crowd*; *The Slow Fix*), **Leslie Feinberg** (*Stone Butch Blues*; *Transgender Warriors: Making History from Joan of Arc to Dennis Rodman*; *Drag King Dreams*), and **Julia Serano** (*Whipping Girl*; *Excluded: Making Feminist and Queer Movements More Inclusive*; *Outspoken: A Decade of Transgender Activism and Trans Feminism*).

Presses that specialize in LGBTQ literature also make excellent places to find new work in this quickly growing area of cultural production. A few publishers to note are **Arsenal Pulp Press**, **Flamingo Rampant** (children's books), **Seal Press**, **Topside Press**, and **Transgress Press**. The website Lambda Literary is another excellent resource for features, reviews, and interviews. Lambda Literary also sponsors an award program known as The Lammys, which identifies and celebrates the best writing in LGBTQ publishing. There is also the invaluable work of ALA's GLBT Round Table, which administers the Stonewall Book Awards.

If we have inadvertently left out any important resources (no doubt we have), please feel free to contact us—we would love to continue building upon the collective efforts of librarians identifying and promoting material that represents and contributes to greater gender diversity in the stacks.

REFERENCE SOURCES

Erickson-Schroth, Laura, ed. *Trans Bodies, Trans Selves: A Resource for the Transgender Community*. New York: Oxford University Press, 2014 (ISBN: 978-019-932535-1).

This 672-page guide is an essential resource about anything having to do with trans life, written by and for the transgender community (family and friends will find it invaluable, too). Its many contributors write on topics such as "Relationships and Families to Life Stages." The inclusiveness of the book is noted, with an emphasis on the diversity of the transgender community in the chapter "Who We Are." The editor holds an MD, so health, both physical and mental, is covered candidly and authoritatively.

Howell, Ally Windsor. *Transgender Persons and the Law*, 2nd ed. Chicago: American Bar Association Book Publishing, 2015 (ISBN: 978-163-425036-8).

According to a study on the information needs of transgender communities in Portland, Oregon, legal information is the top-ranked material sought.[3] This guide covers many areas of law, such as identification changes, family law, and health care, using case law and federal law and regulations. This invaluable source also contains a glossary of terms and an appendix that breaks out, state-by-state, laws relating to changing one's birth certificate. The book also intersects with health care issues by providing a list of US companies that provide health insurance coverage for gender confirmation surgery.

Meyerowitz, Joanne. *How Sex Changed: A History of Transsexuality in the United States*. Cambridge, MA: Harvard University Press, 2004 (ISBN 978-067-401379-7).

A cultural history that relies heavily on archival material to construct what has taken place since the mid-twentieth century in medical and scientific treatment of gender and sex, starting with the "sex change" surgery of Christine Jorgensen. The role of the media, particularly its treatment of transsexuality in popular culture, is also explored.

Stein, Marc, ed. *Encyclopedia of Lesbian, Gay, Bisexual, and Transgender History in America*. New York: Scribner's, 2004 (ISBN: 978-068-431261-3).

First published in print in 2004, and due for a revision, this work is available online through the Gale Virtual Reference Library. It is a general reference on wide-ranging LGBT historical developments, and contains a variety of transgender topics such as the Erickson Educational Foundation and Transgender Organizations and Periodicals. Coverage includes over five hundred entries, and its chronology spans four hundred years of history.

Stryker, Susan. *Transgender History*. Berkeley, CA: Seal, 2008 (ISBN: 978-158-005224-5).

Written by a trans woman and historian, this is a well-received survey text of transgender history covering the past hundred years. In addition to historical information, the author opens the book with a detailed chapter on key terms and concepts, and provides an addendum on further reading and resources.

Books

Beemyn, Genny and Susan Rankin. *The Lives of Transgender People*. New York: Columbia University Press, 2011 (ISBN: 978-023-114306-6).

A groundbreaking research project of 3,474 diverse transgender participants, this data-rich study shares its findings, broken down into five sections: Demographics, Experiences, The Climate, Developmental Milestones, and, of particular interest for those who work with transgender youth, Implications for Higher Education.

Boylan, Jennifer Finney. *She's Not There: A Life in Two Genders*, 10th anniversary ed. New York: Broadway, 2013 (ISBN: 978-038-534697-9).

Boylan has the distinction of being an academic, a soap opera guest, and a best-selling author. This is her honest, and often humorous, story of transitioning from James to Jennifer, and the repercussions of her gender shift on her wife, two sons, friends, and colleagues. She admits that the change was easier for her than for those around her.

Califia, Patrick. *Sex Changes: The Politics of Transgenderism*, 2nd ed. San Francisco: Cleis, 2003 (ISBN: 978-157-344180-3).

Known for his provocative and radical writings on sexuality, Califia, who is a trans man, explores the history of "gender transgressors" and gives attention to a group that is often overlooked: partners of transgendered people. A sweeping overview and critique of the literature published on trans people—from autobiographies to academic writings.

Currah, Paisley, Richard M. Juang, and Shannon Price Minter, eds. *Transgender Rights*. Minneapolis: University of Minnesota Press, 2006 (ISBN 978-081-664312-7).

Divided into three sections—Law, History, and Politics—this collection of essays, written by a wide range of leaders in the transgender rights movement, focuses on social justice and the advancement of transgender rights and equality. It also serves as a resource for those interested in an overview of trans issues in the United States from an activist perspective.

Faludi, Susan. *In the Darkroom*. New York: Metropolitan, 2016 (ISBN: 978-080-508908-0).

A memoir from the perspective of an adult daughter by famed feminist author Faludi, whose estranged father, a Jewish Holocaust survivor, transitions from Steven to Stefánie at age seventy-six. Not only is this a personal journey to uncover more about her father's motivations for undertaking gender confirmation surgery, but it is also an examination of what gender is and how it both shapes and traps us.

Greatheart, Marcus. *Transforming Practice: Life Stories of Transgender Men That Change How Health Providers Work*. Toronto: Ethica, 2013 (ISBN: 978-099-179890-2).

Greatheart's training as a social worker shapes this book, and emphasizes the support systems and resources available to trans men. Many stories of those who have transitioned are included as well. One of the author's goals is to encourage "trans competent" practices and environments among those who provide medical care to the transgender community.

Irving, Dan and Rupert Raj, eds. *Trans Activism in Canada: A Reader*. Toronto: Canadian Scholars' Press, 2014 (ISBN: 978-155-130537-0).

This critical anthology brings together work from trans activist scholars and community members. The editors focus on the process of transformation, from opportunities for social change to changes in institutions and health care. The collection features leading Canadian scholars such as Dr. Aaron Devor and Viviane Namaste.

Jacques, Juliet. *Trans: A Memoir*. New York: Verso, 2015, (ISBN: 978-178-478164-4).

At the age of thirty, UK-based journalist Jacques, after struggling with gender identity for many years, made the decision to pursue gender confirmation surgery. She chronicles her journey through an online column in the *Guardian*, and shares her story publicly with readers all over the world. Many cultural references to her favorite films, books, sports teams, and music are provided, allowing the reader to "get to know" the author.

Jennings, Jazz. *Being Jazz: My Life as a (Transgender) Teen*. New York: Crown Books for Young Readers, 2016, (ISBN 978-039-955465-0).

Called one of "The 25 Most Influential Teens" of 2014 by *Time* magazine, this YouTube star and trans activist has written a memoir that chronicles her journey, coming out at as a transgender girl at an early age with much love and support from her large Jewish family. A New York Public Library Best Book for Teens, 2016.

Kuklin, Susan. *Beyond Magenta: Transgender Teens Speak Out*. Somerville, MA: Candlewick, 2014, (ISBN 978-076-365611-9).

An intimate look at the lives of six mostly urban transgender or gender-neutral young adults, with accompanying photographs by the author. The book offers a window into their teenage lives, and serves as a photojournalistic account of their stories through the author's interviews and images. Many of the subjects speak frankly about some of the challenges faced such as bullying and grappling with gender identity.

Mock, Janet and Mark Seliger. *On Christopher Street: Transgender Stories*. New York: Rizzoli, 2016, (ISBN: 978-084-785831-6).

Known for his photographs of celebrities, Seliger set out to capture the spirit of the old West Village, especially its various subcultures, which are rapidly disappearing in the face of an uber-gentrified New York City. He was drawn to the transgender community, and his intimate portraits are accompanied by the subjects' own stories of transitioning and the impact it had on their lives.

Nutt, Amy Ellis. *Becoming Nicole: The Transformation of an American Family*. New York: Random House, 2015, (ISBN: 978-081-299543-5).

A *New York Times* Notable Book, this is the true story of Wayne and Kelly Maines, who adopted who they thought to be identical twin brothers. It turns out, however, that the twins identified as different genders. The book chronicles the emotions of the family as it comes to terms with the transformation of a son to a daughter.

Shultz, Jackson Wright. *Trans/Portraits: Voices from Transgender Communities*. Hanover, NH: Dartmouth College Press, 2015 (ISBN: 978-161-168807-8).

Part of a "fourth wave" of trans literature, the book is filled with useful information such as a timeline of transgender history, a glossary of medical terms, and resources for medical and mental health care providers. In addition to the stories of over thirty trans individuals, this broad and inclusive book was created to produce a "comprehensive, collective and lay memory of transgender experiences" through oral history.

Valentine, David. *Imagining Transgender: An Ethnography of a Category*. Durham, NC: Duke University Press, 2007 (ISBN: 978-082-233869-7).

An interdisciplinary ethnography by an anthropologist who worked as a safe-sex activist in New York City during the early 1990s. The author, now an assistant professor in anthropology at the University of Minnesota, discovered that, in his research with primarily trans women, there were language politics at play and resistance to being labeled transgender.

Zabus, Chantal and David Coad, eds. *Transgender Experience: Place, Ethnicity, and Visibility*. New York: Routledge/Taylor & Francis, 2014 (ISBN: 978-041-565616-0).

A comparative, global reader of trans topics from around the world including Australia, South Africa, and France. As the editors point out, the need to increase the visibility of the transgender experience is one that is a "common goal globally."

Periodicals and Serials

International Journal of Transgenderism. New York: Taylor & Francis, 2005, quarterly (ISSN: 1553-2739).

Published in association with its partner organization, the World Professional Association for Transgender Health (WPATH), this journal features international and multidisciplinary articles on transgender health care topics from academics and practitioners in the field. Indexed in many sources, including: *CINAHL*, *CSA Social Services Abstracts*, *SocINDEX*, *EBSCOhost*, *Scopus*, *International Bibliography of the Social Sciences (IBSS)*, *LGBT Life*, *PsycINFO*, and more. Volumes 1 through 6 are with German publisher Symposion.

Transgender Studies Quarterly. Durham, NC: Duke University Press, 2014, quarterly (ISSN: 2328-9252).

Edited by Paisley Currah and Susan Stryker, this journal publishes innovative interdisciplinary research exploring gender and identity, with issue topics ranging from Decolonizing the Transgender Imaginary to Archives and Archiving. Indexed in *EBSCOhost*, HighWire Press, and Scholars Portal.

Databases

Archives of Human Sexuality and Identity: LGBTQ History and Culture Since 1940. Gale.

Launched in 2016, this vast new digital offering brings together thousands of rare and unique primary sources, many out of print, from organizations such as the New York Public Library, the Lesbian Herstory Archives, the Canadian Lesbian and Gay Archives, and the Gay, Lesbian, Bisexual, and Transgender Historical Society. This searchable collection includes LGBTQ materials from around the world, including newspapers/newsletters, organizational records, reports, pamphlets, manuscripts, and more.

LGBT Life. EBSCOhost.

Known as the definitive index to LGBTQ literature, it was created in partnership with ONE National Gay & Lesbian Archives and the Lesbian Herstory Educational Foundation. Source types include 350+ abstracted and indexed books and reference works, 260+ abstracted and indexed journals, magazines, and newspapers (many regional). Includes a fair number of transgender sources, including a short run of the pioneering magazine *Transgender Tapestry*.

LGBT Thought and Culture. Alexander Street.

A database of significant archival materials, relating to LGBT political and social activism from the twentieth century to the present. The database contains case files relating to a number of obscenity cases (including Radclyffe Hall's *Well of Loneliness*) and a run from 1965–80 of the Damron Guides, a directory of LGBT-friendly establishments in the United States and Canada. Exclusive content includes the Pat Rocco Collection, the papers of Jeanne Cordova, and the Magnus Hirschfeld Collection. Partnerships made with various institutions, including ONE National Gay & Lesbian Archives, The Kinsey Institute Archive and Library, and Cleis Press, ensure broad, multidisciplinary coverage. Cross-searchable with *LGBT Studies in Video.* (see below).

Web Resources

National Center for Transgender Equality (NCTE) (http://www.transequality.org/)

Founded in 2003, the Washington, DC-based NCTE is a national social justice organization for transgender people. Its advocacy efforts focus on two projects: the Racial and Economic Justice Initiative, which aims to include perspectives of trans people of color and those who are affected by poverty, and to improve conditions for transgender people who are incarcerated or detained, and the Trans Legal Services Network, which helps transgender persons navigate any legal-related issues, such as formally changing one's name or gender on identity documents.

Transgender Law Center (https://transgenderlawcenter.org) and Transgender Law and Policy Institute (http://www.transgenderlaw.org)

Sister organizations, they work together to combat discrimination, and to provide legal information and resources to the transgender community. In addition, they advocate for the advancement of trans rights and equality in law and policy, and monitor and track current legal developments happening around the world. The Transgender Law Center operates a helpline for legal information requests.

Trans Student Educational Resources (http://www.transstudent.org/)

A youth-led organization that promotes a trans-friendly educational system through advocacy work and trans activism. It has several upcoming publications to note, including

Title IX: The Rights of Transgender Students (to be released in 2017). It also maintains the biggest online list of LGBTQ+ camps.

Archival Collections

Digital Transgender Archive (College of the Holy Cross) (http://www.digitaltransgenderarchive.net)

Based at the College of the Holy Cross, where its founder and project director K. J. Rawson is an assistant professor in the English department, this is the world's largest online hub of digitized transgender materials. A collaboration of over twenty institutions and private collectors, it contains materials from around the world. Its goal is to make trans history easily accessible to researchers globally. The archive is searchable, and merges all its various collections into a single search engine. Users can also browse the materials by geographic location, topic, or collection.

ONE National Gay and Lesbian Archives (University of Southern California Libraries) (http://one.usc.edu)

Founded in 1952, ONE is the largest repository of LGBTQ materials in the world, housing over two million archival items. A small portion of the collection has been digitized and is available online via the USC Digital Library. Among the types of materials represented are periodicals, books, film, sound recordings, photographs, pieces of art, organizational records, and personal papers. A majority of the collection is searchable via online catalogs, including its subject files, and finding aids are available for its archival collections via the Online Archive of California.

Transgender Archives (TGA) (University of Victoria, BC, Canada) (http://www.uvic.ca/transgenderarchives/)

Launched in 2011 and dedicated to the preservation and promotion of trans history, the TGA is the largest trans archive in the world. Its materials, which come from all over the world, range from books and newsletters to photos and personal correspondence. Its collections include many pioneers in trans activism, including Reed Erickson, Ariadne Kane, Virginia Prince, Rikki Swin, and the organizational records of Fantasia Fair, one of the longest-running annual celebrations of gender diversity. TGA's founder and academic director, Dr. Aaron Devor, holds the Chair in Transgender Studies at the University of Victoria, and is a widely acclaimed scholar and teacher. His book, *FTM: Female to Male, Transsexuals in Society*, was recently reissued in 2016 by Indiana University Press (ISBN: 978-025-302286-8). The TGA also sponsors a conference, Moving Trans History Forward, which is open to everyone interested in the preservation and sharing of trans and gender-nonconforming history.

Media Collections

LGBT Studies in Video. Alexandria, VA: Alexander Street (ISSN: 2325-2715).

This survey collection of over three hundred videos is a partnership primarily with Frameline, the media organization behind the San Francisco International LGBT Film Festival. Many award-winning videos that chronicle LGBT history are included, in addition to rare works by pioneering filmmakers such as Carl Theodor Dreyer and Pat Rocco. Users can search by keyword or browse its offerings by theme or topic. Transcripts are provided, and are fully searchable.

Film

By no means a comprehensive list, these films are worth highlighting for their numerous awards and international recognition: *Beautiful Boxer* (Thailand, 2003), *Boys Don't Cry* (USA, 1999), *The Danish Girl* (UK, USA, 2015), *Hedwig and the Angry Inch* (USA, 2001), *Laurence Anyways* (Canada, France, 2012), *Ma Vie en Rose* (Belgium, 1997), *Tomboy* (France, 2011), *Trans* (USA, 2012), and *Transamerica* (USA, 2005).

Podcasts

TransWaves (http://www.transyouthequality.org)

Produced by the Trans Youth Equality Foundation, this show features interviews with a wide spectrum of guests, from trans youth and their families to health providers and activists. Past episodes have featured the TransKids Purple Rainbow Foundation and Harvard University poet, literary critic, and professor, Stephen Burt.

One from the Vaults (OFTV) (https://soundcloud.com/onefromthevaultspodcast)

Monthly episodes on trans history, produced and hosted by Morgan M. Page, a Montreal-based video artist, writer, and activist. In addition to being a Lambda Literary Fellow, Page has written *BRAZEN: Trans Women's Safer Sex Guide*.[4]

Transgeneral (http://www.transgeneral.supplies/blog/)

Billed as a "comedy infotainment podcast," this podcast is hosted by two Australian trans women, Chelsey and Charlotte. It was created as an outlet to connect with the trans community and to educate people on trans issues and concepts in a conversational, and often humorous, way.

Transition Transmission (http://transitiontransmission.libsyn.com)

Started in 2012 by the "Transgender Trio" (Amber Neko, Alexandria Tibby and Ramona Knotts), this is a "by and for transgender podcast." Current trans and LGBTQIA+ news and culture are discussed.

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Building Better Communities, One Person at a Time

David A. Tyckoson and Nicolette Warisse Sosulski

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WORKING WITH USERS

David A. Tyckoson

Reference librarians, here defined as those people who answer questions for users, play a more profound role within the community than one might think. In the process of responding to users' questions, the librarian is doing much more than finding an answer to the question that was asked. The librarian is building a relationship with the user that will make the user more likely to ask more questions in the future. The answer to one question often generates more questions later—bringing the user back to the library more often than the user would have guessed at first.

Most users who come to the library seek answers or solutions to an immediate problem. The library offers help to the business person seeking investment opportunities, the gardener looking for information on the viability of new seed varieties, the immigrant wanting to improve English language skills, the college student who desires more challenging computer programming applications than are provided in class, the adult seeking information on divorce, the high school girl wanting to know at what stage a pregnancy starts to show, and the child curious about everything to do with ligers. The reference librarian helps them, providing them with information, search strategies, and websites that cover their specific topics. Some users find everything that they want, some find part of what they are looking for, and a few might not find anything useful. This is the nature of reference work, and it is what we do for our users every single day.

This description makes it seem like working with users is a simple activity, but there is something more complex going on. Uses do not submit questions (What is the meaning of life, the universe, and everything?), wait a while, then receive an answer (Forty-two). Reference librarians work *together* with users, and *it is that togetherness that makes what we do so special*. We help define the question, we work together to examine search terms, and we collaborate to evaluate the results. The librarian becomes the user's *partner* during the problem-solving process.

By working together, we build relationships with our users. Users learn that we give professional assistance. They also learn searching and evaluation skills that enable them to do similar searches on their own in the future. Reference librarians take user needs seriously, find sources at the appropriate reading level, and keep requests confidential. By doing so, we inspire in our users feelings of respect, knowledge, and perhaps most importantly, trust. Those feelings make it easier for a user to come in again with another question.

It is this relationship that makes the biggest difference to our users. If you ask a user about their library experience several months after a visit, they probably will not remember what they asked, but they will remember whom they asked and how that librarian made them feel. And I am willing to bet that in the vast majority of cases, they would definitely go back to that librarian again with their next question. This is how I measure reference success.

That success goes on every day at every library. We help our users with their immediate requests, but in the process we are building a relationship with them that will serve them well over time. We make the library a trusted institution that they can turn to when they are in their greatest need. We ensure that they see that the library plays a key role within the community. As we help users, we are solving immediate problems—but we are also helping build a stronger community, one user at a time.

NEGOTIATING THE QUESTION

Nicolette Warisse Sosluski

This type of question negotiation and relationship building can happen quickly or gradually over time. Sometimes I have noticed it happening and sometimes it has happened without my being aware of it. How can that relationship growth happen without my knowing it, you ask? Well, for one thing, each member of library staff is being observed every day by the patrons of the library, especially the ones you might call "the regulars." They know much more about us than we do about them, because there are so many more of them. When you are helping a patron and going the extra mile, they know. When you are smiling through clenched teeth and praying that a patron will Just. Go. Away... they know that, too. So, even if your interactions with these patrons up to this point have been merely a printer jam fix or an extension of computer time, they are coming up to you because they have chosen *you* to answer their question. The question has a bit of intimacy to it and they have waited for just the right time—and just the right librarian.

One day, I was approached by a patron whom I recognized by sight, but didn't know personally. "I was hoping you would be here!" she said. "I need something that is kind of hard to talk about and hard to find." Her adult child lived out of state, out West, and was having a difficult time emotionally, struggling with hopelessness and needing help. The child wanted professional counseling, but was overwhelmed at the prospect, and thought it would be less daunting in an outdoor setting. This type of service does not exist where I am in the Midwest—or at least, I was unable to find it. But it is not at all uncommon in some western, outdoorsy, and (as a friend of mine calls them) "crunchy" states. The child did not know what to do, and sought parental guidance from my patron. This mother wanted to support her child, but outdoor psychotherapy referrals for a city over a thousand miles away were beyond her scope. She was worried and protective of her child, and, flatteringly, she selected me to help.

I started my search by looking at sites and articles online on psychotherapists as well as the local psychology associations and groups. I also looked at Google Scholar to see if anybody was writing about this. I saw mentions of hiking therapy, snowshoe therapy, and ski therapy—who knew?

My patron was sitting at a public computer at this point because I had told her that finding what she needed might take a bit. To my surprise, another patron sitting at a nearby computer, whom I knew even less than the woman I was assisting, leaned over to my patron and said, "Don't you worry, honey, you got this." She nodded her head at me, and added, "She doesn't stop until it is *done*!" Apparently, this user made a habit of listening to every patron and librarian at the desk, including the interaction I'd just had.

I then called the director of a therapy association in the area where the child lived. I asked if the association had therapists who offered these kinds of services or whether he had encountered colleagues who did at local professional meetings. He was surprised to hear from the Midwest, but readily gave me three contacts, as well as information for his own practice, and urged me to call back if the prospective client did not "click" with any of the colleagues he suggested.

I returned to the patron and gave her the information, printing a page with the clinics' contact info and cautioning her that my referrals meant that the services she sought were probably offered but were not a professional recommendation from me. She hugged me (and the encouraging patron at the public computers said "I *told* you!"). She had tears in her eyes. I felt I had made a difference, and a friend. I also breathed a sigh of relief that I had found something that may have merited the confidence that my patron (and the bystander) had in me. Ever since that interaction, that patron has made a point of saying "hello" when she comes into the library.

Reference librarians build these relationships knowingly and unknowingly every day, helping patrons and thus helping and strengthening our communities. It may be that we help a group or a class. Often, it is just one person. And the community is better for it.

Why do Students Seek Help in an Age of DIY?

Using a Qualitative Approach to Look Beyond Statistics

National statistics indicate that academic libraries are experiencing declines in reference transactions, but the references services in some libraries continue to thrive. While many studies explore reasons that students do not seek assistance from librarians, there is limited research explaining why students do ask for help. The authors conducted a study to answer two questions: (1) How do undergraduate students look for information? (2) What prompted the students to seek out help from a librarian? To answer these questions, the authors conducted in-depth, semi-structured interviews with undergraduate students who had received reference assistance. An important theme that emerged from the interviews was students' preferences to search independently without assistance. Despite this "do-it-yourself" mentality, students aware of library research consultation services still continue to seek out assistance for librarians when stressful and time-consuming research questions arise. The findings from this study will help librarians better market their research services and understand how students perceive the help-seeking process.

"I think our generation is really good at finding information. If we can't find it then I'll [*sic*] just rephrase it and type in Google and see if other hits come up," commented one Pepperdine University undergraduate about how today's students approach research. With national reference transactions at doctoral institutions declining 60 percent between 2005 and 2014, many librarians fear that students who share this attitude will be less likely to view librarians as a valuable resource for research help.[1] While the 13 percent rise in reference interactions at Pepperdine University between 2012 and 2014 is notably different than comparative national statistics, these numbers only show usage without explaining context. Why are our students increasingly seeking the help of librarians? In addition to identifying reasons for students' decisions to approach librarians, the authors wanted to explore how students independently look for information and to examine help-seeking behavior from the students' perspective. We determined that a qualitative approach using one-on-one interviews would be more effective than surveys because it would allow us to follow up with additional questions and gain insight into our students' research habits.

There are three important benefits to understanding students' information-seeking approaches and their motivations for seeking help. First, our study can aid in determining how

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This article is based on a presentation/short paper for the 2016 Library Assessment Conference (http://library assessment.org) on October 31–November 2, 2016.

Reference & User Services Quarterly, vol. 56, no. 4, pp. 257–267

students decide to approach librarians. We wanted to know if students seek research help in response to referrals from faculty and fellow students or whether it could be attributed to a direct interaction with a library staff member via class instruction or public service desk. This information can help librarians increase reference transactions. Second, learning more about what students' perceived as helpful during their time with librarians provides much-needed feedback about the skills students gain as a direct result of working with librarians. The students' perspective of their experiences with librarians will also reveal if there are real or perceived barriers preventing students from making connections with librarians. Third, by learning about how students search for information independently, librarians will better understand their mindset and how they approach research. This knowledge will provide guidance for information literacy efforts.

BACKGROUND

Pepperdine University is a racially diverse Christian liberal arts institution nestled in the hills of Malibu, California. It has 3,300 FTE undergraduate students, the majority of whom receive library instruction during First-Year Seminar and English 101 courses. Additionally, most students will receive library instruction in capstone classes and other courses that have been designated "research intensive." Pepperdine has a strong library subject liaison program, and public services staff in the undergraduate library will commonly refer students to the subject specialists for assistance with difficult research questions.

