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Special Issue: Trusted Information in an Age of Uncertainty

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Trusted Information in an Age of Uncertainty

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Public and academic libraries alike are facing a variety of challenges surrounding information, facts, and trust. These challenges arise from a societal shift that has been building over the half century since Richard Hofstadter published *Anti-Intellectualism in American Life in 1964*. Though scholars may disagree on the actual level of anti-intellectualism in the United States, there seems to be little doubt that many of our library users increasingly encounter opinion presented as fact, disturbing dismissals of science, and a lack of critical thinking on social media and in the news. Unfortunately, this disturbing trend also seems to be making an appearance in information available from formerly reliable sources. As this issue's editors, David A. Tyckoson and Nicolette Sosulski, noted in their proposal for a special issue of *RUSQ* on information trustworthiness, "Professional organizations, educational institutions, [and] government agencies have always been trustworthy providers of quality information. But now that we are living in a time when government speech is inhibited, and some agencies are removing or revising their own publications, where do we find accurate and authentic information?" The columns and articles in this special issue of *RUSQ* have all been selected by Dave and Nicolette or by the *RUSQ* column editors to reflect in some fashion on the topics of information, authority, and trust, especially in regard to government information. Librarians as information professionals have always sought to provide access to accurate and authoritative information. Now, we need to be at the forefront of ensuring not only that access is preserved, but also that information itself does not become lost in the culture wars.

This is not necessarily a new role for librarians or for libraries. In 1939, the American Library Association adopted the first version of the Library Bill of Rights. In the preamble to the Library Bill of Rights, the drafters pointed to the need for libraries to affirm their support for access to information in the face of "growing intolerance, suppression of free speech, and censorship affecting the rights of minorities and individuals."[1] The current version of the Library Bill of Rights reminds us that "libraries should cooperate with all persons and groups concerned with resisting abridgment of free expression and free access to ideas."[2] Not only do our institutional values direct us to resist limits on access to information, they are also an ethical imperative for us as librarians. The preamble to the ALA Code of Ethics notes, "In a political system grounded in an informed citizenry, we are members of a profession explicitly committed to intellectual

freedom and the freedom of access to information. We have a special obligation to ensure the free flow of information and ideas to present and future generations."[3]

Our hope is that this special issue of *RUSQ* begins a dialog on how libraries and librarians can best navigate these challenging and contentious issues and continue to provide our users with trusted information in an age of uncertainty.

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Librarians as Target

Chris LeBeau

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I have noticed lately that I am experiencing both internal and external challenges to my profession. There are days that I feel wedged between doubters on the inside and antagonists on the outside. This makes me pause and reflect. So, reflect I will.

I am a library science (LIS) educator, and, as such, I encounter students new to the program who are working paraprofessionals in their local libraries. Some, in fact, have held these jobs for a number of years before deciding to seek a professional degree. Early in the program, they question the need for the professional library science degree. As far as they are concerned, their libraries run efficiently, jobs are clearly defined, and everyone knows the weekly routines. What more is there to know? I am certain many library science educators encounter these questions and are ready with their rationale and refrains. The prescription sounds something like this: take the management course, the copyright course, the intellectual freedom course, the digital libraries course, the metadata course, seven other courses, and come see me in three semesters. We'll talk some more about the necessity of the degree. (Rest assured, I jest a bit.)

Students' greater familiarity with the library environment is often what prompts the question and what makes teaching library science challenging. Some students are doing professional level work due to inadequate staffing. We have seen this practice for decades. Educators are required to up their game in order to take students to the next level. At the same time, classes contain students new to the profession who have never worked in libraries. Instructors must balance the course with enough advanced content for those who need it while not losing the novices along the way.

So, just as we are getting students settled about the profession, along comes one of those articles. You know, the ones that come at us from outside the profession from sources like *USA Today*. These articles have titles like, "8 Jobs That Won't Exist in 2030" and "America's 25 Dying Industries."[1] These stories are sourced from other content services like *The Job Network* and *24/7 Wall St*. Unfortunately, the *24/7 Wall St.* researchers did not realize their data from the Bureau of Labor Statistics (BLS) was incomplete. The BLS chose not to publicly disclose certain state, local, and private data due to a standards issue.[2] A correction few people will ever see was issued at the bottom of a revision of the *24/7 Wall St.* article on Jan 4, 2018. Michael Hoon's article, "8 Jobs That Won't Exist in 2030" from *The Job Network* and republished in *USA Today*, lists *librarian* as the number one job fated for oblivion. Since this article will not appear until several months after Hoon's October piece, I will refresh readers with some of his text:

> More and more people are clearing out those paperbacks and downloading e-books on their Tablets and Kindles instead. The same goes for borrowing—as books fall out of favor, libraries are not as popular as they once were. That means you'll have a tough time finding a job if you decide to become a librarian. Many schools and universities are already moving their libraries off the shelves and onto the Internet.[3]

The last thing LIS educators need—and the last thing the profession needs—is misleading and ill-informed articles like this. Hoon writes about the workplace, ways to identify and avoid bad bosses, résumé tips, and other appealing articles—the kind of articles one cannot resist reading. The fact that Hoon lumps our profession into a list of fading jobs that includes paperboy, cashier, and receptionist leaves librarians just short of irate (with all due respect to paper boys, cashiers, and receptionists).

I had to think long and hard about the common thread among these jobs. The closest I can come is that both paper boys and librarians distribute reading material, both cashiers and library workers check out "products" to customers, and both receptionists and librarians smile and help direct people, but I remain baffled by this list.

At least in the *24/7 Wall St.* article, Stebbens and Comen credit their research to the Bureau of Labor Statistics. To the librarian in all of us, the lack of sources for Hoon's claim about the trajectory of our profession, and the lack of any explanation as to why these occupations were chosen, is just irresponsible. Understandable, certainly. These attention-grabber stories are created as hooks to draw the reader's attention to advertisements. Blurbs like Hoon's are far from journalism. The irony is not lost on me that Hoon's "article" is distributed by libraries to their audiences though library databases, although it is hard to find now. The blurb also was available on the web for free if one can manage to read it through the darting videos, pop-up ads, and general screen clutter.

The double irony is that I promote the press. I support news organizations. I believe in the work our best journalists do. So, it is disappointing when newspapers run poorly researched, attention-seeking blurbs disguised as news stories. I would not classify this as fake news; rather it is just hastily compiled misinformation. Thoughtless misinformation like this is harmful to the entire profession, to prospective students attempting to make career choices, and to the public, which then formulates false notions about libraries. It is disheartening when a news organization with enormous reach uses the platform to spread misinformation.

Here we have a good lesson in critical thinking and looking at the evidence, which I hope everyone in the field will do. Syracuse University iSchool students Samantha Mairson and Allison Keough quickly responded with an excellent rebuttal to Hoon's "article."[4] I applaud their quick response. The students examined the Library Research Service and the Pew Center reports which provide good evidence for a positive projection for the profession. Let us look at more evidence. The *Occupational Outlook Handbook*'s essay on librarianship says

> employment of librarians is projected to grow 9 percent from 2016 to 2026, about as fast as the average for all occupations. Communities are increasingly turning to libraries for a variety of services and activities. Therefore, there will be a continuous need for librarians to manage libraries and help patrons find information.[5]

Dietmar Wolfram, president of the Association for Library and Information Science Education (ALISE), also came out with a quick rebuttal published in *USA Today* on November 6, 2017. The letter, written on behalf of the ALISE board, appealed to the public, saying Hoon's "article demonstrates a lack of understanding of librarians' work."[6] Unfortunately, *USA Today* chose to publish only a small portion of the letter, but it lives on the ALISE website in its entirety.[7]

All this begs the question about the journalists' profession. How is it that *journalist* failed to make the list of Hoon's doomed professions? *Indeed*'s blog on journalists reports, "For now, however, it is undeniable that the economics of the profession make it difficult for highly skilled, highly trained professionals to sustain a career."[8] The *Occupational Outlook Handbook* also had this to say about journalism:

> Overall employment of reporters, correspondents, and broadcast news analysts is projected to decline 10 percent from 2016 to 2026. Declining advertising revenue in radio, newspapers, and television will have a negative impact on employment growth for these occupations.[9]

Hoon's list appears to be cherry picking.

But back to our valiant students, Samantha and Allison. The students ask, "Why are librarians a target?" and "Why do librarians *still* have a bad reputation?"[10] They reflect a Rodney Dangerfield mindset. These are interesting questions from the new generation of students.

The students may be on target with their question. Librarians are a bit of a target, and an easy one at that. Or might we think of ourselves as a subject of interest? We should welcome those outside the profession who put us in their sight rather than ignore us. Being a subject of interest demands that libraries shine in that spotlight. Our services must be transparent, highly visible, and comprehensible. Our efforts and initiatives with digital collections, maker spaces, literacy programs, services for seniors, financial literacy, computer training, analytics, and all of our other services must be actively marketed. We have suffered too long under a cloud of misunderstanding about what we do.

Decades ago when I told a relative I was earning a degree in library science, she smiled and said, "oh that's so nice, you're going to check out books." Six years ago, I spent an

hour verbally sparring with a 90 year-old family friend who said I could not be a "real" librarian because everything I did was on the computer. (We actually enjoyed the debate). "Real" librarians deal with tangible books, apparently. Hoon made the same mistake. Even today, my neighbor does not understand why I spend time at the university business school working with students. What could a librarian have to offer to business students? This is one of the dilemmas of knowledge work. No one outside the circle understands the nature of the work. No wonder we are easy targets for misconstrued perceptions.

In November I had a phone call from a *Wall Street Journal* reporter. This was music to my ears. He was writing an article about reference librarians. While my mind jumped for joy, my sixth sense sent up flares. The reporter, James Hagerty, was intent on knowing the number of reference librarians in the United States. I suddenly realized that I did not have an answer, but took heart in the fact that the question was more complicated than it seemed at first glance. We spent twenty minutes talking about the impact of the web on librarianship. I spoke at length about the way reference has been transformed, explaining the many flavors of "reference" work today. There was little response from the other end of the line, no sense of surprise, no follow-up questions, no sense of intrigue. I thought that maybe I had foiled his story line. The plot was predictable: who needs reference librarians now that we can find everything on the web?

But James Hagerty surprised me and wrote quite a different piece: "Google Shmoogle: Reference Librarians Are Busier Than Ever."[11] The focus of the article was on traditional reference, but it was not the negative piece I feared. I also take heart in a *Forbes* web article from 2014, "The End of the Story? Why Libraries Still Matter."[12] This article highlights the advances libraries have made:

> Public libraries remain a cultural touchstone and vital part of American society. One reason for this is that many librarians have found creative ways to anticipate and meet shifting user preferences—and that includes embracing the very technology that some believe is threatening their future.[13]

In all fairness to *USA Today*, the newspaper had run a better article by Greg Toppo in June 2014 on libraries' adopting new services.[14]

I return to the questions posed by Samantha and Allison, "Why do librarians *still* have a bad reputation?"[15] Hans Prins and Wilco de Geir studied this question in 1992 and stated, "No other group of professionals seems to pay as much attention to its status and image as librarians."[16] If we do not want to admit to a bad reputation, we certainly can admit to a stereotype. But is not society full of stereotypical images of workers? Consider accountants, philosophy professors, scientists, cheerleaders, construction workers, Hollywood tycoons, and so on. I have always subscribed to the notion that a reputation is earned, if the layperson continues not to understand the work we do, we will continue to struggle with our reputation. We also live in a society that respects service workers, but does not reward them well. Prestige follows reward.

The way forward calls us to keep doing what we do well. We are in a knowledge and service profession that needs librarians with all kinds of specialized knowledge and skills. The field needs people talented at communications, marketing, research, archival practice, medicine, business, reading, literacy, education, assessment, systems, programming, GIS, digitization, budgeting, law, data management, statistics, cultural studies, and public administration—to name just a few areas. I am impressed with students applying to library science programs. They come to our programs with law degrees, PhDs, degrees in education and social work, computer programming skills, and marketing experience. In an age in which societal ecosystems are increasingly complex and work has become highly specialized, LIS students need to come equipped with a variety of talents to take libraries to the next level and to help the profession earn the reputation it deserves.

Librarians should take heart that we are a subject of interest. It is an opportunity to showcase our service, collections, and knowledge. Moreover, since we seem to be a subject of interest, we need to read this as an invitation to be more proactive in promoting the knowledgeable and beneficial work we all do for our communities. And we need to correct the record when we are misunderstood.

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Trustworthiness: What Are We Teaching?

Esther Grassian

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What does trustworthiness mean? Can you think of an important part of your life that does not involve trust of some kind, personal or professional? Trustworthiness touches all of us in our personal and professional lives, from individual relationships to leadership and publication at all levels, including government, science, medicine, and history. The column below explores the topic of teaching about trustworthy information by analyzing results of a survey, and it offers some advice for the future.

> *Love all, trust a few. Do wrong to none.*
> —William Shakespeare (1564–1616),
> *All's Well That Ends Well*, act 1, scene 1

Is the concept of trustworthiness new? The Oxford English Dictionary dates the first use of trust in English to 1225 and trustworthiness to 1662.[1] Trustworthiness takes many forms, as does proof of whether or not something or someone deserves our trust. We license, certificate, credential, elect, and grant degrees to people who meet specified criteria, some more rigorous than others. As methods of communication have expanded, we have seen an enormous increase in first-hand reports (textual and visual) and opinions (signed and anonymous) in addition to more traditional reporting and documentation. We highly value trustworthiness in people, in government,[2] and in "objects," virtual and physical. Yet, a recent Pew study found that trust in government declined from a high of 72 percent in 1990 to a low of 36 percent in 2016. Between 1973 and 2016, trust in the Supreme Court declined from 45 percent to 36 percent, trust in public schools declined from 58 percent to 30 percent, and trust in "media" (newspapers and television news) declined from a combined 39 percent to 21 percent for newspapers and 20 percent for television news. These Pew survey results indicate a steep decline in trust in various entities for a range of 64 to 80 percent of respondents.[3]

So, what do they trust, and where do librarians fit in this realm of increasingly strongly held opposing views, now that those views can be broadcast widely, with or without supporting, verifiable evidence? We currently read and hear much discussion of "fake news" among the general public, as well as among journalists, scholars, and researchers.[4] Some ask quite rightly if it is fake news or just news one does not agree with or does not like. Librarians have been helping people learn to think critically about information and its sources for many decades, and welcome this raised consciousness. A March 2017 *Strategic Library* article points out that for academic libraries, the current situation represents

"an opportunity and responsibility for librarians to assume a leadership role as trained information professionals in providing relevant information literacy instruction to students and to develop . . . collaborative partnerships with the teaching faculty across the disciplines." The author goes on to say that "public and special librarians assume the same role in their communities and organizations respectively. . . . While satirical and inaccurate news have always existed . . . the use and discussion of fake news has put the need for information literacy skills for all—and for the librarians educated and trained to provide this important education—in the spotlight."[5] Indeed, public libraries increasingly offer seminars, classes, and workshops related to the issue of fake news.[6]

A Google Forms survey was posted to a number of Listservs from July 3 to August 3, 2017, as well as a RUSA weekly e-mail. The survey aimed to determine what librarians in all types of libraries are teaching about trustworthy information, how they assess the effectiveness of this instruction, and which tips and techniques work well for this type of instruction. The data was exported to an Excel spreadsheet and analyzed by the author of this column, who created a separate document listing the teaching tips and techniques suggested by respondents and another document listing the websites utilized by the respondents in teaching. The spreadsheet and supplementary documents are available on the RUSQ website: https://journals.ala.org/index.php/rusq/article/view/6598.

The survey drew eighty-one responses, largely from academic librarians, but also from public librarians and a few school and special librarians. Close to half of the total number of respondents (thirty-nine, or 48 percent) indicated they have been helping people learn about trustworthy information for ten or more years, with almost another third (twenty-four, or 30 percent) doing so for four to nine years. Following are some collated and individual examples of responses to this survey.

RESPONDENTS

Academic libraries made up the majority of survey respondents' institutions, at sixty-four respondents (79 percent), with thirteen respondents from public libraries (16 percent), and just two respondents each from school libraries (2 percent) and special libraries (2 percent). See table 1.

These figures may reflect the fact that librarians in academic libraries have been helping students, staff, and faculty learn about trustworthy information for many decades, while public libraries have entered this arena of teaching and learning more recently.

NEEDS ASSESSMENT

How do librarians decide what to teach, particularly in relation to trustworthy information? Many survey respondents who help people learn about trustworthy information rely on reactive forms of needs assessment to determine what their users would like to learn. These types of needs assessment include:

- reference queries: 45 (56 percent)
- informal outreach: 45 (56 percent)
- user requests: 29 (36 percent)
- teacher/faculty requests: 7 (9 percent)

Some proactively conduct formal needs assessments to find out what their users want to learn (thirteen, or 16 percent). This means they may distribute surveys asking people about their interests in various possible topics that may be addressed through instruction of some kind.

Table 1. Respondents: Types of Libraries

Type of Library	No. of Respondents	% of Total Respondents
Academic Libraries	64	79
Two-Year Colleges	19	23
Four-Year Colleges	21	26
Research Universities	24	30
Public Libraries	13	16
School Libraries	2	2
Special Libraries	2	2

TEACHING CONTENT

Exactly what do librarians teach regarding trustworthy information? The vast majority of survey respondents across types of libraries help people learn how to evaluate websites (seventy-four, or 91 percent). Sixty-three (78 percent) of total survey respondents help people learn how to evaluate periodical articles, and an almost equal number help people learn how to distinguish among different domains, such as .com, .edu and .gov (sixty-one, or 75 percent). Forty-eight respondents (59 percent) help users learn how to evaluate books, and a much smaller percentage help people learn how to evaluate social media, such as Facebook and Twitter (forty, or 49 percent). A breakdown of these responses by type of library, as indicated in the table below, reveals that research universities and public libraries lead in helping people learn to evaluate social media. For public libraries, "fake news" classes may be an important way they are expanding beyond computer literacy for the general public, given the current interest in this topic. All types of libraries should probably focus more on evaluating social media, given the fact that according to a recent Pew survey, "67% of Americans . . . get at least some of their news on social media—with two-in-ten doing so often."[7]

Table 2. Survey question 4. What do you include in the content of instruction on trustworthiness of information? (Select all that apply.)