LITERATURE REVIEW

The majority of the library literature on student help-seeking behavior focuses on the reasons that students do not consult librarians when they have research questions. This is in stark contrast to the present study, which identifies the reasons that students consulted with a librarian. Some of the literature on students' underutilization of librarians discusses psychological reasons. A comprehensive literature review by Black (2016) focuses on the reasons that students do not consult librarians for research help.[2] An early study on the students' reluctance to consult librarians was conducted by Swope and Katzer in 1972. Their survey concluded that students did not want to ask librarians for help with research because they perceived that they were bothering the librarians or felt that the librarians were not helpful during past encounters.[3] Building off Swope and Katzer's (1972) initial research, other authors have attempted to understand the mindset of students. Mellon (1986) and Bostick (1992) have discussed the role of library anxiety in students' reluctance to ask librarians for help.[4] In a similar vein, Robinson and Reid (2007) used qualitative interviews to identify factors that prevented students from seeking librarian assistance. These included anxiety, embarrassment for appearing foolish, or fear of bothering a busy librarian.[5] Research findings from Ruppel and Fagan (2002) on virtual chat reference indicate that some students preferred chat assistance to visiting the reference desk. Reasons for the preference for chat ranged from perceptions that librarians were friendlier while chatting than in person, to concerns that the librarians staffing the reference desk appeared busy.[6] The main takeaway from research on library anxiety and other psychological barriers is that librarians must be approachable in order to make students feel comfortable in seeking help.

Miller and Murillo (2011) used ethnographic interviews to study help-seeking behavior in students who chose to seek out professors, peers, or family for assistance in lieu of consulting librarians. In these interviews, they discovered that most students had limited relationships with librarians and were often unaware of librarians' research skills.[7] Students were more likely to consult with professors because of closer relationships and familiarity with their assignments.[8] Peers and family were also identified as more likely sources of assistance than librarians. Miller and Murillo (2011) concluded that building closer connections with faculty and teaching more classes is essential in order for librarians to be integral to students' academic success.[9]

Miller and Murillo's (2011) findings are consistent with the research done by Vondracek (2007), which revealed that students were most likely to contact professors for research help, followed by friends and family, and least likely to ask librarians and other students.[10] Moreover, the students in Murphy's (2014) study on undergraduate research behavior were confident in their skills, preferred to conduct research on their own, and, if in need of help, were much more likely to consult professors, friends, or family than librarians.[11]

Interestingly, Tang and Tseng's (2014) study on help-seeking behavior showed different preferences between distance students and their peers who lived closer to campus. Of the students who lived close to campus, the primary preference for help was friends, with librarians and teaching faculty tied for second. However, distance students were most likely to contact librarians for help, followed by faculty. They speculated that students who live close to campus have more opportunities to form connections with peers and teaching faculty.[12]

From the limited literature exploring the reasons that students seek librarians for research help, the central message is the importance of forging partnerships with faculty in order to gain access to students via both library instruction and direct professor referrals. In Sobel's (2009) study exploring why students asked librarians for help, she concluded that faculty recommending students contact librarians for help was the leading reason for students asking reference questions, even more so than librarians asking students to contact them during library instruction sessions.[13] A similar study by Pellegrino (2012) supports Sobel's findings. Pellegrino's study determined the likelihood of students asking reference questions when they received library instruction;

she found that there was not a statistically significant connection between students asking reference questions as a result of library instruction sessions. However, there was a statistically significant connection between faculty referrals and students' reference questions.[14] Lastly, in her four-year cohort study, Perruso (2016) discovered that by their fourth semester, students who had received library instruction were three times more likely to seek assistance from librarians than students who did not receive instruction.[15]

Magi and Mardeusz (2013) have conducted the only qualitative research exploring why students consulted a librarian. Their study explored the nature of the students' research needs and the help student's received from librarians by performing textual analysis of the responses to a set of open-ended questions that were distributed after research consultations. Magi and Mardeusz's findings are consistent with both Pellegrino's and Sobel's findings; the most frequent reason for students to seek a librarian's help was a faculty referral, followed by students learning about reference services from library instruction.[16] Magi and Mardeusz restricted their research focus to students' motivations for seeking help, along with their experience of being assisted, and their preference for in-person assistance over online help.[17] Our study builds on their work using a different qualitative approach. We also provide further exploration into the approaches students took to finding information before asking for help and students' motivations for seeking assistance, in order to better inform librarians what research assistance students want them to provide.

Following in the path of other researchers interested in knowing how students look for information, our study explores students' information-seeking behavior and includes the approaches students used to look for information, the tools they preferred, and difficulties they encountered. Fister (1992) interviewed fourteen undergraduate students about how they conducted research. She discovered that while the students appreciated the complexities of research, the approach they took differed from the strategies librarians taught during library instruction.[18] In a similar study in 1993, Valentine interviewed undergraduates about their research behavior and also concluded that students did not follow the logical steps recommended by librarians. Students preferred to employ strategies that would allow them to complete research with the least expenditure of time and effort.[19] Most significantly, Valentine discovered if students were frustrated, they first turned to course instructors or friends for help. This is backed by later research from Miller and Murillo, and Vondracek.[20] Students were reluctant to ask librarians for help with research either out of embarrassment or because they were unaware of the librarian's role, which is consistent with findings from Miller and Murillo, Black, Swope and Katzer, and Robinson and Reid.[21]

Head's (2013) Project Information Literacy Report explored how first-year students conduct research. While Head reported that Google is students' preferred search resource (88 percent), her research revealed that library databases (82 percent) were a close second.[22] Head's findings are corroborated by Mizrachi's (2010) study, which revealed that while most students begin their research with Google or another public search engine, most will also use library resources such as the catalog or databases.[23] Similarly, Lee (2008) concluded that undergraduate students prefer to consult public search engines to begin their research.[24] Perruso (2016) notes that while first-year students overwhelmingly relied on Google to begin their research, students were more likely to use library resources as they progressed through their studies.[25] The preference for public search engines does not provide students with the skills to navigate library databases, and Head discovered that nearly three-fourths of students encounter difficulties when choosing keywords and constructing effective searches.[26] Asher and Duke's (2011) research found that students conduct simple searches in library databases similar to Google queries, that they seldom look past the first page of search results, and that students also struggle to select the correct databases.[27] The research on students' information-seeking behavior suggests that students need assistance with their research.

Taken together, the literature on information-seeking behavior and help-seeking behavior touch on similar themes that often overlap. When students are conducting research independently they often employ strategies different than those recommended by librarians. They prefer the most convenient tools, such as public search engines. If students need help with research, they're more likely to consult course instructors or friends. Their reluctance to consult librarians might be out of embarrassment, anxiety, or a misunderstanding of librarians' role. Lastly, faculty referrals have been identified as the leading catalyst influencing students to consult librarians.

RESEARCH QUESTIONS

This study aims to answer the following two research questions:

1. How do undergraduate students look for information?
2. What prompted the students to seek out help from a librarian?

METHODOLOGY

To best learn from undergraduates their motivations for seeking help and to identify how they search for information when doing so is challenging, we conducted semi-structured interviews with students who had used our reference services. Semi-structured interviews involve researchers asking subjects a set of open-ended, predetermined questions and following up with probing questions to discover additional information.[28] During fall 2015, students who met in person with a librarian for longer than twenty minutes were notified

Table 1. Characteristics of Student Interviewees

Major	Year	Special Circumstances
Film & Media Production	Sophomore	
Business Administration	Senior	
Sports Administration	First-year	Athlete
Psychology	Junior	
International Studies	Junior	
History & Teacher Education	Junior	
Nutritional Science	Junior	
International Business	Senior	Nontraditional, returning student
Nutritional Science	Junior	Non-native English speaker
Business Administration	Senior	Nontraditional, returning student

about our study and solicited for participation. Librarians answered a total of thirty-seven in-person reference questions from undergraduate students that lasted twenty minutes or longer during the time that we were recruiting students to be interviewed. We interviewed ten students. Our study was limited to ten participants because research from Guest, Bunce, and Johnson (2006) suggests that most of the important themes are addressed with the first six interviews, and that data saturation occurs within twelve participants of an applied thematic study.[29]

We limited our study to undergraduate students for logistical reasons. All of the authors worked in a library that primarily serves undergraduate students. Moreover, the current study was limited to in-person research questions, and because Pepperdine's graduate students are geographically dispersed, they receive most of their reference assistance via email and phone.

We were able to achieve a balance of majors within the undergraduate divisions and ethnic diversity in the students we interviewed. Eight females and two males were interviewed. Table 1 provides information about the students we interviewed.

The Interview Process

The student interviews were scheduled for one-hour blocks. Each one-on-one interview was conducted by the assessment librarian, audio-recorded, and later transcribed. Students responded to a series of semi-structured questions which opened with asking them to describe a "time in the past semester where you needed help locating information after trying to find the answer on your own" (see appendix). Probes were designed to (1) encourage the students to elaborate on the search process, the type of information sought, amount of time spent, and their physical location; (2) identify their reasoning in seeking out the person who helped locate the information; and (3) elicit their emotions during this process. They were then asked to focus on a time when they sought the help of a librarian. Follow-up questions asked students to provide an overview about the point they were at in their research process and how they knew who to contact in the library, to describe what the librarian did with the student and strategies that the students would use again going forward, and to describe their feelings about being helped and whether they would seek help for themselves again or recommend librarians to others. We concluded the interview with questions about approachability of librarians, asking students to discuss any difficulties related to asking for help. We also provided students with the opportunity to talk about anything else they would like to add to the interview.

All of the interviews were conducted within about six weeks of students receiving assistance from librarians to make sure that they still had a strong recollection of their interactions.

The Data Analysis Process

The investigators analyzed the data using the technique of applied thematic analysis. Guest, MacQueen, and Namey (2012) describe applied thematic analysis as a procedure that is ideal for organizing and understanding transcripts from interviews by "making sense of . . . a set of field notes or transcripts from focus groups or in-depth interviews."[30]

Following the transcription of the interviews, we read the outputs to become familiar with them and correct errors. Our team then collaborated to create a codebook consisting of approximately thirty terms that we defined, revised, and applied to the text of the interviews using NVivo, a qualitative data analysis computer software program. One librarian served as the primary coder during the first round of coding. Next, the other two librarians independently reviewed all of these coded transcripts. They were able to indicate disagreements in coding and suggest codes that had been overlooked by the primary coder. Meetings were held to establish inter-rater reliability. All of the differences were reconciled and the researchers were able to reach complete agreement on the codes.

Identifying important codes was aided by, but not limited to, a ranking of the frequency of references. Upon completion of the coding of the transcripts, the researchers met as a group to discuss and identify emerging themes that addressed the study's research questions.

RESULTS

The authors identified six themes that addressed how students look for information and what prompted them to ask a librarian for assistance: (1) how students research, (2) perceptions of their research skills, (3) assumptions held, both about the library and the process of searching for information, (4) motivation for asking for help, (5) path to the librarian, and (6) experience working with a librarian.

How Students Research

To better understand why students might ask librarians for assistance, the interviewer questioned students about how they conduct research. All ten of the students expressed a "do-it-yourself" mentality toward research and would only consider asking for help if they were unable to locate information on their own. Some students explained that being able to conduct research was an important skill they wished to develop. One student commented, "The librarian definitely helped, but I think every time I search for information, I do it on my own first and if I cannot find the right article, then I get help. I think that's a very important life skill."

Students preferred the ease and convenience of using Google, but were also aware of the limitations of public search engines and the importance of library databases. For example, "It depends on what kind of assignment I get. If I just want to find basic information, I Google it, or use Wikipedia, or just go on the website and search for that information. If it's a research paper, I will just go online and go to the Pepperdine [library website] and search the databases and e-journals."

All ten students discussed the importance of locating information from credible sources. Some students mentioned assignments that required scholarly sources, thus helping to emphasize the importance of credible sources. One student stated, "[My] English 380 class was the very first class where I had to do research and look for scholarly reviewed material for a research paper." Students expressed a belief that library resources were likely to contain credible sources. For example, "If I am doing a research paper where I have to have specific type of journals and they have to be peer reviewed . . . I will always go to library website first." This student recognized that the library has credible sources, including peer-reviewed articles. The student skipped Google and began research using library databases.

As expected, all ten of the students described an understanding of fairly basic research skills such as typing in keywords. These students described searching databases the same way one searches Google. For example, "If I have a topic, I would just type it out and if I don't find anything, type a few words, type synonyms, that kind of thing and usually I'll get some sort of result." However, over half of the students described research strategies that were more sophisticated than simply typing in keywords. Some of these higher-level skills included using the advanced search feature of databases, combing through bibliographies for topical sources, using controlled vocabulary, identifying relevant journals for their topic, and even consulting experts in a discipline. One student explained: "I'll find the article that talks about the original one. I just find the references at the end of the articles and based on that reference, I can find the original research."

When students began seeking assistance, we were surprised that none of them relied on friends for research help. Instead, professors were identified as an important source for research assistance by over half of the students. Students have established relationships with course instructors, and understood that their professors were familiar with the assignments and would be grading their papers. For example: "The best [source of help] would probably be a professor grading the paper that I'm writing about."

The students had a strong preference for researching independently. If students did seek out help, professors were a valued resource, but none of the interviewees asked their friends for assistance. Most of the research skills described were rudimentary keyword searches; however, some students demonstrated higher-level research skills. Lastly, while students would initially begin their research with public search engines, they identified library databases as important resources for obtaining credible information.

Personal Perceptions of Research Skills

Students' perceptions of their research skills can influence their decision to seek help. Some students we interviewed were confident in their abilities while other students were anxious about their perceived lack of research skills. One student who felt confident as a researcher explained why s/he was unlikely to seek help: "I feel confident to just do the research on my own. If I were to ever need assistance it would be more fine-tuning, or even making sure that my thought process is not completely off track, checking that aspect, and not so much the research itself." Another student was less confident as a researcher, citing issues with generating good search terms: "It's just things that I can't find on my own that I have a hard time [with] like keywords. It's really just research in general I struggle with."

In assessing their own research skills, four students compared themselves to their peers. This less confident student observed that other peers may have better research skills: "I attended high school in China and basically, I think that the difference [is] that we never did research. We never searched for information. We get information from our teachers [and] I think our ability to do research is not as good as American students."

Students understand the importance of credibility, but one student admitted to struggling when it comes to evaluating sources: "I think that's one of the biggest challenges with Google . . . deciding if they're actually credible. I know at times, it's hard to tell."

All ten students discussed their perceived development as researchers. One student reflected on his/her personal growth as a researcher while at college: "I think it has developed from my freshman year of college, especially when every class that I take that needs to do a research [paper], and I think for me particularly, I've taken other research classes."

Half of the students provided insights about the varying degrees to which their high schools prepared them for the rigors of college research. Prior to college, some students conducted research with public search engines and were not required to use library databases. One student explained: "I went to a pretty highly academic high school . . . I don't think I ever really searched for anything through the library to be honest . . . the teachers were okay with us using stuff on websites."

Over the course of the interviews, students shared perceptions of their research skills and discussed how their ability to locate information evolved from high school through college. From the upperclassmen, we learned more details about how they evolved as researchers during their time in college. In many instances, students described their ability to conduct research by comparing themselves to their peers.

Assumptions

An important advantage of conducting in-depth interviews was for the researchers to view library services from the perspectives of the students. Some misperceptions about library services deterred several students from seeking assistance. One of the more disconcerting, and incorrect, assumptions was the perception that students had a "quota" on the amount of research assistance they could obtain from librarians. A student explained: "I don't want to just keep on coming back and I didn't want to use her for this particular project...because I have several papers coming up for finals. I might need help with another project soon. You know, I don't want to be a burden . . . I'm only going to use her when I really, really need her." Another student expressed the sentiment of needing to conduct initial preliminary research before meeting with the librarian in order to make that meeting as efficient as possible and to avoid having to schedule additional appointments. This student stated: "I think if he helped me earlier on then it would just be him doing it, and then I wouldn't want to go back and ask again for something specific."

Nine out of the ten students described their peers' awareness of library research services and their likelihood of them contacting librarians. Students expressed the belief that there was a general lack of awareness of the skilled research help librarians could offer. One student explained that other students would only seek librarian assistance after being advised to do so. This student explained: "I think a lot of the students don't realize that librarians are so willing to help. I do, and I rarely see librarians helping students, and if they do it's because I think the students had been notified to do so for a class project." A different student stated: "I think what's best is just let people know the services that are available. I didn't know about them and I don't think many other people do. I think just make them aware."

Students felt that even their peers who were aware of librarians' research services were reluctant to ask for help because they preferred to search on their own. For example, "I think people know [about library research services] . . . they know the librarian can help, but I think sometimes they just don't want to reach out."

Another student thought that many fellow students would be reluctant to make a special trip to the library in order to get help, highlighting an assumption that in order to receive research assistance students must show up in the library. This student stated: "It's just going to be a drag and especially [for] those who live off-campus. If they're at home working on a project, they're not going to drive all the way to Pepperdine."

Several students told us that their peers don't think they have time to meet with a librarian. For example, "I think that the reason why a lot of people don't come in too is because of the time and our schedules were always just really busy." Similarly, another student referred to a conversation with a friend seeking the help of a librarian: "She was like, 'Oh, no [I don't go to the library for help].' I was like, 'Why not? They help you a lot.' [The friend of the interviewee said] 'I don't have the time to go in and sit down for an hour or whatever'... I think people just have that perception in their mind already."

Even though the present study is limited to students who have received help from librarians, understanding what underlying assumptions students have about library services provides insight about barriers librarians need to overcome in order to better serve the general student population. The interviews revealed that students do not seek help for a variety of reasons ranging from being unaware of library research services, limits on the number of questions students felt they could ask, preferences for researching independently, and the time commitment of visiting the library to meet with librarians.

Motivation for Asking for Help

All ten of the students described a research question that prompted them to ask for a librarian's assistance. Given students' preferences to research independently, it's not surprising that they only asked for help if they thought the question was particularly challenging.

Even students who view themselves as being independent would ask for help when they were unable to locate information by themselves. For example, "I contacted someone this time ... because I was having a particularly hard time finding articles [for my] research. Normally it's not a problem because I feel like using the library website has been extremely helpful for all my papers. . . . I guess I hadn't really needed it until this paper that I was assigned."

Six out of the ten students were struggling to locate primary sources for assignments. The types of primary sources varied by discipline and included statistical data, original research studies, and historical resources.

All ten students expressed negative emotions concerning difficult research questions. For example, "Frustrated because I knew I needed that and I knew it was out there. I know it's there but I can't find it and that was frustrating."

All students discussed time spent doing research prior to seeking a librarian's assistance. For example, "I should have gone [to the librarian] a little sooner because she helped me . . . within, I don't know, twenty or thirty minutes. . . . I searched for a long time on my own and I just shouldn't have wasted that time." Interviews revealed that students seek help when they go beyond what they consider a reasonable amount of time to spend searching. One student spoke about reaching that limit: "I don't know exactly how long [I spent searching], but I'd say about a couple of hours, probably two, just looking and because I did want to [research] on my own. I was kind of determined, but I just gave up at one point." One student explained being frustrated with the amount of time spent on the research for the assignment prior to meeting with a librarian and questioned putting even more time into it: "I was extremely frustrated and was ready to just give up and let my paper be what it was. . . . I did not want to deal with it anymore because the class that I wrote it for is only a three-hour class."

Despite their preference for researching independently, students will ask for help when they feel stressed by research that takes longer than they deem reasonable.

Path to Librarians

The authors were interested in learning how students contacted librarians and why they selected a particular librarian. Six out of ten students met with the same librarian who provided library instruction to their class. One student explained that because of library instruction, "We now know [a] specific name and face. . . . We can go to in the library because we're not going to just go there and wander around aimlessly until we find somebody able to help us out." Students remembered librarians speaking to their classes about their availability for additional help. One student recalled: "He introduced himself as the research librarian for history and said that if we ever had any question, go to him."

Half of the students identified the referral of their faculty member as the reason for their decision to ask a librarian for help. For example, "I'm glad [my professor] urged us to meet with him or else I don't know if I would have."

Only one student in the study met with a librarian because of encouragement from peers, stating: "People say, 'Oh go to the library, they're really encouraging about it,' so that helps. . . . A friend that said, 'Oh I go into library all the time . . . whenever I need help.'"

Four out of the ten students explained that the library student workers helped them locate the librarian who could best assist them. One international student stated: "I went to the front desk and say I need help from . . . a science librarian and they helped me to search for which librarian [could best assist me]."

In addition to understanding how students knew to ask a librarian for help, the authors wanted to know to what degree students find librarians approachable. None of the students interviewed expressed concerns about approaching the librarians. For example, "I feel like you guys are very friendly and approachable and willing to help, and so I think it's just up to the student to ask for the help."

Library instruction is a particularly effective method for encouraging students to seek assistance from librarians. It puts a face on research help, providing a forum where the librarian can advertise different means of being available for assistance. This open invitation sends a message to students that librarians care and are well qualified to help. Faculty referrals are another effective means for generating research consultations with students. A research referral from faculty provides essential marketing of this less-known aspect of library services and endorses the subject expertise of librarians. Additionally, well-trained student workers are helpful in connecting students to librarians when students are unsure of who in the library could best assist them with research.

Experience Working with a Librarian

Students were asked about their experiences being assisted by librarians. Students expressed a strong preference for researching independently and the authors wanted to know if students thought that meeting with librarians was a valuable experience.

Interviewees were asked about the skills and knowledge imparted during their research consultations. All ten of the students mentioned receiving assistance with navigating the library databases and identifying effective keywords as being valuable. For example, "I have trouble . . . knowing what keywords to put in and what exactly to look for and what scientists or writers or publishers are going to use because one thing that the librarian helped me [with] was one of the words, 'infertility.'" This student described having trouble building searches, identifying researchers who have written on the topic, and utilizing controlled vocabularies.

Librarians also used their expertise to help students refine and narrow their topics. For example, "We narrowed it down to drug resistance, streptococcus pneumoniae [in children] under six years of age. That helps me narrow it from one thousand references to five hundred."

All ten students stated they were satisfied with the help they received, with some expressing positive emotions when describing their experiences. A student noted: "He was extremely helpful and did his best to help me which was so nice and helped me print off papers just to read them and would help just to scroll through new [articles]. That was part of what was comforting about that too, just having someone really care."

When asked if they would seek a librarian's help in the future, all ten students indicated they would. A student said: "I feel like I haven't really needed help before this specific time when I had to find an article from specific types of journals, but I'm very open to getting help from a librarian in the future after knowing how helpful they were this time."

Ideally, a student with a strong preference for researching independently will incorporate the skills learned from librarians into future research projects. For example, "It's good because now at least if I wanted to do research totally on my own, which I will, I'll know at least which databases to go to for certain issues and which ones are good for more business stuff, which ones are good for more history stuff."

ACADEMIC DISCIPLINE TRENDS

Our goal in recruiting students from a variety of academic majors was to create a study that represented the help-seeking behavior and research habits of a broad cross section of students. If a particular academic discipline was overrepresented, it would difficult for us to determine if the results of the study were applicable to students from other majors. Our coding of the documents and analysis of the six themes did not reveal any clear differences based on students' majors. However, because of the study's small size of ten participants, it is difficult to identify differences in the help-seeking behavior of different disciplines.

DISCUSSION

One of the goals of this study was to obtain more detailed information about how students begin looking for information, including the time spent, physical setting, and other details relating to their search process. Research by Lee (2008), Head (2013), and Mizrachi (2010) all revealed that students prefer to begin their research with public search engines because of the ease of use, a finding that is unsurprising to most librarians.[31] This proved the case with our study as well. We did learn, however, that students spent at least thirty minutes conducting research and typically worked alone in their initial searches, with some conducting their research in library study spaces, dorm rooms, and classrooms.

We wanted to know whether access to librarians influenced students' search strategies when finding information was challenging. Students in our study were appreciative when librarians helped them search databases using advanced features and selecting effective keywords. They explained that prior to working with the librarians, they were unaware of strategies such as limiting search results to specific dates. This finding is consistent with both Asher and Duke's (2011) research, which found students' database searches mimic their simplistic Google queries, and Head's (2013) findings, which indicate that most students struggle to effectively search databases and formulate relevant keywords.[32]

Our other research question explored students' motivations for seeking help from librarians. Research from Sobel (2009), Magi and Mardesuz (2013), and Pellegrino (2012) indicates that faculty referrals were even more effective in motivating students to ask librarians for assistance than librarians encouraging students to seek follow-up help during library instruction sessions.[33] Our study revealed that library instruction was slightly more effective than faculty referrals in encouraging students to ask librarians for help. Sample size and type of research instrument used may account for the differences between our findings and those from the surveys used in the studies from Pellegrino (2012) and Sobel (2009).[34]

Studies from Miller and Murillo (2011), Vondracek (2007), and Murphy (2014) revealed that students were more likely to ask faculty, friends, and peers for research advice than librarians.[35] While some students in our study relied on professors for research help, none of the students we interviewed identified friends or other students as effective resources for research assistance.

Our study was consistent with the research from Murphy, as well as Miller and Murillo (2011), showing that students have a strong desire to conduct research without assistance.[36] In fact, students' preference for researching independently was relevant to all six of our themes. Even though students in our study expressed appreciation for the librarian's expertise in saving them time and stress, their "do-it-yourself" mentality is a significant barrier to asking librarians for help.

Previous researchers explored the role of library anxiety and embarrassment on students' reluctance to seek out assistance.[37] All of the students in our study, however, felt that the librarians were approachable. Some expressed opinions that it was the responsibility of the students to contact librarians for help. In light of the fact that some students will not seek assistance from librarians regardless of approachability, libraries must proactively market research services.

Stress is an easily recognized and common emotional response experienced by many students struggling with research. Magi and Mardeusz's (2013) study, like ours, explored students' emotions before and after receiving assistance.[38] Similar to our findings, the students surveyed by Magi and Mardeusz unanimously responded that they were satisfied with the help they received and were likely to seek out assistance from research librarians in the future.[39]

By conducting in-depth interviews, the current study was able to explore students' information-seeking behavior and motivations for seeking help in granular detail. In this process, we gained insight into their habits, emotions, assumptions, and outcomes. Simply by asking questions about topics such as the length of time they would spend researching before seeking help, listening to them describe their abilities in comparison to their peers, and asking them about their emotional response to research stages, we were able to piece together the evolution of their research skills.

STUDY LIMITATIONS AND FURTHER RESEARCH

This study is limited to those students who sought research help from librarians; consequently, the students interviewed were unlikely to be ones anxious or reluctant to ask for help. Based on the responses from students, our study may also have been less likely to include students who asked teaching faculty and peers for assistance instead of librarians. By contrast, studies such as Miller and Murillo (2011) sampled a broader range of students, including those who did not seek help from librarians. Specific student populations such as non-native English speakers, transfer students, and those students who have not received individual reference assistance from librarians could be explored in future studies to assess their needs. Additionally, future studies could aim to understand how students would like to improve their research skills. Insight into the minds of our users can positively impact the information literacy services offered by librarians.

IMPLICATIONS

The students we interviewed expressed a strong "do-it-yourself" mentality. If students prefer to search independently, librarians must employ the most effective methods to promote their research expertise. Above all else, the findings from our study reinforce the importance of classroom instruction and faculty referrals to inspire students to ask librarians for research help. It is crucial that librarians partner with faculty. Gaining face time in the classroom via library instruction is also important in motivating students to seek help because it introduces the librarian as someone who is a trusted resource and knowledgeable about their assignments.