Content	All Academic Libraries (64)	Two-Year Colleges (19)	Four-Year Colleges (21)	Research Universities (24)	Public Libraries (13)	School Libraries (2)	Special Libraries (2)
Evaluating Websites	59 (92%)	18 (95%)	17 (81%)	24 (100%)	11 (85%)	2 (100%)	1 (50%)
Evaluating Periodical (Magazine, Journal, Newspaper) Articles	53 (83%)	15 (79%)	15 (71%)	24 (100%)	6 (46%)	1 (50%)	1 (50%)
Distinguishing Among Different Internet Domains (e.g., .com, .edu, .gov)	49 (77%)	16 (84%)	13 (62%)	20 (83%)	8 (62%)	2 (100%)	1 (50%)
Evaluating Books	43 (67%)	13 (68%)	13 (62%)	17 (71%)	5 (38%)	0	0
Evaluating Social Media (e.g., Facebook, Twitter)	30 (47%)	9 (47%)	7 (33%)	15 (63%)	7 (54%)	1 (50%)	1 (50%)

Note: Percentages are of survey respondents from each type of library.

INSTRUCTION METHODS

In what ways do librarians offer instruction about trustworthy information? Eight-five percent of respondents, a large majority, help people learn about this topic at the reference desk, with another 52 percent helping people learn about it through chat reference. Given the majority of academic library respondents, it is not surprising that many of the total number of respondents help people learn about this topic through "one-shots" (guest sessions) for credit courses (72 percent) and through credit courses taught by librarians (46 percent). Sixty percent offer this kind of help through LibGuides or websites, while 47 percent offer one-time standalone classes or workshops.

Table 3 below provides more detailed information regarding the instructional methods utilized by the respondents.[8]

ASSESSMENT

More than half of total survey respondents (53 percent) ask learners to complete user satisfaction assessment forms in order to find out about the effectiveness of their instruction, while a smaller number of respondents (thirty-four, or 42 percent) use learning assessment for the same purpose. Although self-reports can be useful in determining attitudes,[9] they can be notoriously inaccurate in measuring actual learning.[10] This points to the need for more learning assessment to determine the effectiveness of instruction, at least on a short-term basis. Research may be needed to determine the extent of long-term retention of instruction, as opposed to "vaccination" regarding the ability to determine trustworthy information via a single workshop, class, or one-time guest lecture. However, a number of respondents did report on the effectiveness of their instruction.

MOST EFFECTIVE TEACHING/LEARNING METHODS (FROM ASSESSMENT DATA)

Almost three-quarters of total survey respondents (sixty, or 74 percent) answered a question regarding which of their instruction methods is most effective, on the basis of their own assessment data results. Of those sixty responses, in-person instruction of various kinds garnered almost half (twenty-nine, or 48 percent). In-person instruction responses consisted of one-shots for credit courses (nineteen, or 32 percent), in-person reference (four, or 7 percent), and other forms of in-person instruction, including programs (six, or 10 percent). Some also responded with credit courses (seven, or 12 percent) and noncredit classes or workshops (two, or 3 percent). Online tutorials, LibGuides, and handouts received just one response each (2 percent). Interestingly, twenty-three of the sixty responses (38 percent) consisted of "N/A" or "don't know" or miscellaneous comments that did not indicate assessment data collection or analysis. These responses indicate that assessment of the effectiveness of all types of instruction needs more attention, as each form of instruction requires time and effort on the part of librarians, as well as other library staff.

TIPS AND TECHNIQUES

Many respondents generously offered a variety of tips and techniques for helping people learn about trustworthy information. Their advice falls primarily into the categories of active learning, the use of real-world examples, and collaborating with instructors, along with connecting to course or assignment goals. Some representative examples of each of these categories follow. Keep in mind that their effectiveness may vary depending on the age, educational level, interests, and skill level of the audience but that each may be adapted for different audiences in different types of libraries.

Table 3. Types of Instruction

Instructional Method	Total Respondents (81 = 100%)	All Academic Libraries (64 = 79%)	Two-Year Colleges (19 = 23%)	Four-Year Colleges (21 = 26%)	Research Universities (24 = 30%)	Public Libraries (13 = 16%)	School Libraries (2 = 2%)	Special Libraries (2 = 2%)
Reference Desk	69 (85%)	54 (67%)	17 (21%)	14 (17%)	23 (28%)	12 (15%)	1 (1%)	2 (2%)
Chat Reference	42 (52%)	36 (44%)	12 (15%)	10 (12%)	14 (17%)	6 (7%)	0	0
Credit Courses	37 (46%)	37 (46%)	12 (15%)	10 (12%)	15 (19%)	0	0	0
Exhibits	15 (19%)	12 (15%)	4 (5%)	3 (4%)	5 (6%)	2 (2%)	0	1 (1%)
Flyers or Posters	28 (35%)	25 (31%)	13 (16%)	5 (6%)	7 (9%)	3 (4%)	0	0
LibGuides or Websites	55 (68%)	49 (60%)	13 (16%)	13 (16%)	23 (28%)	5 (6%)	1 (1%)	0
One-Shots for Credit Courses	62 (77%)	58 (72%)	17 (21%)	18 (22%)	23 (28%)	2 (2%)	1 (1%)	1 (1%)
One-Time Classes or Workshops	43 (53%)	38 (47%)	13 (16%)	8 (10%)	17 (21%)	5 (6%)	0	0
Online Tutorials	34 (82%)	33 (41%)	9 (11%)	8 (10%)	16 (20%)	1 (1%)	0	0
Online Checklists	21 (26%)	21 (26%)	7 (9%)	4 (5%)	10 (12%)	0	0	
Printed Handouts or Guides	41 (51%)	34 (42%)	13 (16%)	9 (11%)	12 (15%)	6 (7%)	0	1 (1%)
Programs	23 (28%)	16 (20%)	3 (4%)	6 (7%)	7 (9%)	6 (7%)	1 (1%)	0
Social Media Posts	22 (27%)	18 (22%)	6 (7%)	4 (5%)	8 (10%)	3 (4%)	0	1 (1%)
Videos	23 (28%)	22 (27%)	5 (6%)	6 (7%)	11 (14%)	1 (1%)	0	0

Note: Percentages in the table refer to the total number of respondents: $n = 81$.

(See a complete list of tips and techniques suggested by respondents: https://journals.ala.org/index.php/rusq/article/view/6598.)

Active Learning

- "Hands-on exercises work best! For my for-credit courses, I like to give the class two websites (one good and one bad), then do a jigsaw by splitting the class up into groups and assign them each a separate evaluative question to ask about the sites. Then the class comes together and presents on what their findings were about each question, and the class votes together on which site would be the most trustworthy. I find that this really helps them feel more confident about choosing sources."
- "I like to have students find examples of good and bad info on their topic before the session and then present it and explain how they determined the info was good or bad."
- "Provide specific examples for students to evaluate on their own and have them explain why they would trust the information."
- "Ask the students questions instead of 'telling them.' For instance, if you ask them what is the difference between Google and Yahoo, they usually have no clue. This helps them to understand they may not know everything about information."
- "Make it a student-centered discussion rather than a lecture."
- "Personal engagement and answering the immediate question work best, but have a good, concise document (like a bookmark or handout) to give out for when the patron/student has more questions."
- "Remember that evaluating sources is a developmental process and checklists can be overwhelming. Tapping into a user's knowledge of rhetorical situations, even if not formally understood, gives them something to hang their hat on."
- "Teach students to recognize passionate words; have students connect source to assignment (seem to get better sources if asked to justify the choice)."
- "Focus on AUTHORSHIP (source of content—slightly different than 'authority') and EVIDENCE (what proof is offered to back up claims in a source, e.g., quotes from experts, personal testimony, summary of outside research, full citations of prior research, methodology of new study, etc.)."

Use of Real-World Examples

- "I focus on 'fake news' a lot and have tried to emphasize lots of things about it to students, most importantly that there is a difference between 'fake news' and 'news that

makes a person unhappy'—it seems obvious sometimes, but it's surprising how many students haven't necessarily made that connection."
- "Relate to something that students already do, such as assessing sellers on eBay/Amazon for their reputation (reviews). Stress that they need to do the same level of assessment for information that they will be using for research or in their professional field, using to make or recommend decisions to their boss or team."
- "Use examples drawn for [*sic*] the reference interview or deal with crime (the user as detective)."
- "Developing context by teaching them about searching in conjunction with evaluation is key; they can't differentiate unless they've seen more reliable sources."
- "Keep it simple and provide concrete examples."

Collaboration with Instructors (Primarily in School and Academic Library Settings)

- "Faculty buy in, especially with expectations."
- "Collaborate with the instructor of record: learn about the course beforehand and tie [the] session goals to course goals."

WHERE DO WE GO FROM HERE?

Though in writing the use of the word propaganda dates back to 1822,[11] the topic of trustworthy information now occupies a prominent position in news media and in the minds of many among the general public, much more so than at any other time in recent memory. Fake news and information manipulation shock our sensibilities repeatedly. This is partly due to the fact that many are handicapped by news "silos" and the personalization of "news" perpetuated by social media algorithms that feed news supporting a particular point of view held by the viewer.[12] For these reasons, some wonder how they can determine whether or not the news and information they encounter is reliable as they try to understand the world around them—especially if it conflicts with news and facts beyond their own silos. On the positive side, however, public consciousness seems higher than ever before regarding the need to fact-check and weigh divergent views.

Given the present circumstances, and the generally short duration of public attention to issues like this, how can we capitalize on the current situation to help people learn how to think critically about information of all kinds? Scholars, faculty, and researchers delve deeply into their broad disciplines and their focused areas of expertise. Librarians, on the other hand, learn about a broad array of information tools and resources for many different disciplines, including who develops them, how they work, how they compare to other information tools and resources, and why they exist. We seek to help people of all ages and educational backgrounds learn this kind of general, broad-based information evaluation: how to pose questions about information and its sources, and how to look for clues to the answers. How can librarians further this process?

As the results of this survey indicate, many librarians have been trying to help people learn about trustworthy information for years, the vast majority (sixty-three, or 78 percent) for anywhere from four to ten or more years. Recently, librarians have developed a number of LibGuides and have offered an increasing number of workshops and classes related to the topic of trustworthy information. However, given the current environment of raised consciousness regarding fake news, librarians in all types of libraries need to expand their teaching and learning to include evaluation of social media, and we need to do more to assess learning as a result of our instruction. How can we do this efficiently and effectively? We can help each other.

Regardless of their type of library, some respondents to this survey very importantly suggested reaching out to work with and learn from others in this worthy teaching and learning endeavor. Comments included: "Review LibGuides from other institutions, reach out to other instruction librarians," "Build network of public, school, academic colleagues to educate," and "I need advice on this myself!" This column makes a first attempt to reach out across types of libraries to share and provide ideas, support, and encouragement to those new to teaching about trustworthy information, or those wanting new approaches to helping people of many ages and educational levels learn about trustworthy information—for, in spite of all of the worthy efforts of librarians over the years, information literacy instruction, including teaching about trustworthy information, reaches limited numbers of students and the general public. To expand efforts to meet this dire need for ways to deal with the flood of information—fake and true—a next step could be to formalize outreach efforts regarding instruction across types of libraries through data sharing, instructional observations, and mentoring programs. Let us help each other help all of our communities!

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Marketing Libraries in an Era of "Fake News"

Nicole Eva and Erin Shea

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In keeping with this month's theme of trustworthy information, the editors of this column have written about the ways that libraries have capitalized on the currency of this topic to market themselves and their information literacy programs.—*Editors*

As evidenced by the theme of this issue, "fake news" is the topic du jour. And while it's not a good news story for the world in general, it's presenting a great opportunity for libraries to show their worth. The heightened awareness of the need for information literacy—media literacy, digital literacy, and all the other literacies associated with it—is a wonderful opportunity for libraries to show that they are as relevant and important today as they ever were, perhaps even more so.

This has been a particularly opportune time for academic libraries, who have been peddling the importance of information literacy for years, with varying levels of success. Those of us working in academic libraries already know that students aren't masters of discerning good information from bad, especially as information becomes more and more ubiquitous and instantaneous. But with the general public's inability to distinguish between true and false facts under scrutiny of late, our message that we need to educate our students in information literacy is being met with more reception. This comes not just on the heels of the 2016 US election, but it has been increasing in the last few years with the growing popularity of social media and alternative forms of news gathering. The more places one can get information, the more chances there are that you can get that information from an untrustworthy source, and the more overwhelming it becomes to sort through it all.

Librarians are trained to question even the most reputable of sources. A memorable assignment from library school asked me to fact check an obituary. I chose a random obituary from several decades ago and fact checked it using genealogical databases, *Who's Who in America*, and other news articles of the time. I was excited to realize that the *New York Times* actually reported the deceased's age incorrectly. He was a few months away from turning the age listed in the headline when he died. I had found a mistake in the *Times*! This was my first important lesson that even publications that strive to report accurate and unbiased information sometimes get it wrong. For further proof, just check out the *New York Times Corrections*, which lists recently corrected articles regularly.[1]

Several academic institutions have capitalized on the fake-news trend, using the sudden spotlight to their advantage.

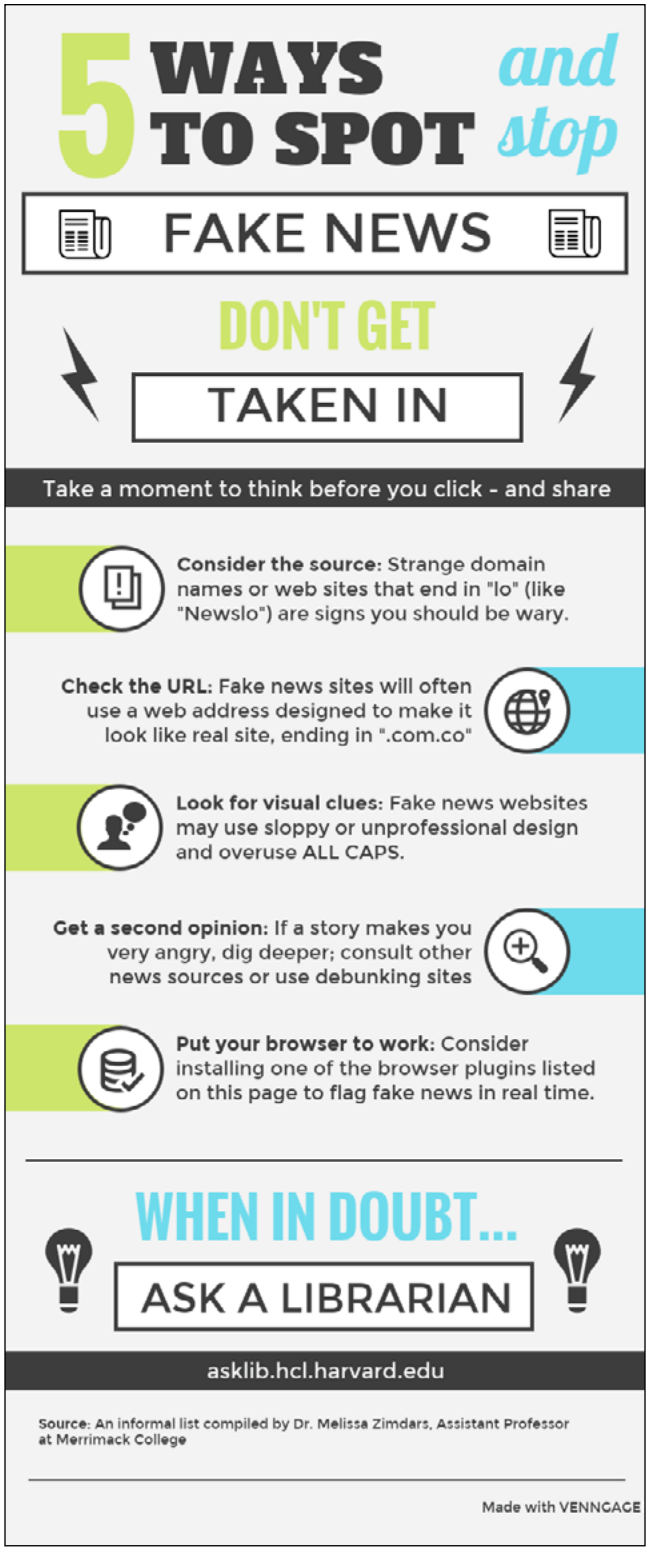

Figure 1. Infographic from Harvard's "Fake News, Misinformation, and Propaganda Guide," http://guides.library.harvard.edu/fake.

Harvard Library has created a research guide on "Fake News, Misinformation, and Propaganda" (http://guides.library.harvard.edu/fake) that links to academic articles on the topic,

Figure 2. IFLA's "How to Spot Fake News" infographic, https://www.ifla.org/publications/node/11174.

lists fact-checking resources, and features an eye-catching infographic (see figure 1). The University of Toronto Libraries also features a page on their website, "How Do I Spot Fake News?" (https://onesearch.library.utoronto.ca/faq/how-do-i-spot-fake-news) that contains tips to recognize incredible news sources and ways to verify them, as well as links to other articles on the topic. It also features a very useful infographic developed by the International Federation of Library Associations and Institutions (IFLA), which provides both JPG and PDF versions of the graphic in dozens of languages (see figure 2). The examples are endless; libraries all over are using the currency of the topic to speak to their communities (see figure 3). Even vendors are getting in on the trend. In January 2017, ProQuest wrote a blog post titled "The Library's Role in a 'Post-truth,' 'Fake News' Era" (http://www.proquest.com/blog/pqblog/2017/The-librarys-role-in-a-post-truth-fake-news-era.html) featuring the results of a survey they conducted in 2016, the results of which were published in a white paper, "Toward an Information Literate Society" (http://media2.proquest.com/documents/surveyresults-informationliteracy-2016.pdf).[2]

In fact, some institutions are even offering credit-bearing classes on the subject. The University of Michigan Library debuted a one-credit course, Fake News, Lies, and Propaganda: How to Sort Fact from Fiction in fall 2017.[3]

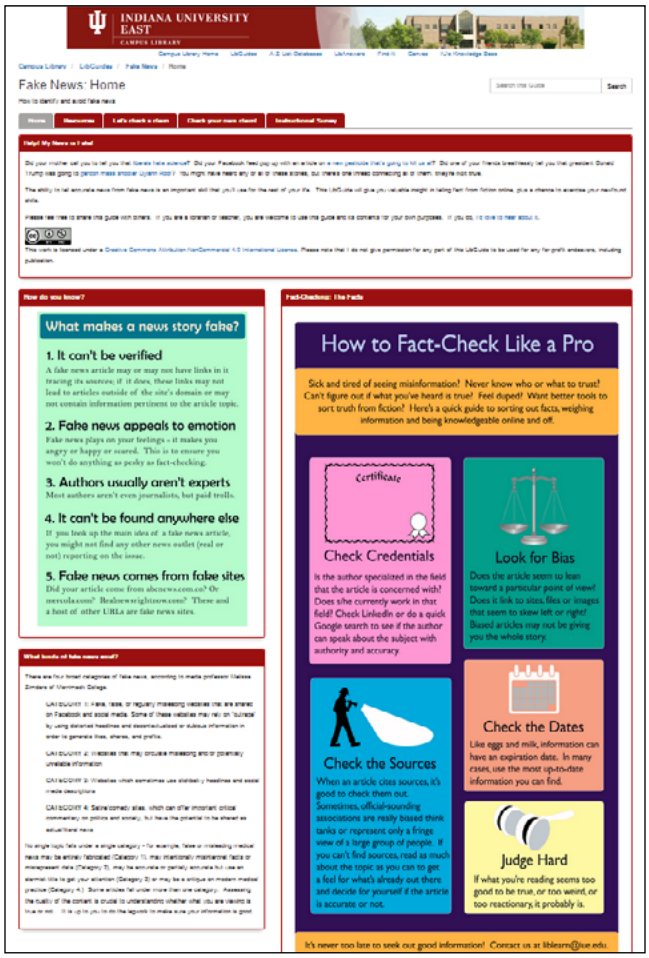

Figure 3. Indiana University East's "Fake News LibGuide," http://iue.libguides.com/fakenews.

One of the first courses of this kind that came to my attention was a collaboration between a biologist and a librarian at the University of Washington called Calling Bullshit: Data Reasoning in a Digital World, which was open for registration in spring 2017; they expanded it from a one-credit course to a three-credit course for the 2017–18 academic year.[4] The first set of ten lectures are available on their website, http://callingbullshit.org/videos.html. Of course, many academic librarians are broaching the topic in the classes they teach or guest lecture in. Overall, the "post-truth" era has provided a great conversation opener for academic librarians, as a way in which to convince their faculty that their classes really will benefit from a lesson (or several) in information literacy. It has raised our profile and our apparent relevancy to new heights, and we would be foolish not to capitalize on that opportunity to open the door and show our faculty and students what else we are able to provide for them. Marketing our services is often difficult in the crowd of messages around campus, so any chance we have to stand out from the crowd with a topical message that has currency at the moment is a good thing. The post-truth era has provided academic librarians with a great PR opportunity.

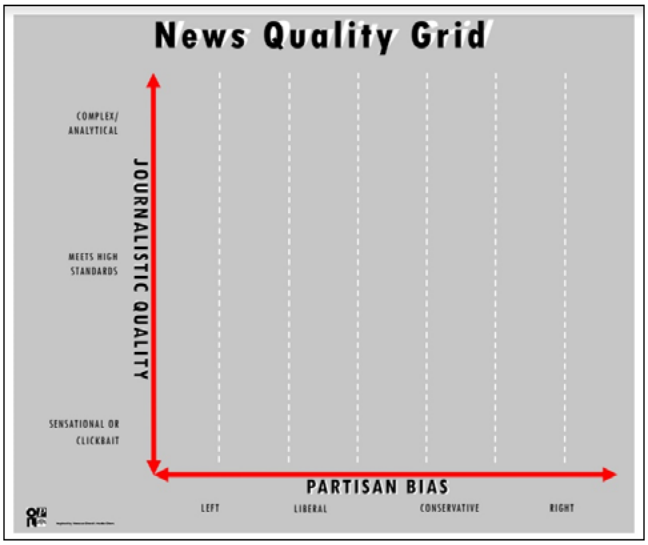

Figure 4. Oakland Public Library's Grid Exercise Passive program poster, https://drive.google.com/drive/folders/0B16-OThiCpn5TWtJVTY3THNmZW8.

Figure 5. An image from the Libraries Transform campaign, http://www.ilovelibraries.org/librariestransform/.

Public libraries are also responding to this need to discern real news from fake. Oakland Public Library hosts interactive workshops and even takes their show on the road, visiting local classrooms and organizations. They offer a free facilitator's guide to download, which is appropriate for grades 6 and up (see figure 4).[5] Many public libraries have added resource guides to their website listing fact-checking websites, including the Arlington Heights Memorial Library,

which also encourages visitors to contact a specialty librarian for help.[6] The American Library Association is capitalizing on the librarian as information shepherd brand by using it in their Libraries Transform marketing campaign (see figure 5). If something positive is to be gleaned from this era of fake news, it is that this is an opportunity for librarians to remind the public that we are the original fact checkers, always suspicious of news sources and ready to help the public sift through media.

Some public libraries are actually collaborating with journalists in teaching young people how to spot "alternative facts." The Dallas Public Library, one of the winners of the 2016 Knight News Challenge, hosted an eight-week course for high-school students that included database instruction from DPL librarians as well as mentoring from journalists at the Dallas Morning News.[7] Information literacy is now considered a core skill in many schools where it used to be considered nice to know but not a necessity. The propagation of fake news and alternative facts during the 2016 election was abetted by social media sites like Facebook and Twitter. Librarians and journalists have taken this as a call to arms to help members of the public hone their ability to wade through what is real and what is fabricated.

Society as a whole needs to grapple with the issue of fake news, credibility, and information overload. There are real consequences to misinformation; diseases can spread, wars can begin, and lives can be at stake. Of course libraries have taken up the call: always responding to issues of social justice and societal need, libraries are usually among the first to respond to a public issue. We are uniquely positioned at the nexus of our communities and educational systems, and we already have the tools in our arsenal when it comes to making our constituents information literate. The fact that it has become trendy to talk about these issues is a great opportunity for libraries to market themselves as more than just books but current, relevant places of knowledge and education as well.

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Bias in Readers' Advisory Services

Laurel Tarulli

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Last week, while reading through the posts on one of our professional Listservs, a query came across asking for recommendations. This colleague indicated that she had been asked to make available weekly a collection of timely news articles to keep her community informed on politics and current events; however, as a self-proclaimed strong left-wing liberal, she has no knowledge of conservative resources. This gave me pause. As people, we have our viewpoints, opinions, and political leanings, but should our personal preferences have such a profound influence on our users that, up until now, this colleague didn't realize or concern herself with the fact that she had been providing reading suggestions that reflected her world view, and not necessarily that of the entire community? Indeed, as informational professionals, shouldn't we strive to know all of the available resources and viewpoints, even if we choose to seek only one perspective in our personal lives?

This is, perhaps, a harsh view, but it is easy for any of us to find ourselves in this situation. Are the conservative resources wrong or illegitimate because they do not fall in line with mainstream media sources? Should we not, as professionals, strive to remain hypervigilant of letting our own preferences influence the reading suggestions and resources we provide to our community? And should we not seek to find credible resources on both sides, rather than disregard that which we don't like or don't agree with, understanding that even resources or books we enjoy might contain bias or false information? Indeed, as people, we all strive to find voices familiar to ours or that resonate with us, whether or not they are always true or grounded in facts.

This awareness of striving to provide a balanced perspective has to be present in all areas of librarianship, from collection development and cataloging through references and readers' services. This is because there is no area of our profession that isn't touched by bias. Bias exists in our knowledge of genres, preferences when suggesting books, opinions on what readers are currently reading, and words we use (or don't use) during the readers' advisory interview. Even our book displays are presented in a way to influence our readers' choices or to persuade. Contrary to what many (nonlibrarians) believe is new in this Trump-era society, false information and bias is not new. Indeed, churches and art museums have been using techniques to influence, bias, and shape societal and political opinions for centuries. Magazines, newspapers, and works of fiction and nonfiction are all guilty of persuading, altering reality, influencing, and creating conspiracy theories. In her book, *Civilizing Rituals*,

Carol Duncan examines how the use of words to describe a piece of art and, indeed, the physical structures themselves influence thought and behaviour.[1] We have witnessed this influence in Carnegie libraries versus modern library designs. Carnegie libraries imposed a specific expectation of behavior, awe, and culture in which society reacted and conducted itself accordingly, while modern libraries strive to put our users at ease, providing feelings of comfort and accessibility, rather than elitism and deference. In *Civilizing Rituals*, Duncan also addresses the importance that words and their association with pieces of art have on influencing the thoughts and beliefs of viewers.[2] The power to influence thought through a few words of description is startling, yet very real. We do not question the description placed next to a work of art; we accept it as truth. We accept it as truth because we trust that the information provided is not false. Why? Art galleries, like libraries, hold the public trust. We have a place in society that has resulted in an absolute faith in our mission to take into consideration the care of our users, and not to abuse nor mislead them. This is true in large public libraries, special libraries, and school libraries.

BIAS IN SUBJECT HEADINGS

Several years ago, I had a serious discussion with a colleague of mine regarding the power of subject headings in libraries. Subject terms, applied by catalogers, came into question regarding their role in readers' services. Do they intimidate, persuade, or dissuade a reader because of the terms chosen by a cataloger? Do they mislead? Or spoil a story? These are meaningful questions that resulted in a lively conversation. Catalogers, and more frequently publishers, label fiction for access, but the people ascribing these subject headings do not read every book, nor will they always like the title that they are cataloging. In fact, some professionals providing access to specific titles might find themselves tasked with assigning access points to publications that are in direct opposition to their belief system. Is there room here for error or, perhaps, misjudgment and, ultimately, erroneous or misleading subject headings?

Many a cataloging acquaintance has joked that access and the allure of certain books can be controlled by the access points and descriptive language used by catalogers. You don't want an anti-romance reader to label romance fiction as "smutty" for an access point, but a fan of romance also can't provide a list of subject headings that dilute the function of these headings. Neither one of these scenarios is helpful, but we have all observed headings that don't clearly represent the theme of the story. They often reflect a major event, conflict, location, or individual. Even with these formulaic elements, there is still room for error. This is especially true as more access points start to focus on the event, or conflict, rather than the "hard facts" of a book. Unlike nonfiction, fiction is often the unfortunate victim of subject headings that might be erroneously applied. Was the story really focussed on sisters and interpersonal relations? Was it school fiction, or did it just deal with kids that are school aged? Unfortunately for readers' services and readers' advisors, fiction titles make up the majority of publications of which our readers are seeking suggestions.

How many of us, in our quest to use the catalog to support reading suggestions, have found the subject headings not particularly useful or descriptive of the contents of the book? This is usually true for lesser-known titles that we might have knowledge of, but the individual adding the subject headings did not. While the intention to add appropriate subject headings to the bibliographic record is honorable and well meant, they might present an aspect of the story that is either incorrect, meaningless, or secondary. This is not to criticize the hard work that goes into subject headings, for which I am a strong supporter. Indeed, subject headings and genre headings are key access points and often assist users and our colleagues in making connections between titles, series, and a variety of other elements when choosing books. However, it is important to consider that these subject headings and even genres, by their very nature, are biased and often shape the readers' opinion of a book before the first page is read. Subject headings and genres, though, are not the only possible methods for misleading readers on their quest to find the next great read.

READERS' SERVICES: CONVERSATIONS

We often say, with a tongue-in-cheek tone, "a rose by any other name," and leave the sentence hanging. My children often play silly games, substituting one word of a song or book for another. This often changes the meaning completely, from something serious to silly, or from one topic to another. One word—how powerful.

Now we can take this same idea and apply it to the readers' services interview. Our choice of words used to suggest a book, similar to terms chosen by a cataloger, may very well influence our reader in a variety of ways. We might sell the book and entice them to choose it, turn them off, anger them, shut them down, pique their interest, and so on. The words we use reflect our education, social status, comfort level with the readers' services interview, comfort with the genre or reading preferences we're discussing, and our own cultural background and experiences. That's a lot of factors influencing our choice of adjectives, appeals, and descriptions when discussing books! It's also something that many experienced readers' advisors have become quite mindful of, as well as something that reinforces the value of the terms we use to describe books.

Readers' services and our conversations with readers require as much professionalism and ethical treatment as any information-seeking query. To readers, the query is very personal, and, because of this emotional connection, it is often

much easier to offend a reader with the response than, say, a research question at the information desk. Indeed, many local and state library associations provide outlines for the mission of readers' services and the nature in which they should be conducted. While they often feel less formal and more like a conversation, it's easy for a professional to forget that they must at all times maintain a professional separation and not become too familiar or at ease for a very human reason—allowing our personal opinions to color the words we use to suggest reading choices.

According to the Southern Ontario Library Service (SOLS), "just as in reference service, all staff must remember that readers' advisory work involves ethical decisions. Any requests which fit into a readers' advisory category should carry just as much weight as an informational or reference request."[3] SOLS goes on to state, "People should never have to apologize for their reading interests. People read books for a variety of reasons—for information, understanding, education, entertainment, introspection, hope, confidence, connectivity, escape, challenge and even for reassurance."[4] Indeed, the entire seventeen-page document outlines the importance and challenge of readers' services, emphasizing the more familiar conversation we are attempting to have with a reader, and yet striving to maintain a formula to help suggest a book. But what is interesting—or perhaps what we can highlight as absent from the document—is an area discussing the vocabulary and terms we use with our readers. In other words, guidance or a reminder as to how our body language and descriptive personality will influence the suggestions we make and our readers' experiences with us is needed .

What are some common areas that influence our reading suggestions to a reader? Think about the following and consider how they show, or are represented in, your body and language during the readers' services interview:

- Body language (leaning in, shoulder position, casually leaning to one side, crossed arms, hand on your hip, etc.). Ask yourself, What do these different body positions infer in a conversation?
- Inflection and tone. Are you speaking in a quiet tone? Confident? Abrasive or authoritative? Are your questions direct or abrupt? Dismissive or light and welcoming? Do you speak with an inflection that goes up at the end, as if asking questions?
- Vocabulary. What types of adjective do you use to describe books or, more importantly, genres? Some adjectives might reflect a lack of knowledge, but others reflect personal beliefs, education, or life experience.

Some might also consider facial expressions as a consideration when speaking with readers. What type of resting face do you have when listening to a reader describe a book? Is it open and welcoming? Serious? These are all good personal characteristics that are part of who we are but also might come across as negative, intimidating, or even a bit to "peppy" for a reader.

Many might indicate that if a reader returns for more suggestions, we are doing well; however, is that too simple a method to measure our success? SOLS is not the only library district that neglects to mention the importance of remaining aware of our own preferences and body language during the readers' advisory services interview. And, perhaps, this is a discussion to be had within our libraries. If we indicate that there is an element of ethical decision-making involved in readers' advisory services, do we need to outline how to strive for impartiality while cultivating an informal discussion and sense of ease with our readers? Does this, then, become too formulaic? Do we all just take it for granted that as professionals, we do not (or have never) used terms to describe a book based on personal preferences or bias, or with a view to influencing a reader? While this is often, or could often be, emphasized in readers' services training, it is also a vital element of this service that builds or erodes trust between a readers' advisor and reader. It is certainly something that is worthy of reflection and consideration for each of us.

CONCLUSION

One of the strengths of librarianship is our humanity, our personal relationships with users, and our attempt to find books and information that match a person to a meaningful literary experience—whatever that means to the individual. But with that personal touch comes bias in everything that we do. That is because, by its very nature, readers' services is selective in nature, rather than subjective. Our book displays, book conversations, readers' services terms, and efforts to label appeals, as well as our access points in our bibliographic records and classification schemes, all influence our readers. Even our most diligent efforts to promote displays with a caveat that they might offend or not appeal to a specific demographic will ultimately influence how readers view us and will impact them emotionally. As stated previously, even our buildings are meant to influence the feeling our readers have when they enter the library.

While it may appear that this article is primarily meant to undermine the strength of readers' services, it is, in fact, meant to call attention to an aspect of this service that falls into the general public's growing interest and concern over false and biased information. In this current environment, it is essential we examine all of our services, even our most successful, with a view to how our public might perceive our service and to the areas that might cause concern. Indeed, with society becoming more aware that they must question the value of the information they are fed, we might find ourselves defending our reading suggestions should we not take time to reflect on the language used within readers' services

and strengthen our already strong and trusted service. If nothing else, there is always value in considering our own values and backgrounds and how that shapes what we do in our profession, and how successfully we are achieving our goals.