Though they still wanted to continue to take the reins with their research, students were appreciative of the amount of time they saved by receiving help from librarians. They also noted feeling relieved and under less stress as a result of consulting with librarians. Librarians can use these insights to market research services to students.

Additionally, because students heed recommendations of people they trust, librarians should also explore new avenues for referrals. Beyond looking to faculty to bridge connections between students and librarians, we can build relationships with student success centers, university counseling services, and academic advising personnel. It is vital for librarians to emphasize their utility when speaking to tutoring, counseling, and academic advising personnel about the services the library can provide to students who are anxious or struggling academically.

Students also remarked that many of their peers were unaware of librarians' research expertise, and librarians need to actively work on how they can use happy customers in referring new students. Based on the level of satisfaction reported in these findings, students are an optimal referral source for peers unaware of this type of research help if encouraged to tell their classmates and friends to ask a librarian. Even though librarians may never reach all students who can benefit from their help, we can use the research to target additional referral sources beyond faculty. Librarians can work with their universities' in-house marketing services to create advertising campaigns both online and in print that feature current students recommending librarians for their expertise and time saving help.

Especially considering the DIY attitude of today's students, librarians must be mindful of students' assumptions about the library and its services. Some students in the study were under the impression that there was a limit to how many questions they could ask librarians. Librarians should consider how to bust this misperception and other myths because incorrect assumptions such as these could deter students from seeking help.

Unsurprisingly, students often struggle to effectively search library databases despite the ease of typing keywords into Google. Effective database searching requires the creative construction of keyword searches and is an exploratory process greatly aided by someone else who is able to make helpful suggestions and explain the nuances related to searching. Students highlighted the importance of locating credible sources, but they experienced trouble in locating them. Locating primary sources can be especially challenging for students. We found that librarians, even in this DIY culture, are relevant, and appreciated for their expertise and abilities in helping students overcome their research challenges.

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APPENDIX. INTERVIEW QUESTIONS

1. I'd like you to think back to a time in the past semester when you needed help locating information after trying to find the answer on your own. Please talk about this experience.
   a. Was it for an assignment or something you were trying to learn more about on your own? What was it you were trying to find? How did you go about looking for the information? What did you try? Where did you look? Where were you (e.g., in your dorm, the cafe, the library)? How long did you keep trying to find information before thinking that you might need to ask someone else?
   b. Thank you for giving such a good context about the information you were trying to locate. I'd like you to talk now a bit about that moment when you realized you would need help.
      i. Can compare how you felt to another time that you felt the same way?
   c. Thanks for talking about that. Now I'd like to learn more about your thought process when seeking out help from someone else. What made you seek out the person who helped you find your answer or think through your problem?
2. It's been helpful for me to hear about the context in which you found yourself needing help locating information. We're going to switch gears and focus now on a time when you utilized the help of a librarian. Please tell us about this experience.
   a. How did you know who to contact in the library? How did you know where to go to ask for help?
   b. Thanks. Can you describe for me what the librarian did when you asked for help?
   c. I'd like you to think about how you felt while being assisted. And now I would like you to tell me how you felt when you were finished.
   d. Is there a certain context in which you would find

yourself asking for help from a librarian in the future?

e. With hindsight, if you had it to go do over again, tell us how you would look for information for this assignment/question?
f. And now, let's think back again to what you observed in working with a librarian. Are there strategies or tools that the librarian used that you would want to try or use in the future? If yes, please explain.

3. Thanks for talking about what you your experience with the librarian. I'd like you to think about why you contacted a librarian for help.
   a. What point in your search did you contact the librarian?
4. I appreciate all the thinking back to your experience with the librarian and the context for reaching out to a librarian. I have one final question about this interaction with the librarian. Can you talk about any difficulties you may encountered when asking a librarian for assistance?
   a. Tell us how librarians can be more approachable.
5. You've been so helpful in talking with me today. I'd like to ask if there's anything you would like to add.

Specialized Reference Services at Illinois

Reference Transactional Analysis and Its Implications for Service Providers and Administrators

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Reference & User Services Quarterly, vol. 56, no. 4, pp. 268–276

As reference service environments continue to evolve, service providers and administrators are encountering numerous challenges and opportunities. This article examines the specialized reference services at the University of Illinois. Using reference transactional data from two academic years (69,630 transactions), this study focuses on five specialized service points and two general service points. Moreover, this study analyzed READ Scale scores, duration of the transaction, question type, and subject area covered during these transactions.

Like many research institutions today, the University of Illinois has been investigating questions related to service models, staffing, and the role of departmental units, and working toward an adaptable service plan that is capable of addressing the short- and long-term research needs of users. Reference services are contributing to these ongoing discussions proactively, thus engaging users, administrators, and colleagues to design and implement innovative services. To contribute to this discussion on reference services, this study aims to provide a fresh look at specialized reference services at a large research library by examining in-person, phone, and email transactions from five specialized and two general reference service points for the period July 1, 2013 to June 30, 2015. The reference transactional analysis also focuses on duration of the transaction, Reference Effort Assessment Data (READ) Scale scores, question type, and subject area. Through quantitative analysis, we hope to shed some light on the intricacies that link reference environments and shape their evolving roles at academic libraries.

Since their inception in the late nineteenth and early twentieth centuries, reference services at public, academic, and special libraries have experienced numerous shifts in service models, scope, and capabilities. Some of the shifts in service models were the result of evidence-based findings, and others were the product of systemic changes in higher education. As reference service models evolved, the role of reference professionals also went through a transformation. In his historical narrative of reference services and libraries, Thomas J. Galvin assigns eight additional functions for reference professionals in "amplified reference services." In addition to instruction- and assistance-related duties, these functions include compiling bibliographies, topical guides, indexes, and collections aids; indexing and abstracting; "translation"; and "editorial and publishing services."[1] Although some of these functions are still performed by reference professionals, in most academic libraries the vast majority of these functions are now conducted by library vendors and service suppliers. The reference environment now rests heavily on subscription-based resources and the extensive possibilities associated with online resources. Moreover, the most recent realignments and consolidations experienced by academic libraries have fundamentally altered the identities of reference services and their historical role at these institutions.

Yet this reference environment still retains its vitality and continues to explore alternative service models to provide research services to diverse groups of academic communities. As Steiner,[2] Hess,[3] and Lenkart et al.[4] have shown, reference services continue to evolve and play a vital role in the research process of students and faculty. The reference service landscape now operates on different modes of activity with multiple integrated service points to support the needs of diverse communities of scholars at academic, public, and special libraries. As we move forward with innovative service models, it becomes increasingly imperative for reference professionals and library administrators to examine the intricacies of managing integrated service "hubs," specialized reference services, staff training, quality control, and the referral infrastructure at academic institutions. Through internal discussions and assessment, the three reference "hubs" at University of Illinois were designed to address service gaps, enhance subject expertise, and maximize the capacity of the Library to provide research assistance to users across campus. These reference hubs act as the main triaging points for reference transactions. Many large academic libraries have similar service structures to manage incoming queries.

The University of Illinois Library is one such institution. Founded in 1867, the Library currently supports 44,880 students (33,467 undergraduate level, 10,428 graduate level, and 985 professional level) and 2,456.57 FTE faculty members.[5] With more than twenty departmental libraries, designed to support the research needs of fifteen colleges and instructional units, and seven area studies centers, the University of Illinois Library is one of the largest public research libraries in the world. Its various service points are staffed by faculty librarians, graduate assistants, hourly staff, civil service staff, and academic professionals. As with other research libraries, this library system has undergone significant changes over the last ten years to contend with internal and external challenges and opportunities.

In fall 2007, the University Library administration at Illinois initiated the New Service Models (NSM) program "to address strategic challenges to the future of the University of Illinois at Urbana-Champaign's University Library."[6] This extensive program relied on key principles and challenges outlined in *Library Services for the 21st Century at the University of Illinois at Urbana-Champaign: Final Report and Recommendations of the Budget Group Plus*.[7] Citing transformational changes in information technology, scholarly communication, and higher education, this report saw three major areas of concern in relation to the departmental library service model: the nature of collections, needs of users, and the changing academic environment. To address these changes, the University Library administration began a process of integration and realignment of service points, which dramatically altered the departmental library structure at Illinois. As during previous periods of change in service structure, the specialized reference services at the University of Illinois were affected by local environmental conditions and shifts in administrative priorities.

The restructuring of reference services at Illinois began with the Reference New Service Model report, which called for the formation of a Reference Services Planning Team. In addition, this report identified structural problems with the Library's reference services:

> The Library's current system for reference has a number of disadvantages. Because each unit handles reference separately, there is great inconsistency in the type, quality and hours of service, in the materials that support reference transactions, such as web pages and guides, in the training of staff and graduate assistants, and in the assessment of services. Another disadvantage is that patrons often have difficulty finding help. This is particularly true of patrons who seek assistance in the Main Library where reference desks are located in hard-to-find places and good signage is lacking.[8]

The work of the Reference Services Planning Team and later the Reference Services Implementation Team led to the final implementation report, which called for a new cohesive service structure with reference hubs and specialized reference services at realigned and consolidated departmental libraries. Within this new structure, the specialized reference services at Illinois not only support reference hubs but also maintain a robust service infrastructure in their respective departments for affiliated students, faculty, and academic departments.

The realigned departmental structure at Illinois relies on the expertise of subject specialists, unique collections of print and online reference materials, and an extensive directory of online research resources to deliver services. This extensive directory includes research databases (subject and foreign language ones) and a vast portfolio of bibliographic guides designed for supporting undergraduate and graduate students, courses, teaching faculty, and the service parameters of each reformed unit. Furthermore, subject specialists and staff at the departmental level now participate in the referral management system, and help staff the hub service points at the University Library. This evolving service model continues to incorporate shifts in research trends and needs of patron groups at the University of Illinois.

LITERATURE REVIEW

In 1876, Samuel S. Green observed that "a librarian is frequently asked to give information in regard to things and processes which he knows nothing about."[9] This insightful observation remains poignant today. The predicament Green described continues to present information professionals and library administrators with both challenges and untapped potential for developing innovative reference services.

The impact of reference services is documented in five relevant bibliographies: *Reference Service: An Annotated Bibliographic Guide;*[10] *Reference Service: An Annotated Bibliographic Guide Supplement 1976–1982;*[11] "Cooperative Reference Services and the Referred Reference Question: An Annotated Bibliography, 1983–1994";[12] "Success, Failure, Innovation and Uncertainty in Changing Times: A Selective Bibliography of Literature on Reference Services since the 1980s";[13] and *Performance Measures: A Bibliography.*[14] These bibliographies collectively chronicle published material on reference and reference services since 1876. Specifically, these sources list numerous case studies and impact analysis of reference services at academic, public, and special libraries. Thomas J. Galvin's aforementioned historical narrative provides additional sources for exploring the evolution of reference services at public, academic, and special libraries.

Since reference service environments are impacted by structural changes at the departmental and administrative level, scholarship that tracks restructuring and realignment of service points is prevalent. In her study, *University Library Effectiveness: A Case Study of the Perceived Outcomes of Structural Change,*[15] Jennifer Younger critically examines the relationship between professional activities such as services, organizational structure, and effectiveness at academic libraries. Younger's study focuses on the University Library at University of Illinois at Urbana-Champaign (UIUC). In addition, her analysis of the structural changes at UIUC, Columbia University, and Pennsylvania State University Library ought to be an integral component for examining new service models and their impact on public services and service providers at academic libraries. Recently, Holder and Lannon reported the closings and consolidations of academic libraries and their implications for service points.[16] General and specialized reference environments are susceptible to systemic changes, including to the infrastructure that supports their overall management.

Recent scholarship and discussions have focused on the changing role of reference work and the overall management of services at academic libraries. Schulte,[17] Bandyopadhyay and Boyd-Byrnes,[18] Nall et al.,[19] Ward and Phetteplace,[20] and Peters[21] have investigated service viability at general and specialized locations and staffing and service consolidations at academic libraries. The Reference Research Forums organized by the American Library Association's Reference and User Services Association have facilitated a platform for examining "reference effectiveness and assessment . . . and organizational structure and personnel."[22] Gerlich and Whatley have also contributed to this discussion by using the READ Scale as a staff calibrating tool.[23] Moreover, De Groote et al. assessed cooperative digital reference services by coding reference transactions into categories, which included specialized services and subject areas.[24]

Scholarship on reference services and transactional assessments reflects a multifaceted approach to examining general and specialized reference services at academic libraries. Jean McLaughlin's survey of reference assessment literature from 2001 to 2010 revealed a lack of a "universally accepted set of standard approaches, study methodologies, and reporting formats for comparison and analysis."[25] This lack of accepted standards and methodologies was also observed by Murfin in her survey of seventy-one academic libraries and their reference transactions: "Without accepted units of measurement, data for different libraries cannot be compared."[26]

In terms of specific examples of reference transactional assessments and case studies, Olszewski and Rumbaugh, in their international comparison of virtual reference services, reviewed reference transaction data from twenty-three libraries in ten countries.[27] Moreover, Olszewski and Rumbaugh analyzed the data using seven categories: institution type (academic or public), language, question type, answer type, user status, subject classification, and response time. The observations and patterns documented by Olszewski and Rumbaugh provide a structural framework for studying specialized reference services at academic libraries.[28] In contrast, studying the correlation of electronic resource expenditure and reference transactions, Dubnjakovic reported that "spending more on electronic resources in academic libraries leads to an increase rather than a decrease in numbers of reference transactions."[29] This is an essential variable for conducting transactional analysis; however, in order to observe the complexities associated with specialized reference services, a holistic approach is needed to address the various challenges confronted by specialized reference service providers.

Chan,[30] Bennett and Siming,[31] Ryan,[32] Bishop and Bartlett,[33] Sugimoto,[34] and Barrett[35] have conducted transactional analyses in conjunction with specialized reference environments, subject expertise, staffing, and embedded librarians, which are directly relevant to this study. In addition, Magi and Mardeusz[36] directly address two vital components of specialized reference: face-to-face in-depth research consultations and sources-based competencies. Furthermore, Magi and Mardeusz articulate the importance of the entire service structure, including referral systems and the multifaceted nature of reference work. As academic libraries move forward with service realignments and consolidations, the reliability of specialized services depends on the communicative model of the proposed realignment, and the ability to staff service points with competent professionals who possess the necessary subject expertise.

METHODOLOGY

With the main hubs supporting general reference at the University of Illinois Library, the new departmental structure developed a reputation among students and faculty for providing in-depth research services through email and in-person consultations. To assess these departmental service points, this study examined in-person, phone, and email transactions from five specialized reference service points for the period July 1, 2013, to June 30, 2015 (two academic years). The dataset was derived from Desk Tracker[37] reference statistics as compiled by the following specialized reference service points: Social Sciences, Health, and Education Library (SSHEL); Business Information Services (BIS); Classics; International and Area Studies (IAS); and Library and Information Science (LIS).[38] In addition to these five specialized reference service points, transaction statistics from two general reference service points, Undergraduate Library (UGL) and Reference and Information Services (RIS), which manages the day-to-day operation of the Main/UGL reference hub, were also included as part of this dataset.

Together these services support the research needs of students, staff, and faculty. According to the University of Illinois enrollment data, for the academic period 2016–17 the iSchool (library science) supports 640 graduate students, while the College of Business has 4,627 students (2,896 undergrad level and 1,513 graduate level). In addition to these colleges, reference hubs and the various service points are frequently used by students and faculty from arts and humanities and life, social, and physical sciences, with a user population of over 10,000 individuals. Data analysis was conducted using the SPSS statistical software.

Furthermore, this study conducted descriptive analysis and focused on four specific areas: duration of the transaction (time spent), question Type, subject area, and READ Scale scores covered during this period. The READ Scale is "a six-point scale tool for recording vital supplemental qualitative statistics gathered when reference librarians assist users with their inquiries or research related activities by placing an emphasis on recording the effort, skills, knowledge, teaching moment, techniques and tools utilized by the librarian during a reference transaction."[39] A reference transaction recorded as READ Scale "1" by a librarian means it took the least amount of effort and knowledge to answer it. A READ Scale "6" transaction would require extensive subject knowledge and in some cases consultations with multiple librarians. Correlations between time spent and READ Scale scores were also analyzed. Although subject areas in Desk Tracker vary slightly among service points, and READ Scale scores are dependent on the perception of reference service providers, the inclusion of these assessment variables would nonetheless be beneficial to this analysis.[40] A follow-up study will focus on additional specialized service points at UIUC.

Table 1. Service Points

	Frequency	Percent
Business Information Services (BIS)	1,048	1.5
Classics	193	.3
International & Area Studies (IAS)	2,304	3.3
Library & Information Science (LIS)	520	.7
Research Information Services (RIS)	31,103	44.7
Social Science, Health and Education Library (SSHEL)	14,480	20.8
Undergrad Library (UGL)	19,982	28.7
Total	69,630	100.0

RESULTS

The analysis of this dataset, which consisted of 69,630 transactions for the stated period, revealed that 73.4% of the transactions were addressed by UGL and RIS (see table 1), followed by SSHEL at 20.8%, IAS at 3.3%, BEL at 1.5%, LIS (Virtual) at 0.7%, and Classics at 0.3%. The results for UGL and RIS are understandable because they are primary components of the "Main/UGL Hub," fielding and triaging questions as they come through various modes of communication. Moreover, the "Main/UGL Hub" receives strong support in terms of personnel from departmental libraries staffing reference shifts, thus enabling coverage and subject expertise at the Main/UGL Hub.

Further analysis of the dataset for "Question Type" (see table 2) (from all 69,630 transactions recorded at the services points in this study, 66,638 transactions had data for "Questions Type") showed that 30.9% of the total number of transactions were directional inquiries, and 18.1% of the transactions were about library policies and services. Furthermore, 22.8% of the transactions involved finding specific library materials, and only 6.3% of the total transactions were directly classified as providing research assistance, with 1,653 (2.5%) transactions entered as "ready reference;" 4,328 transactions (6.2%) were entered as "other." As with previous transactional studies, there is a strong showing for inquiries related to technical issues (e.g., printers, scanners, software), with 7,739 transactions (11.6%).

The dataset for this study showed that 77.8% (51,580 transactions) of the 66,281 transactions that reported "Time Spent" data took less than five minutes (see table 3). The duration analysis also revealed a positive correlation between time spent and READ Scale (see table 4). We conclude that there is a strong positive correlation between the two variables ($r = .675$, $p < .001$), which indicates that the amount of time spent and READ Scale are correlated with statistical significance. We excluded transactions that took less than one minute as well as directional/hour questions and conducted the other duration analysis (see table 5). This correlation remains significant ($r = .659$, $p < .001$). Moreover, a cross tabulation (see table 6) between service points and READ scores revealed the following: RIS and UGL addressed the

Table 2. Question Type

	Frequency	Percent
Data Assistance	170	0.3%
Database/eJournal, SFX Access Problems	699	1.0%
Directional/Hours	20,570	30.9%
Finding Specific Library Materials	15,198	22.8%
Library Policies and Services	12,085	18.1%
Other	4,328	6.5%
Ready Reference	1,653	2.5%
Research Assistance	4,196	6.3%
Technical Issues (printers, scanners, software)	7,739	11.6%
Total	66,638	100.0%

Table 3. Time Spent

	Frequency	Percent
5-15 Minutes	11,054	16.7%
15-30 Minutes	2,103	3.2%
30 Minutes – 1 Hour	1,095	1.7%
1-3 Hours	313	0.5%
More Than 3 Hours	136	0.2%
Total	66,281	100.0%

Table 4. Correlations (All Transactions)

		Time Spent	READ Scale
Time Spent	Pearson Correlation	1	.675**
	Sig. (2-tailed)		.000
	N	69,630	65,815
READ Scale	Pearson Correlation	.675**	1
	Sig. (2-tailed)	.000	
	N	65,815	65,815

** Correlation is significant at the 0.01 level (2-tailed).

Table 5. Correlations (Exclude 0 minutes and Directional/Hour Transactions)

		Time Spent	READ Scale
Time Spent	Pearson Correlation	1	.659**
	Sig. (2-tailed)		.000
	N	44,561	42,995
READ Scale	Pearson Correlation	.659**	1
	Sig. (2-tailed)	.000	
	N	42,995	42,995

** Correlation is significant at the 0.01 level (2-tailed).

highest number of inquiries (45.3% and 28.0%, respectively). However, the majority of the inquiries were assessed at READ Scale 1 and READ Scale 2. Meanwhile IAS answered the most questions at READ level 6 (91.6%) and level 5 (71%). These high percentage points are partly due to the Slavic Reference Service, a highly specialized interdisciplinary reference team within IAS, which fields queries from UIUC students and faculty, and supports research needs of academic communities outside of Illinois. In addition to showing a strong correlation between time spent and READ Scale, the transactions analysis showed (see table 7) that the most popular subjects recorded by Desk Tracker were business (18.8%), education (11.3%), history (7.8%), and library science (7.3%).

DISCUSSION

In their respective studies, Marjorie Murfin and Jean E. McLaughlin observed the lack of accepted standards and methodologies for comparative analysis, and as Murfin noted, "without accepted units of measurement," comparative analysis of data from different libraries would be problematic. Although this study is a reflection of reference transactions at a single research library, the analyzed data raise interesting questions in regard to signage, accessibility, comprehension of library policies, instruction, and training for reference service providers for reporting statistics at other institutions. These questions include the following: (1) Are the hub model and referral system currently utilized at the University of Illinois and similar models at other institutions working cohesively with specialized reference services? (2) What structural reconfigurations and adaptive measures can service providers introduce to address the influx of directional, policies-related, and general inquiries of under five minute duration? The answers to these questions are, once again, tied to the intricacies of managing services and to the willingness of service providers to explore strengths and weakness of their service infrastructure.

By conducting transactional analysis on the dataset from five specialized service points with additional data from two general service points, this study made several observations, which will be beneficial to service coordinators and library administrators in similar reference environments. Based on the analysis, reference service managers should address the need for

Table 6. READ Scale and Reference Service Points Crosstabulation

		Reference Service Points							
		BEL	Classics	IAS	LIS	RIS	SSHEL	UGL	Total
READ 1	Count	134	6	184	3	10,767	4,593	8,091	23,778
(Least effort needed)	% within READ Scale	0.6%	0.0%	0.8%	0.0%	45.3%	19.3%	34.0%	100.0%
	% within branch	15.9%	3.2%	9.4%	0.6%	36.1%	32.7%	43.9%	36.1%
	% of Total	0.2%	0.0%	0.3%	0.0%	16.4%	7.0%	12.3%	36.1%
READ 2	Count	81	90	199	91	11,333	7,143	9,088	28,025
	% within READ Scale	0.3%	0.3%	0.7%	0.3%	40.4%	25.5%	32.4%	100.0%
	% within branch	9.6%	48.6%	10.2%	17.6%	38.0%	50.9%	49.3%	42.6%
	% of Total	0.1%	0.1%	0.3%	0.1%	17.2%	10.9%	13.8%	42.6%
READ 3	Count	229	52	191	189	6,400	1,804	1,070	9,935
	% within READ Scale	2.3%	0.5%	1.9%	1.9%	64.4%	18.2%	10.8%	100.0%
	% within branch	27.1%	28.1%	9.8%	36.6%	21.4%	12.9%	5.8%	15.1%
	% of Total	0.3%	0.1%	0.3%	0.3%	9.7%	2.7%	1.6%	15.1%
READ 4	Count	319	18	408	202	1,275	404	177	2,803
	% within READ Scale	11.4%	0.6%	14.6%	7.2%	45.5%	14.4%	6.3%	100.0%
	% within branch	37.8%	9.7%	20.8%	39.1%	4.3%	2.9%	1.0%	4.3%
	% of Total	0.5%	0.0%	0.6%	0.3%	1.9%	0.6%	0.3%	4.3%
READ 5	Count	68	12	658	32	64	85	8	927
	% within READ Scale	7.3%	1.3%	71.0%	3.5%	6.9%	9.2%	0.9%	100.0%
	% within branch	8.1%	6.5%	33.6%	6.2%	0.2%	0.6%	0.0%	1.4%
	% of Total	0.1%	0.0%	1.0%	0.0%	0.1%	0.1%	0.0%	1.4%
READ 6	Count	13	7	318	0	6	1	2	347
(Most effort needed)	% within READ Scale	3.7%	2.0%	91.6%	0.0%	1.7%	0.3%	0.6%	100.0%
	% within branch	1.5%	3.8%	16.2%	0.0%	0.0%	0.0%	0.0%	0.5%
	% of Total	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.5%
Total	Count	844	185	1,958	517	29,845	14,030	18,436	65,815
	% within READ Scale	1.3%	0.3%	3.0%	0.8%	45.3%	21.3%	28.0%	100.0%
	% within branch	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	1.3%	0.3%	3.0%	0.8%	45.3%	21.3%	28.0%	100.0%

data-input training, consistency among service points on recording reference transactions using Desk Tracker (e.g., standardized forms and subjects), and accuracy in assigning READ Scale scores for reference transactions. Moreover, managers and administrators should examine whether these assessment tools are ideal for dynamic reference environments with differing perceptions, service philosophies, and viewpoints on reference transactions.

In addition to structural issues and based on the analyzed data, this study raises questions about staffing at service points. As indicated above, if the vast majority of inquiries (74%) took less than five minutes, then is it viable to support these service points with graduate assistants, academic professionals, civil service staff, and professional librarians? Furthermore, if 6% of the total transactions required research assistance, should service managers and library administrators review their commitments to underperforming service points? Should they undergo another round of service realignments? Unfortunately, there are no quick answers to these important service-related questions; however, based on the analyzed data, some immediate steps can be taken to support the service structure at the University of Illinois and institutions with similar service models.