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Collection Development in an Era of "Fake News"

Mark Shores

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This Alert Collector column for *RUSQ*'s special issue "Trusted Information in an Age of Uncertainty" is not going to be the usual list of great resources to add to your collection. In fact, despite a broadly distributed call for Alert Collector columns for this special issue, no one took me up. I do not blame them! At the suggestion of the editor of *RUSQ*, I decided to put together a "think" piece on fake news as it relates to collection development. I am not going to propose any radical or innovative approaches to how librarians develop collections for the purpose of battling fake news. I do not feel such an approach is possible. What I do want to do in this column is reaffirm and highlight things that I know many of my colleagues are already doing and have been trying to do since the dawn of collection building in libraries.—*Editor*

It goes without saying that we try to purchase high-quality items that represent all points of view, even those with which we personally disagree. Monographs published by reputable non-academic presses and whose authors' opinions are outside the mainstream are still good additions to our collections. Self-published screeds found with an Amazon search? Perhaps not so much. I see these latter types of books in my own collection-development work. A quick check of the holdings of the consortium to which my institution belongs reveals how many other libraries have added the item: usually zero. Differing points of view are necessary for topics in history, political science, current events, and others, but it becomes debatable when you start adding self-published items that refute scientific or scholarly consensus on topics like global climate change or the efficacy of vaccines. The addition of those items could be viewed as a tacit acceptance of the validity of unscientific claims for the purpose of presenting both sides. Conversely, if you omit such items from your collection, clientele with an ideological axe to grind see that omission as censorship of contrarian views. This may be more of an issue in public libraries, where patrons demand lightly researched and politically charged nonfiction titles by Ann Coulter or Michael Moore.[1] Libraries are often in a no-win situation. Anyway, it does not seem possible that a library can represent all points of view, so perhaps the best approach is to strive for what librarian Rick Anderson calls "a reasonably broad range of views on social and scholarly topics . . . broad enough to facilitate and inform genuine critical thinking on the part of patrons, rather than simply confirming patrons in their pre-existing bias (or those of librarians)."[2]

What to do? Have a tightly written collection development policy that spells out how you approach deciding what

goes in the collection (including how gift items are handled) and develop a policy of how to handle challenges to materials. Not exactly rocket science. Anderson also suggests a long look at the criteria for how items are selected, including a "probing discussion of the controlling assumptions that underlie our assessment of what is actually worthy of inclusion."[3] That discussion could even include whether or not factually unreliable items should or should not be included in the collection.[4]

Of course, you can build a diverse collection of high-quality resources that represent many points of view, but your students or patrons still have to want to use them! There is a reason that the saying "You can lead a horse to water, but you can't make it drink" is one of the oldest English proverbs still in use today.[5] It's a time-tested truth. Motivated reasoning is a powerful factor in our students' or patrons' refusal to engage with a broad swathe of opinion. Dan Jones, writing in *New Scientist*, said:

> In the real world of flesh-and-blood humans, **reasoning** often starts with established conclusions and works back to find "facts" that support what we already believe. And if we're presented with facts that contradict our beliefs, we find clever ways to dismiss them. We're more wily defence lawyer than objective scientist.[6]

To address this in higher education, librarians could work with faculty to develop assignments that force students to engage with opinions that differ from their own. For instance, make them write a book review of an item that contradicts their own view and provide a clear rubric for how their analysis or opinion will be graded. In public libraries—for which I have limited professional experience—I do not know of specific ways motivated reasoning is combated. Book discussion groups and bringing in guest experts or representatives from local news outlets are a great idea. Lectures and workshops on fake news are another idea.[7]

There is no magic bullet for collection-development librarians in the battle against fake news. Our time-honored principles of open-mindedness, inclusion, and neutrality (as much as that is possible), and our resourcefulness at identifying the resources that make for a diverse collection are all we have—and may be all that is required of us.

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Reference in the Age of Disinformation

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MEET SCYLLA AND CHARYBDIS: INFORMATION LITERACY IN CURRENT TIMES

Nicolette Warisse Sosulski

It was my regular How to Be a (Re)Search Ninja class, a combination workshop I do once a month on search skills and information literacy. I was in the part about "websites you can trust," and my brain came to a screeching halt. This was a group that had been more involved and engaged than those in some offerings of the class, and I could tell that they were soaking in everything I could tell them. Usually at this point I talk about government websites— www.bls.gov, www.nih.gov, www.nlm.gov, www.medlineplus.gov, www.noaa.gov, www.epa.gov, www.nps.gov, etc.—and how they can be a great source for pure, factual information. It was at this point that I froze.

The day after the 2017 inauguration, multiple topics had disappeared from www.whitehouse.gov. "Alternative facts" entered the White House press secretary lexicon on January 22, 2017. The National Park Service had been muted on Twitter the second week of January, suspiciously soon after inauguration attendance statistics had been released. President Donald Trump reportedly stopped the Environmental Protection Agency and the US Department of Agriculture from issuing press releases and posting on social media on January 24, 2017. A number of presidential appointments had been made that gave me great concern over the future of the continued information provision on those sites, and as it turned out, on October 20, 2017, an analysis came out in the *New York Times* showing that the Environmental Protection Agency had removed dozens of online resources dedicated to helping local governments address climate change. Thousands of scientists had marched on Washington on Earth Day, April 22, 2017, and this had expanded into a global phenomenon held in more than six hundred cities on six continents—and cheered on by scientists on a seventh, Antarctica.

My mind whirled. How was I to tell my patrons that government agencies and their websites were among the most dependable and stable sources of information that a citizen could consult? How could I say that indications were that things were looking bad in that regard if the events that I feared had not happened yet? How was I to do this in a stable, objective manner when I was aware that I was personally politically appalled and professionally aghast—and to a room that no doubt, given my library patron base's demonstrated election returns, contained at least a few people who

were politically supportive of at least some of the agents of the very actions that hammered me as an information literacy professional? And these were students whom I might never have an opportunity to instruct in information literacy ever again.

The rest of that part of the presentation was not my best ever. The class, understandably, asked how this was different than any change of administration. I stated that the information on US .gov sites had demonstrated itself to be more volatile this year than ever before, and that I personally had been taking note of postelection changes to government websites since I entered my MLIS program in 2002. I noted that I had never seen the number of changes that I had seen in the current administration, nor were previous administrations' changes as great in my considered opinion as an information professional. I told them about efforts such as the Environmental Data and Governance Initiative, a group working to track changes to science information availability, as well as numerous other information initiatives at the information policy institutes at American universities, who had worked feverishly the night before the election to download tens of thousands of science-related government web pages and hundreds of complete websites that they had identified as possibly under threat by the new administration, or of vital use to researchers, and to store them on servers outside the United States. I explained what the Internet Archive was and that they had stepped up efforts to mirror their content on servers in Canada prior to the inauguration. I reminded the group that scientists had never marched against an administration before. And I stated that there had been multiple statements by the newly elected president showing that he had thought for some time that one of the roles of the presidential office was to suppress and control information on the Internet—one of the earliest and most explicit of these occurring as far back as a campaign speech at the USS Yorktown back in December 2015:

> So the press has to be responsible. They're not being responsible, because we are losing a lot of people because of the Internet. We have to do something. We have to go see Bill Gates and a lot of different people that really understand what is happening. We have to talk to them, maybe in certain areas, closing that Internet up in some way. Some of you will say, "Oh, freedom of speech, freedom of speech." These are foolish people. We have a lot of foolish people. We have a lot of foolish people. We have got to maybe do something with the Internet because they are recruiting by the thousands.[1]

My students were surprised, skeptical, concerned, and bewildered. They asked how they could possibly be sure of anything from then on. My response was, to my mind, unsatisfactory. I talked to them about checking multiple sources, about multiple political points of view, about looking for reasons that information might be biased. I then tried to continue with my class and the other parts of the lecture that were not so slippery.

Since then, the term "fake news" has shown up more and more often, seemingly every day. Statistics indicate that people are reacting by shutting down, giving little or no credence to anything that they hear that is "news." And I am still wrestling with how I and other librarians are to address what I view as an information crisis. Where does that leave our profession? I am looking to the authors of the pieces in this issue, as well as my co-editor, Dave Tyckoson, and Barry Trott, the editor of *RUSQ*, among many, to give counsel on this conundrum.

LIBRARIES AND THE CHANGING INFORMATION LANDSCAPE—HOW DO WE RESPOND?

David A. Tyckoson

As librarians, we are accustomed to dealing with trusted information sources. We acquire materials for our collections based on who wrote it, where it came from, what it is about, and sometimes what the reviewers say about it. We acquire materials covering a wide range of viewpoints, but each source within those viewpoints is selected by one of us. Over time, we create a collection that is truly fair and balanced.

Yet user faith in information has been shaken. People do not know which sources to trust and often do not know how to evaluate the information that they receive. Some people reject information that disagrees with their personal views, even when that information comes from reputable sources. This creates a credibility problem that we librarians need to address.

The publishing world is very different today than it was only a few decades ago. Half a century ago, news and information was fairly simple. Libraries dealt with one format: print. The sources that we purchased all went through a process that vetted the content that they contained. Books were published primarily by commercial publishers. The books that they published were written by authors commissioned based on their expertise. Their content was edited by people employed by the publisher who checked the factual content and made the writing better. Only when the content was deemed ready for the reader—and commercially viable—was a book published.

A similar process existed for magazines and newspapers. Reporters and writers submitted content to their editors. Those editors reviewed, corrected, and usually shortened the articles to fit the available space. Only articles approved by the editors made it into print in the magazine or newspaper. This editorial review process ensured a certain level of factual quality of the articles that were published, allowing the public to trust the content.

Similar review techniques were available for scholarly sources. Academic and scholarly journals used the

peer-review process to identify the best research content. Only those papers that passed the peer-review process would appear in print in the journal. Researchers could be confident that the articles were vetted by experts, giving them confidence in the results that they were reading—and citing.

All of these processes resulted in a public that trusted the information sources that they read. They knew that some sources were less credible than others—such as the *National Enquirer*—but they generally had faith in what they read on a regular basis. The public understood and believed the news and articles that were part of their daily lives.

Librarians working with limited budgets would select the books, magazines, and newspapers that best matched the needs and interests of the local community. A number of methods were created to assist us in the selection process, including reviewing journals and approval plans. Library collections were built almost entirely on mainstream publications that librarians considered the best content available. Because of the diligence of librarians, collection content was reliable, authoritative, and as comprehensive as the budget would allow.

The reliance of libraries on commercial publishing was far from a perfect method of building collections. Since mainstream publishing is exactly that, voices outside that mainstream would often be excluded from library collections. Minority ideas—whether political, social, linguistic, or geographical—were often excluded from mainstream commercial publishing and thus were often excluded from many library collections. Librarians made efforts to include as much as possible from as wide an array of sources as possible, but the ease of purchasing from commercial publishers placed their works in most library collections.

People in the community came to the library because that is where the information was. The library had many more books, magazines, and journals than any individual could afford, and so people came to the library to read, check out, and use the information in the library. And people trusted what they found in library collections. Since the works in the collection were created by authors and editors and selected by librarians, they had a high degree of credibility. If you found it in a book at the library, you believed it.

Interestingly, while libraries carried local and national newspapers, libraries were rarely sources for current news. Most people received news through personal subscriptions to a local newspaper—and through broadcast media. In particular, the three national television networks provided Americans with national and international news every evening. For the first time, those news reports included video, allowing viewers to see the places, events, and people being covered. They were also ephemeral, since they could not be saved or recorded. People watched the news at home on television, but they researched the news in print at the library. However, they certainly trusted and believed what they saw and heard on the news. In 1976, Walter Cronkite was named the most trusted man in America by *U.S. News and World Report*, even though all Cronkite did was read the news on television.

No one thought that mainstream reporting—whether in the newspaper or on television—was misleading them. People consumed, trusted, and believed that what the media told them was factually correct. Sometimes stories turned out to be incorrect, but that was definitely the exception and not the rule. People got into the habit of believing what they saw on television or read in the newspaper. That was the norm for many, many decades.

Fast forward to today, where the news and information environment has changed dramatically. Newspapers are on their death bed, continually losing readership and advertising revenues. Local television news still survives but has tremendous competition from the wealth of cable and online channels. And people's faith in content seems to be at an all-time low. How did we get to this point?

Several distinct and interrelated factors have changed the average citizen's relationship with the media. The first is abundance. There are so many news and information outlets available today that we are overwhelmed by the sheer number of choices. With hundreds of television channels and thousands—or maybe hundreds of thousands—of Internet channels, people can choose from more sources than ever before. And with that many channels, each one seeks to find its own place in the information ecosystem. As a result, we have very specialized and focused media outlets, which means that anyone can find a channel that matches their own interests and beliefs. Are you a gay conservative Republican? Check out logcabin.org. A Southern anarchist? Actualanarchy.com is written for you. An Armenian American activist? Anca.org will be of great interest. A Bernie Sanders–supporting far-left socialist? Then you certainly read jacobinmag.org. And if you are a Hillary Clinton supporter who believes in UFOs, then you certainly must have read this story: https://www.huffingtonpost.com/entry/hillary-clinton-vows-to-investigate-ufos_us_5687073ce4b014efe0da95db. There is so much information on the Internet that anyone can find something that matches their personal interest, no matter what that interest may be.

With such a huge number of sources covering every imaginable angle of every possible story, it is no wonder that people are overwhelmed. With so much information instantly available to them, people do not know how to separate them from each other. People are drowning in an abundance of information that reaches far beyond that available at any other time in history. And as a result, they do not know where to turn to get the information that they used to trust.

One reason for such an abundance is that everyone can now be an author. Write a story, put it on a web page or release it on social media, and you may become the next Daniel Ellsberg, Gary Vaynerchuk, or Liza Koshy. All it takes is to get your story included in standard tools such as a Google search, and people will find that story. And if you write well enough and sound credible—and maybe even if you do not—people will read it. And depending on what you say and how you say it, you might become famous.

A second factor leading to our current information confusion is the speed at which information is distributed. Our technology is so good and so fast that information uploaded an instant ago is available right now. Stories that once took a day to write and edit (for newspapers), several weeks or months to produce (for magazines and journals), or years to create (for books) now cross the web literally at the speed of light. Information posted right now can be shared, commented on, and reproduced within seconds. Without the quality control of the editorial process, incorrect information, misinformation, and even fraudulent information can become accepted by some people in a very short period of time. And if someone influential shares that information, it becomes accepted fact among that person's followers.

In addition, easy access to multimedia results in the availability of video, audio, and other formats. YouTube allows anyone to record and post their videos. When an event occurs—from a natural disaster to a sporting event to a concert, a crime, or a birth—the world can see it while it is happening, sometimes from multiple viewpoints or perspectives. The speed at which information is distributed creates an expectation that all information will be available while it is happening. And there is no process to authenticate that information, which makes all information seem equally valid.

The third factor leading to our current information confusion is segmentation. One of the impacts of social media is that it easily groups people along ideological lines. If I like cat videos and see a good cat video on social media, I can follow the person who put it online in hopes of getting access to more cat videos. I can also see who else follows that video, which helps me identify other people who watch cat videos. And I can share the video on my social media platform so that my followers will also get the opportunity to watch it. I can join a cat video fan group where I will find lots of other videos—and other cat video fans. Within a short period of time, cat video fans are linked together so that they all see new cat videos whenever anyone posts one.

We can also discuss the qualities of various videos, stating our preferences for others to comment on. Subgroups can form, such as fans of yellow tabby cats, Siamese cats, or—my favorite—black cats. Variations get spun off, like sleeping cat videos or audio recordings of purring cats. The people who identify with any or all of these concepts quickly get connected with each other and are able to show their videos, comment on other people's videos, and express their likes and dislikes. People join and leave the group based on their interests and capacity for dealing with cat videos and cat video commentators. An occasional dog video fan will join to promote the advantages of canines over felines—and most of the group will want that dog fan kicked out. Some people will dominate the conversation, some will get nasty when they do not like a video, and others will become the primary suppliers of new videos. A few will became cat video spokespersons, and one or two will become cat video superstars. Most people in the group will not post or say much, but they all will watch the videos and follow the discussions.

Cat video likes and dislikes are not going to have much impact on the larger world, but groups formed around other topics will have an impact—and this is where group segmentation really changes how people interact with each other. Most people would rather be right than wrong—and one way to be right is to hang out with others who tend to agree with you. We all join groups that match our own personal preferences and interests. We follow the discussions of those groups and maybe even contribute to them. If we join a group that turns out not to match our interests, we drop out and join something else. The result of this practice is to create thousands of interest groups in which people talk only to those with whom they agree. Over time, that agreement becomes the norm, creating a world view in which whatever the group supports is what seems to be what everyone else supports. In extreme cases, the group becomes the world in which its members live.

The segmentation of people into narrow subdivisions of society is one problem that we face, but certainly not the only one. Today, some people in positions of influence and power—up to and including the president of the United States—are attacking published information and, indirectly, the system that creates that information. By stating that news reports are "fake," they cause the public to doubt the validity of information sources that they had previously trusted. Once doubt is established, it undermines the entire system of news and information—which is exactly the intent of those claiming that news that they do not approve of is "fake."

A related and far more significant problem is the intentional distribution of false news stories. These stories, including some that are obviously outrageous—such as the one about a Hillary Clinton child sex ring operating out of a Washington, DC, pizza parlor—have an impact on the public. At best, they clutter the daily information cycle with worthless news that people must filter out. At worst, they influence people and lead to actions or decisions arising from misinformation. Whether or not Russian operatives attempted to influence the 2016 US presidential election, the distribution of false information on both candidates clearly caused some voters to change their minds.

All of these issues are causing the public to lose faith in the information that they receive on a daily basis. The problem of enormous quantities of information spreading rapidly, increased segmentation of society, and deliberately false sources can make it difficult for those of us who make a living in the information world, including librarians. What can we do to help people in our communities make sense of this bizarre information environment?

Libraries and librarians can indeed help people make sense of what is going on today. We have four advantages that place us in a strong position to take on this task:

- *Libraries are trusted institutions.* People see libraries as sources that they trust to provide valid information. Our

long tradition of building collections of reliable resources that cover a wide range of opinions has created an environment where people believe that libraries will provide credible information. The August 2017 Pew Research Center report indicates that 78 percent of adults, including 87 percent of millennials, feel that public libraries help them find information that is trustworthy and reliable. With that level of trust from our communities, we start in a position of strength to confront this problem. We can build on that trust to help improve the communities that we live in.