CONCLUSIONS

The symbiotic relationship between general and specialized reference services at academic libraries supports diverse groups of academic communities, departments, colleges,

Table 7. Subject Main Heading

	Frequency	Percent
Agriculture	38	0.8%
Anthropology	91	2.0%
Art/Architecture	83	1.8%
Astronomy	2	0.0%
Atmospheric Sciences	3	0.1%
Biology	53	1.1%
Business	874	18.8%
Chemistry	30	0.6%
Children's Literature	349	7.5%
Communication	74	1.6%
Computer Science	17	0.4%
Current Events/Popular Topics	14	0.3%
Dance	8	0.2%
Disabilities	9	0.2%
Economics	81	1.7%
Education	525	11.3%
Engineering	82	1.8%
English as a Second Language	11	0.2%
Environmental Studies	22	0.5%
Ethnic Studies	26	0.6%
Gender and Women's Studies	36	0.8%
Geography	38	0.8%
Geology	4	0.1%
Government Information	82	1.8%
Health/Medical	160	3.4%
History	360	7.8%
Kinesiology	25	0.5%
Labor and Employment Relations	21	0.5%
Law	51	1.1%
LGBT	5	0.1%
Library Science	337	7.3%
Linguistics	71	1.5%
Literature	139	3.0%
Mathematics	23	0.5%
Music	55	1.2%
Natural Resources	6	0.1%
Other	123	2.6%
Physics	13	0.3%
Political Science	78	1.7%
Psychology	168	3.6%
Recreation, Sport and Tourism	58	1.2%
Religion	73	1.6%
Social Work	64	1.4%
Sociology	115	2.5%
Special Collections/Archives	14	0.3%
Speech and Hearing Science	42	0.9%
Statistics	23	0.5%
Testing Materials (Health and Social Sciences)	16	0.3%
Theatre/Film/Television	53	1.1%
Total	4,645	100.0%

and affiliated research centers. In order to nurture this relationship, service providers have developed innovative models to address the complexities associated with reference services. Adapting to emerging trends and incorporating user needs and expectations have been the hallmark of reference services. The data analyzed by this study revealed the need for a multitiered service system and a functioning referral system, which efficiently manages the available human resources and expertise not only at the University of Illinois but also at other institutions. These immediate steps will strengthen these service points and reference environments. Moreover, the data analysis showed strong correlation between duration (time spent) and READ Scale scores. This is particularly true at the specialized reference services level.

As these specialized service environments continue to take on more complicated research inquiries, which in turn demand expertise, training, and time, perhaps libraries will invest in specialized service points by redirecting experienced service providers to in-depth consultation services. Specifically, we believe libraries should consider investing in the development of specialized interdisciplinary reference teams to take on the influx of complex research inquiries.

The model for this approach has already been in existence since 1976. The Slavic Reference Service at UIUC is an interdisciplinary reference team that provides year-round assistance to scholars in arts and humanities and life, social, and physical sciences with a set geographic focus: East Europe, Russia, and Central Asia. Currently, the reference hub model at UIUC relies heavily on subject specialists accessed by patrons through a referral system to resolve difficult research inquiries. In some cases a single subject specialist is responsible for providing expertise for geographically large and culturally diverse regions, with queries addressing multiple subject areas. We postulate that a trained team of interdisciplinary reference specialists working together on a daily basis would be better equipped and much more effective at engaging graduate students and faculty than reference hubs, when resolving advanced research inquiries. The reference hubs are effective in triaging and addressing straightforward queries, but the interdisciplinary reference team approach appears to be better suited when responding to advanced and complex reference requests.

The Reference Management Team[41] and the University Library Administration at the University of Illinois are taking immediate steps to address some of the questions raised in this study. A multitiered service system and a consultation scheduling pilot program will be introduced this fall. The select group of specialized reference services will be participating in this pilot program. In addition, a robust referral system will be a component of this pilot program. If the pilot phase proves successful, the consultation scheduling service will be open to all service points.

The specialized reference services have entered a period of significant changes that present librarians with challenges and opportunities for unlocking the full potential of reference services at an academic library. The challenges encountered by Samuel S. Green so long ago, of librarians being asked to give information on subjects and processes they know nothing about, continue to shape reference environments. His poignant statement still stands as a reminder for every reference librarian to adapt and improve services. As new innovative teaching and learning methodologies are introduced into higher education, specialized reference services at large research libraries have a historic opportunity to integrate themselves in the research process of students and faculty. As this study has demonstrated, assessment of these specialized outlets is the first critical step in designing the next generation of research services.

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Brief Intervention to Change Students' Attitudes Regarding Library Research

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Many students who would benefit from a reference librarian's help do not ask for assistance. This study experimentally tests whether having students read a brief passage can shift attitudes. Two hypotheses are experimentally tested: (1) students who read about students' positive interactions with librarians will express significantly greater comfort to seek help from librarians; (2) students who read positive accounts of students' efforts to become good researchers will express significantly greater willingness to work at becoming proficient researchers. The two hypotheses were not supported. However, students who read about positive interactions with librarians expressed significantly less confidence in their ability to conduct library research. This unexpected finding suggests that a brief intervention may be an effective way to begin a library instruction session.

The reasons why students may not avail themselves of help from reference librarians are various and complex. Understanding those reasons can provide useful insights, but the challenge is what to *do* about underutilization of reference services. The purpose of this study is to experimentally test whether having students read a brief passage can shift attitudes regarding library research and comfort asking for help. We employ a standard, very well-established experimental method whereby all variables are kept as equal as possible, except for the content of a reading designed to have students think about how they feel regarding library research and asking for help. The results surprised us.

LITERATURE REVIEW

Librarians have long recognized that many people who could benefit from a librarian's help do not ask. Investigations into why that happens and suggestions for ways to overcome the problem can be found in the literatures of library science, college student services, and educational psychology. Concerns regarding how to overcome patrons' unwillingness to seek help have been expressed in the library literature since 1876. Samuel Green's seminal article in the inaugural volume of *Library Journal* emphasized the need for librarians to put patrons at ease, to have sympathy, patience, and a welcoming demeanor.[1] Bunge's 1984 review of literature on interpersonal relations between librarians and patrons drew on dozens of studies and

Reference & User Services Quarterly, vol. 56, no. 4, pp. 277–284

commentaries, many of which emphasized the importance of being sensitive to patrons' psychological needs.[2] Insights from the fields of communications and counseling influenced the practice of reference librarianship in the 1970s, in particular the importance of librarian's nonverbal communication and question negotiation skills.[3]

How to best communicate what libraries can do to help people remains an important issue today. Brophy has argued for the essential place of narrative and storytelling in librarians' management of and advocacy for library services.[4] Library patrons may be more responsive to a narrative than to a list of facts, so employing stories can be an effective means of conveying information during interactions such as reference interviews and library instruction sessions.[5]

Communication and narrative are important, but quantitative measurement has long played a key role in the assessment of library effectiveness. A landmark study conducted in 1983 sought to identify what library resources and activities lead to patrons receiving correct answers to their questions. Gers and Seward found that extent of resources had very little to do with librarians' performance, rather that successful transactions were overwhelmingly due to the behaviors of individual librarians.[6] They also found that correct answers were provided only 55 percent of the time, a finding corroborated by others.[7] The so-called "55 percent rule" of correct responses has been challenged as being unfair because a successful transaction encompasses more than giving presupposed correct answers to prepared questions. Durrance asserted that patrons' willingness to return is a better measure of success.[8] These findings resonated with many reference librarians' perceptions of their own professional experience.

The Reference and User Services Association decided to establish an ad hoc committee to define best practices, first published in 1996 as "Guidelines for Behavioral Performance of Reference and Information Service Professionals."[9] These best practices emphasize the importance of being approachable, interested, an effective communicator, and persistent in ensuring the questioner's needs have been met. Unfortunately, librarians may not always adhere to the guidelines,[10] which negatively impacts students' willingness to return. Negative experiences may also exacerbate the well-known problem that students often do not understand the role of reference librarians.[11]

Students who have never had a transaction with a librarian may avoid asking for help for other reasons. They may be experiencing feelings of anxiety about using the library.[12] College libraries are usually much larger than what students have experienced before, so the scale and complexity of systems and physical arrangements may leave them confused.[13] This happens in the context of students' fresh experiences at a college or university, likely causing some degree of feeling lost or overwhelmed.[14] Anyone who experiences a dramatically new environment will experience some feelings of uncertainty. In addition, Blundell and Lambert found that not only are some students anxious about doing library research, but many also exhibit inadequate motivation and willingness to learn.[15] Students, especially freshmen, tend to rely on skills learned in high school and can be reluctant to accept the challenge of learning more complex and nuanced ways to conduct research.[16] Kwon has shown that although anxiety impacts many students, a positive disposition toward critical thinking helps students overcome the debilitating effects of anxiety.[17] The literature thus suggests that although students are likely to initially feel uncomfortable doing library research, willingness to apply oneself is key to overcoming that obstacle.

The degree of unease students may feel in a new environment varies by individual. So does the willingness to recognize the need for help and to seek it out. Reluctance to seek academic help may be due to effort abandonment, overconfidence, stereotype threat, need for autonomy, or threat to self-esteem.[18] Effort abandonment is simply giving up, perhaps even before investing serious effort. Overconfident students might skip asking for help because they are not sufficiently aware of what they need to learn to succeed. Unfortunately, someone who is incompetent at something "not only [will] reach erroneous conclusions and make unfortunate choices, but their incompetence robs them of the ability to realize it."[19]

Other causes of help avoidance are not based on lack of knowledge. Members of stereotyped groups may choose to go it alone if they feel that asking for help threatens to reinforce others' judgments or that their own actions will match the stereotype.[20] A desire to be autonomous leads some students to conclude that figuring it out alone is a better way to learn. Also, asking for help is an admission of a lack of knowledge or skill, which can be perceived by many as a threat to self-esteem. Issues of self-esteem are particularly salient for students sensitive to their social status, as they may be more likely to perceive asking for help as a threat to their self-worth.[21] Fear of revealing personal incompetence may be heightened if students think their struggles are unique.[22]

Given the impact of individuals' emotional responses to situations where seeking academic help is educationally appropriate, it is beneficial to investigate practical methods to stimulate more positive attitudes toward academic help-seeking. Brief, easily administered interventions may shift attitudes. Social-psychological interventions can be effective if they target students' subjective experiences, convey relevant psychological ideas, and tap into ongoing processes in the education environment.[23] Simple interventions rely on effective persuasion and attitude change to convey ideas and alter mind-sets.[24] Interventions designed to enhance students' sense of social connectedness have been found to enhance achievement motivation, even through something as simple as discovering that one shares a birthday with a classmate.[25]

Brief interventions have the potential to improve academic outcomes if they are administered in a context of opportunity for learning.[26] For example, Walton and Cohen found that an experiment designed to mitigate African American students' doubts of social belonging in college not only boosted the students' confidence but also raised their grades.[27] Social psychological interventions have the potential to reduce educational disparities because when employed wisely, even brief interventions can have lasting effects.[28] Wilson, Damiani, and Shelton argue that the only way to find out the types of intervention that are most effective is to conduct experiments where the intervention group is compared with the control group in an experimentally sound manner.[29] Lazowski and Hulleman's recent meta-analysis of seventy-four motivational interventions in education found that experimentally manipulating an independent variable is generally effective, and they assert that intervention studies provide insight into causal relationships in ways that observational studies cannot.[30] The authors argue that "we need more intervention research, design-based and experimental, that develops and tests operationalized theories in education contexts."[31]

Published studies have thus demonstrated the potential benefits of social-psychological interventions to influence students' attitudes about learning. But none to date have specifically addressed the potential for an intervention to increase students' level of comfort to seek academic help from a librarian when confronted with the need to conduct research. The intervention studies cited above required an hour or more of students' time. Librarians rarely if ever have the luxury of spending that much time with students. This experiment explores whether a very short intervention designed to be administered by a librarian during a class visit can influence students' mindsets regarding library research. The researchers test whether a brief, easily administered intervention can shift students' attitudes.

HYPOTHESES

1. Students who read a narrative about students' positive interactions with librarians will express significantly greater comfort to seek help from librarians compared to a control group of students who read facts about the library.
2. Students who read a narrative about positive efforts to become good researchers will express significantly greater willingness to work at becoming proficient researchers compared to a control group of students who read facts about the library.

METHOD

The instrument was administered to students in sections of a required expository writing, oral communication, and research course at a liberal arts college in the Northeastern United States. The course is populated mostly by freshmen but some classes include a few transfer students. Each section is capped at 18 students. The college's population is 4,500 students. The freshman class is 57 percent white, 12 percent Black or African American, 10 percent Hispanic/Latino, 8 percent two or more races, 3 percent Asian, 5 percent nonresident alien, and 6 percent race/ethnicity unknown. The authors sent requests to the instructors of the seventeen sections of the course offered in Spring 2016 to allow us to administer the instrument in their class, and instructors in thirteen sections agreed to participate. The procedure was approved in advance by the college's Institutional Research Board (IRB).

The lead author (Black) visited the classes in person and introduced himself as a librarian. He told students that their responses to statements about library research were voluntary but appreciated since their input provides librarians valuable information. Students were given printed forms with a brief reading on the front and six response items on the back (see appendix). Forms for each class were arranged in random order. The researchers used the list function at Random.org to randomize each set of eighteen forms. The reading administered to the randomly selected control group matched odd numbers, and the reading administered to the randomly selected treatment group matched even numbers. All students were asked to read the passage and then respond to the items on the back. The instrument recorded no demographic or personal information. The instrument was designed to be completed within three minutes.

Students randomly selected for the control group read facts about the library (see appendix). Students randomly selected for the treatment group read a narrative dialogue among college seniors describing their positive experiences using the library and learning to do research (see appendix). The dialogue was invented by the authors based on accounts of students' reactions to library research reported by Mellon,[32] Kulthau,[33] and Project Information Literacy.[34] The readings were designed to have similar readability. The reading for the control group was 352 words and had a readability of Flesch-Kincaid Grade Level 6. The reading for the treatment group was shorter with 305 words but with a higher Flesch-Kincaid Grade Level (7.6). A more closely matched readability level would have been ideal, because the treatment and control groups should have as equal an experience as possible, save for the content of the reading. But the vocabulary necessary to describe library resources and services for the control condition elevated the reading level, and the authors' efforts to raise the reading level for the narrative of positive experiences for the experimental condition caused the dialogue to seem unnatural.

The response items were identical for both forms. The items were run through QUAID (Question Understanding Aid)[35] and edited in response to QUAID's suggestions regarding the avoidance of unfamiliar technical terms, vague or imprecise relative terms, vague or ambiguous noun-phrases, complex syntax, and working memory overload. QUAID identified "librarian" and "researcher" as terms that may be unfamiliar to some respondents, but those were kept because of their essential use in this context.

When the students finished reading and responding to the items, Black explained that there were two different

Table 1. Distribution of Responses for Students Who Read Factual Information about the Library Compared to Those Who Read about Positive Interactions with Librarians While Conducting Research (n=185).

		SA	A	N	D	SD
I feel confident today about my ability to do library research.	facts	27%	57%	8%	7%	1%
	narrative	7%	34%	28%	24%	6%
I can become better at library research if I work hard.	facts	44%	44%	10%	1%	1%
	narrative	35%	53%	10%	1%	0%
I feel comfortable asking a librarian for help.	facts	38%	46%	10%	6%	0%
	narrative	26%	53%	14%	5%	1%
I should learn to use the library by figuring it out by myself.	facts	9%	21%	42%	27%	1%
	narrative	6%	9%	47%	30%	7%
I would not want my friends to know if I ask a librarian for help.	facts	4%	0%	11%	34%	51%
	narrative	0%	1%	20%	34%	44%
With practice I will become an excellent researcher.	facts	41%	52%	4%	2%	1%
	narrative	37%	52%	9%	1%	0%

Note: SA=Strongly Agree, A=Agree, N=neither agree nor disagree, D=disagree, SD=strongly disagree

readings. He explained that having two readings was intended to measure whether reading facts versus a narrative influences students' attitudes regarding library research. Students were asked if they had any questions, and were invited to contact the researcher if they wanted additional information about the study.

The instrument took students about three minutes to complete, as intended. Students were very cooperative, and exceptionally few forms had missing data. One minor difficulty arose with students who arrived to class late. Those who arrived one or two minutes late were administered the instrument. This prolonged the total time taken to about five minutes in the classes where one or more students arrived late. Students who arrived more than a few minutes late were told that participation was voluntary and were not administered the instrument. At the conclusion, when given the opportunity to do so, no students asked questions or provided comments.

The outcome variables in the current study were comfort asking a librarian for help and willingness to work hard to improve as a researcher. These variables were measured by summing relevant items. Using multiple items, rather than a single item, to represent a variable provides superior reliability and validity of measurement. The outcome variable of "comfort" used in hypothesis 1 was created by summing item 3, "I feel comfortable asking the librarian for help" reverse-scored so that higher scores indicate more comfort, and item 4, "I should learn to use the library by figuring it out by myself." Higher scores indicate greater comfort. The outcome variable of "willingness to work" used in hypothesis 2 was created by summing item 2, "I can become better at library research if I work hard," and item 6, "With practice I will become an excellent researcher," both reverse-scored so that higher scores indicate more willingness. The outcome variable of "confidence" used in the exploratory analyses was created by reverse-scoring item 1, "I feel confident today about my ability to do library research," with higher scores indicating greater confidence.

RESULTS

The students' responses to the items are shown in table 1. The first hypothesis stated students who read a narrative of students' positive interactions with librarians while conducting research will express significantly greater willingness to seek help from librarians compared to a control group of students who read facts about the library. To test this hypothesis, researchers utilized an independent samples *t*-test to measure the significance of difference between groups' means (M) and standard deviations (SD). Results revealed no significant differences between the positive interactions group M = 7.22 (SD = 1.17) and the factual group M = 7.06 (SD = 1.23), $t(185) = .942$, $p = .348$. The hypothesis was not supported as both groups reported equal comfort.

The second hypothesis stated students who read a narrative of positive interactions with librarians while conducting research will express significantly greater willingness to work at becoming proficient researchers compared to a control group of students who read facts about the library. To test this hypothesis, researchers utilized an independent samples *t*-test. Results revealed no significant differences between the narrative group M = 8.50 (SD = 1.14) and the facts group M = 8.58 (SD = 1.34), $t(186) = -.495$, $p = .622$. The hypothesis was not supported as both groups reported equal willingness to work. Descriptive and inferential statistics for the hypotheses and exploratory analysis described in the following paragraph are shown in table 2. (insert table 2)

Given the lack of significant group differences on the two primary outcome variables that tested the hypotheses,

Table 2. Descriptive and Inferential Statistics for Students Who Read a Narrative of Positive Interactions with Librarians While Conducting Research Compared to Those Who Read Facts about the Library.

	Narrative		Facts			
Variable	M	SD	M	SD	t	p
Comfort Seeking Help	7.22	1.17	7.06	1.23	0.94	0.35
Willingness to Work	8.50	1.14	8.58	1.34	-.495	0.62
Confidence	3.12	1.05	4.02	0.85	-6.41	<0.001

Note: M = Mean; SD = Standard deviation

researchers conducted an exploratory analysis to examine the intervention's effect on students' confidence in their ability to do library research. An independent samples *t*-test revealed that students in the narrative condition M = 3.12 (SD = 1.05) reported significantly lower confidence than those in the facts condition M = 4.02 (SD = .85), $t(186) = -6.41$, $p < .001$. This finding indicated that students who read the narrative about positive interactions with librarians while conducting research reported significantly *reduced* confidence when compared to students who read facts about the library.

DISCUSSION

The answer to the overarching question "Can a brief, easily administered intervention shift students' attitudes?" is "Yes, but not in the ways hypothesized." The treatment group that read a narrative of positive experiences expressed neither more comfort in asking a librarian for help nor greater intent to work hard to become a proficient researcher. To our surprise the overwhelmingly most significant impact on the treatment group was the difference in responses to "I feel confident today about my ability to do library research." The students who read the dialogue describing positive interactions with librarians while conducting research expressed significantly *less* confidence. The reasons for this invite further investigation, but we surmise the effect is because the treatment reading raised students' awareness of what they will need to learn to become proficient researchers. The narrative may have shifted their unawareness of what they did not know into a more accurate self-assessment of current proficiency.

This surprise result suggests the possibility that this intervention may be an effective way to introduce a library instruction session. If exposure to challenges and strategies used to overcome difficulties heightens awareness among students of what they will need to learn, a brief intervention may prime them to be more receptive to a librarian's instruction.

The researchers were somewhat surprised by how few students agreed with the statement "I would not want my friends to know if I ask a librarian for help." The research on help-seeking behaviors cited in the literature review above posits the protection of self-esteem as a significant reason students may be reluctant to ask for help from librarians or student support service personnel. It is reasonable to believe that concern for status among peers might cause students to not want to expose their need for help. The overwhelming disagreement with not wanting friends to know indicates peer status concerns to be a minor impediment to seeking help from librarians, at least with the population represented here.

LIMITATIONS

Further investigation is needed to assess the generalizability of these results. This experiment was conducted with primarily freshmen in their second semester at a private college of 4,500 students. The degree to which results would be similar with students from other institutions or with students in different stages of their academic careers is not known. The surprise effect of the intervention reducing current confidence may be diminished or absent if administered to more experienced students.

While the instrument was well received by students and yielded useful data, it could be improved. Although the wording of the narrative dialogue describing students' experience was gleaned from prior research, it's possible that words such as "scared" and "stupid" triggered reactions that other words conveying similar meaning might not. It would be beneficial to test the effects of various wordings. Another improvement would be to add items to allow responses to be tested for internal reliability. For example, along with "I feel comfortable asking a librarian for help," one could add "Asking a librarian for help can benefit me." Researchers could then analyze the degree to which responses were similar for items intended to test the same construct. It would be useful to know whether students react to "comfort" differently from "benefit." With only six items, researchers were limited in our ability to test the interaction of factors that affect student attitudes. But more items mean a longer time to administer the instrument, a tradeoff to always keep in mind.

FURTHER RESEARCH

This sample was fairly large, $n = 185$, but it represented the population of mostly freshmen at one college. The degree to which these results generalize to other college students can only be established by repeating this experiment with additional groups of subjects. The current study gathered no demographic data. Future studies could investigate differences in effects of intervention by factors such as gender, race, ethnicity, or first generation to attend college.

The current experiment employed a brief reading administered on paper. A similar intervention could employ video or audio, either in the classroom or online. Other media and instructional settings could be found to have equal or greater efficacy in shifting students' attitudes. Relative impacts of different wording could also be explored. Changes to wording could be minor, or the text could be entirely reworked to address different attitudes. As Wilson, Damiani, and Shelton noted, the only way to discover the most effective interventions is by experimenting with instruments and settings with various populations.[36]

CONCLUSION

The intervention had no significant impact on students' level of comfort to seek help from librarians, nor did it significantly impact students' expressed willingness to work at becoming proficient researchers. The primary finding of this study is that an intervention designed to increase students' comfort level to seek help and their willingness to work hard had the unintended consequence of reducing students' current confidence in their ability to conduct library research. Replication is needed to generalize, but if this finding broadly reflects college freshmen it has important implications for information literacy instruction. Kroll describes the intellectual growth of freshmen as including a process of moving from ignorant certainty to intelligent confusion.[37] Apparently, the reading about interactions with librarians generated intelligent confusion. An intervention like ours can make students more aware of their personal needs to learn and thus lead them to be more attentively engaged in library instruction. The implication for how librarians present information literacy is that instruction should include an intervention designed to alert students to what they do not know and intentionally introduce an element of confusion. It could be a reading similar to the one used here, a recording of real students sharing their experiences, or an exercise that forces awareness of unknown processes. Librarians are encouraged to try various ways to generate awareness of what needs to be learned and to share their experiences with colleagues. This will enable librarians to develop reliably effective brief interventions that serve to improve students' information literacy.

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APPENDIX

Facts about the library administered to randomly selected control group

[Edited lightly to remove identifying information]

Instructions: First read this passage, then turn the page over and indicate your level of agreement to the statements.

The Library has approximately 220,000 books, 300 subscriptions to print journals, and 1500 DVDs. The library's web page links to 60 online databases and the library catalog. These give students access to 100,000 e-books and 73,000 online journals, magazines, and newspapers.

The [discovery service] on the library home page allows students to search everything at once. Students can also search for information in one topic area. Each topic area has a "Research by Subject" guide. The guides are custom made by the librarians. Guides include a custom version of [discovery service], links to the most relevant databases, and selected trustworthy web resources. Some guides also include video tutorials. These have tips for how to search databases like PsycINFO and ERIC.

The library offers students help in several ways. The librarians provide reference service 92 hours per week. Students may ask questions at the reference desk any time the library is open. Students may schedule one-on-one assistance with our librarians. Librarians can be contacted via a web form, email, phone or text. Librarians also visit classes to describe the best ways to use the library.

The library has many seating options for work and study: soft chairs to curl up in, tables to spread out on, study carrels, and group and individual study rooms. The library has 30 PCs and 20 Macs. Students may check out one of 20 laptops from the circulation desk.

If a student finds a book or article that is not part of the library's print or online collections, the library has an interlibrary loan service. The library will obtain the item for you from another library. The library also has a scanning service. Students can request a PDF scan of an article from our print journal collection.

Narrative describing students' positive interactions with librarians while conducting research administered to randomly selected treatment group

Instructions: First read this passage, then turn the page over and indicate your level of agreement to the statements.

Seniors describe their experiences of learning to do research in the college library—

"I was a little scared at first," said Alyssa. "In high school I just used textbooks and what I could find searching Google, so when my professors told me to use library databases and peer-reviewed literature I wasn't totally sure what they were asking me to find."

"Yeah, that was me, too," added Chris, "and I felt stupid asking. But when I asked a librarian for help, she was really nice about it. The librarians were easy to talk with, even when I needed something explained more than once. And the information I found was better than the stuff I was getting with Google."

"Me, I thought how hard can this be? I'll figure it out myself," said Eric. "But then I was using this one database and just kept going around in circles. I got really frustrated, and went to the reference desk to complain about how hard it was to use. The librarian listened and asked me what I was trying to do, then he showed me some tricks that worked to get what I wanted. If I'd asked in the first place I would've saved myself a lot of time."

"Time was big for me, too," said Alyssa. "I mostly learned by putting in the hours to get good at searching databases and doing all the hard work to write a good research paper. But the couple of times I asked for help from librarians, it saved me work. They're like coaches. You can learn on your own, but the tips they give for how to do stuff are really useful."

"I agree," said Chris. "Still, I was surprised by how much time I had to put in to get really good at research. It takes practice, but now I feel like an expert. Still, I've learned to ask right away if I hit trouble, like if I'm writing a paper for an elective class outside my major."

Hacking the Literature Review

Opportunities and Innovations to Improve the Research Process

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Thanks to Ann Viera, Elizabeth Pope, and the QUAL8545 students at the University of Georgia for their helpful comments on early drafts of this article.

Research outputs across the academic disciplines are almost exclusively published electronically. Organizing and managing these digital resources for purposes of review, and with the technical savvy to do so, are now essential skills for graduate study and life in academia. Paradoxically, digital and web-based technologies provide greater ease and efficiency with which to gather mass amounts of information, while at the same time presenting new challenges for reading, analyzing, organizing, and storing resources. Students, scholars, and the librarians who support them must adopt and refine practices to convert from paper-full to paperless literature review. This article proposes a methodical, reproducible, three-stage process that harnesses the power digital tools bring to the research cycle, regardless of the user's preferred platform or operating system. Focusing just on the literature review phase, we develop a conceptual framework, illustrated with concrete tips and advice for storing and organizing, reading and annotating, and analyzing and writing. We demonstrate how a researcher's self-selected suite of tools may be used to complement and even overcome the limitations of comprehensive academic literature and composition platforms such as Docear and F1000Workspace, especially regarding qualitative data analysis software for analyzing and coding research literature. Using these techniques, librarians can become teachers and research partners supporting the skill development of faculty and students.