- *Librarians are leaders in teaching information literacy.* For decades, librarians have helped teach people how to evaluate information. Academic librarians teach students in information literacy classes. Public librarians teach community members in workshops. All librarians teach the people who ask questions at their reference desks. These skills are needed more than ever right now—and librarians can still be the people to promote them. With our involvement, more people will learn to evaluate what they find and to select quality information over fake information. The public is aware of the problem and does not like being deceived. Librarians can play a role in educating our communities to be more informed information consumers.
- *Libraries are places of inclusion.* Everyone is welcome in libraries. We help anyone who comes through our doors and our websites, regardless of whether they are members of our primary community or not. We provide assistance and information to all—usually without an appointment and always without charging any direct cost. This makes libraries the rarest of institutions in today's society—places that are open and welcoming for everyone. We help people understand what is going on in the world, from students working on projects to adults seeking financial information to the UFO enthusiast trying to find the truth that must be out there. We do this with respect for the privacy of each individual and with the skills that make us librarians. The trust that Pew identified in libraries is a natural result of the way that we conduct our daily business—and something that we can maintain through today's crazy information times.
- *Libraries build collections of authenticated information.* People still come to us to find valid and authenticated information, whether that information is in the form of books, journals, or electronic sources. Many of the issues related to fake news arise from ephemeral or unknown sources that get spread around the Internet without critical thinking. Library sources have undergone editorial processes that validate their content. We will never be as fast as Facebook at gathering information, but what we do gather has a much higher level of credibility. Libraries build collections for the long term, not the moment—and those collections have long-term impact. By continuing to build strong, authenticated, accurate collections, we are creating the foundation for future generations to deal with this same problem.

We are living at a very interesting point in the history of information production and delivery. Confusion reigns and credibility has fallen to an all-time low. Some people only want the information that they believe is true and that will support conclusions that they have already made. Those people rarely change their beliefs and do not really want help—just support. Librarians can help them find that kind of information, but we cannot change their beliefs. Fortunately, these are not the majority of people in most of our communities. We can help the majority by providing them with authenticated information sources, teaching them how to find and evaluate information, and welcoming them into our environment, no matter who they are. In other words, we can help them by being the librarians that we always have been and always will be. And the world needs us now more than ever before.

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Habits of Mind in an Uncertain Information World

The current political and cultural polarization in the United States and other countries has significant implications for all educational institutions and for libraries and librarians. The interrelated issues of trust, credibility, and authority now present major challenges because of the uncertainty of the social media environment, competing information "bubbles," and enduring cognitive biases. The accelerating fragmentation of the media and information ecosystems undermines communal understanding of large and complex issues that citizens must face. To address this profound societal challenge, academic librarians should collaborate with faculty members to create communities of inquiry for students—sustained "high impact practices" that address the complexity of the current information environment. This article shows one model for using the Framework for Information Literacy for Higher Education *to create learning goals for a range of in-depth learning experiences that cultivate habits of mind essential to discernment in the current political and cultural climate.*

> *No matter how large the tissue of falsehood that an experienced liar has to offer, it will never be large enough . . . to cover the immensity of factuality.*
>
> —Hannah Arendt

Ours is a fraught time. We see blaring headlines about stolen elections, the questioning of scientific findings and of the scientific method itself, of mutual incomprehension across political and cultural divides, of accepted norms upended, of governing processes questioned, and of facts themselves—facts comporting with reality—doubted. The swirling cacophony of competing viewpoints, perspectives, agendas, and "facts," accelerated by a saturating and saturated media environment, challenges anyone seeking a firm ground for reasoned debate, reflection, and discussion—and anyone commited to teaching and scholarship. As a profession with ancient and honorable roots, including exposing

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uncomfortable truths, teaching requires a ground of reliable factuality, a foundation for debate, discussion, and improvement, no matter the level of education, the subject, or the method of instruction.

The library community is deeply involved in the educational enterprise, whether all of its members believe or not in a strict "teaching role" for themselves. Libraries of all types perform an essential educational role—providing collections and services for faculty, students, and larger academic communities in the case of academic libraries, and in public libraries, providing a broader array of collections, services, and programs for citizens of all ages in communities. Special libraries of all types provide essential services, sometimes in a more narrow instrumental way, for their clienteles. No matter the group served, libraries collect or provide access to information resources—scholarship, archives, data, primary sources, artifacts, popular press materials—that perform an educational role. And librarians themselves participate in expanding public or community understanding of these resources through a range of teaching programs and expert consultation and advising roles.

We are now faced with foundational questions about how libraries, as educational entities concerned with learning, investigation, scholarship, and reflection, should function in a time of questioning facts and truth itself. The larger society and the citizenry of the United States, and of other countries, are subject to constant, accelerating social media storms and divisive debate everywhere that cause great uncertainty in the public mind about what can be believed and be accepted as reasonable in the public sphere on matters of great public concern: whether climate change is real, whether childhood vaccinations cause autism, whether lowered tax rates will create booming economies and more jobs, whether anti-immigration measures are needed to protect national identities, or whether the addiction and opioid crises in developed countries can be "cured" through traditional treatments. The intersecting complexities of many of these debates create even more uncertainty in the minds of many. While scholars and scientists offer sound evidence to the general public that climate change is real, that childhood vaccinations are necessary and do not cause autism, and that lowering tax rates does not necessarily produce more jobs and prosperity, so much doubt and uncertainty about the role of scholarship, science, and even reasonable observation of reality has been created that many "facts" and "explanations" count equally for some people. There is assuredly a spectrum of doubt across many of these contested issues, but we live in a prevailing climate of uncertainty and unsettledness about facts and grounded truth that comports with reality. Politicians, media organizations, think tanks, and public figures of all levels of knowledge and sophistication disagree among themselves, espouse sharply polarized views, and are committed to preconceived sets of facts grounded in divergent value systems. The common ground for debate, dialogue, and ongoing discussion is missing—a public realm where some information and facts are agreed on as a basis for a search for truth. Because this larger common ground is missing, libraries' educational role itself has become more uncertain.

SIGNS OF THE TIMES

Evidence abounds of the sharply accelerated polarization about factuality itself and the resulting uncertainty:

- There is increasing polarization between more and less highly educated adults in the United States, according to the Pew Research Center—across positions on specific policy issues as well as across ideological and generational lines.[1]
- In the media environment, according to the Berkman Klein Center for Internet and Society, there is asymmetric polarization between left- and right-leaning media outlets, with conservative perspectives more aligned with highly partisan and less traditional media organizations and outlets, and liberal perspectives more aligned with traditional "mainstream" journalistic practices and media organizations (which may have their own ideological perspectives, of course).[2]
- In civic education, one study conducted by the Stanford History Education Group found that high-school students are easily misled by information resources they found on the Internet—resources focused on public policy issues. Uncertainty about how to judge the credibility of resources and the facts within them—with resulting doubt and polarization—may be rooted in deficits in our educational system.[3]
- One notable educator and educational technologist, Mike Caulfield, has developed an innovative online project, Digital Polarization Initiative, or DigiPo, sponsored by the American Association of State Colleges and Universities (AASCU), to teach students strategies for assessing the credibility of sites on the Internet. His initiative in developing this course is one educational response that teaches students skepticism, critical thinking, contextualization of information, and habits of mind for effective civic literacy.[4]

THE MACRO TRENDS AGAINST TRUST

These "signs of the times" point to larger cultural trends in our society with intensely local implications for libraries and for those they serve and attempt to educate. At the same time, some of these trends are global in reach and impact. The issues of trust and credibility pervade our daily lives when using any information source, from whatever place of origin. We are ever more aware of the challenges in making decisions about what to believe, which result from the separate and parallel universes of discourse and belief that are available to us. Researchers increasingly identify intractable cognitive biases, prejudices, and close-mindedness as

barriers to informed decision-making. The media environment exacerbates tendencies toward confirmation bias and motivated reasoning identified by psychologists as handicaps in seeking common meaning, and a reliable set of facts, across large groups of people. The race for attention in the social media world, and the fracturing of attention itself, make critical reflection and questioning hugely problematic for most. Our political debates reflect this instability, uncertainty, and lack of context and perspective; isolated, fragmented facts or constructed narratives developed by highly partisan groups mark our landscape. The cacophony of competing voices drowns out time for focused reflection, and many citizens tune out the noise or select one source or channel that they can trust. The college classroom and the library that is its extension are inevitably affected by the uncertainty about facts, the polarized discourse, and the questioning of the basis for knowledge itself, as well as the methods for the search for truth. Before continuing with the examination of larger trends that diminish trust, it is worth defining important concepts used in this section.

COMMON MEANING

In a period dubbed the "post-truth" era, in which the actual meanings of words and phrases are being obfuscated to propel particular views (consider the use of fake news to label factual news that one does not agree with), it is important to define one's terms: trust, credibility, authority, and expertise. It is thought provoking to realize that while the meanings of these words are commonly understood, social and political impacts may have fragmented the universal concepts behind the words. (Post-truth itself was designated the 2016 word of the year by Oxford Dictionaries; it means "relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief.")

In defining what trust is at the most basic level, Brad Love, Michael Mackert, and Kami Silk capture, from the work of others, key observations about the characteristics of trust and the difficulty, such as we now face, of communicating when trust is lacking. Citing a 2008 article by Nick Allum et al., they write, "This essential role of trust—defined as a willingness to depend—meshes with findings that the public's understanding of complex issues does not always result from data-driven understandings of experts in government, media, or industry."[5]

They continue: "A lack of a trusting relationship adds significant complexity to any communication transaction because it acts as a barrier between parties. . . . Reduced willingness to depend on supplied information creates a gulf between professional assessment and public comprehension."[6] This absence of trust, or unwillingness to depend on the information provided by an individual, stems in part from a lack of credibility, which is itself defined by Shawn Tseng and B. J. Fogg in most cases as, simply, believability. They note that "credibility is a perceived quality; it doesn't reside in an object, a person, or a piece of information."[7] Determining credibility involves evaluating trustworthiness and expertise.[8] This leads to examining the meaning of expertise, which is defined by the third edition of the *Oxford English Dictionary* (OED) as "the quality or state of being expert; skill or expertness in a particular branch of study or sport." The pertinent meaning of authority, also from the OED, is "the fact or state of possessing credible information; power to inspire belief in the truth of something; right to be believed; testimony, evidence."

Much of the time, trust is engendered by the credibility, or believability, of an authority. Expertise may play a role in that credibility, and certainly expertise has been taught as a marker of authority and credibility. Yet, as will be described later in this section, expertise itself is under assault, and, as with credibility, authority is a perceived quality—and one that has been profoundly affected by the parallel and separate universes of belief.

The current accelerating political polarization and the questioning of information and facts comes at the end of several decades of the splintering and fracturing of discourses and of the information landscape itself. Trust depends on belief in the credibility of experts and authoritative sources and a willingness to grant them provisional assent in determining a course or action or a way of thinking about the world. This attitude of trust—a habit of mind in itself—has diminished through the fracturing of discourses and the baneful effects of a media-saturated polarization. A memorable term, borrowed from philosophy and used by Julian Sanchez of the libertarian think tank Cato Institute, is epistemic closure,9 by which Sanchez means the tendency of many of his fellow conservatives to accept only information and perspectives from within the conservative camp and the premature closing off of dialogue and information seeking from beyond the perspectives within that circle. For Sanchez, the construction of a separate, filtered media bubble with only conservative voices and the exiling of heretics who question the "trusted" voices within that bubble fatally compromise the search for meaning and truth in a democratic society. While epistemic closure may not become a term widely used even in academic circles, the idea underpinning Sanchez's use of it distills in a crucial way our societal—and educational—challenge. The closing off of alternative perspectives, information sources, data, and voices from one's own personal information landscape results in an attenuated and impoverished capacity to reflect and to learn.

Sanchez used the term epistemic closure at a particular moment in time, when conservative media had developed and matured and were increasingly hostile to mainstream media's presentations of facts. His notion of epistemic closure as a construct for intellectual cocooning anticipated soon afterward the publication of Eli Pariser's *The Filter Bubble*.[10] This study of how algorithms in Facebook and Google create isolated communities and individuals who always see and read the same information has focused sustained attention

on the consequences of social media and its potentially divisive effects. While some recent studies have qualified some of the suggested results of the "filter bubble"—notably in finding that different age groups have different media consumption habits, with traditional media such as cable television still exerting a powerful influence[11]—many thinkers and researchers still see the isolating and segregating effects of algorithms used by social media as harmful to creating common understandings about facts in our society. The implications of the filter bubble are, along with other causes, accelerating the political and culture divide in our society. The polarization of discourse resulting from epistemic closure as described by Sanchez—the self-isolation among media and intellectual elites and those who read and view them—is now greatly exacerbated by the filtering accomplished by algorithms in social media environments. So great is the concern about the lowering of intellectual discourse and the possibilities for making informed individual or collective decisions that a spate of other recent books are calling into question the very business model of social media companies—advertising and addictive "clickbait" features—that diminish even further the algorithm-driven results that searchers find.[12]

The darkening of social media environments has reached a recent nadir in the US presidential election of 2016, with the US intelligence agencies' documented findings of the interventions by Russia via automated trolls and bots on Facebook and Twitter to influence the outcome in favor of one presidential candidate. These recent events greatly amplify trust problems regarding the information environments used by millions of people, and the continued debate about the precise impact of this social media intervention by a hostile power reveals, in itself, how the grounds for debating truth have shifted: experts in intelligence and the uses to which social media are put by hostile agents are now themselves questioned.

A recent book, *The Death of Expertise: The Campaign against Established Knowledge and Why It Matters*, captures some of the current challenges for a democratic society in which experts and expertise itself are now questioned.[13] The many-layered difficulties for non-experts in deciding whom to trust about extraordinarily complex policy matters is made more challenging because experts themselves often disagree, because experts themselves have often been wrong, because experts cannot explain the nuances of complicated issues in accessible language to lay audiences or readers, because of a long-lasting strand of anti-intellectualism in American society, and because the digital information ecosystem has enabled the spread of "fake expertise" and made it possible for many nonexperts to promote their "research" or perspectives equivalent to those of scholars and researchers who have spent decades conducting studies according to the established rigors of scholarly methods. The easy conflation of "expert" with "elitist" in the public mind signifies further difficulty—a cultural reaction among many against those with knowledge, filtering out the perspectives of experts through the epistemic closure of one's group, one's tribe, one's own bubble of information sources. The reality that experts are themselves fallible and capable of error is reported in parts of the media environment to validate a false egalitarianism. The author of this book, Tom Nichols, does not offer easy solutions but does suggest that experts themselves adopt great humility and self-correction, and that they enforce greater accountability among themselves. He also identifies a greater role for public intellectuals, who can explain the more complicated policy issues to a larger public in ways that academic experts who write in technical language cannot.

Within academia itself—the arena for the greatest specialization and expertise in our society—a current debate about "reproducibility of results" is raging. This internal debate within higher education, particularly focused on the scientific and medical fields, adds to the increasing skepticism about expertise and authority among the general public. The myriad facets of a very complex set of issues relating to reproducibility of research findings—including research design, data collection and integrity, the value of "null" results, and the bias of scholarly journals for certain kinds of studies—are not well understood even in the academy. For the larger public, such notices of scientists' and experts' inability to replicate research results, or disagreeing among themselves about their findings, or very infrequently commtting outright data fraud further diminish trust in the scientific and research enterprise—the preeminent domain of expertise and experts. Furthermore, experts' inability to explain to the larger public the value of their research and the complexities inherent in their methods exacerbates the skepticism and reinforces "folk wisdom" about the perspectives of nonexperts and stereotypes about experts as arrogant, impractical, and out of touch. The reproducibility crisis is one symptom of a larger crisis of credibilitity and of the authority of experts themselves.[14]

The assault on experts and the habits of mind that they display is another feature of the larger fracturing of public discourse and the ways of discussing and debating matters of great public interest. The fragmented information ecosystem mirrors this larger fracturing—experts can be found across this ecosystem, but there is often mutual incomprehension among the groups who listen to different experts. The larger public often sees a false equivalence between groups of experts because of their own self-interest and their need to validate their own assumptions and values. The tribalism of our times, weaponized by competing media environments, exacerbated by the geographical segregation of those with different political viewpoints and cultural perspectives, and propelled by extreme individualism, has produced what Yuval Levin has called the "fractured republic." A moderate conservative, Levin sees the loss of cohesion in society primarily in terms of values and identity rather than in terms of a fragmented information ecosystem or in terms of cognitive biases. He looks to mediating institutions—in communities, families, religious groups, and nonprofit organizations—to

create bonds that create greater coherence and possibilities for shared discussion and conversation. The role of information, scholarship, and expertise within these "mediating institutions" is not addressed in his book; the tendency of such groups to reinforce beliefs already held, rather than seeking different perspectives or other evidence, suggests that cross-cutting mediating institutions may be needed to force many out of their own bubbles of information.[15] But the fracturing that Levin analyzes in the political and cultural sphere is another lens through which to examine our current challenges for teaching better habits of mind—in colleges and universities, or elsewhere. Creating new kinds of communities of inquiry where such habits of mind can be fostered on a sustained basis is one possible avenue for overcoming the forces of polarization and tribalism that militate against the critical thinking and self-teaching needed to trust experts and assess the information environment appropriately.