A decade ago, Boote and Beile lamented the quality of dissertation literature reviews in educational research, suggesting that their criteria are part of the "hidden curriculum" and "tacit knowledge passed on from mentors to candidates."[1] As educational researchers, research methodologists, and librarians, we understand Boote and Beile's arguments, as we have tried to engage our students and ourselves in strategies for a more "systematic literature review."[2] Consistent with the growing interest in digital tools to support research,[3] library scholarship has investigated the role of digital tools in scholarly publication workflows,[4] including "personal digital libraries,"[5] "personal information management,"[6] tools for discovery,[7] and collaborative practices for information management.[8] Digital tools are changing the nature of the research process, including the literature review, and have the potential to improve the quality of the outcomes by creating an entirely paperless process.

"Paper-full" literature reviews, characterized by numerous print

Reference & User Services Quarterly, vol. 56, no. 4, pp. 285–295

copies of publications, sheets of hand- and typewritten notes, and lists of bibliographies, can pose several problems for scholars. Many publications are distributed in digital formats and the scholar's final product is submitted in digital form. Moving between the print and digital environments, and managing and annotating journal articles, books, and other sources in a methodical way, can prove cumbersome. For born-digital materials, creating a paper version eliminates many advantages of the electronic versions. Transporting hard copies between office, home, and travel is difficult, and it is not easy to share these materials with collaborators. Librarians and the educators they serve see that many of today's students are already paperless in how they interact with the published literature. While mid- to late-career scholars may find the idea of going paperless daunting, this may be less true of those early in their careers. Librarians have an opportunity to leverage the technical affordances of born-digital composition, data management, and publishing to support the creation and use of wholly digital literature review processes by scholars in all phases of their careers.

Most of the scholarship in this area has described various aspects of the literature review process, such as organizing and downloading PDFs;[9] describing various citation management systems (CMSs) like Zotero,[10] Mendeley,[11] EndNote,[12] and RefWorks;[13] reporting on surveys of CMS users;[14] comparing CMS features,[15] including those for collaboration and social networking;[16] and reporting the accuracy of "cite as you write" features.[17] What is still missing, though, is guidance on how to reenvision or hack the literature review using new tools to create an entirely paperless workflow—including organizing relevant sources, annotating them, and synthesizing ideas across the sources to create an academic argument. Librarians can step into this void, imparting both guidance and instruction during the research process. Librarians can teach practical skills and offer advice regarding technologies that leverage the potential within electronic collections, within analytical software applications, and within composition and publication tools to create effective literature reviews.

In this paper we describe an innovative, purely digital, "paperless literature review" workflow[18] that will lead to improved outcomes for scholars who must store, organize, read, annotate, and analyze the work of others before writing their own. Librarians can apply these workflows into their own publishing and outreach practices, adding value to the research process that goes beyond just connecting researchers with information resources. Using these techniques, librarians can become teachers and research partners supporting the skill development of faculty and students.

LITERATURE REVIEW

In a user-needs study conducted in a collaboration between Cornell University Library and Columbia University Libraries, doctoral students in the humanities "questioned the continued utility of librarians, asking why a librarian's assistance is still needed, given the convenience of online research tools and availability of faculty expertise."[19] In the past, libraries were responsible for storing information, and users were on their own to build knowledge from it. Now, however, as Favaro and Hoadley have noted, the Internet plays the information storage and retrieval role, requiring libraries and librarians to take on new roles, one of which is helping patrons effectively manage their personal information collections.[20] As Favaro and Hoadley asked, "How can we envision the role of libraries in a much broader process of knowledge building that extends beyond a trip to the library or constructing a bibliography?"[21] These authors argued that tools for information discovery and access can no longer be segregated from those used in the subsequent steps of the research process and that librarians need a better understanding of digital workflows in order to support early-career scholars. These scholars need assistance selecting the best tools for various phases of the research process—from information retrieval to knowledge building—be they library-provided or freely available.

These digital workflows build primarily on PDF texts such as scholarly articles and book chapters. Research outputs, most commonly in the form of PDFs, are readily accessible online via Open Access or a library's collections. Coupled with the advent of social media and mobile computing, this suggests new routes for researcher workflow, beginning with the literature review.[22] For example, in a two-part cross-disciplinary study of nearly two hundred Pennsylvania State University (Penn State) faculty, Antonijević and Cahoy found that participants preferred commercial search engines over academic databases for discovery.[23] A vast number of the study's respondents reported that they work predominantly with PDFs, which they organize, back up, and archive in numerous ways, including hard drives, thumb drives, cloud-based solutions, and "old-fashioned" paper print outs and files. Old-fashioned data management practices persist for a number of reasons but are becoming increasingly cumbersome as PDFs dominate as the preferred digital format for publishing texts.[24]

Scholars' PDF annotation practices are increasingly idiosyncratic and hybridized, owing to the proliferation of digital tools that enable researchers to create searchable and shareable notes.[25] For instance, Bjarnason described his process of "marking up PDFs and writing corresponding notes in a single text file, used for all note keeping, and using keywords to allow topic searches and visualization."[26] One tool that has an expanded role to play is the digital citation manager or citation management system (CMS). Childress noted: "It could be said that citation management is the foundation for scholars to begin collecting, managing, and archiving their research findings as well as their own scholarly output."[27] Antonijević and Cahoy reported that a large number of social science and humanities faculty do, in fact, manage citations with EndNote and Zotero. Yet, some participants questioned the robustness of CMS for indexing and filing, opting instead for cloud-based solutions—even as they voiced privacy and security concerns about using nonuniversity servers.[28]

As the Penn State study illustrated, integrating any new tool, such as CMS, into a paperless workflow is not without its challenges. These challenges are not limited to CMS and include: developing and maintaining requisite technology skills,[29] staying organized and avoiding information overload,[30] adapting to changing file formats,[31] choosing from a multiplicity of storage options,[32] overcoming the familiarity bias of manual bibliographies,[33] and managing discipline-specific concerns.[34]

A persistent challenge is integrating search and retrieval with organizing and archiving practices to avoid losing track of resources. Researchers report a sense of disintegration caused by the proliferation of digital tools for data management.[35] Antonijević and Cahoy suggested this finding "implies that although institutional support and training programs are vital for the uptake of digital tools, such programs are not necessarily sufficient for effective integration of those tools into scholarly practice."[36] This lack of integration might be viewed as a two-pronged challenge of overcoming "supply-side influences," or the lingering effect of practices cultivated in analog environments, and "demand-side characteristics," or the unique habits and dispositions imposed by the scholar's home discipline.[37] For example, participants in Antonijević and Cahoy's study reported that "integration of digital tools into their search activities resulted in a complete breakdown of their systems for organizing information, which were developed for print-based materials."[38] They go on to conclude that "while implementation of digital tools into one phase of the workflow might be rewarding, it might also become a challenge in other phases of the work."[39] The breakdown seems most acute when involving CMS, the capacities and functionalities of which are not fully trusted or understood by librarians[40] nor the broader academic community.[41]

Citing "ubiquitous disconnects" between tools, Favaro and Hoadley wrote, "imagine the loss of focus and the distraction created whenever a student needs to move from a highlighted PDF to typing the metadata into EndNote or Zotero . . . to moving the document and inviting collaborators into a space such as Google Docs or Dropbox."[42] As researchers continue to seek a transformational killer app, a "one-stop shop" for the literature review workflow, the potential for information discovery through tagging, sharing, and networking groups available in Mendeley,[43] Zotero,[44] and CiteULike[45] remains an area of active inquiry.[46]

Librarians must also consider disciplinary differences when helping their patrons convert to a paperless workflow.[47] For example, at the University of Pennsylvania, humanities and social sciences faculty are chiefly concerned with archiving publications, whereas faculty in the hard sciences also want to archive their process.[48] Disciplines that value qualitative methods of research are familiar with the utility

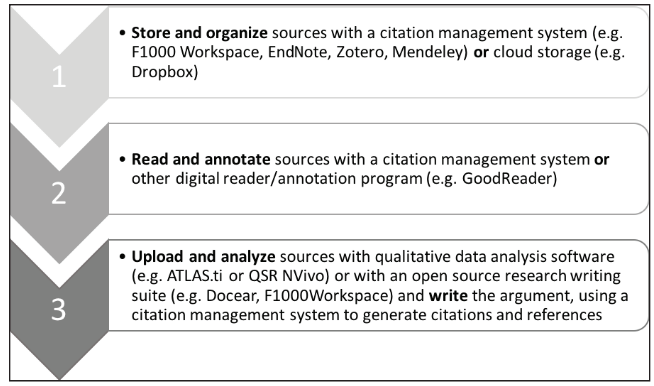


Figure 1. A paperless workflow

of qualitative data analysis software (QDAS) for documenting the process,[49] a functionality that we argue can be applied to analysis of literature, regardless of discipline or research paradigm.

THE PAPERLESS LITERATURE REVIEW WORKFLOW

Scholars' publishing suites such as Docear, which brands itself as an open source "literature suite that cuts the (paper) clutter," and the F1000Workspace, which supports collecting, writing, and collaborating among scientists, both demonstrate potential in creating a transformational "one-stop shop" to support the writing workflow. However, they do not necessarily provide the most robust tools for literature reviews. To illustrate these workflows and concepts, we focus solely on the literature review, proposing paperless workflows which are not dependent on specific tools or platforms. We illustrate the process with the tools we use in our own work as well as describing innovative, open source alternatives, proposing models for librarians and researchers alike.

We use the topic of crowdfunding (the practice of fundraising on the Internet for personal need or professional projects, on sites such as GoFundMe, Kickstarter, or Indiegogo) to contextualize our discussion of the literature review process. Figure 1 provides an overview of a paperless workflow. Stage 1 begins with selecting a digital tool to store and organize sources—either a CMS or a cloud storage device. The choice may, in part, depend on whether the selected CMS provides: (1) robust PDF annotation tools and (2) a mobile app to be used during the reading phase. If so, sources can be both organized and annotated thoroughly within the CMS. If not, it may be better to opt for cloud storage and then move to a digital reader on a mobile device in Stage 2 to annotate the sources. Finally, in Stage 3, annotated sources can be uploaded to a QDAS program to synthesize and begin writing the literature review.

Stage 1. Store and Organize Sources

With a paperless workflow, the lifecycle of a literature source begins at harvesting and continues with storage. Born-digital publications readily synchronize with this process. Any paper-based sources or any digital formats that are not in optical character recognition (OCR) format may be reformatted and added to this workflow. Any born-print documents must be converted into machine-readable text, which can be accomplished by using an OCR scanning/conversion application such as is available in Adobe Acrobat Pro or a PDF-to-OCR conversion such as that available in Google Drive. Another option is to take notes from a book in a word processing program, convert into a PDF, and include it with the other files for the literature review.

A CMS can provide a robust hub through which all paperless activity may flow. Examples of CMS include EndNote, Mendeley, RefWorks, Zotero, and Papers. A CMS serves as a personal database of resources which can be organized, searched and shared. Figure 2 shows the Mendeley interface, with organization tools in the left-hand pane, including search and filtering tools, organizational folders, and groups. Sources within the crowdfunding folder appear in the middle pane and can be sorted by author, title, year, journal name, etc. Details of the selected source appear in the right-hand pane, and the PDF can be read, and to varying degrees, annotated within the CMS as well.

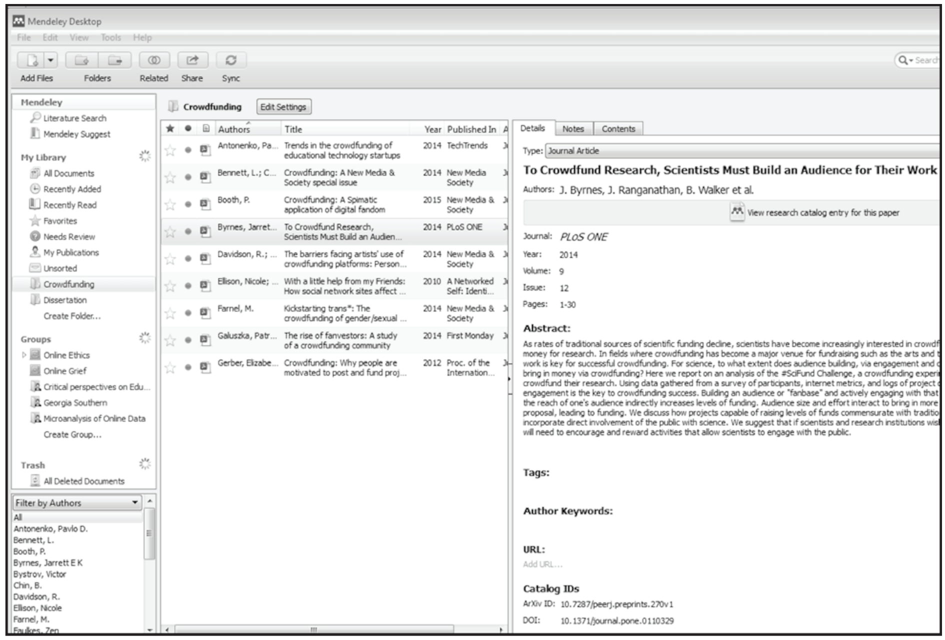


Figure 2. The Mendeley desktop interface

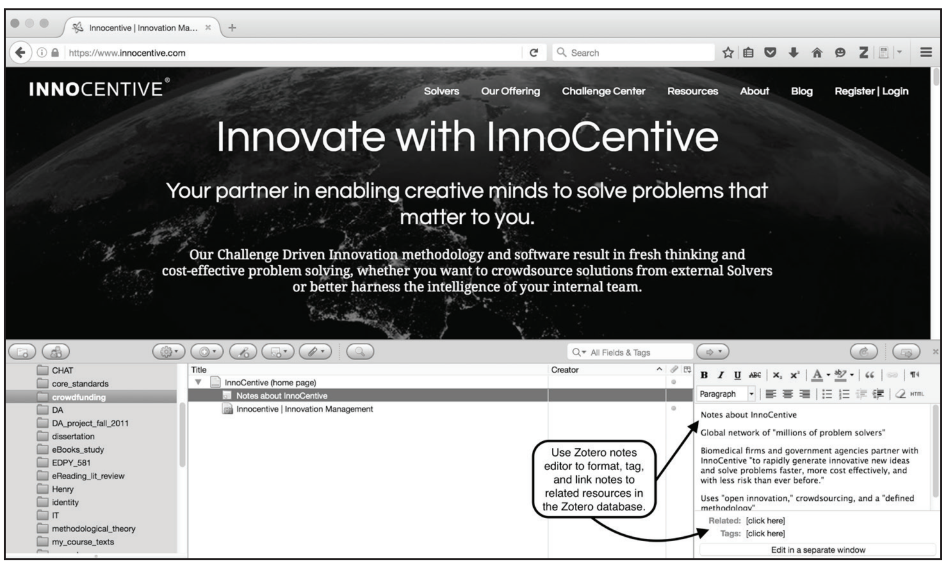


Figure 3. The Zotero notes editor

All CMS tools import PDFs and citation metadata directly from publisher databases and even web browsers. Literature searches can be conducted from within the CMS and/or sources can be downloaded directly into the software. For example, figure 3 shows Zotero, which shares a split screen with the web browser. Within the notes editor interface, new sources can be recorded, tagged, and linked to related resources in the Zotero database.

Each CMS has a note-taking feature, similar to the one seen in figure 3. When a new source is added to the library, a brief annotation about when and where the item was located, how the item will be used in the research project, and so on can be included, which helps ensure methodical tracking. The notes field can support more substantial annotations and memos, upwards of several pages in length. These annotations are searchable, and, while sharing utilities vary from system to system, they typically can be exported to the desktop or emailed to collaborators.

CMS selection depends on the needs and preferences of the user. Factors to consider include availability, cost, online storage capacity, collaboration features, and PDF annotation support (important in Stage 2). Discipline-specific concerns

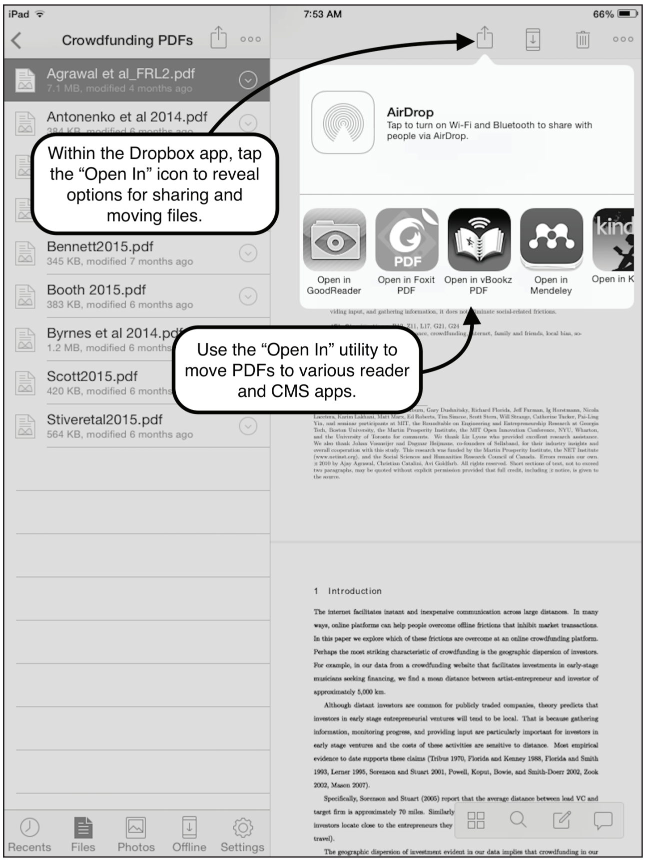
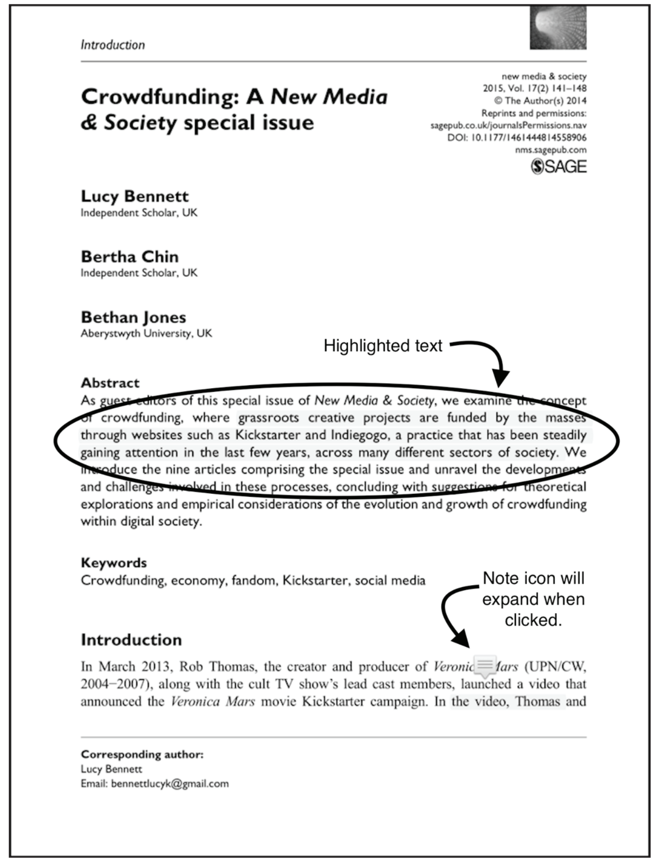


Figure 4. The Dropbox iOS Interface


Introduction

Crowdfunding: A *New Media & Society* special issue

new media & society
2015, Vol. 17(2) 141–148
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sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/1461444814558906
nms.sagepub.com

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Abstract
As guest editors of this special issue of *New Media & Society*, we examine the concept of crowdfunding, where grassroots creative projects are funded by the masses through websites such as Kickstarter and Indiegogo, a practice that has been steadily gaining attention in the last few years, across many different sectors of society. We introduce the nine articles comprising the special issue and unravel the developments and challenges involved in these processes, concluding with suggestions for theoretical explorations and empirical considerations of the evolution and growth of crowdfunding within digital society.

Keywords
Crowdfunding, economy, fandom, Kickstarter, social media

Introduction
In March 2013, Rob Thomas, the creator and producer of *Veronica Mars* (UPN/CW, 2004–2007), along with the cult TV show's lead cast members, launched a video that announced the *Veronica Mars* movie Kickstarter campaign. In the video, Thomas and

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Figure 5. Mendeley's app-supported annotation feature

also will influence the user's choice of CMS, so it is advisable to consult with collaborators and others in the field when making a selection. The Penn State University Libraries maintain a current and comprehensive online comparison chart of the major citation managers (http://guides.libraries.psu.edu/CitationStyles/Tools).

Cloud-based content management services (for example, Box, Dropbox, or Google Drive) can be used as an alternative to a CMS. Cloud storage services provide browser-based interfaces and downloadable desktop iOS- and Android-compatible mobile apps that enable drag-and-drop movement of files. This seamless integration can easily support a collaborative workflow and allows working with files on mobile devices. Built-in utilities allow easy sharing of files with collaborators as well as file integration with other desktop and mobile apps. Within the Dropbox iOS app, for example, the user can transfer a PDF to his or her preferred PDF reader or citation manager using the "Open In…" button (see figure 4).

Whether a CMS or a cloud storage system is selected, storing and organizing documents is an important first step in a paperless literature review workflow. Creating a system for naming files and folders is also important. We recommend naming files by author and publication date, for example, "Smith 2016," so that files can be sorted alphabetically for fast retrieval. Since storing sources in the cloud lacks CMS functionality for creating multiple copies of the same citation in multiple libraries for various projects, it will be necessary to organize sources into separate folders by project, topic or some other scheme. Finally, it is important to ensure that the system is backed up, preferably in the cloud.

Stage 2. Read and Annotate Sources

Once sources have been organized and stored, the next step is to thoroughly read the literature, annotating as necessary, in preparation for synthesizing the sources and writing an academic argument. As Bjarnason has noted, the "physical filing cabinet for paper journal articles has been replaced by an online repository of marked up PDFs."[50] This repository can be either the CMS or a collection of sources in cloud storage. The ideal scenario is that the selected CMS provides an app so that sources can be read and annotated on a mobile device, such as Mendeley's iPad app illustrated in figure 5.

Mendeley provides highlighting and note-taking features, but not underlining or some of the more robust features available in other PDF reading applications or devices (see figure 6). In this case, users should probably choose to annotate PDFs *outside* of the CMS and then import them.

Figure 6. Annotated PDF in GoodReader

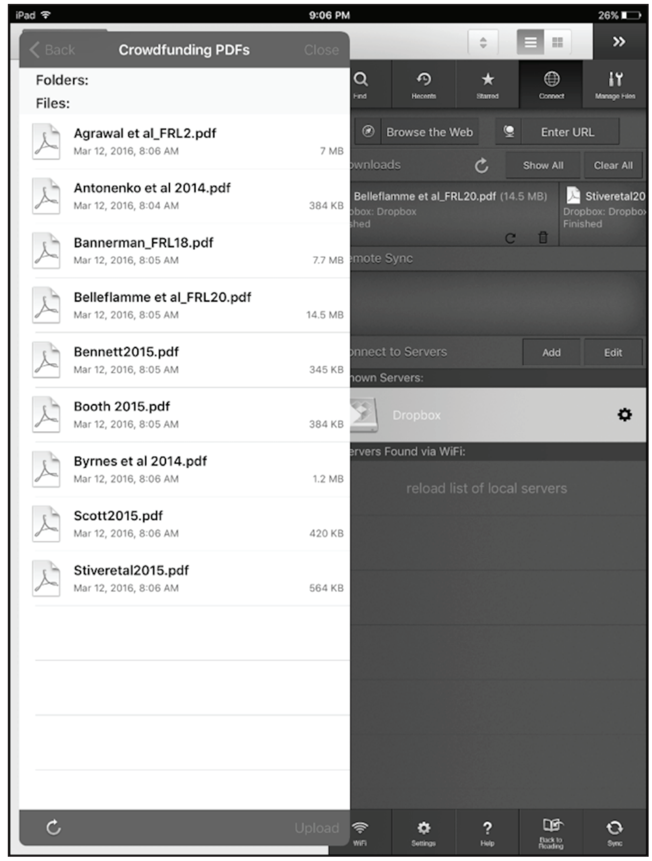


Figure 7. GoodReader synchronizing with Dropbox

For scholars who are used to reading and annotating on paper and find it too cumbersome to do so on a desktop or laptop computer, we recommend using a tablet device (such as an iPad) in conjunction with a digital reader. The GoodReader App (iOS) is one such digital reader; others include iAnnotate (iOS), Mac Preview (Mac), or Adobe Acrobat PDF Reader (Windows, Mac, iOS, Android, Windows Phone). Tablets can make the transition to a paperless workflow less distressing because it is possible to curl up with the readings, use a finger or stylus to annotate much like one would with a highlighter or pen, and otherwise physically engage with the texts in similar ways as on paper. Mobile devices also allow the text to be enlarged for visibility and to focus on the most meaningful segments of the source for deeper engagement. By using a lightweight tablet reader or a mobile device synchronized either with the CMS or cloud storage, resources become much more portable and comfortable to review.

Digital readers can easily be synchronized with cloud storage; for example, GoodReader can be connected and synchronized with Dropbox. PDFs can be uploaded and downloaded between the two programs. Sources that need to be read are downloaded from Dropbox into GoodReader, organized into folders as needed, annotated, "flattened" (to retain the annotations), and then uploaded back into Dropbox (see figure 7). In a collaborative project, this step of the process also allows any member of the team to pull down a source, create an annotated version, and easily return the file to the cloud for others on the team to read and view annotations and notes. GoodReader works similarly with Google Drive and other cloud storage services.

When the annotation feature is selected, digital readers will automatically suggest creating a second copy of the file for annotation purposes. This way the original, clean copy of the source is retained and a second, annotated copy is stored in GoodReader. Annotations can include marginalia or collapsible "sticky notes," which allow for more detailed responses and memos on the text. In addition, these readers often support searching for keywords, highlighting (in a variety of colors), underlining, adding shapes and arrows, and selecting from a variety of other annotation tools as illustrated in figure 6.

After reading is complete, all notes and annotations are saved and can be revisited at any time. Once the source is ready for further analysis in QDAS or by other research collaborators, the app provides the option to send the PDF with all annotations "flattened." Flattening saves the annotations within the PDF, ensuring they are readable on other devices and in other applications, such as QDAS introduced in Stage 3. The flattened source may be emailed, returned to the cloud storage program, or, at this point, put into a CMS.