This filtering of information to confirm one's own intellectual preferences and search habits is, of course, based on much deeper cognitive biases and older human blind spots; the information and media environments have only exacerbated these tendencies. Daniel Kahneman's *Thinking Fast and Slow*, a recent best-selling explication of fallacies and cognitive biases, identifies numerous examples of errors in reasoning and decision-making.[16] Two of the best-known errors, confirmation bias and motivated reasoning, figure most prominently in working against the individual assessment of information sources. The individual who engages in confirmation bias actively seeks information to validate or confirm what he already believes; when this tendency is reinforced by tribalism, polarization becomes rampant. Motivated reasoning is a complementary tendency to scrutinize evidence with greater skepticism if it does not fit one's existing beliefs or values. These individual blind spots create great difficulties for teachers at all levels who must inculcate habits of mind that make possible reasoned debate and discussion with others, the questioning of one's own assumptions and information-seeking preferences, and the default bubbles of individually trusted information sources. Cognitive biases at the individual level complicate the technological, cultural, social, and political challenges for critically reflective learners—those who can self-correct and join communities of learning that build up trust about expertise, scholarship, and the process of learning itself.

OPPORTUNITIES FOR TRANSFORMATIVE LEARNING THROUGH COMMUNITIES OF INQUIRY

Examining the myriad strains acting on the intersection of information, trust, and authority makes evident the need for librarians to engage students in rich learning situations that move significantly beyond mechanistic means of information evaluation, such as checklists. Designing learning opportunities with the goal of challenging students' sense of themselves demands a shift in thinking and practice. It requires educators who not only value the outcome but who also prioritize it in order to accomplish significant results:

> By engaging in a learning process that is not merely informative but transformative, students have the opportunity to practice these life skills thoughtfully and consciously. While they are arriving at new understandings, they are also becoming aware of the process of transformation itself, thus being positioned to recognize and welcome opportunities for development later in their lives. This prepares them for lifelong learning and to think purposefully about *what* they should do and *why* they should do it. Learning that is transformative is characterized by a deep and enduring change in thinking that is evidenced through changed ways of being in the world.[17]

To strive for these results, the learning environment must be designed thoughtfully so that communities of inquiry are formed—communities in which critical reflection is regularly practiced and valued. In such courses and activities, content becomes a springboard for inquiry, which may then lead to transformation:

> Transformative learning is learning that transforms problematic frames of reference—sets of fixed assumptions and expectations (habits of mind, meaning perspectives, mind-sets)—to make them more inclusive, discriminating, open, reflective, and emotionally able to change.[18]

This section delves into common curricular and co-curricular opportunities that might serve as appropriate venues that support learning about authority, expertise, and credibility in an atmosphere in which open discourse is valued. It is important that librarians and disciplinary faculty work together closely in such efforts. While one-time teaching sessions might provide an opportunity to begin a conversation about these issues, it is far from sufficient to address the habits of mind that will allow learners to work against confirmation bias, motivated reasoning, and other biases detrimental to true inquiry and reasoned use of information. This requires high-impact learning, as described by George D. Kuh, which leads students to see themselves and the world in a new way through contact with different perspectives and different worldviews.[19]

Matthew Wawrzynski and Roger Baldwin note two "strategies [that] are instrumental in promoting deep and transformative learning."[20] Jack Mezirow claims that *discourse* helps to promote transformative learning.[21] Structured and informal discussions and conversations assessing experiences, beliefs, feelings, and values among students and various members of the campus community can promote thoughtful reexamination of frames of reference and can lead learners to a more accurate and compelling understanding of the world

one inhabits. Similarly, careful *reflection* can help students question long-held beliefs and unexamined assumptions in light of new experiences and alternative viewpoints that may enrich their comprehension of complex issues.[22]

Transformative learning can be fueled by high-impact practices, learning opportunities that "have significant effects on students' ethical awareness, challenging learners to confront alternative beliefs and values, and to think more deeply about their own."[23] High-impact approaches involve "integrating ideas and diverse perspectives, discussing ideas with faculty and peers outside of class, analyzing and synthesizing ideas, applying theories, judging the value of information as well as one's own views, and trying to understand others' perspectives."[24] Kuh catalogs a number of high-impact educational practices, including courses, assignments, and co-curricular activities that have been shown to increase student success.[25]

Each of the following categories of high-impact courses, programs, and initiatives has its own possibilities in regard to learning design and types of learners. The list is not exhaustive: additional opportunities that allow for discourse and self-reflection are likely to be found on individual campuses.

Inquiry-Based Courses

Courses with a significant emphasis on inquiry may be found across disciplines and within first-year requirements. These courses may meet general-education competencies such as critical thinking and writing. When inquiry serves as the underpinning for course content, it also promotes related habits of mind.

An example of this type of course, found at most academic institutions, is the Writing and Critical Inquiry seminar required of all students at the University at Albany. The description emphasizes the role that inquiry plays:

> Based on established principles of rhetorical theory, Writing and Critical Inquiry provides students opportunities for sustained practice in writing so that students gain a deeper understanding of writing as a mode of inquiry and develop their ability to negotiate varied writing and reading tasks in different academic and non-academic contexts. Through rigorous assignments that emphasize analysis and argument, students learn to engage in writing as an integral part of critical inquiry in college-level study, become familiar with the conventions of academic discourse, and sharpen their skills as researchers, while improving their command of the mechanics of prose composition. Writing and Critical Inquiry also helps students develop competence in the uses of digital technologies as an essential 21st century skill for inquiry and communication.[26]

First-Year Seminars

First-year seminars frequently serve to introduce new students to college, to a discipline, and to other students, in order to acclimatize them to campus life and to academic work that differs significantly from that engaged in during secondary school. While the focus of seminars may vary, many provide occasions for students to engage in academic discourse, inquiry, and other growth experiences that would provide opportunities for learning scenarios in which students explore notions of trust, expertise, and authority.

Living-and-Learning Communities

Students join living-and-learning communities in order to engage in activities with students who have similar interests and who may be taking a common suite of classes. This shared sense of purpose and the opportunity to become engaged in a field of interest would provide fertile ground to engage in learning experiences investigating the fractured nature of information. The sense of community provided by this model would provide a safe space for such discussions. The mix of curricular and co-curricular activities is particularly advantageous for an immersive learning opportunity.

Undergraduate Research

Students who engage in the empirical research process participate in a process that requires necessary and impactful inquiry, research, and engagement in a scholarly conversation. The work involved is immediate and relevant, providing circumstances ideal for the exploration of issues connected to credibility, authority, and expertise, both in connection with the research advisor and with those upon whose work the research rests.

Service Learning or Internships

Experiential learning provides opportunities for students to connect what they have taken from formal learning situations and apply it to hands-on situations. In many cases, students have a chance to interact with professionals in a field and have the opportunity to reflect on the intersections of formal and experiential learning.

Capstone Courses

These courses, generally offered as seminars, allow space for the habit of critical reflection that students aren't accustomed to. The intellectual give and take, and the need to base one's contributions on knowledge of the work of scholars in the field, provide a challenging yet supportive community of inquiry.

Interdisciplinary Courses

If designed appropriately, these courses would encourage the comparison of different research methods or ways of investigating, providing an opportunity for students to question some of their disciplinary assumptions. Interdisciplinary courses taken early in a student's time in college would challenge habits of accepting authority uncritically that are retained from high school.

Pedagogical Internships

Increasing numbers of colleges and universities are engaging students as interns to faculty to provide the "student perspective" on the dynamics of a classroom and the teaching and climate of inquiry within it. This kind of experience draws students into the circle of increasing expertise, discourse of the discipline, and habits of mind needed to understand how the academy itself functions and how academic inquiry works. Such learning opportunities for students also create conditions for developing simultaneous trust in an authority and the safe space to question the authority of an expert—the faculty member. For the faculty member, receiving sustained feedback on teaching abilities with challenging content from a student affords opportunities for professional growth and the cultivation of a community of inquiry where trust can grow.

MIND-SET AND METALITERACY IN AN EVOLVING INFORMATION ENVIRONMENT

The venues described in the previous section allow learners to engage in rich, meaningful conversations with fellow students and with subject or professional experts who are modeling the spirit of inquiry. These types of engagements have the potential to build the atmosphere of trust that is needed to analyze issues related to authority, expertise, and credibility.

These transformative learning experiences require challenging one's own mind-set to recognize the need to confront, and then effectively and consistently grapple with, one's own biases, predilictions, and world views. It is particularly hard to do so today, when much of the information one encounters has been presented from within a filter bubble that mirrors one's own convictions. Listening closely to the understandings of others, sharing one's own thoughts, learning more through research and inquiry, and then reexamining initial knowledge and assumptions are vital accomplishments for college students. The information environment changes continuously, though underlying issues that impact how one finds and uses information—such as confirmation bias—do not. Learning opportunities that allow for deep engagement with others move beyond cognitive and behavioral goals to address the metacognitive and affective issues. The metaliteracy framework highlights the importance of integrating these four learning domains—cognitive, behavioral, affective, and metacognitive—and aligns with transformative learning:

> The use of the term *metaliteracy* suggests a way of thinking about one's own literacy. To be metaliterate requires individuals to understand their existing literacy strengths and areas for improvement and make decisions about their learning. The ability to critically self-assess different competencies and to recognize one's need for intgrated literacies in today's information environment is a metaliteracy.[27]

Metaliteracy also emphasizes the role of learner as creator, as well as the collaborative nature of information creation. Technology provides unlimited opportunities for creating and sharing information, both individually and with others. When developing shareable information, working with others, both locally and globally, has the capacity to encourage discussion and reflection that includes issues of trust, authority, credibility, and expertise.

DESIGNING FRAMEWORK TEACHING FOR MAXIMUM IMPACT

It is significant that there are multiple points of overlap between the Association of College and Research Libraries' (ACRL) *Framework for Information Literacy for Higher Education*, which was informed by metaliteracy, and the theory of transformative learning.[28] The ACRL *Framework* also foregrounds habits of mind, builds on the idea of thresholds that students need to traverse on their way to new understandings, and stresses the lifelong nature of information literacy.

The pertinent knowledge practices and dispostions found within the six frames—but particularly "Authority Is Constructed and Contextual," "Research as Inquiry," and "Scholarship as Conversation"—may be used within the learning venues to consider issues of trust, authority, credibility, and expertise. To address knowledge practices and dispositions in a programmatic way throughout the venues, one method for charting them is to use a calibrated approach in which the practices (and matching dispositions, where appropriate) are introduced in the way that makes sense for the curricular or co-curricular context, then are built on progressively in other venues.

For example, in the "Research as Inquiry" frame, one knowledge practice central to inquiry is "formulate questions for research based on information gaps or on reexamination of existing, possibly conflicting, information." For this same frame, a disposition—an affective or attitudinal driver—is "maintain an open mind and a critical stance." The pairing of the knowledge practice with the disposition in this case creates a more powerful learning goal for the student: "develop research questions that require ongoing reflection, open-mindedness, and sustained attention to

conflicting information." The combinations of knowledge practices and dispositions through rewriting and recasting reach toward the "habits of mind" needed for students to experience the necessary ambiguity of the highly mutable, uncertain, and fragmented information environment of the present. Repeated experiences with these cogent combinations of knowledge practices and dispositions, designed into learning venues, provide students with safe but challenging ways to test their assumptions, reflect on their own deficits in knowledge, address some of their cognitive biases, and develop the emotional "muscle" to deal with ambiguity and the polarization they see swirling around them.

A calibrated approach to writing learning goals for various venues described in this article suggests myriad possibilities for librarians and disciplinary faculty to collaborate on course and learning design. The flexibility inherent in this instructional design method permits cross-frame matchings that may be appropriate for a particular learning goal. It is also possible that a goal is well suited to a second knowedge practice or disposition. Both of these cases are to be found in the third example below; however, care should be taken so that the learning experience remains focused and the goal achievable, which suggests restraint in the selection process.

Below are three suggested examples of knowledge practice, disposition, and learning goal groupings matched with potential venues for their use and assignments that would help to reach these programmatic goals (learning outcomes would be created for specific situations). Please note that while the knowledge practices and dispositions are taken directly from the *Framework*, the learning goals are not. They have been written to meet a specific learning need and situations in which that learning might take place. The first example uses the pairing and learning goal that provided context above and links it to two potential learning experiences.

RESEARCH AS INQUIRY

Knowledge Practice: Formulate questions for research based on information gaps or on reexamination of existing, possibly conflicting, information.

Disposition: Maintain an open mind and a critical stance.

Learning Goal: Develop research questions that require ongoing reflection, open-mindedness, and sustained attention to conflicting information.

With the "Research as Inquiry" learning goal created above from the knowledge practice and disposition, general learning goals in two venues might be as follows:

First-Year Writing Course

Students develop one research question on the topic of sustainability that they investigate through inquiry into three different information sources with different perspectives and resolutions of possible conflicts according to the evidence provided in the sources.

Senior Capstone (Synthesis) Course

Students create a research proposal with a well-defined research question and two subquestions on the relationship between sustainability and community development, and seek to create a solution for a local community problem grounded in sustainability.

AUTHORITY IS CONSTRUCTED AND CONTEXTUAL

Another example of calibration is designed to deepen habits of mind.

Knowledge Practice: Students understand the increasingly social nature of the information ecosystem where authorities actively connect with each other and with sources over time.

Disposition: Develop an awareness of the importance of assessing content with a skeptical stance and with self-awareness of their own biases and world views.

Learning Goal: Students identify their own assumptions in evaluating the content produced by different interest groups in a contemporary political debate.

This practice calls on students to see connections among authorities and experts, not just individual sources in isolation. Combining this knowledge practice and this disposition creates a habit of mind that looks for authoritative individuals or groups, and their relationships with each other, while requiring students to suspend their own biases and preconceptions in examining those sources or networks of experts. This particular habit of mind is especially crucial now when experts and authorities may be legitimately questioned, when citizens themselves contribute to the information ecosystem, and when markers of authority are more fluid and uncertain.

A calibrated approach to this learning goal in different venues might be as follows:

Living-and-Learning Community

Students in a living-and-learning cohort examine immigration through the multiple lenses of culture, economics, workforce development, law, social justice, and international relations. Students identify the conflicting perspectives from different interest groups represented on the current immigration issues in each lens and the place of those perspectives in the media ecosystem, and then identify their own assumptions in evaluating the sources of information represented by those interest groups.

Undergraduate Research

Students in a junior political issues course conduct research into contemporary immigration issues by developing a research question and examining a range of scholarly

perspectives before developing a survey instrument concerning attitudes about immigration on their campus and developing a critical reflection journal on their findings both from literature review and local research through the survey administration.

Service Learning or Internship

Students in a social work class with a community-service requirement take an instrument on implicit bias as precursor to field work in their city or community alongside social work professionals to interview undocumented immigrants on their social and information needs.

SCHOLARSHIP AS CONVERSATION AND AUTHORITY IS CONSTRUCTED AND CONTEXTUAL

A third example uses two related knowledge practices, one from the "Scholarship as Conversation" (SaC) frame and one from the "Authority Is Constructed and Contextual" frame (AICC). An appropriate disposition is found in "Scholarship as Conversation." This calibration is designed to encourage reflection on one's role as an information creator and the recognition that created information is subject to scrutiny and feedback by others.

Knowledge Practice: Understand the increasingly social nature of the information ecosystem where authorities connect with one another and sources develop over time (AICC).

Knowledge Practice: Contribute to the scholarly conversation at an appropriate level, such as local online community, guided discussion, undergraduate research journal, conference presentation, or poster session (SaC).

Disposition: Understand the responsibility that comes with entering the conversation through participatory channels (SaC).

Learning Goal: Students recognize their responsibilities while participating in a community of practice engaged in generating information.

Learners are often used to creating or sharing content on informal social media sites, but many do not see themselves as contributors to more formal information sites and may not recognize the responsibilities that come with doing so. The following venues would provide opportunities to do so in an atmosphere of inquiry, reflection, and trust. This goal might be calibrated at different levels:

Lower-Level Inquiry-Based Courses

Students in a gender studies or information literacy course participate in the WikiProject Women in Red and work in teams to research and write entries for women for the project that strive to improve the gender balance on Wikipedia. Teams post their entries and then monitor and assess the changes that others make to their entries.

Senior Capstone Course

Students in a thematically based senior capstone course create a topical blog for which they write entries referencing the formal and informal writings of scholars and extending the conversation through their own contributions. They might ask these scholars for their feedback through blog contributions.

The examples provided here are not prescriptive or definitive. The calibrations need to be tailored to a particular group of students, level of learning, venue, and course goals, among other elements. They must be well integrated into a course that is designed to foster a community of inquiry in order to accomplish the goals that characterize transformative learning and metaliteracy. A faculty member's collaboration with a librarian might follow the process described here to create learning goals from knowledge practice and disposition pairings, followed by appropriate learning outcomes and assessment methods.

CONCLUSION

In these times, the challenges for librarians who teach and who partner with faculty and others who teach cannot be met by incremental changes or small adjustments. Difficulties with trust, credibility, authority, and expertise now permeate our society, causing large numbers of citizens to question facts, journalistic integrity, scholarly methods, and what in previous periods in history were accepted as settled facts and reliable information sources, including experts. The fragmentation of the information landscape, the toxicity of much current public discourse, and the attention deficits caused by social media and mobile devices are all both symptoms of the deeper trust problem in our society and causes of further declines in trust. This very large problem pervades our culture, our politics, our communities, and our educational system.

Librarians and libraries can contribute to their institutions most significantly in the future by fostering communities of inquiry that model a discourse of trust—where experts and authorities are questioned and interrogated with respect and with informed skepticism; where those communities of inquiry include colleagues within and beyond the library, as well as community members and alumni; and where students themselves join those communities and grapple with big challenges and the confusing welter of the scholarly information landscape in appropriately calibrated ways. Librarians should focus on the high-impact practices that immerse students in deep and self-regulated learning and that cause them to question their assumptions in a safe environment. Such high-impact practices should begin in the first year and continue in developmentally appropriate ways throughout the undergraduate years, and librarians should position their own expertise and co-design high-impact

learning experiences with faculty and, when possible, with students themselves. Students will develop habits of mind to face the unsettling world not through occasional exposure to complexities or through reductive checklists and small outcomes for learning, but through regular and carefully designed experiences with large learning goals that require rigorous thought and critical self-reflection.