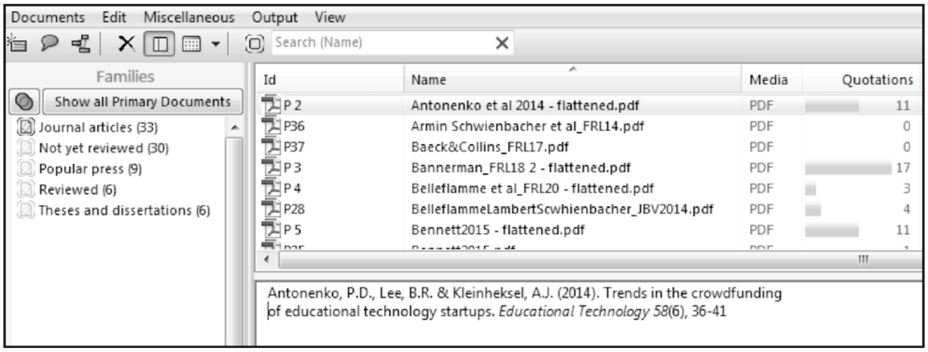


Figure 8. ATLAS.ti document families

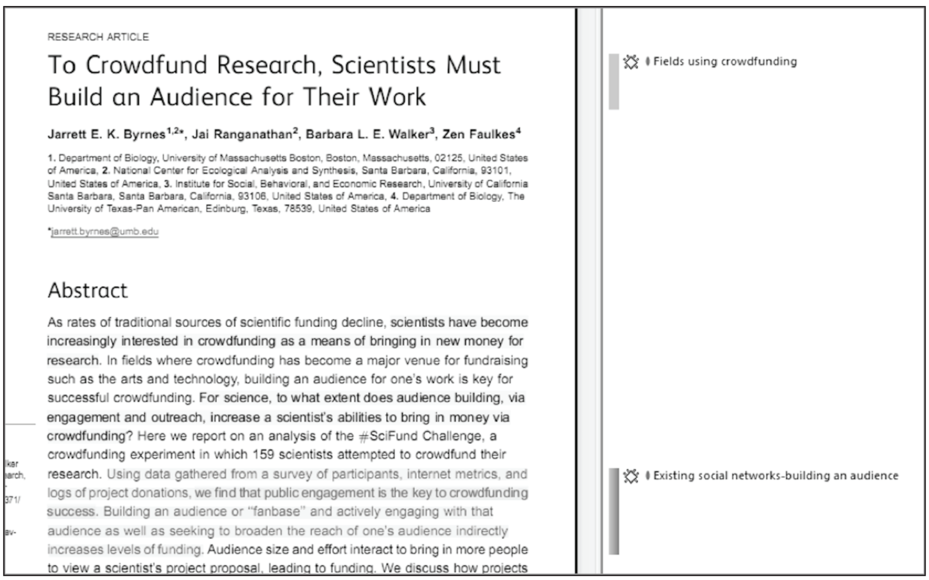


Figure 9. Using codes in ATLAS.ti to tag literature review themes

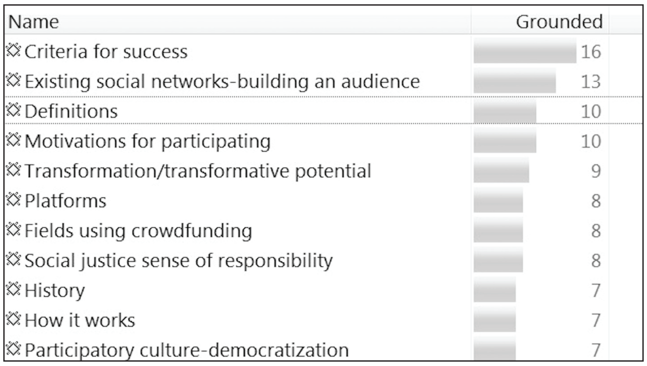
themselves have taken up this application of their software, with QSR NVivo, for example, partnering with Endnote and offering webinars on how to conduct literature reviews. MAXQDA version 11 allows users to import RIS data from Endnote, Citavi and Zotero; and Pope (2016) recently published her strategies for conducting literature reviews in ATLAS.ti. QDAS programs are quite complex, but, for those conducting qualitative studies, the time invested in learning the software will pay off when it is time to use the software again for the data analysis. To select a QDAS program we recommend checking which ones are supported at your institution with site licenses and training, as well as which ones are being used by colleagues. There are also free webinars and video tutorials online for most of the programs.

In this workflow, QDAS provides a digital workspace to aggregate, code, organize, and compose all elements of the literature review. For example, QSR NVivo supports the importation of entire citation manager libraries, including both bibliographic metadata and the associated annotated PDFs. Alternately, it is possible for the researcher to upload entire folders of PDFs or simply to drag and drop all the annotated sources from a computer or cloud-based folder into the QDAS program to begin analysis. Uploading all the annotated sources into a QDAS package not only allows quick clicking from one source to the next for easy retrieval and review, but also provides tools and features to further organize the sources by any criteria relevant to the literature review. In ATLAS.ti, for example, the "documents family" feature allows grouping of sources according to characteristics such as the type of source it came from, or whether it has been reviewed. In figure 8, the sources are organized by source: journal articles, popular press articles, and theses and dissertations. Clicking on the journal articles family will immediately display only those sources for further review. Document families can also be used to organize sources by the major themes of literature review.

Each source that has been uploaded into the software can be described in the comment field. In figure 8, for example, the full reference citation for the source has been entered for ease of retrieval. Unfortunately, at the moment, QDAS

Stage 3. Upload, Analyze and Write

Once sources have been stored, organized, read and annotated, it is time to analyze, synthesize themes, and create arguments in preparation for writing. Qualitative data analysis software programs are highly useful in this stage. First developed in the 1980s, QDAS programs were initially designed by researchers to help organize and analyze the massive amounts of data typically generated in a qualitative study, such as interview recordings and transcripts, observational field notes, digital photographs, and journal entries. Performing a literature review is in many ways a type of qualitative data analysis—with the literature serving as the data that needs to be described, analyzed, and interpreted.[51] Just as QDAS programs such as QSR NVivo, ATLAS.ti and MAXQDA can make the analysis of research data more systematic and transparent, they can do the same for literature reviews.[52] Here librarians can make real contributions to improve the quality of literature review workflows by ensuring that scholars understand what QDAS programs are and the tools and techniques they offer. QDAS developers



Name	Grounded
Criteria for success	16
Existing social networks-building an audience	13
Definitions	10
Motivations for participating	10
Transformation/transformative potential	9
Platforms	8
Fields using crowdfunding	8
Social justice sense of responsibility	8
History	7
How it works	7
Participatory culture-democratization	7

Figure 10. Number of ATLAS.ti codes used in the crowdfunding literature

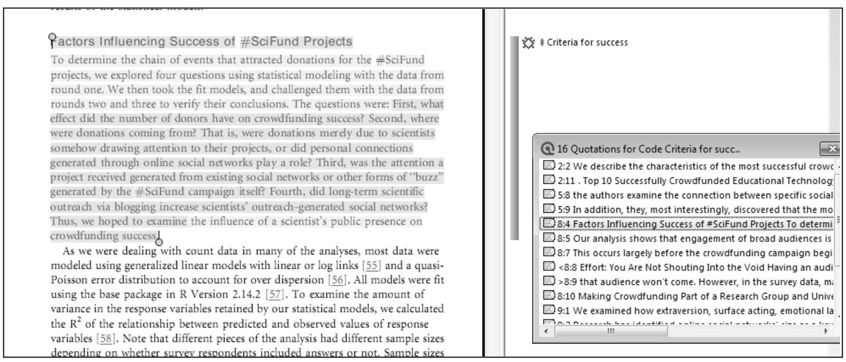
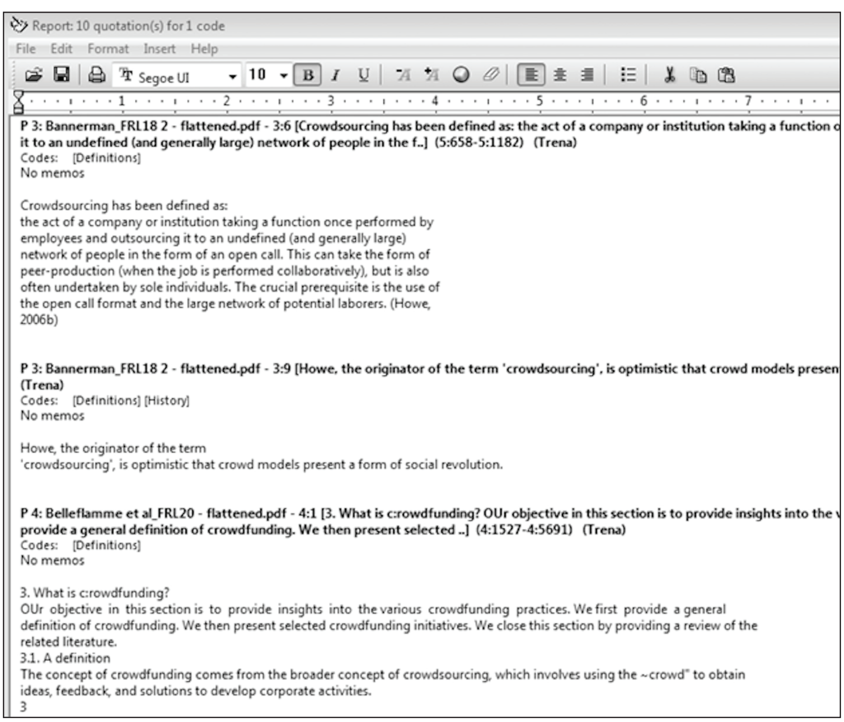


Figure 11. Retrieving coded quotations in ATLAS.ti



Report: 10 quotation(s) for 1 code

File Edit Format Insert Help

P 3: Bannerman_FRL18 2 - flattened.pdf - 3:6 [Crowdsourcing has been defined as: the act of a company or institution taking a function o it to an undefined (and generally large) network of people in the f..] (5:658-5:1182) (Trena)
Codes: [Definitions]
No memos

Crowdsourcing has been defined as:
the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call. This can take the form of peer-production (when the job is performed collaboratively), but is also often undertaken by sole individuals. The crucial prerequisite is the use of the open call format and the large network of potential laborers. (Howe, 2006b)

P 3: Bannerman_FRL18 2 - flattened.pdf - 3:9 [Howe, the originator of the term 'crowdsourcing', is optimistic that crowd models presen (Trena)
Codes: [Definitions] [History]
No memos

Howe, the originator of the term 'crowdsourcing', is optimistic that crowd models present a form of social revolution.

P 4: Belleflamme et al_FRL20 - flattened.pdf - 4:1 [3. What is c:rowdfunding? OUr objective in this section is to provide insights into the v provide a general definition of crowdfunding. We then present selected ..] (4:1527-4:5691) (Trena)
Codes: [Definitions]
No memos

3. What is c:rowdfunding?
OUr objective in this section is to provide insights into the various crowdfunding practices. We first provide a general definition of crowdfunding. We then present selected crowdfunding initiatives. We close this section by providing a review of the related literature.
3.1. A definition
The concept of crowdfunding comes from the broader concept of crowdsourcing, which involves using the ~crowd" to obtain ideas, feedback, and solutions to develop corporate activities.
3

Figure 12. An output of all sections of the literature that include a definition of crowdfunding

programs do not have a "cite as you write" feature, so reference lists cannot be generated in the same way they are in a CMS. This makes it necessary to use both a CMS and a QDAS program for an ideal paperless workflow. Alternately, Docear and F1000Workspace provide CMS features, some limited analysis of sources through memos, and reference list generation.

One advantage of reading and annotating the sources prior to uploading them into a QDAS program is that after the initial reading, the major categories and themes of the literature review might be relatively clear to the researcher as the analysis phase begins. In other words, the beginnings of the argument might already be crystallizing. The highlights and annotations made while reading can guide the coding and retrieving of relevant sections of the sources. "Coding" is relatively easy to do in all the programs and simply means tagging a particular sentence, paragraph or entire section of a source with a label created by the researcher. This way, when it is time to write, all the other sections of the sources related to that topic can be retrieved at once. With source materials coded in the software, it is possible to retrieve all the literature sections on the same topic, reread them, and begin writing.

To illustrate, figure 9 shows yellow highlights that were made in GoodReader while reading the source on an iPad. During the initial reading and annotating it became clear that the various sources about crowdfunding often mentioned the variety of fields (journalism, filmmaking, science) that engage in the practice. This would no doubt be important to mention in the literature review. The sources also noted that successful crowdfunding efforts are often due to the strong existing social networks of those requesting the funds. Codes were then created in ATLAS.ti for both of these ideas ("fields using crowdfunding" and "existing social networks—building an audience"). These codes were attached to relevant sections of the source (called "quotations") for easy retrieval when it was time to write. Such codes can be created before the sources are reviewed in QDAS or created along the way. QDAS keeps track of how often each code has been used so that it becomes clear which topics are being discussed most often in the literature. In figure 10, "criteria for success" (of crowdfunding efforts) was used across the sources sixteen times, and "existing social networks" thirteen times.

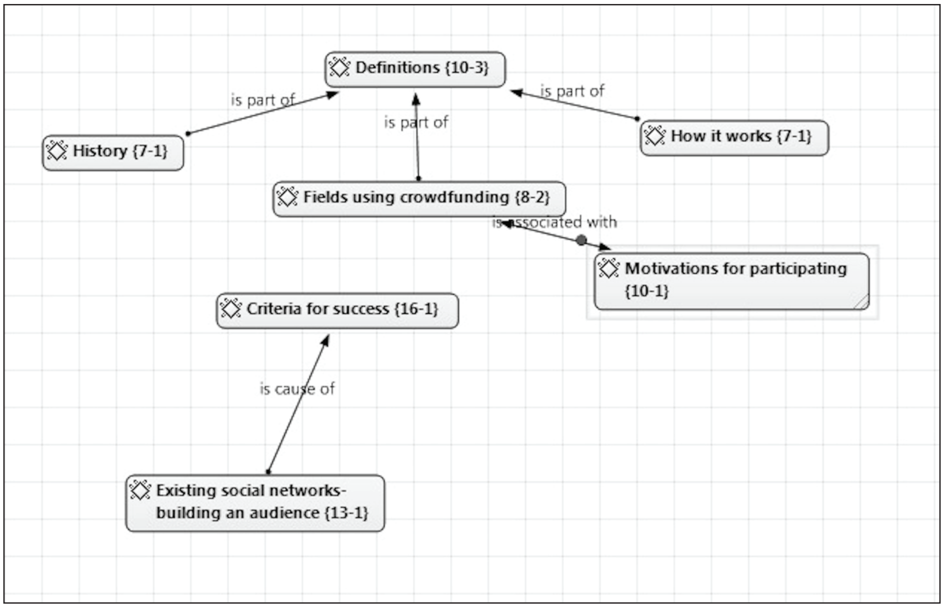


Figure 13. Network display of the argument structure in ATLAS.ti

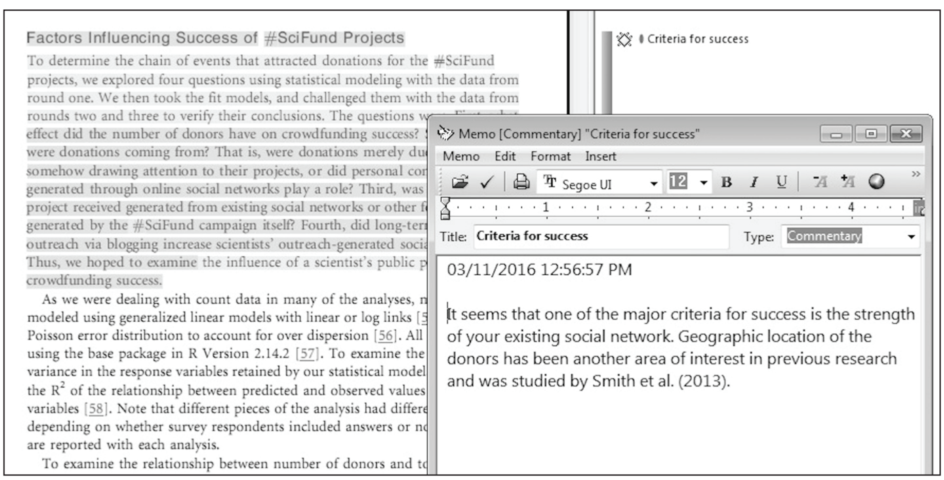


Figure 14. Using memos to write up the findings in ATLAS.ti

“Fields using crowdfunding” was used eight times. This provides an initial idea of how much support there is in the literature for each topic to be covered in the review.

Once the sources have been coded, scholars may retrieve all the coded sections of the literature on each topic and view them together. To review all the literature that was coded as “criteria for success,” the code is clicked and a window appears with all the quotations on that topic across the literature sources. In figure 11, the sixteen quotations for “criteria for success” have been retrieved and are visible in the new window. Clicking on each quotation will make it appear in the context of the full source so it can be reviewed for additional insights.

It is easy to uncode, change code names, merge codes, or reorganize codes while reviewing them to be sure they reflect the findings of the literature review and will be helpful in creating the argument. QDAS tools also provide features that will run reports displaying all the quotations for each code, as illustrated in figure 12 with the ten quotations coded “definitions of crowdfunding.” The quotations can then be reviewed or copied and pasted right into a word-processing document as the literature review is being written.

Once codes have been finalized it can be helpful to visually display them to organize them into an argument structure in preparation for writing. In figure 13, codes were dragged and dropped into a network view in ATLAS.ti and meaningful links were created. The researcher used network links to show that the literature review would begin by defining “crowdfunding” and that this definition would include a discussion of its history, how it works, and which fields are using it. Another section of the review would discuss the criteria that make crowdfunding efforts successful. A major factor in successful crowdfunding efforts is having existing social networks that can build a strong audience for the crowdfunding request. By using the network view, the argument of the literature review is visible.

Another useful feature for writing is the memo tool provided by each QDAS package. This tool is a text editor that can be used to compose and therefore capture insights and ideas and even write initial drafts of the argument while staying spatially close to the literature being reviewed. In figure 14, some initial thoughts about “criteria for success” of crowdfunding campaigns are captured in a memo while looking at a section of one of the sources. It is possible to write entire sections of the literature review by using the memo tool, before bringing it back into word processing software to ready it for publication.

Finally, QDAS saves all this analysis in an archival and shareable file. At a later date, a researcher can update the literature review or extract portions to create new literature reviews or bibliographies. Biomedical researchers compiling systematic literature reviews and meta-analyses of literature could use QDAS as an efficient platform for managing these very large and very complex reviews. QDAS tools support many of the steps required in completing systematic reviews such as appraising the literature, extracting data from the literature, analyzing results across publications, and composing the written findings. While we have illustrated Stage 3 using ATLAS.ti, other QDAS programs such as QSR NVivo and MAXQDA provide very similar features and functionality.

At this point in the process the workflow moves back to the CMS. CMSs were designed to extract metadata from sources, which is then used to generate a list of references in whatever citation style the researcher prefers (APA, MLA, Chicago) through a plug-in for word processing programs. It is often this "cite as you write" feature that motivates researchers to adopt a CMS tool, in their effort to more easily generate accurate bibliographies and references pages from their cited sources. One way to choose between CMS tools is to compare how well each one performs metadata extraction. However, it is generally the case that a CMS offers only varying degrees of formatting accuracy and is highly dependent on how precisely the metadata is entered.[53] As we have illustrated, the power of the CMS resides in a host of other functions to support literature reviews (for example, organizing, sharing, annotating sources), of which outputting references is but one.

CONCLUSION

With born-digital literature sources eclipsing paper-based sources, a paperless workflow seems inevitable and preferable. In this paper we have illustrated one such workflow to support a more methodical approach to creating literature reviews, including using digital tools for storing and organizing sources for the literature review, reading and annotating the sources, analyzing the sources, and writing up the arguments. While tools such as Docear and F1000Workspace are proposing comprehensive platforms to support an integral part of this workflow, neither yet includes the analytic robustness of QDAS software to systematically code and retrieve parts of the literature that support the overall argument.

This workflow was developed based on our own literature review processes, and we continue to learn about new strategies and tools from our colleagues and students. There is a great opportunity for librarians to collaborate with and to provide guidance to scholars and researchers, both new and established, interested in adopting paperless workflows, helping them identify tools that will be of greatest value. Librarians can build upon their expertise and experience with collecting literature and move beyond just helping scholars create the corpus of literature for review. Librarians are well situated to learn how the collections we build and curate can best be used by those we serve. Just as librarians embraced CMS as transformational tools for citation management, librarians can embrace and advocate QDAS and paperless review processes. Librarians can develop the skills, create the training, and foster collaborations required to become more fully embedded in the research process.

Librarians can expand their own research instruction portfolio to use article discovery and citation management as springboards into innovative literature review practices. Instruction doesn't have to end with "…and now you can import your sources into EndNote." Instruction can move into the next phase, exploring how a researcher can manage digital bibliographies and apply digital tools, perhaps the same tools used in their data analysis, to create literature reviews. Librarians can also partner with academic departments or research technology support operations who are vested in teaching research methods. At The University of Tennessee, Knoxville, librarians partner with instructors in the campus's Office of Information Technology to offer training sessions which bridge citation management tools with NVivo, a campus-supported QDAS application. For librarians working at institutions that lack this level of institution-wide research support, learning more about the technologies used in each step of the research process and then stepping in to fill the need for research methods support could be an opportunity for outreach to academic departments or individual patrons that demonstrates the library's worth and adds value to the institution. To better explore issues and options, it may be worthwhile to replicate Antonijević and Cahoy's ethnographic study of the information management practices of scholars in the context of literature reviews to discover whether the workflow we propose here is similar to what scholars are currently doing.[54] Also, the Kramer and Bosman survey of researchers' tools and workflows provides valuable data and promotes innovation by illustrating technologies and workflows that support open source, open access and open science.[55]

Through the research and exploration of the literature review process, we have proposed a methodical, reproducible, paperless literature review processes that harnesses the power of digital tools. We also see potential in expanding the changing role of librarians as both teachers and research partners, supporting faculty and students in their research and publishing skills. Our hope is that through presenting this information, we might influence information behaviors and updates to the scholarly workflow through the use of digital tools.

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Sources
Professional Materials

Karen Antell, Editor

40+ New Revenue Sources for Libraries and Nonprofits 296
Creating Inclusive Library Environments: A Planning Guide for Serving Patrons with Disabilities 296
Effective Difficult Conversations: A Step-by-Step Guide 297
The One-Shot Library Instruction Survival Guide, 2nd ed. 297
Rewired: Research-Writing Partnerships within the Frameworks . . . 298
The Small and Rural Academic Library: Leveraging Resources and Overcoming Limitations 298
Winning Grants, 2nd ed. 299
Young Adult Literature: From Romance to Realism, 3rd ed. 299

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 Karen Antell, Public Services Librarian, Bizzell Memorial Library, University of Oklahoma, 401 West Brooks St., Norman, OK 73019; email: kantell@ou.edu.

40+ New Revenue Sources for Libraries and Nonprofits. By Edmund A. Rossman III. Chicago: ALA, 2016. 248 p. Paper $65 (ISBN 978-0-8389-1438-0).

Drawing on the many similarities between public broadcasting and public libraries, *40+ New Revenue Sources for Libraries and Nonprofits* is a compelling volume designed to help libraries stay afloat despite dwindling funding. Appropriate for library directors, development specialists, branch managers, and librarians tasked with securing funding, Rossman's work advocates that libraries should not merely increase their revenue streams, but *diversify* their income, to remain sustainable well into the future.

The book is conveniently divided into two parts. Part one sets a foundation for readers' revenue-generating endeavors by including background information about public broadcasting, including the efforts of PBS and NPR to remain solvent. Libraries that find themselves on the precipice of similar budgetary crises will find hope via practical anecdotes of success through diversification. Part one also offers a handy toolkit to help librarians overcome the obstacles of public relations law, ethics, and contracts. Newer marketing channels, such as crowdfunding and social media, are covered in depth. Part one's final chapter details best practices for securing funding via grants.

Part two, comprising two-thirds of the book, gives in-depth insight into forty-two different methods of generating income for your library. A useful summary matrix provides quick reference.

These mini-chapters are conveniently organized into categories such as books and materials (for example, community book sales and raffles), naming rights (for example, meeting rooms), and sponsorships (for example, tutoring programs and vending machines). Each mini-chapter is comprehensive and guides readers from the project's inception to its completion. In essence, part two functions as a menu for public library personnel, enabling leaders in the organization to choose the revenue sources that best fit their needs and their communities.

With a strong emphasis on community partnerships and mutual benefit, *40+ New Revenue Sources for Libraries and Nonprofits* is a compelling resource for those tasked with generating non-governmental income for their library. The easy-to-digest foundational chapters and quick-hitting mini-chapters will be especially valuable to fundraising novices, but all public library officials can benefit from the book's practical insights. Essential for the library on the brink of financial struggles, this volume is highly recommended.—*Joshua Jordan, Librarian, Del City Library, Del City, Oklahoma*

Creating Inclusive Library Environments: A Planning Guide for Serving Patrons with Disabilities. By Michelle Kowalsky and John Woodruff. Chicago: ALA, 2017. 232 p. Paper $62 (ISBN: 978-0-8389-1485-4).

This concise but complete guide to accessibility will be beneficial to libraries of all types. Kowalsky and Woodruff seek "to provide a roadmap for libraries so that they may be proactive in creating inclusive library environments" (vii). In laying out this roadmap, the authors cover everything from ADA legislation updates to universal design for both the library building and its online presence. The book focuses not merely on accessibility, but also on building relationships by interacting in a positive manner with people with disabilities. An important part of this is the emphasis on including people with disabilities in accessibility planning. The authors also incorporate examples for disability awareness programming in academic, public, school, and special libraries.

Each chapter features "for your information" and "checklist" boxes that offer a systematic approach to planning for and implementing an accessible library. Resources listed at the end of each chapter point the reader to further academic research or informational websites. Depending on the project or goal of their libraries, readers may find that individual chapters, rather than the entire book, are sufficient to meet their information needs.

Some information is presented in more than one chapter. For example, the authors discuss website accessibility issues in chapter 8, "Accessible Resources and Technologies," and again in chapter 9, "Developing a User-Centered Culture." Although the authors seek to emphasize different aspects of web design in each of these chapters, some repetition is inevitable. This title has two major strengths: its emphasis on invisible disabilities in addition to visible ones, and its recognition of the needs of library employees with disabilities, along with the needs of patrons. The suggestions provided throughout this book will help make libraries more ergonomic and person-friendly, benefiting everyone, not just those with disabilities.—*Rebecca Weber, Education and Teaching Librarian, Oklahoma State University, Stillwater, Oklahoma*

Effective Difficult Conversations: A Step-by-Step Guide. By Catherine BSoehner and Ann Darling. Chicago: ALA, 2017. 128 p. Paper $38 (ISBN 978-0-8389-1495-3).