The habits of mind that speak to the best in all of us as members of academic and larger communities—curiosity and intellectual engagement, empathetic and respectful listening, a driving search for facts and truth grounded in reality, a willingness to suspend judgement and to remain open to new information and perspectives, and an acceptance of our own fallibility and blind spots, with the motivation to correct them—should be the same habits of mind that we cultivate in our students. They are our future, and the highest professional responsibility we can perform is trusting them to become members of the academic community rather than passive observers of it or consumers of its credentials. All of us—librarians, faculty members, staff, and administrators—can join in this large quest for restoring trust by engaging students in that search. The habits of mind that build trust, developed in larger communities of inquiry and stretching across our campuses, among campuses, into communities, and even into other countries, are one of our best hopes for shaping a more civilized society.

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Silencing Marginalized Voices

The Fragmentation of the Official Record

Librarians have good reason to be concerned about the potential loss of government information, but they can take action to help preserve the historical record.

When researching historical topics, government statistics are often viewed as the most reliable source of information, lending credibility to the researchers' arguments by providing documentary evidence of how society is changing. In investigating issues related to equity, diversity, and inclusion, these statistics serve as benchmarks for the progress (or lack thereof) on how historic injustices are being addressed. Therefore, it is imperative that the information be reliable, verifiable, and available. Accordingly, when any of those elements are in question, the citizenry should be gravely concerned, as it can be daunting to challenge the official record of our society, especially when marginalized voices are the ones being distorted, ignored, or erased. Let's review a few examples that illustrate this issue.

After January 20, 2017, the LGBTQ+ resources on the White House website formerly available under the previous administration could no longer be found. In the intervening months, no new information related to LGBTQ+ issues has been posted to the White House website. Though changes to the White House website are expected when new administrations take office, the disappearance of entire categories of information should be alarming to anyone concerned about preserving the public record. Thanks to the National Archives, the information from previous administrations' websites will be preserved, thus making it available to researchers for the foreseeable future. However, the archived website notes that external and internal links may no longer work, as pages previously available on other governmental websites may have also been removed by whichever administration is currently in office. In this case, the Internet Archive may have the missing pages on their website, but there's no guarantee that the desired information was captured, whether because pages were missed or snapshots missed important updates. There is also no guarantee that this nonprofit, nongovernmental website will continue to be available in the future. Without reliable access to government information, researchers will not be able to document what was available on governmental websites, and an important source of public policy data will be lost to future researchers.

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Unfortunately, there is no easy way to monitor when information on government websites is changed or removed. Some websites, like that of the State Department, offer a subscription option to get updates on changes. However, other websites lack that option, so the only way to stay on top of changes is to visit websites on a regular basis to see when the information has been refreshed. Another option is to visit sites like the Internet Archive to compare different versions of a website over time to determine when information has changed, been replaced, or been removed. Given the Internet Archive's scope, it should not be surprising that archival snapshots of some websites can be few and far between, so this strategy may not work for specific web pages, especially for complex government sites with multiple layers of links and pages.

Thankfully, there have been a number of preservation efforts over the years specifically targeting government information. One of the earlier preservation efforts is the CyberCemetery at the University of North Texas. As noted in the collection's scope statement, "the CyberCemetery is an archive of government websites that have ceased operation (usually websites of defunct government agencies and commissions that have issued a final report)."[1] Though a wide variety of topics are covered—including the website for the White House Initiative on Educational Excellence for Hispanic Americans—those related to issues of equity, diversity, and inclusion are in the minority.

Other projects target active government websites, including the Web-at-Risk project from 2005 to 2009 that culminated in the Web Archiving Service of the California Digital Library.[2] Though that service still exists, they now use the subscription-based Archive-It service from the Internet Archive, thus further concentrating the preservation efforts in that one organization. The Internet Archive is also part of the End of Term Web Archive project, which was founded in 2008 to focus on preserving websites that may be "most at-risk of change or deletion at the end of the presidential term."[3] Other partners include the University of North Texas and the California Digital Library. Those names should sound familiar, highlighting the fact that there are just a few organizations focused on preserving government information.

Though the project's founders agree that archiving of these websites should happen on an annual basis,[4] their funding does not support increasing the frequency of collection, which is currently limited to presidential election years.

The good news is that other organizations are starting to get involved. Projects like the DataRefuge at the University of Pennsylvania will be crucial in the coming years to ensure that researchers, scientists, and historians have access to the government information they need to continue their work on topics like climate change.[5] However, not all subject areas are covered by projects like these, so without someone championing the preservation of government information on specific topics, such as those focused on marginalized communities, it is possible that some information will be lost forever.

Thus far, we have reviewed some of the efforts aimed at preserving government websites. What happens when the information posted on government websites isn't accurate in the first place? Given the hostile tone of the current administration toward undocumented immigrants, it would not be surprising if any member of an immigrant community would hesitate to interact with government officials, thus calling into question the accuracy of any government surveys designed to collect information about our communities. Statistics about undocumented immigrants will be skewed away from the real numbers, giving false impressions about the efficacy of governmental initiatives, and researchers on all sides of the issue will have to depend on other potentially less reliable sources of information when trying to analyze the situation.

Though this may sound like a scenario based purely on speculation, a recent article in the *Washington Post* notes that efforts are underway to insert a question into the 2020 census asking respondents about their immigration status, which has never been done before and would likely have an impact on response rates from immigrant communities.[6] The same article noted that a top contender for the deputy director of the US Census Bureau (the top administrative position related to the census) is an academic with no government experience.

In light of all of this, what's a librarian to do? In addition to actively lobbying our elected officials to preserve the historic reliability of government information and related collection practices, we should take on the tasks for which we are best suited as a profession: the preservation and organization of information. We should follow the lead of our colleagues at the University of North Texas and the California Digital Library by identifying at-risk government information on websites and developing a plan for archiving those sites. If we are at institutions that do not have the necessary resources to support large-scale archives, we can identify key documents and host them on our own websites. If that is not an option, we can volunteer to help with existing preservation projects. As noted on the End of Term Web Archive, volunteer nominators are vital to the success of the project and are "asked to contribute as much time and effort as they are able, whether it be a nomination of 1 website or 500 websites."[7] In his article in the *Serials Librarian*, Nick Szydlowski said it best:

> The Internet Archive is a wonderful service, but librarians and archivists should not be lulled into thinking that the job of archiving the Web content that is most important to our patrons will be done by someone else. Institutions should identify content published on the Web that is important to their missions, and verify that that content is being archived adequately by an existing Web archive. Unless we really do discover a way to travel through time, we will only get one chance to preserve the materials needed by current and future researchers.[8]

As marginalized groups are often disproportionately impacted by issues that should be the concern of the federal government—whether it be environmental concerns, educational policy, or protection of civil rights—reliable access to government information will continue to be paramount for those fighting for equity, diversity, and inclusion.

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Data We Trust—But What Data?

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The Obama administration's time saw massive amounts of government data shifting online. It can be hard to remember the landscape back in 2008, when very few people had smartphones, and Facebook had fewer than 150 million users—less than 10 percent of its current size.[1] We were just starting to grapple with all the data that was becoming available. The administration embraced the trend. They launched data.gov, a project designed to serve as a repository of important data sets from the federal government. Agencies followed suit, uploading their data or creating their own repositories. Databases, websites, and all sorts of content became accessible online. It appeared we were entering a golden age of open data, where citizens would have access to the raw data that their tax dollars funded, that fueled policy decisions, and that affected their lives. The movement of government data to the web improved transparency and fueled research to complement official sources.

With the shift in administrations from Obama to Trump, the climate of open government data has shifted as well. There were serious fears that the Trump administration would remove vast amounts of data from government websites. Academic groups, libraries, and nonprofits began archiving open data sets and government web pages. Up to now, however, there has not been a massive removal of government data. Most of the data.gov data sets are still present, and there has been no order to delete these records en masse. But does that mean that the current administration is committed to open data like the Obama administration was? No. We have seen information, data, and websites from government agencies hidden, pushed aside, or suppressed when it does not align with administration policies.

On top of that, the administration has allowed new, less trustworthy information to invade publicly accessible sources. Bots—automated programs that post content and interact with existing content—have corrupted public processes on social media such as Twitter and in government systems. While the bot comments are not official government information, they provide complementary optics to the suppression of information; they may illegitimately make it look like there is public support for or interaction around an issue.

How does an information seeker determine what information from government websites is trustworthy and what is not? At this point it is often

a matter of thinking about what should and should not be there rather than the data itself.

UNDERSTANDING WHAT'S MISSING

Suppression has been the tactic of choice for the current administration when government websites have politically inconvenient information. The first of these steps was the very visible Inauguration Day ban on the National Park Service using social media,[2] after they shared photos comparing the crowds on the National Mall during the Trump and Obama inaugurations. The Badlands National Park account responded by "going rogue" and tweeting facts about climate change in the subsequent days.[3] The mere fact that there was controversy around a national park account sharing scientific facts about the environment signaled how dramatically the landscape had changed for government information sharing.

That social media ban was followed by an order to the Environmental Protection Agency (EPA) and the Departments of Transportation, Agriculture, and the Interior that banned any communication with the media.[4] Within the EPA, the term climate change has been systematically removed from many pages.[5] A subsite that was called "Climate and Energy Resources for State, Local, and Tribal Governments" was removed and eventually reappeared without the "climate" part—shortened to just "Energy Resources for State, Local, and Tribal Governments."[6] The entire climate change section of the site at epa.gov/climatechange was taken down; for months, it has simply said it was being "updated." Though an archive of the old site is available, the EPA is clearly done updating their climate information for the foreseeable future. Other government websites have seen sections that are out of step with the Trump administration's priorities hidden or totally removed.[7]

The absence of information on a government website sends a message. If there is almost no mention of climate change on the EPA website, does that mean it is no longer an issue of serious concern? Of course not. However, for citizens looking for information about the topic, the lack of mention may communicate that climate change is not important in the United States. That is a failure of government websites to provide trustworthy information about the state of the world.

On social media, concerns have also arisen regarding access to Donald Trump's Twitter account. Members of the administration have claimed that tweets on Trump's account @realDonaldTrump are official policy statements.[8] If that's true, it is official information, and it would be considered a government publication that any and every citizen should have access to; however, Trump has taken to blocking people who criticize him. This prevents the blocked accounts from viewing Trump's posts. Some of those blocked users are now part of a lawsuit against Trump.[9]

All of these actions raise questions about the trustworthiness of government data. While there has not been large-scale manipulation of the content of data sets, there has been significant suppression of government information. Agencies have been prevented from sharing content that would have been part of their normal business under most administrations. Websites and information have been hidden. Individuals have been blocked from accessing some data. Does this mean the data you can access cannot be trusted?

It seems so far that government data sets are still accurate. In that sense, if you are looking for census numbers and you download them from census.gov, you can trust that those numbers are accurate. We will look at more ways of assessing those data sets later in this article.

It is worth noting that this is certainly not the first time political interference has had this effect. Consider gun control. Gun violence is a serious public health concern. The Centers for Disease Control and Prevention (CDC) is the government agency tasked with protecting public health. They study not just diseases but also causes of injury such as automobile accidents. Gun violence is a leading cause of injury and death in the United States, but it is barely studied by the CDC. This is not because they fail to understand the magnitude of the problem; it is entirely political. Since 1996, the Dickey Amendment to the government spending bill prohibited the CDC from using any funds to "advocate or promote gun control." This essentially prevented any research because if conclusions from a study found that gun control would improve public health outcomes, the CDC could be seen as advocating for or promoting it. Thus, there is very little government-funded gun-control research; politics has suppressed its visibility despite the fact that it is a major public health issue. If someone wants public health data about gun control, they need to look elsewhere.

WHEN THERE'S LESS THAN MEETS THE EYE

The flipside of the problem of suppressed information is that illegitimate information is making its way into government information sources, sometimes even official records.

While no one would seriously consider social media comments as a reliable source of information about a topic, social media is a cornerstone of the current administration's public communication strategy. This opens official statements to commentary, likes, and shares from anyone operating on those platforms.

Consider this tweet from Donald Trump (see figure 1). It has close to 160,000 likes. Does a tweet with 160,000 likes indicate there is broad public support for the idea Trump shared in the tweet? What if only two people had liked that tweet? Even if those likes aren't official government information, the volume of likes sends a message.

Now what if I told you that 159,998 of the likes were fake, generated automatically by Russian computer programs with fraudulent Twitter accounts, and only two likes came from real human Twitter users? That sends a message, too. Unfortunately, we don't really know how many likes come from bots, but research has shown that pro-Trump bots

Figure 1. Sample Tweet

overwhelmed Twitter with posts and likes to the point where it may have affected the outcome of the election. Researchers have identified many of Trump's followers and accounts that like his tweets as bots. When there is uncertainty about the validity of public interaction with government, it is important that the volume of interactions not be given weight.

Unfortunately, these problems have seeped from social media into official records. The debate over Internet neutrality rules—regulations that require Internet service providers (ISPs) to treat all data online the same, without blocking, slowing, or speeding up certain content—has been ongoing for years. Internet service providers argue they can be more innovative without regulation. The vast majority of Americans want net neutrality and do not want their ISPs manipulating their online experiences. From April 27 to August 30, 2017, the Federal Communications Commission (FCC) collected public comments on their plans to repeal net neutrality regulations and give ISPs control over the way Internet traffic is treated. Millions of comments were submitted. An analysis found over a million of these comments were generated by bots that used artificial intelligence to create comments that were posted under the names of Americans who knew nothing about it and never intended to submit comments. Many were posted from Russian accounts. These comments have not been removed from the record; the FCC has kept them as part of the legitimate set of public comments. The fraud has been so bad, including the specter of foreign influence over an American regulatory process, that New York Attorney General Eric Schneiderman has been investigating the comments.[10] Despite his requests, the FCC has refused to cooperate with the investigation. The fraudulent comments align with the administration's political goals, which decreases any incentive to correct the record.

There are many ways to interpret the FCC's actions, but one message is clear from the perspective of trustworthiness: the presence of public comments on government proposals cannot be trusted as representative of the public's feelings. Certainly, some people will always try to manipulate things to their advantage, but when an agency refuses to support an investigation into improper actions within their own system, you know there is not a vested interest in accurately reflecting public opinion through the process.

NOW WHAT?

So, in this situation, how does one find and analyze trustworthy information sources? Here are some guidelines that may be useful:

Before using a data source, check on its status. Many watchdog groups are monitoring documents, websites, and data sets for changes. You can check with groups like the Sunlight Foundation to see if your data set has been flagged. It may be that information has been changed or removed. When looking for groups to verify your data, look for nonpartisan organizations, academic groups from well-known universities (be wary of private schools that have an ideology to push), or professional societies that represent large groups of working professionals in a field.

The absence of government data means nothing. If a government website does not discuss an issue or provide data on a topic, that does not mean the government or society at large is unconcerned with that issue. Data that you know once existed of may disappear, whether it is a tweet or an entire topic like climate change. The watchdog groups mentioned above may also track disappearing data. Many are archiving data sets outside the United States, so you can download copies of the originals.

Be wary of considering interactions with the public. Whether it is interaction statistics or actual comments, we are in a period where parties outside the United States are using automated techniques to completely corrupt any public interactions surrounding governmental or political discourse. It can be tempting to consider the volume of interactions as meaningful, but these can be easily falsified on a massive scale.

Look for other sources. If you are looking for certain types data, governmental sources outside the United States may be a good resource. Canada has an outstanding open government data program, and there are many excellent resources in the EU as well. For things like scientific data, these may be more reliable and complete sources. For US-centric data, it is again worth looking at professional societies and nonpartisan nonprofits. These groups will typically be focused on the particular issue you care about (e.g., gun control, immigration, etc.), but for non-biased data, be sure they do not have an advocacy agenda.

In the last year, we have not seen a massive removal of government data. We have seen targeted suppression and a general lack of concern for having government data sources reflect objective truth. Fortunately, many organizations are monitoring, archiving, and analyzing changes to official data. They can help users assess the data they see, recognize the content that is missing, and access data that has been lost. In a shifting environment of data reliability, such resources are likely to grow in value and importance.

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Reflections on Fake News, Librarians, and Undergraduate Research

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The recent explosion of "fake news" highlights the need for academic libraries to provide access to reliable information resources and for librarians to instruct students in using them effectively. Providing reliable resources with minimal barriers to access involves cooperation among librarians, publishers, and vendors; however, I suggest that there is tension between our mutual desires to satisfy student demands for instant and perfect results and to encourage them to become persistent and critical information seekers. Many tools exist to assist students in gaining background information and limiting search results, but ultimately none replace the need to develop and explore questions and to evaluate information sources. In this paper, I reflect on the difficulties of persuading students to persist in using library resources and the use of Bernard Lonergan's generalized empirical method as a framework for critical thinking and information literacy.

Fake news" has become a buzzword since the US election in 2016, but the deliberate creation of false information (disinformation, propaganda) and the misrepresentation or distortion of factual information (misinformation, yellow journalism) are nothing new, especially for librarians. Information in its myriad forms is our daily currency, and providing access to trustworthy information is the primary reason that libraries and librarians exist. But something about the latest manifestation of this phenomenon has caught our attention. A search for "fake news" in almost any database or discovery service will produce a plethora of results, most of them recent publications in the library literature.[1] *Library Quarterly* devoted most of its July 2017 issue to the topic, there were at least three sessions at the 2017 Charleston Conference explicitly focused on fake news, and a recent ALA webinar, "Tackling Fake News," drew over eight hundred attendees.[2] So why the sudden flurry of concern?