"The difference between a minimally successful manager and a truly successful one is the capacity for having effective difficult conversations," according to Catherine Soehner and Ann Darling (7). In *Effective Difficult Conversations*, these authors succinctly define difficult conversations, outline key preparation steps, detail how to manage the conversation, explain the need for documentation, and emphasize how to maintain the professional relationship.

In this well-organized guide, three preparation steps are outlined: 1) getting clear, 2) gathering resources, and 3) clarifying the message. Getting clear focuses on the four key questions that a manager should explore prior to having a difficult conversation: Do you need to have this conversation at all? Why do you need to have this conversation? Why do you need to have this conversation now? How do you schedule this conversation? The next chapter emphasizes the need to seek out background information, gather resources, and consult with others. The final step in preparation is to clarify the message in order to achieve a positive outcome.

In chapter 5, the authors do an excellent job of outlining how to manage the conversation, explaining how to approach the conversation in six steps: state the facts, ask, listen, engage to understand, pay attention, and explore options. This approach is a reasonable and appropriate game plan that is valuable to new managers learning how to develop the managerial skill set as well as to experienced managers seeking to enhance their skills. The next segment illustrates why and how to document such conversations and how to remain supportive of the employee. The authors outline this step-by-step process in a clear and objective manner and elucidate the process using realistic examples and detailed, sound human resources advice.

In addition, the authors have included chapters on having difficult conversations with co-workers, conducting such conversations in relation to change management initiatives and reorganizations, and having difficult conversations with one's boss.

In ten succinct chapters, Soehner and Darling have produced a well-written, accessible, and valuable guide for library managers at all levels in all types of libraries. They show that the ability to conduct difficult conversations effectively and productively is a skill that contributes to managers' integrity and compassion. This book will be useful to library human resources professionals seeking to advise and counsel managers, and it could also serve as a tool for training and developing library supervisors and managers.—*Pat Hawthorne, Associate Dean for Research and Education, University Libraries, University of Nevada, Las Vegas, Las Vegas, Nevada*

The One-Shot Library Instruction Survival Guide, 2nd ed. By Heidi Buchanan and Beth A. McDonough. Chicago: ALA, 2017. 168 p. Paper $50 (ISBN: 978-0-8389-1486-1).

Many instruction librarians face the challenge of teaching information literacy skills successfully and engagingly during one-shot library instruction sessions. In their new edition of *The One-Shot Library Instruction Survival Guide*, Heidi Buchanan and Beth A. McDonough offer guidance on incorporating ACRL's Framework for Information Literacy for Higher Education (adopted in 2016) into one-shot library instruction sessions.

When ACRL released the Framework, many professionals debated how the six frames would work with one-shot instruction sessions. Buchanan and McDonough argue that the Framework's focus on big ideas and flexibility will help librarians plan successful one-shot sessions. They encourage librarians to incorporate activities that require students to investigate and think critically about information. The book covers practical ideas on using the six frames, inspired solutions for difficult assignments, vignettes from actual librarians in the field, assessment techniques, and suggestions for how to make information literacy relevant to students.

If you are an instruction librarian looking for a book with ready-made lesson plans or templates, then this book is not for you. As the authors note, “There are no cookie-cutter solutions. You will want to adapt the recommendations in this book to your real life and choose the strategies that work best for your own teaching” (6). *The One-Shot Library Instruction Survival Guide* will inspire instruction librarians to move beyond traditional bibliographic instruction, such as “click here, go there” demonstrations of library resources, to more engaging information literacy instruction sessions.—*Magen Bednar, Undergraduate Services Librarian, Bizzell Memorial Library, University of Oklahoma, Norman, Oklahoma*

Rewired: Research-Writing Partnerships within the Frameworks. Edited by Randall McClure. Chicago: ACRL, 2016. 308 p. Paper $68 (ISBN 978-083898904-3).

On many campuses, writing skills and research skills are supported in separate instructional silos. When it comes to college composition assignments, however, writing and research are interdependent, and this close relationship is evident in the many common elements shared by the Council of Writing Program Administrators (WPA) Framework for Success in Postsecondary Writing and the ACRL Framework for Information Literacy for Higher Education. How the core concepts in these frameworks interconnect and how librarians and writing instructors can work together to implement them in the classroom is the focus of *Rewired*.

Librarians and writing instructors frequently work separately, despite their shared values. The first section of *Rewired* examines this dynamic and presents ways to transform the relationship and develop mutually beneficial partnerships. The four essays in this portion analyze and interpret the frameworks, looking for ways to break down the campus/library division and give composition instructors and librarians a common language to use when designing assignments and providing students with research support.

The majority of the book is devoted to case studies demonstrating these partnerships in action. Contributors include both librarians and writing instructors, and the campuses represented range in size from small private colleges to large public universities. As a result, the case studies offer a variety of approaches and assignment types to serve as models, and the essays in this section frequently include assignment details, rubrics, and student learning objectives. In addition to these practical examples, this section also show how librarians have approached and worked with faculty to implement redesigned assignments.

Three chapters on assessment close the book. Whether the term used is “frames” or “habits of mind,” the ACRL and WPA frameworks both focus on behaviors. This makes assessment a challenge, and the essays in this section reflect that struggle. These chapters provide some potential best practices but no simple solutions.

Composition instructors, writing center directors, and academic librarians will find *Rewired* a source of ideas for designing assignments and instruction in their own institutions. It will also help librarians and writing instructors understand each other’s viewpoints and priorities. A final interesting side note: nine of the book’s fourteen essays have Creative Commons licenses, making them freely available for reuse by readers. Sharing these chapters on campus could be the first step in a new interdisciplinary partnership.—*Ann Agee, Librarian, School of Information, San Jose State University, San Jose, California*

The Small and Rural Academic Library: Leveraging Resources and Overcoming Limitations. Edited by Kaetrena Davis Kendrick and Deborah Tritt. Chicago: ACRL, 2016. 264 p. Paper $56 (ISBN 978-0-8389-8900-5).

Most forward-thinking and worthwhile academic library practices originate at large, well-staffed institutions. Unfortunately, translating such practices from a large-scale research library to a small institution or one-librarian operation can be difficult, if not utterly impossible. *The Small and Rural Academic Library: Leveraging Resources and Overcoming Limitations* bridges this gap by speaking to librarians who feel handicapped by their lack of resources.

The book is divided into five sections: Library and Outreach Services, Human Resources and Professional Development, Planning, Instruction, and Technology. Each section features multiple chapters with various authors, and several sections also include a librarian interview entitled “Big Ideas, Small Libraries,” which addresses the section topic via a Q-and-A-style article.

In many of the chapters, the “literature review” is almost comically predictable, with the admission that much of the research found on the topic came from large libraries, with more staff in the library than some rural colleges have on their entire campus. Discussion of implementation often reminds readers that, due to lack of staff and resources, timelines are stretched to accommodate incremental work, rather than instant, focused project management. For much of this discussion, small and rural librarians will be nodding their heads in agreement, but will also feel that the authors are “preaching to the choir.” This discussion is necessary, however, for those who may be new to the small or rural library, or may be interested in how practices are implemented on a smaller scale.

Because these chapters are written by those at small institutions, much of the information is presented in case study format, with a few quantitative, data-driven pieces sprinkled throughout. Many rural institutions are not equipped to dig deep into institutional research, and patron use of the library may be low enough to preclude any statistically significant findings. Still, the case studies are useful. For instance, chapter 7, “Mission Possible: Strategic Planning for Small Academic Libraries,” is a detailed look at how a small library took on the herculean task of creating a multi-year strategic plan. This is the kind of activity that can seem insurmountable when staff members spend the majority of their time keeping the library's doors open and providing basic services. After reading how one library tackled strategic planning, other libraries may find it more manageable to do the same.

Overall, the book is extremely insightful. There are certainly moments of commiseration that do not offer clear solutions for being innovative with limited staff and money, but those moments were usually capped with the workaround that a single institution found beneficial. Although not useful for every situation, these stories at least provide some hope. Many of the chapters would prove useful to a librarian who may have a difficult time convincing colleagues of the value of incorporating a new practice at a small institution. Some of the general advice felt pat or trite, but the real-world approaches to problems such as assessment, information literacy instruction, and managing library systems technology in small libraries was quite valuable, and made the book well worth the read.—*Jennifer Tatum, MLIS*

Winning Grants, 2nd ed. By Stephanie K. Gerding and Pamela H. MacKellar. Chicago: ALA Neal-Schuman, 2016. 248 p. Paper $108 (ISBN 978-0-8389-1473-1).

The words "grant writing" are enough to strike fear into the heart of even the most seasoned librarian. The paperwork, the complex requirements, and even the bureaucracy of government funds are enough to dissuade many professionals from even considering applying for a grant. That's where *Winning Grants*, authored by Stephanie K. Gerding and Pamela H. MacKellar, steps in to assuage readers' fears.

From page one, it is clear that this is nothing like the typical how-to book that leaves the reader with more questions than answers. Gerding and MacKellar's expertise really shines in this manual. Each chapter is full of information, suggestions, and resources, and quickly builds even the greenest librarian's confidence in their ability to find needed funding.

The book is divided into three parts. Part 1 is a chapter-by-chapter walk-through of the steps needed to get a grant. This section will ensure that the reader is fully prepared to complete the grant application process confidently. Although there is certainly a good flow of information from chapter to chapter (and most readers would likely benefit from reading it cover to cover), one could easily pick and choose chapters to get the information that is most relevant to one's needs. Of particular note in part 1 are the additional resources provided (including many links to resources outside of the manual) and the copious amounts of blank space on each page, perfect for taking notes.

Part 2 includes several examples of grant funding success stories with photos and contact information. These examples would be a fantastic tool for convincing uncertain staff or board members. In addition, for those who feel overwhelmed at the lengthy process ahead, these stories are certain to reinvigorate. The final section, part 3, contains worksheets and other resources. These alone are likely worth the cost of the book, even for the seasoned grant writers among us. They offer easy-to-follow guidelines to put everything into practice.

Overall, this is an excellent resource for librarians and library staff at every level. The content will prepare readers for success, whether they are writing their first or their fiftieth grant application.—*Katie Goldbach, Lead Librarian, The Village Library, Oklahoma City, Oklahoma*

Young Adult Literature: From Romance to Realism, 3rd ed. By Michael Cart. Chicago: ALA, 2017. 328 p. Paper $68 (ISBN 978-0-8389-1462-5).

This is a timely, updated treatment of the subject of young adult (YA) literature. Cart has a wealth of experience and knowledge in YA literature, having founded and chaired the Printz Committee and authored or edited twenty-three books. He deftly organizes that knowledge into a highly accessible volume for librarians.

Cart has broken the information into two main parts: "That Was Then," a historical look at how YA literature has become its own genre; and "This Is Now," a look at today's YA literature landscape. Cart takes the time to analyze the information and lay it out for readers. This material will not be useful to someone who merely wants quick lists of the best teen books to purchase. Instead, Cart takes a more in-depth look at topics such as how YA literature works in retail, focusing attention on the effects of "chick lit," Harry Potter, Twilight, and the dystopian genre (such as the Hunger Games series). He also discusses the current age range confusion in YA literature: Should we use "young adult" as a catch-all category, or divide the genre into subgroups such as "middle school," "teen," and "new adult" literature? One chapter concentrates on diversity in YA literature and identifies the steps that authors and publishers are taking to increase it. The book also addresses the timely topic of LGBTQ characters in young adult literature, including intersex characters. In addition, Cart discusses other genres and other formats, such as graphic novels and manga.

This book features a clear and useful preface and a twenty-page reference section that includes all the books and articles he references throughout the text. Young Adult Literature: From Romance to Realism is a solid resource that will be helpful to librarians, students, and teachers.—*Leanne Cheek, MLIS, Selector/Teen Coordinator, Pioneer Library System, Norman, Oklahoma*

Sources
Reference Books

Anita J. Slack, Editor

9/11 and the War on Terror: A Documentary and Reference Guide . . . 300
The Beatles Encyclopedia: Everything Fab Four . . . 301
Chronic Diseases: An Encyclopedia of Causes, Effects, and Treatments . . . 301
Crime and Punishment in America: An Encyclopedia of Trends and Controversies in the Justice System . . . 302
Encyclopedia of African Colonial Conflicts . . . 302
The Five Senses and Beyond: The Encyclopedia of Perception . . . 303
Ghosts in Popular Culture and Legend . . . 303
Great Events in Religion: An Encyclopedia of Pivotal Events in Religious History . . . 304
How Animals Think and Feel: An Introduction to Non-Human Psychology . . . 304
The Mongol Empire: A Historical Encyclopedia . . . 305
People of Color in the United States: Contemporary Issues in Education, Work, Communities, Health, and Immigration . . . 306
Same-Sex Marriage: A Reference Handbook, 2nd ed. . . . 306
Talking Conflict: The Loaded Language of Genocide, Political Violence, Terrorism, and Warfare . . . 307
The World of Ancient Egypt . . . 308

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Correspondence concerning these reviews should be addressed to "Reference Sources" editor, Anita J. Slack, Reference & Instruction Librarian, Ashland University, 509 College Avenue, Ashland, OH 44805; email: aslack3@ashland.edu.

9/11 and the War on Terror: A Documentary and Reference Guide. By Paul J. Springer. Santa Barbara, CA: Greenwood, 2016. 339 p. Acid free $86.40 (ISBN 978-1-4408-4333-4). E-book available (978-1-4408-4334-1), call for pricing.

In the nearly sixteen years since the terrible events of September 11, 2001, nearly 13,000 non-fiction books have been written about that day. Topics range from first-person accounts to memorials to collections of documents. A new addition to the crowded field is *9/11 and the War on Terror: A Documentary and Reference Guide*. The author, Paul J. Springer, is a Senior Fellow at the Foreign Policy Research Institute and Professor of Comparative Military History at the Air Command and Staff College in Alabama. His work presents excerpts of declassified documents, chosen to illustrate the effects on and between terrorism and counterterrorism. The selected material is freely available elsewhere, but in this collection the author provides a useful chronology and a short analysis of both the impetus to create the document and its effects. The documents are divided into four sections: "Documents Prior to September 11, 2001," "Documents from 9/11 and the Immediate Aftermath," "Documents from the Presidency of George W. Bush," and "Documents from the Presidency of Barack Obama." In addition to standard indexing, there is a further grouping of documents by similar subjects, such as Al Qaeda Communications and Congressional Testimony. Each entry is documented with the full title, date and place of creation, its significance, and complete source information.

Scattered throughout the entries are sidebars entitled "Did You Know?" which provide snippets of information on topics such as "World Trade Center Complex," "Sunni," "Anthrax Attacks of 2001" and so on.

It is both fascinating and chilling to read "Mohamed Atta's Letter to Fellow Attackers," which provides detailed instructions on how they should prepare on the Last Night, directing them to prepare spiritually and practically, including how to bathe and dress. There is a sobering effect when reading "The President's Daily Brief from Central Intelligence Agency" dated August 6, 2001, which warns that Bin Laden is intent on attacking, but fails to provide anything more specific than "a vague threat of an airliner hijacking to negotiate a hostage exchange" (78).

There are other works which focus on documents relating to this event. Many, however, do not include the actual text of the documents and are now rather dated, as they exclude more recent events such as the emergence of ISIL. One of these earlier works is Paul Thompson's *The Terror Timeline: Year by Year, Day by Day, Minute by Minute: A Comprehensive Chronicle of the Road to 9/11—And America's Response* (Regan/Harper Collins, 2004). The complete citation for each document is provided, but not the text, although there is an explanation as to the significance of the item. Other sources that Springer's work complements include *America Confronts Terrorism: Understanding the Danger and How to Think about It* by John Prados (Dee 2002), the CD-ROM set *September 11, 2001: Comprehensive Reference Resource* (United

States National Guard Bureau 2002), and *September 11, 2001* by the Poyner Institute (Andrews McMeel 2001), which is a collection of front pages of local newspapers, foreign and domestic, from 9/11/2001. The *Digital National Security Archive* from ProQuest is a subscription database and does include essays and other enhancements, in addition to the full text of 93,000 declassified documents.

The full-text excerpts and essays combine to make *9/11 and the War on Terror: A Documentary and Reference Guide* useful to researchers at many levels, from middle school students and college students to the general public. Recommended for school, undergraduate, and public libraries.—*Carla Wilson Buss, Curriculum Materials and Education Librarian, University of Georgia, Athens, Georgia*

The Beatles Encyclopedia: Everything Fab Four. By Kenneth Womack. Santa Barbara, CA: Greenwood, 2016. 621 p. Acid free $30 (ISBN 978-1-4408-4426-3). E-book available (978-1-4408-4427-0), call for pricing.

The Beatles were indisputably towering figures in twentieth-century popular culture. Consequently, much has been written about the lives, work, and influence of the Fab Four. The title under discussion here is a unique entry into that body of literature. *The Beatles Encyclopedia: Everything Fab Four* is a condensed (and more affordable) version of a two-volume hardcover encyclopedia with the same title. While the larger edition aims to be a comprehensive resource, the condensed version aims instead to hit the highlights.

While numerous other titles may offer much of the same information, *The Beatles Encyclopedia: Everything Fab Four* is unique primarily due to its reference book format. The title provides the reader with a wealth of in-depth Beatles history one would expect from a narrative account, but conveniently arranges that information in easy-to-access alphabetical entries. The entries dealing with specific compositions (which comprise the bulk of the volume) identify the author(s) of the song, provide details about the origins of the song, the recording sessions, the performers and their instruments, and the album(s) on which the song appeared. Entries devoted to albums provide similar information as well as cover art and chart performance. Additionally, readers will find biographical information on not only the individual Beatles, but also spouses, relatives, collaborators, and producers. Notable events in Beatles history, such as the *Ed Sullivan Show* performance and the Shea Stadium and Rooftop concerts, are also included. Other helpful features are a chronology and discography.

The entries are written in an accessible style and provide details ranging from the technical aspects of recording certain songs to excerpts from interviews in which individual Beatles provide their own accounts of the song writing and recording process. The result is a collection of vivid accounts of the band members and their creative processes.

In his preface, author Kenneth Womack states that the title is aimed at "readers of all levels, from the general public and students at the secondary and postsecondary ranks through advanced scholars and dyed-in-the-wool Beatlemaniacs" (xv). *The Beatles Encyclopedia: Everything Fab Four* is indeed suitable for such a diverse audience. It is therefore recommended for public, high school, and academic libraries. If your budget allows, you may want to consider purchasing the expanded two-volume edition, which also provides entries on the band members' post-breakup solo efforts.—*Edward Whatley, Instruction and Research Services Librarian, Georgia College and State University, Milledgeville, Georgia*

Chronic Diseases: An Encyclopedia of Causes, Effects, and Treatments. Edited by Jean Kaplan Teichroew. Santa Barbara, CA: Greenwood, 2016. 2 vols. Acid free $189 (ISBN 978-1-4408-0103-7). E-book available (978-1-4408-0104-4), call for pricing.

This two-volume set organizes an array of chronic diseases and disorders into 323 concise entries, clearly described in lay language. Topics related to prevention, therapies, and societal factors such as poverty and health disparities are also included. Entries are mostly two to three pages long and are divided into categories such as "Overview," "Symptoms," "Causes and Risk Factors," "Diagnosis," "Prevention," "Prognosis and Outcomes," and "Future." Entries are signed and contributor credentials are provided. Many authors are educators or writers experienced in communicating health information to the general public; some are medical professionals. "Further reading" lists at the end of each entry reference books and articles, many of which are freely available online. There is also a "Recommended Resources" section listing numerous books and websites for researchers seeking reputable sources that are relatively free of medical terminology and scholarly language.

One notable shortcoming of *Chronic Diseases: An Encyclopedia* is its complete lack of photographs, drawings, or other illustrations. While statistical data in print resources is of limited use since it quickly becomes outdated, some entries in this encyclopedia would have benefitted greatly from a few illustrative charts. For example, the articles entitled "Men's Health" and "Women's Health" would be far more useful if they included comparative data tables showing readers the impact of certain chronic diseases across these populations. Such enhanced content would help set this work apart from free online resources like the Centers for Disease Control and Prevention website (cdc.gov) and the US National Library of Medicine's MedlinePlus database (medlineplus.gov), which are also designed with non-professional users in mind.

While there are more comprehensive medical encyclopedias, such as *Magill's Medical Guide* (Grey House, 2014) and *The Gale Encyclopedia of Nursing and Allied Health* (2013), there is no other print resource for non-professionals focusing exclusively on chronic illness and related issues. *Chronic Diseases* is intuitively organized and clearly written, so users looking for a straightforward source to help them untangle this complex phenomenon will likely appreciate its brevity.

Therefore, this set is recommended for general collections in public, community college, and college libraries.—*Kathryn Fisher, Head of Patron Services and Instruction, Ursuline College, Pepper Pike, Ohio*

Crime and Punishment in America: An Encyclopedia of Trends and Controversies in the Justice System. Edited by Laura L. Finley. Santa Barbara, CA: ABC-CLIO, 2016. 2 vols. Acid free $189 (ISBN 978-1-6106-9927-3) E-book available (978-1-6106-9928-0), call for pricing.

The American criminal justice system affects people in all walks of life, from street crime to domestic violence to white collar crime. This two-volume set explores not only landmark cases and laws, but also covers prominent figures, policies, and scandals. Further, the set includes entries that explain broader issues such as "Biological Explanations for Crime" and "Sociological Explanations of Crime."

An informative preface and comprehensive introduction provide a good foundation for the criminal justice novice. The introduction gives an overview of how crime data is collected and analyzed, how the public learns about crime, and the complicated ways in which society tries to understand victims, offenders, and crimes themselves. Underpinning these overviews are the complicated sociological issues that have shaped criminal justice over decades.

Editor Laura L. Finley, who also authored many of the entries in the volumes, has edited other timely encyclopedias on related criminal justice issues covered in this work, including school violence, juvenile crime, and domestic abuse. Her expertise is well applied here.

The 185 entries vary in length; the shortest entries run at least one page or more, and longer entries run several pages, incorporating a great deal of context. For example, "Disabilities and Crime" occupies approximately seven pages, and covers classifications, victims, criminality, police and courts, jails and prisons, the death penalty, and reform efforts as they apply to the topic. The entries are organized alphabetically and feature cross-references to related entries and recommendations for further reading. Black and white photographs appear in a fair number of entries, including both newsworthy and scene-setting images. In addition to a comprehensive index, the second volume includes an appendix of recommended resources sorted by type, including an annotated list of documentaries, books released after 2005, journals of interest, and criminal justice-oriented national organizations.

Though the encyclopedia is commendable for its commitment to timeliness, recent developments have already rendered a few entries out of date. For example, at the close of his administration, President Barack Obama pardoned Chelsea Manning and Oscar Lopez Rivera, who each have entries. This is not a major fault of the work; however, the entry for "Lopez Rivera" specifically cites activists on his behalf putting the odds he would pardoned by President Obama at 1 in 5,000. The activists also noted that he had a 1 in 100 chance of being pardoned by President Bill Clinton, but Lopez Rivera declined a conditional offer of clemency in 1999 (315).

Crime and Punishment in America is not a duplication of Levinson's *Encyclopedia of Crime and Punishment* (Sage, 2007) or similar larger criminal justice reference works, given its American criminal justice context. The coverage of contemporary issues including asset forfeiture, cyberbullying, and police body cameras, as well as legal battles like the George Zimmerman trial, Kids for Cash, and *United States v. Jones* make the encyclopedia a timely stand-alone work, or a supplement to larger, more globally focused criminal justice encyclopedias.

The work avoids professional jargon and provides definitions and important context for key figures, laws, policies, and landmark cases. Due to its comprehensive coverage of current, complex crime and punishment topics, this set would be beneficial to both lower- and upper-division students seeking basic yet authoritative information in context as a starting point for further research. Recommended for college libraries that support criminal justice programs.—*Emily Lauren Mross, Business and Public Administration Librarian, Penn State Harrisburg, Middletown, Pennsylvania*

Encyclopedia of African Colonial Conflicts. Edited by Timothy J. Stapleton. Santa Barbara, CA: ABC-CLIO, 2017. 2 vols. Acid free $189 (ISBN 978-1-5988-4836-6). E-book available (978-1-5988-4837-3), call for pricing.

Africa has experienced more than its fair share of warfare and general strife during the past half century. Many of these struggles have their roots in colonialism, which inspired the ethnic division, military tactics, and brutality that characterized subsequent conflicts, even those occurring long after the colonial regimes caved to African independence movements. This encyclopedia covers the major colonial-era wars between Africans and Europeans and/or their allies and proxies, as well as the occasional fight among Europeans. While there are many works concerning colonialism, conflict, and specific wars in Africa, this work is unique in being a reference work dedicated solely to the colonial conflicts.

The set encompass conflicts in North, South, East, West, and Central Africa during the sixteenth to twentieth centuries, although for obvious historical reasons based on the Scramble for Africa, the mid- to late nineteenth century encompasses the bulk of the book. Southern Africa appears to have the widest coverage in number of conflicts and across the longest stretches of time. The great nineteenth-century colonial powers, England and France, as well as lesser players such as Germany, Belgium, Italy, and more are covered, as are early wars conducted by the Dutch and Portuguese.

There are over 360 entries comprising the conflicts, major figures, events, combatants, and other relevant topics related to the subject. Other features include a good index, including a list of conflicts by colonial power and African country or territory, which complements the list of entries and "Guide to Related Topics." Unfortunately, the work is sparsely illustrated and the chronology is not annotated (simply listing date and conflict title). The source material for the conflicts is biased toward the colonialists as the author notes, yet it still provides vivid accounts of events and endeavors to present the African perspective when source materials are available. Recommended for all college and university libraries.—*Brent D. Singleton, Coordinator for Reference Services, California State University, San Bernardino, California*

The Five Senses and Beyond: The Encyclopedia of Perception. Edited by Jennifer L. Hellier. Santa Barbara, CA: Greenwood, 2016. 496 p. Acid free $89 (ISBN 978-1-4408-3416-5). E-book available (978-1-4408-3417-2), call for pricing.

The 219 entries in this book are a limited, eclectic collection of common and uncommon terms, complex concepts, physical locations, medical diagnoses, and a few persons and associations related to some aspect of perception. These entries are not grouped into the five senses (sight, hearing, taste, smell, and touch), which would have been useful to those wanting to understand one of the senses. The only sense that has an entry titled with its common name is touch, though smell, sight, and hearing have "See" references in the index. "Taste Aversion," "Taste Bud," and "Taste System" are entry terms.

The "beyond" of the book's title refers not only to several persons and organizations, but to terms like "Membrane Potential: Depolarization and Hyperpolarization" (221–24), an entry which describes the chemistry and physics of how neurons transmit electrical signals down their axons without relating the process to any of the senses. "Hunger" (187) seems to be part of the "beyond" group. "Thirst" (406), also, included, may be confused by the brain with hunger, so it is part of perception.

Interspersed throughout this book are several activities to demonstrate some characteristic of a particular term. For example, accompanying the description of "Sensory Receptors" are the directions for "Neuron-Building with Clay" (359) using small balls of plasticine clay in four colors. The description of the "Parietal Lobe" includes a "Brain Cut-Out Hat Activity" (301) using the four patterns in the Appendix, which should be enlarged and photocopied onto a card, cut out, and taped into a hat to visualize brain geography.

"Homunculus" (182) has a separate entry that includes no reference to the mythical meaning and use of the word (182), other than its translation from Latin (little man). "Somatosensory Cortex" (363) and "Somatosensory System" (365) are also included, and with "Homunculus" are very closely related in describing the parts of the brain that recognize pain, touch, temperature, and spatial orientation. Sensory homunculus is described again in the "Somatosensory Cortex" entry.

Another oddity, among many, is "Noradrenaline/Norepinephrine" (261), which functions as a neurotransmitter and as a hormone. Though it is produced by the adrenal glands, the definition and discussion relates to norepinephrine being prescribed to treat low blood pressure. Its relationship to perception is only suggested by a list of side effects such as swelling of the face, lips, and tongue.

There are no illustrations of the parts of the eye or ear, though some of the structures do have entries. A "Saccule" (345) is one of the otoliths (ear stones) in the ear, which are required for balance. The other ololith is the utricle, which does not have an entry. The "Vestibular System" (431) entry includes both saccule and utricle. Only one of the four basic eye movements, "Saccades" 345), is described. The other three (smooth pursuit eye movements, vergence eye movements, and vestibulo-ocular reflex movements) did not have entries or places in the index.

The strangest entry is the "Mosquito Machine" (235), designed to discourage young people from congregating where they might vandalize because the fabricated sound of buzzing mosquitos annoys them while it does not annoy older people because they are unlikely to be physically able to hear the sound. There is concern that high-pitched sounds may be detrimental to children's hearing.

The entries appear to be accurate, especially those describing diseases, syndromes and sensory conditions. The "Further Reading" suggestions are mostly medical journals and medical textbooks which may not be readily available to those wanting to learn more about the relevant term. The index is very detailed. One would expect that fifty contributors would produce more than 219 entries, especially since the editor wrote or co-wrote many of the entries. This is an optional purchase for most libraries.—*Linda Loos Scarth, Cedar Rapids, Iowa*

Ghosts in Popular Culture and Legend. Edited by June Michele Pulliam and Anthony J. Fonesca. Santa Barbara, CA: Greenwood, 2016. 403 p. Acid free $89 (ISBN 978-4408-3490-5). E-book available (978-1-44083-491-2), call for pricing.

The co-editors are June Pulliam, who teaches classes in horror literature, YA fiction, and film, and Anthony Fonesca, who has written about horror and also has a background in information literacy. They previously co-authored *Hooked on Horror: A Guide to Reading Interests in the Genre*, and have now applied their talents and expertise to create a work that contains accessible information about a popular topic.

The helpful introduction orients the user to the fact that although the concept of ghosts originated in ancient times, it has morphed through the ages and remains a mainstay of most cultures. Although some cultures believe ghosts are monster-like creatures, there are also friendly ghosts like Casper and Topper.

I was afraid that I would not be able to sleep while reviewing this book, but I was wrong. I found myself carrying the book around and reading all the entries. This work engages the reader with 222 signed, accessible articles on specific authors like Ramsey Campbell and Peter Straub, folklore like Bloody Mary and pop culture references like *Ghostbusters* and Casper. Articles range in length from one to four and a half pages, supply basic information, and generally conclude with "see also" references. There is an unannotated bibliography.

It is difficult to find any work with the same scope. Matt Cardin's *Ghosts, Spirits, and Psychics: The Paranormal from Alchemy to Zombies* (ABC-CLIO, 2015) contains 121 articles but is focused mainly on paranormal phenomena, encounters, famous people, and institutions, like J. B. Rhine's extrasensory perception experiments at Duke University. Also, the articles in Pulliam and Fonseca's book are more scholarly and contain recommended sources for additional reading.

The topic of ghosts is very popular with teens, tweens, and adults. This work is appropriate for high school, community college, and public libraries. I recommend it highly.—*Dona J. Helmer, Librarian, Anchorage School District, Anchorage, Alaska*

Great Events in Religion: An Encyclopedia of Pivotal Events in Religious History. Edited by Florin Curta and Andrew Holt. Santa Barbara, CA: ABC-CLIO, 2017. 3 vols. Acid free $310 (ISBN 978-1-61069-565-7). E-book available (978-1-61069-566-4), call for pricing.

Designed to be comprehensive in its scope, this set covers major religious events from remote prehistory (ca. 60,000 BC) to the highly contemporaneous (AD 2014). Taken together, the editors have done an admirable job in choosing topics to cover and in compiling a highly readable, informative, and thought-provoking compilation. The first volume covers the period of prehistory to AD 600 and includes entries for topics as diverse as the first burials that indicate a belief in an afterlife found in Shanidar Cave, Iraq (ca. 60,000 BC), the discovery of the oldest human-made place of worship at Göbekli Tepe in modern Turkey (tenth millennium BC), the ritual use of alcohol (ca. third millennium BC), the founding of Buddhism (sixth to fourth centuries BC), the Roman conquest of Judaea in 63 BC, the conversion of Saul (Saint Paul) in AD 34, the Council of Chalcedon in AD 451, and the papacy of Gregory the Great (reigned AD 590–604). Volume 2 covers from AD 600 to 1450, thus encompassing the Middle Ages in the West, the rise of Islam in the Middle East, the growth of Christian monasticism, the crusades, the development of the first universities in Europe, and the lives of Joan of Arc and Jan Hus. The final volume covers from 1450 to the present, starting with the fall of Constantinople to the Ottoman Turks and ending with the rise of the Islamic State (ISIS, ISIL, or Daesh) in 2014. In between are articles on the Roman Inquisition (1542–present), Francis Xavier's mission to Japan (1549), Martin Luther and the start of the reformation (1517), the publication of the King James Bible (1611), the publication of the Book of Mormon (1830), the discovery of the Dead Sea Scrolls (1947), Vatican Council II (1962–65), and the Yom Kippur War (1973).

The almost 450 individual articles range from one to five pages in length and were written by over one hundred contributors, representing a wide variety of disciplines and many countries. Each entry includes "see also" references to related articles and a short bibliography of mainly recent works. The references are compiled into a comprehensive bibliography at the end of each volume, although a spot check revealed that some items from the individual entries did not make it into the bibliography. A comprehensive index for the set can be found at the end of the third volume. The index is an essential feature of the set since the entries are arranged in chronological order. Thus, to find entries on specific topics whose time frame is unknown, the reader must use the index. The reader must be cautious, however, since the index does display some quirks. For example, there is no cross reference from the entry on "Mohammad (prophet)" to the more expansive entry on "Muhammad (prophet, Muhammad ibn 'Abd Allah)." Each volume also provides an alphabetical list of entries, but this can be less than helpful since the entry titles often obscure the topic. For example, instead of an entry on the Book of Mormon, the entry is entitled, "Publication of the Book of Mormon."

Although many of the topics included in this set can readily be found in other resources, their compilation into such a handy, chronologically ordered format is compelling. Since the history of religion also mirrors history in general, this set will be extremely helpful especially for students in liberal arts colleges and seminaries and for those universities with specialties in history, the history of religion, and religious studies.—*Gregory A. Crawford, Interim Director, School of Humanities, Penn State Harrisburg, Middletown, Pennsylvania*

How Animals Think and Feel: An Introduction to Non-Human Psychology. By Ken Cheng. Santa Barbara, CA: Greenwood, 2016. 294 p. Acid free $46.40 (ISBN 978-1-4408-3714-2). E-book available (978-1-4408-3715-9), call for pricing.

This affordable single-volume work is the first book by Dr. Ken Cheng of McQuarie University, who has published many journal articles on animal behavior on a variety of species in the past thirty years. Cheng's experience as an accomplished researcher and professor is evident in his readable, well-researched, and entertaining writing. *How Animals Think and Feel* features nine chapters that focus on topics related to animal cognition and emotions. In addition, there are nine case studies of animals that reflect a diverse representation of animals, from jumping spiders to apes, with a concluding chapter putting human cognition and emotion into the context of animal behavior. A key feature of this book are the debates featured in some chapters featuring multiple researchers from universities across the world discussing topics as diverse as "How Important Is the Actual Information Conveyed through Animal Communication" to "What Is Special about Humans?". One of the strengths of *How Animals Think and Feel* is Cheng's ability to remain on topic while also acknowledging larger concerns, which is most evident in the chapter on honeybees, which provides the problematic context of the decreasing number of bees due to environmental issues, while spending most of the chapter on the social structure of bees and hives. Although it is clear in Cheng's writing that the topics are well researched, a weak point is the lack of extensive references, with only four pages of references included at the end of the book, and no references in-text.

How Animals Think and Feel is a positive addition to reference works related to animal behavior. *Animal Behavior: How and Why Animals Do the Things They Do* (ABC-CLIO, 2014), edited by Ken Yasukawa, is an excellent work covering all of animal behavior, and does not have the same focus on emotions and thinking. The *Encyclopedia of Animal Behavior* (Elsevier, 2010), edited by Michael Breed and Janice Moore, is an essential reference work on this topic, but is already in need of an update in this quickly evolving field. There are many recent positively reviewed monographs on animal emotion and thought. Virginia Morell's *Animal Wise: The Thoughts and Emotions of Our Fellow Creatures* (Crown, 2014) is an excellent book on this topic, but Morell's approach as a science writer differs from Dr. Cheng's approach, which is academic but accessible enough that a beginning undergraduate or high school student can easily understand his writing. Carl Safina's 2015 *Beyond Words: What Animals Think and Feel* (Henry Holt) is an excellent title that expertly covers the same content and focuses on elephants, whales, and wolves. Acclaimed biologist Frans de Waal's *Are We Smart Enough to Know How Smart Animals Are?* (Norton, 2016) is another excellent work worth adding to any animal behavior collection. There are many recent excellent books about the cognition and emotions of specific species of animals from birds to elephants to fish. All of the aforementioned books are excellent, and represent a growing academic field producing many recent high quality major works. Although *How Animals Think and Feel* does not add significant new information on these topics, this title could serve not only as a reference work but also as a well-developed introductory textbook, which makes this a good accessible addition for libraries owning other recent titles in this area. Recommended for high school and undergraduate libraries—*Shannon Pritting, Library Director, SUNY Polytechnic Institute, Utica, New York*

The Mongol Empire: A Historical Encyclopedia. Edited by Timothy May. Empires of the World. Santa Barbara, CA: ABC-CLIO, 2016. 2 vols. Acid free $198 (ISBN 978-1-61069-339-4). E-book available (978-61069-340-0), call for pricing.

Timothy May is a scholar and historian of the Mongol Empire, and currently is the Associate Dean of the College of Arts and Letters at the University of North Georgia. As the editor and main contributing author of the *The Mongol Empire: A Historical Encyclopedia*, it is his hope that this reference source "will lay a foundation for further investigation" (xiii). As he explains in the preface, "With an empire the size of the Mongol Empire, invariably something must be omitted. Two volumes are simply not enough to include everything that could be included" (xiii). That being said, May and the eighteen contributors did a remarkable job of addressing the broad and complex subject of Mongolian history from the twelfth through fifteenth centuries, and created an encyclopedia that is all-encompassing and full of very rich and interesting history.

The 192 entries are organized into eight topical sections. Volume 1 contains the "Government and Politics," "Organization and Administration," "Individuals," and "Groups and Organizations" sections; volume 2 includes "Key Events," "Military," "Objects and Artifacts," and "Key Places" sections. Each section provides an "Overview Essay," which introduces the topic and how it relates to the Mongol Empire, and the entries are arranged alphabetically under each section.

Each article is accompanied by "see also" cross-references that direct the reader to related topics in the encyclopedia and a short bibliography of suggestions for further reading. Both volumes include a comprehensive index and volume 2 contains a glossary and fifteen-page bibliography. Volume 2 also contains forty-eight brief primary documents spanning the thirteenth to fifteenth centuries, beginning with the Arab historian Ibn al-Athir's early-thirteenth-century report of the "Mongol Invasion of the Islamic World," and concluding with an "Account of the Battle of the Ugra River from the Nikonian Chronice (1480)." Fifteen of the primary documents are Marco Polo's descriptions of his travels to Mongolia in the thirteenth century.

The "Individuals" section highlights twenty-nine key figures who "demonstrate not only their own importance within the Mongol Empire but also how historians of the empire have emphasized them" (volume 1, 124). Five of the notable rulers or khans (Chagatai, Chinggis, Khubilai, Mongke, and Tolui) are represented, as well as four khatuns, or female nobility (Chabi, Doquz, Oghul Qaimish, and Orghina). Because this encyclopedia may be used by students who are just beginning their research on the Mongol Empire, a "see also" note about Chinggis Khan also being known as Genghis Khan would have been helpful to add in either the introduction where he is first mentioned or in the "Chinggis Khan" entry, and in the index.

Christopher P. Atwood's one-volume *Encyclopedia of Mongolia and the Mongol Empire* (Facts on File, 2004) is arranged like a standard encyclopedia with entries organized alphabetically. Atwood's source is larger in scope, covering some historical events and people through the twentieth century, yet does not provide as detailed a historical account as May's *The Mongol Empire: A Historical Encyclopedia*. May's encyclopedia would be a welcome and valuable addition to any academic library, especially those libraries which support Asian, Islamic, or Mongolian programs.—*Megan Coder, Associate Librarian, State University of New York at New Paltz*

People of Color in the United States: Contemporary Issues in Education, Work, Communities, Health, and Immigration. Edited by Kofi Lomotey, Pamela Braboy Jackson, Muna Adem, Paulina X. Ruf, Valire Carr Copeland, Alvaro Huerta, Norma Iglesias-Prieto, and Donathan L. Brown. Santa Barbara, CA: Greenwood, 2016. 4 vols. Acid free $319.20 (ISBN 978-1-6106-9854-2). E-book available (978-1-6106-9855-9), call for pricing.

People of Color in the United States: Contemporary Issues in Education, Work, Communities, Health, and Immigration is composed of four separately titled and individually edited volumes that follow a common organizing pattern for sale as a set: *Education: K–12 and Higher Education* (volume 1), *Employment, Housing, Family, and Community* (volume 2), *Health and Wellness* (volume 3), and *Immigration and Migration* (volume 4). Each volume opens with a listing of its contents. These consist of a "Guide to Related Topics," a "Preface," an "Introduction," "Essays" listed by title in alphabetical order, "Perspectives and Debate" (many of which pose a question that offers a pro and con response), "Recommended Resources," "About the Editors and Contributors," and a comprehensive "Index" to all four volumes.

The number of essays in each volume varies (47 in volume 1, 60 in volume 2, 56 in volume 3, 50 in volume 4) but each follows a uniform format. Essay titles are highlighted in bold face with sections and subsections set apart for easy identification. Each essay offers a "Conclusion" and a listing of "Further Readings." The latter includes recently published books, journal articles, dissertations, and web sites with date of access noted. Many essays are illustrated with black and white photographs or contain sidebars, tables, or charts with additional information. See also references to additional related topics are included and each article is signed by its author, either an academic or a graduate student, whose credentials are listed at the back of the volume in which it appears.

Articles focus on contemporary issues that affect people of color disproportionately, such as "Culturally Relevant Education" (1:68–74), "Social Media Activism against Racial Inequality" (2:305–12), "Health across Diverse Communities of Color" (3:149–59), and "Pathways to Citizenship" (4:259––7). Some topics, food deserts for example, are written about in more than one volume ("Food Deserts in Communities," 2:139–43; "Food Deserts and Health," 3:135–39). What time frame constitutes "contemporary" is not precisely stated, but articles appear largely to consider currency to date from the mid-1960s onward. Historical information is limited to amplifying, clarifying, or contextualizing a contemporary issue ("Guest Worker Programs," 4:156–61; "Resegregation of Schools," 1:301–7).

Nor does *People of Color in the United States* offer a clear unifying statement tying the set together as to who qualifies for inclusion as a person of color. Some essays explore the intersection between race and ethnicity ("Same-Sex Marriage and Race and Ethnicity," 2:291–99). Others focus entirely on ethnicity ("The Latino Health Paradox: Examining the Mexican American Experience," 3:202–9). Biracial and multiracial identity are addressed ("Multiracial Americans: Categories and Perceptions," 2:234–38; "Multiracial Identity in the United States Today," 2:238–44). Pigmentation may also be a consideration ("Colorism," 2:70–75; "Brazilians in the United States," 4:49, 52–53). Arabs, classified as white by the 1997 Office of Management and Budget's (OMB) revisions on race and ethnicity (https://nces.ed.gov/programs/handbook/data/pdf/Appendix_A.pdf), are included in one article ("Parent and Family Engagement in Education: Arab American Families," 1:233–34). but Arab American is not an indexed term.

What emerges is that most of the contemporary issues articles in these volumes address their impact on African American, Latino/a and Hispanic, and Native American communities. Inclusion of Asian Americans and Pacific Islanders is highly selective. Populations from the Indian subcontinent are not included at all. Readers looking for basic information about these and other populations that fall outside the OMB's definition of white will need to turn to the four-volume *Multicultural America: An Encyclopedia of the Newest Americans*, edited by Ronald H. Bayor and also published by Greenwood in 2011, or to the third edition of *The Gale Encyclopedia of Multicultural America*, edited by Thomas Riggs (Gale, Cengage Learning, 2014; Credo Reference, 2016). The former profiles populations arriving in the United States since passage of the 1965 Immigration and Nationality Act, many of whom fall into OMB's non-white groups; the latter emphasizes culture, customs, language, religion, historical background, settlement in the United States, and assimilation of immigrant and Native American tribal groups without regard to OMB classification. Unlike *People of Color in the United States*, neither of the aforementioned multicultural encyclopedias approaches their subjects through the lens of a specific issue or issues affecting one or multiple populations, opting instead for the traditional A–Z alphabetical-by-name organization pattern.

While one may quibble about a certain lack of clarity in defining what groups are considered to be persons of color, it is clear that *People of Color in the United States* provides a unique approach that shines a spotlight on contemporary issues affecting populations arguably among the most marginalized in the United States. Interest in the issues and populations addressed in the set's four volumes may be expected to grow; a second edition may soon be necessary. *People of Color in the United States* is recommended for high school, public, and academic library readership.—*Sally Moffitt, Reference Librarian and Bibliographer, Langsam Library, University of Cincinnati, Cincinnati, Ohio*

Same-Sex Marriage: A Reference Handbook, 2nd ed. By David E. Newton. Santa Barbara, CA: ABC-CLIO, 2016. 336 p. Acid free $60 (ISBN 978-1-4408-5049-1). E-book available (978-1-4408-5050-9), call for pricing.

This second edition of David E. Newton's handbook on same-sex marriage provides a useful introduction to the topic. including chronologies, statistics, legal documents, and biographical profiles of key players and organizations. When compared with the 2010 edition, it provides a much-needed update on an issue that has seen considerable political and social changes in recent years. While it could prove quite useful to general, high school, and early undergraduate audiences, more advanced researchers may find it to be too broad an overview.

The second edition of Newton's text has a slightly expanded and more organized global focus than the first, including data and statistics about same-sex marriage rates and public opinion about same-sex marriage from around the world. It also includes extensive coverage of *Obergefell v. Hodges*, the June 2015 Supreme Court decision legalizing same-sex marriage at the federal level. One unexpected change is the addition of a "Perspectives" section, which includes essays by activists and academics that speak to different aspects of the marriage issue. This section explores questions such as "Does gay marriage truly protect children?" and "What role does marriage play, if any, in the larger fight against oppression of LGBTQ people?" These may be useful vignettes for students looking to develop their own arguments around an aspect of same-sex marriage.

Some of the most comparable books to this one are topical monographs, which may be somewhat narrower in geographical or narrative focus but provide a similar level of detail and extensive bibliography. Pierceson's *Same-Sex Marriage in the United States: The Road to the Supreme Court* (Rowan & Littlefield 2013) is one fine example, though limited in coverage to the United States.

When compared with other reference sources, Chuck Stewart's *Proud Heritage: People, Issues, and Documents of the LGBT Experience* (ABC-CLIO 2014) provides more granular coverage of marriage laws and events at the state level, complete with primary documents, but is focused primarily on the United States. The *Greenwood Encyclopedia of LGBT Issues Worldwide* (2010) provides some coverage of marriage issues globally but lacks the data and documents found in Newton's volume. Raymond A. Smith's *The Politics of Sexuality: A Documentary and Reference Guide* (Greenwood 2010), which is not limited to same-sex couples, does a better job than Newton's handbook at contextualizing issues around same-sex partnership and legal recognition within the broader context of struggles for marriage equality, including interracial marriage. Joanne Myers's *Historical Dictionary of the Lesbian and Gay Liberation Movements* (Scarecrow 2013) provides just three pages of concise history of gay marriage in the dictionary itself and little overlapping coverage in its introduction.

The question that remains with topical handbooks such as this one is whether collocating biographies, chronologies, resources, and statistics on a single issue is as useful to researchers as consulting several well-researched monographs. For the reader who is entirely new to the topic, there is still value here, but others may be unlikely to consult such a source or find value in it should they do so. My only other complaint is that both the first and second editions of this book feature exclusively male couples on the cover art. There are so many beautiful portraits of LGBTQ people across the spectrum of gender identity marrying or fighting for marriage equality. It would be nice to see greater diversity there.—*Madeline Veitch, Research, Metadata, and Zine Librarian, State University of New York at New Paltz*

Talking Conflict: The Loaded Language of Genocide, Political Violence, Terrorism, and Warfare. By Anna M. Wittman. Santa Barbara, CA: ABC-CLIO, 2016. 386 p. Acid free $89 (ISBN 978-1-4408-3424-0). E-book available (978-1-4408-3425-7), call for pricing.

The language used to describe conflict situations, whether military, political, or personal, has the potential to help resolve or escalate. Terms such as "collateral damage," "ethnic cleansing," and "final solution" often refer to historical events, but can also be used to condemn or endorse particular points of view in political speeches, the media, and local debate. Euphemisms, oxymorons, propaganda, jargon: all come into play. The nuanced and powerful rhetoric of conflict is the topic of *Talking Conflict*, an interesting and wide-ranging encyclopedia discussing the impact of linguistics, political science, journalism, and other fields on the language of conflict.

Focusing on the twentieth and twenty-first centuries, this work's entries range from brief definitions to in-depth essays, depending on the topic. For example, the entry on "Freedom Fries, Liberty Cabbage, and Hot Dogs" is an interesting account of how American anti-German and anti-French sentiment during World War I prompted the renaming of popular foods (French fries, sauerkraut, and frankfurters). The entry on the Cold War, in contrast, discusses the post–World War II conflict between the Soviet Union and the United States in terms of not only historical events, but also the origin of the term in earlier history and literature. A further section on the Cold War's context in the arts and athletics reveals how the term has developed a life of its own far beyond its original meaning.

A list of alphabetical entries, thorough index listing main entries and brief mentions, and plentiful "see" and "see also" references help the reader navigate through often overlapping concepts and events. Each entry ends with useful suggestions for further reading, including encyclopedias, books, websites, and journal articles. The book's content, however, could perhaps have been usefully supplemented with illustrative material such as linguistic and historic timelines, maps of world conflicts, and photographs or other illustrations depicting specific historical events.

While perhaps not aimed at advanced researchers, the book's format, organization, and clear writing make it a useful addition for high school and undergraduate library collections. *Talking Conflict* is a fascinating, useful, and highly relevant resource that can be used profitably in introductory historical, linguistic, and general research projects and assignments.—*Jennifer A. Bartlett, Interim Associate Dean of*

Academic Affairs and Research, University of Kentucky Libraries, Lexington, Kentucky

The World of Ancient Egypt. By Peter Lacovara. Daily Life Encyclopedias. Santa Barbara, CA: Greenwood, 2017. 2 vols. Acid free $198 (ISBN 978-1-4408-4584-0). E-book available (978-1-6106-9229-8), call for pricing.

The World of Ancient Egypt (*WAE*) is part of the Daily Life Encyclopedias series, which explores different cultures, investigating their socio-historical context. *WAE* provides the reader with an ability to understand the historic background for specific topics in relation to life in ancient Egypt. While there are several reference works related to ancient Egypt, none provide analysis from a similar perspective.

WAE is broken up into ten topical sections: Arts, Economics and Work, Family and Gender, Fashion and Appearance, Food and Drink, Housing and Community, Politics and Warfare, Recreation and Social Customs, Religion and Beliefs, and Science and Technology. Each section has between twelve (Social Customs) and twenty-three (Arts) entries. The diversity of topics enables *WAE* to cover a variety of different facets of common life in ancient Egypt.

While the intended audiences of this resource are high school students, undergraduates, and non-specialists, the topics are specialized enough, making their use for high school level inquiries questionable, despite the relatively brief nature of the entries. However, where this work lacks in appeal to a younger audience, it more than compensates in its appeal to collegiate level inquiries. One example is the bibliographies occurring after each entry in *WAE*. While bibliographies are quite common in reference tools like *WAE*, some of the topics covered by *WAE* are rather obscure, making any connection to further resources vital for research inquiries. For example, one of the entries covers "Faience and Glass," providing an intriguing description of various glazed ceramic works and glass created and used by early Egyptians. The bibliography provided after this entry would be a gem to any individual pursuing research in this specialization.

Three particular elements stand out to make the article "Faience and Glass" a wonderful resource. First, this particular article has another article embedded into it. This article is entitled: "Faience Hippopotamus 'William.'" This article gives a specific example of faience, elaborating on how it was used in ancient Egyptian culture and religion. While not all articles have embedded content, their frequency makes them an incredible addendum to *WAE*. Secondly, all entries in *WAE* provide brief bibliographies. These brief bibliographies enable individuals desiring to pursue further research a great venue through which one can attain other resources. Third, each entry in *WAE* has a "see also" at the end, linking the reader to other resources in *WAE* that a reader may find helpful. These three features make *WAE* an incredibly helpful resource for anyone pursuing research in relation to ancient Egypt.

Volume 2 complements these excellent articles by providing primary documents on each of the topics covered. The primary documents provide full-text readings of some of the documents to which *WAE* makes reference. While not exhaustive, its inclusion provides a great venue for individuals to pursue further inquiry on their particular interest.

WAE also includes four excellent complementary appendices. The appendices touch upon topics such as the nomes of ancient Egypt, an outline of the history of archaeology in Egypt, major museum collections of ancient Egyptian art, and a list of ancient Egyptian kings. These appendices provide further information for individuals pursuing research in relation to ancient Egypt.

WAE provides an excellent starting point for undergraduate inquiry into areas of ancient Egyptian life. It is highly recommended for any academic library serving students who will inquire about this topic.—*Garrett B. Trott, Librarian, Corban University, Salem, Oregon*