One immediate answer is "the Internet and social media""—indeed, in many databases, the subject associated with fake news is "False news (Social media)." Most millennials—and not only millennials—spend hours a day on social media, which has become their primary source of information. According to a recent Pew Research Report, two-thirds (67 percent) of Americans get at least some of their news on social media—with two in ten doing so often.[3] The ease and speed with which items can be received and reposted, "liked," or "retweeted" is phenomenal. A YouTube recording can "go viral" in

no time. One must wonder how often the information is actually read, let alone understood and evaluated. A related concern is that we live in a "post-truth era," in which information that appeals to the emotions or conforms to personal beliefs is likely to be accepted without question.[4] As Nicole Cooke eloquently explains, emotional appeal overrides seeking objective or factual answers, facilitating the rapid spread of fake news.[5] The construction of "filter bubbles" by social media groups and personalized web services means that users can avoid encountering alternate viewpoints and remain in an intellectual enclave that constantly reinforces their preconceptions.[6]

Information that is deliberately faked with malicious or mercenary intent is deeply offensive to librarians and our professional ethics, and it spurs our passion and our mission to promote information literacy. The ability to evaluate information and use it wisely lies at the heart of information literacy. Recently some librarians have adopted the broader term "*metaliteracy*" to embrace all forms of literacy, including digital media literacy, in the hopes of moving the discussion beyond the perceptual framework of traditional "library instruction";[7] however, the guiding precept for metaliteracy is still our old friend "critical thinking." Unfortunately critical thinking has also become something of a buzzword and is often ill defined.[8]

One might think that the fake-news phenomenon concerns school and public libraries rather than academic libraries. Academic libraries provide an abundance of vetted information through carefully selected books and journal and database subscriptions as well as research tools and information-literacy instruction. Do these not provide safe information havens for our students and keep them on track to becoming savvy, well-informed researchers? We would like to think so, but as evidenced by the growing number of academic librarians offering fake-news research guides and flocking to fake-news webinars and presentations, we are not immune from the disease.[9]

First, we must remember that our students have lives beyond the academy. They use the Internet and social media on a regular basis for many purposes, and like any member of the public, they need to become informed and critical information users in those domains. Second, not all information needs—even for academic purposes—are for scholarly sources. My experience is primarily in the sciences, where peer-reviewed articles are the gold standard, but assignments in other disciplines often call for news items or other non-peer-reviewed sources. Consider the perennial first-year assignment to "discuss a current controversy." I point those students to databases such as Gale's Opposing Viewpoints or Sage's CQ Researcher to get started, but no doubt many will choose to use Google or a similar search engine. And, of course, many of our databases include newspapers and magazines—typically reputable titles but still not immune to sensational or distorted reporting. Some of the best undergraduate assignments call for a mix of "popular" sources and peer-reviewed articles, with a significant element being to differentiate between and compare them, including evaluating and making a judgment about their authenticity; however, not all instructors require students to use library resources for their assignments, especially in their first year. At our institution, we work closely with teaching faculty who generally do insist students use library databases (of course, whether students actually do so is another question), but this is not always the case. If instructors allow any "reasonable" source, students will inevitably turn to Google for their information needs. Indeed, we often debate whether first-year students should be expected to use scholarly sources and/or whether we should focus on journals and databases that will likely not be available to our students after they graduate. Inevitably such discussions evoke the need to teach students lifelong critical-thinking and information-literacy skills that they can apply to any situation or information source.

I should stress that not all Internet or social media sources are "bad": for example, our computer-science faculty and advanced students inform me that their primary means of scholarly communication are through wikis, blogs, and the like. Citing a first-hand experience, I am embedded in a cross-listed anthropology and women's studies course where we recently had the privilege of a class discussion with feminist writer and poet Naomi Extra. In the course of the discussion, she noted that in addition to a robust body of conventional scholarship, important conversations and debates (especially among black feminist writers and scholars of a particular generation) are also happening on social media and that these sometimes influence the scholarship in pronounced ways. Perhaps our database providers might consider including a selection of these "scholarly blogs" in their indexing, or librarians might consider subscribing to a "scholarly-blog" provider such as the ACI Scholarly Blog Index.

The primary challenge of getting students to use vetted library resources is simply getting them there, as opposed to using a web search engine such as Google. My approach is to supplement the traditional discussion of why Google is not appropriate for scholarly research (no oversight, too many results, too many unreliable results, too many advertisements) with a simple appeal to the pocket. Ironically this is facilitated by the decision by some publishers and vendors (Elsevier among the first) to index their content on Google. This often leads users outside the library environment to encounter a paywall—a demand for payment to access full text. I ask the class if anyone feels they do not pay enough in tuition (a sure laugh maker) and would like to pay again for content they have essentially paid for already. This typically gets the point across.

Assuming we can convince our students to use library resources, multiple challenges remain. One is that many students dive into searching before they have done any background research on their topic and developed a viable research question.[10] They are in a hurry to get their research done and want to skip that critical step, so their results are all over the place: too many or sometimes too few, seemingly

irrelevant or sadly incomprehensible. The resultant frustration leads them to repeatedly change their topic or abandon the library search for their familiar friend, Google.[11]

In addition to librarians repeatedly advising students to "think before they type" and do some background research, there are vendor-supplied tools to help with this problem. Our institution subscribes to EBSCO Discovery Service (EDS), where we encourage undergraduates to begin their research.[12] The simple EDS search box is front and center of the library home page (we encourage use of the advanced search and individual databases as instruction progresses), and the default keyword search often produces a useful "research starter" as the top result. Results from Credo Reference, usually topic pages, also display on the side of the results screen. Credo Reference is another resource that we vigorously promote for beginning research. We also encourage students to explore Opposing Viewpoints, CQ Researcher, and our recently acquired suite of Gale "In Context" databases to explore topics, gain background, and develop research questions. The latter are particularly promising in their ability to scaffold students from general background to specific articles, and I hope that Gale and other database providers continue to develop and refine similar products.

If the first challenge is getting students to use library resources, the second is surely getting them to persist and develop the habit of doing so. We know that students will quickly abandon a library-based search and revert to Google if they hit a stumbling block. This is particularly true of first-year students, who usually have limited experience with the structure of library resources and the scholarly literature. One bad experience can deter a student from using a resource—or the entire library—ever again. Not only are ill-designed searches (and library websites) a problem, but the very technology that we rely on to facilitate online research can create unexpected barriers. Any time a link resolver takes me to a journal table of contents instead of the article or produces a 404 error, or clicking "view eBook" links to the wrong title or yields the infamous "handler error" message, I see yet another library user lost to us.

When we are assessing library resources and processes, we should look at platforms and performance from a student perspective. If we want students to persist in using library resources, it is essential that we provide intuitive navigation and seamless linking to full text (or an interlibrary loan request if full text is not available), and minimize barriers such as multiple links, repeated demands for authentication, broken URLs, dead-end looping, or any other sort of message that "you can't get that here." This is particularly applicable to linking between content providers. I appreciate that many of our vendors are competitors for a limited market, but they need to understand that creating barriers between their resources hurts everyone in the long run. We can't run an efficient train service with a bunch of different-sized tracks.

Another challenge to effective use of library resources is that students tend to grab the first few search results that they find. A common scenario is this: "I need three peer-reviewed articles, and I've got them; now I just have to fit them into my paper somewhere." They rarely take time to carefully evaluate their results and persist in their search until they find the best sources for their paper. This is a good example of "satisficing" or "doing what's just good enough to get by," resulting from a combination of unfamiliarity with the peer-reviewed literature, time pressure, and the expectation of instant results that is reinforced by the Internet and social media.[13] For librarians, I see tension between our desire to satisfy students' demand for instant and perfect results (computer, you read my mind: those three articles are exactly what I need) and to encourage them to dig deeper—to explore, evaluate the results, and persist in their searches as outlined by the ACRL frames "Research as Inquiry" and "Search as Strategic Exploration."[14] There is no single or easy answer to this dilemma, but I reiterate the need for careful instruction combined with intuitive website and database design that leads students seamlessly from background research to relevant search results and access to full text without frustrating barriers.

This reflection piece would not be complete without a brief discussion of the trustworthiness of our own library offerings. We put a great deal of faith in our content providers in terms of providing accurate information for us. This is particularly true for the "background" sources to which we direct students beginning their research. I confess I have never sat down and evaluated the content provided by Credo Reference, Gale, and the like for accuracy and inclusiveness. Even if I had the time, I would not be competent to do so for subjects in which I lack extensive knowledge. Indeed, as librarians become increasingly time-pressured multitaskers and the world of information becomes ever more expansive and specialized, we, like our students, tend to abdicate evaluation of content to other "experts" (at least, we sincerely hope they are experts!). This means that our vendors and publishers play a critical role in the process of providing trustworthy information and avoiding not only fake news but also dubious or misleading information in all its forms. Careful curation is particularly important with regard to the recent proliferation of so-called "predatory journals, some of which have been found in various databases.[15] These journals entice researchers with promises to publish articles quickly—for a price—without the delay of rigorous (or sometimes any) peer review. Most are open-access journals, so by association, this burgeoning business model threatens the legitimate open-access movement that seeks to make research freely available. While not all articles published in predatory journals are "bad," these journals typically have poor editorial practices such as sloppy proofreading and presentation, and a general lack of the professionalism that we expect from peer-reviewed journals. It is probably too much to expect undergraduates to evaluate entire journals, but we should encourage them to evaluate individual articles to the best of their ability.

A useful tool in the struggle to convince our undergraduates to use library resources is the "peer-reviewed"

box offered by the majority of library databases—a facility notably lacking in Google or Google Scholar. Nonetheless, clicking a box cannot and should not take the place of critical thinking. We must encourage our students to evaluate information as far as their knowledge and experience permits. At our institution, we have had some success in this regard by incorporating Jesuit philosopher Bernard Lonergan's generalized empirical method (GEM) into a variety of courses and library instruction sessions. Lonergan's aim was to explore the common elements of human thinking that could be applied in any discipline. His GEM progression describes a dynamic cognitive process involving experience, understanding, judgment, and action.[16] The four deceptively simple steps of being attentive to one's experience, intelligent in one's understanding, reasonable in making judgment, and responsible in acting on that judgment align well with the both the scientific method and the new ACRL *Framework for Information Literacy*. An important component of Lonergan's GEM is our natural desire to ask questions and seek the truth, facilities that often seem repressed in our students and their world of instant answers.

In spring 2013, the Center for Servant Leadership at Seton Hall University initiated the Praxis Advanced Seminar on Mission ("Praxis"), co-sponsored with the Center for Catholic Studies and the Bernard J. Lonergan Institute.[17] The aim is to connect faculty and administrators in different disciplines to one another and the university mission by studying and applying GEM. The program consists of a semester-long training or immersion in the thought of Bernard Lonergan, with a request for a model of application (Applying the Method, or ATM) to their disciplines at the end. My own ATM involved collaboration with two Praxis colleagues to incorporate GEM into a large first-year biology laboratory course, particularly with regard to information literacy, over a three-year period.[18] We found that the students' selection, integration, and citation of references improved significantly and that they were writing overall much better lab reports and annotated bibliographies than they had been previously. Another key application of GEM to the first year has been its recent incorporation in the "university life" courses taught by freshman studies mentors to provide integration across disciplines and promote academic and personal success. This has since expanded into the first-year writing program. Since librarians collaborate with freshman studies, the writing center, and first-year English instructors to incorporate information literacy instruction in the curricula, there are multiple opportunities to reinforce GEM during library sessions.

Richard Grallo describes critical thinking as a "vaccine against . . . vagueness, falsehood, runaway wishes, untestable propositions, and incoherent projects."[19] We might usefully add "filter bubbles" and "fake news" to this list of "cognitively transmitted diseases," along with the problem of "digital maximization" and "digital distraction," which act against critical reflection and judgment.[20] While the uncritical acceptance of information is a key problem, the opposite approach of rejecting all information, reputable or otherwise, as lies or falsehoods is perhaps an even more opprobrious response to fake news and the post-truth era. The issue that underlies both responses is the abdication of personal understanding, judgement, and responsibility that should guide informed decision-making. Hopefully a combination of cooperation among librarians, vendors, and publishers in providing carefully curated resources, information-literacy instruction, and training in critical thinking will guide our students—tomorrow's leaders—to become thoughtful information users who easily recognize fake news in its various manifestations.

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Revitalizing Scholarly Reference for Digital Research Requires a Redoubled Commitment to Quality and Community

Basic research faces significant challenges due to the staggering proliferation of information and misinformation online. High-quality reference works can help to address this challenge. In this paper, the author uses the example of the scholarly reference program at Oxford University Press to show how reference works can support emerging digital research needs and to argue that close collaborative engagement from the academic community is essential for ensuring the quality and authority online scholarly reference resources.

We know the story well. Mass digitization has led to an abundance of easily accessed, potentially useful sources of information, which in turn has transformed research habits at all levels. The overall impact is positive, but there are new challenges. The research environment has gone from a state of scarcity, where it took considerable effort even to verify basic facts, to an information-rich world where the most significant challenge researchers face is sorting through and making sense of all of those sources. The truth is out there, but the complexity of the retrieval environment has, paradoxically, made it harder to find accurate information because it is more difficult to evaluate the trustworthiness of sources and claims.

Oxford University Press (OUP) has reoriented its scholarly reference program in response to these shifts so as to better address the evolving needs and expectations of our core student and faculty audience. Yet despite significant changes in approach, certain aspects of the publishing process at OUP remain consistent: namely, an unwavering commitment to the authority and reliability of our sources and a close collaborative relationship with the academic community as the means for ensuring quality.

HOW HAS THE SCHOLARLY REFERENCE PROGRAM AT OUP CHANGED?

OUP's scholarly reference program is pivoting away from quick-look-up factual references to concentrate on developing resources that provide context, insight, and interpretation. Sort-and-sift technologies, such as abstract and indexing services, help a researcher refine their options, which is crucial in a field one knows well, but this refining is less helpful in unfamiliar areas of research. This is the gap we aim to

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address. We believe a recognized expert's unique synthesis of an area of scholarship they know well is the most reliable and most efficient means for providing a basic understanding of a topic. If you bring together many experts in one publication, it is possible to establish a foundational reference work that anchors knowledge in a given discipline.

Accordingly, we invite leading scholars to distill what they know in various ways so as to provide a researcher with an efficient pathway into an unfamiliar topic: whether it is an overview article as published in the Oxford Research Encyclopedias, a selective guide to the most important literature as published in Oxford Bibliographies, or a critical review essay published in an Oxford Handbook.

We publish long-form reference content so that facts and debates are provided with context. This sort of contextual guidance helps researchers to slice through an overabundance of information by providing a clear point of entry, a basic lay of the land, and a path for further research. The aim of the reference program at OUP is to create these points of entry and guidance.

While OUP continues to publish scholarly reference in multiple formats, our basic orientation is that of a digital publisher. This means we are alert to the multiple ways people might use and discover the content we publish, we recognize our authors' expectations for speed of publication, we recognize our users' expectations around updating and currency, and we look for ways to open up our publishing process to engage users for advice, feedback, and other forms of involvement.

HOW DO WE MAINTAIN QUALITY?

The tried-and-true methods OUP uses to ensure the quality and reliability of its scholarly reference works have not changed, even as the publishing process itself has evolved. Quality control begins during the initial planning phase. Press editors work closely with academic advisors to identify fields that would benefit from reference works, and then to recruit an editor-in-chief to direct the initial development of the work. We are looking for someone with broad knowledge of the field, a stellar reputation, and enthusiasm for the prospect of leading a large-scale collaborative research and publishing project. OUP works with the prospective editor-in-chief on a proposal that is sent to others in the field for comment and then refined.

Once the project begins, the first step by the editor-in-chief is to recruit an editorial board of subject specialists. For continuously updated, online reference works, the role of editorial boards is ongoing, and advisors sign on for terms of three years or more. As research networks are increasingly international, so too is membership on editorial boards. For instance, across the Oxford Research Encyclopedia program, we have advisors hailing from more than eighty countries. Editorial boards have three tasks: develop a list of potential articles in their area of specialty, recommend authors to write those articles, and oversee the peer-review process.

OUP's reference publications are by invitation only. When we receive unsolicited requests to write, those potential authors are approved by an editorial board, which is now happing with greater frequency, as more of our publications are discoverable online. When a finished article is submitted for publication, it undergoes multiple rounds of peer review. The standard process is for one external reader to review the essay, and then an editorial board member will review both the essay and the external reader's report. The author is then given an opportunity to revise their work before resubmitting it for copyediting.

For online reference works, all authors are sent an annual reminder starting the first year after the publication of their essay as a way to check if their article needs updating. Editorial board members review all articles in their area every three years to confirm whether an update is needed. For long-standing reference works, such as Grove Music, where some articles were written quite a long time ago, a co-author may be brought on to make adjustments to the bibliography or to the article itself, and this new person's involvement is credited on the website. Small updates are made directly and more substantial changes are reviewed and copyedited.

COMMUNITY ORGANIZERS

Speaking on the theme of reference publishing at the 2017 Charleston Conference, Uri Nodelman, a senior editor for the Stanford Encyclopedia of Philosophy, which is run out of the Philosophy Department at Stanford University, referred to the work of his editorial team as "community organizing." He explained that the purpose of the Stanford Encyclopedia of Philosophy was to organize a community of professional scholars to create and maintain an up-to-date reference work for themselves, colleagues, students, and the general public. I found this to be an apt description of the publisher's role on any major reference work, including those we produce at OUP.

Creating and maintaining any sizable, foundational reference work is a highly social undertaking. The most important contribution the reference publisher makes is, in my experience, in mobilizing a community of experts around the collective endeavor. What scholarly reference publishers bring is capital to fund the work, experience to help organize the project, and tools and infrastructure to manage the publishing process. However, what separates great reference works—those that have an enduring impact—is that, in addition, they have the support of the academic community whose scholarship and history is represented by the publication. For this reason, OUP strives to establish reference works that academic communities can rally around, argue with, contribute to, and feel proud of.

To a significant degree, quality control over reference works is dependent on the active support of a community of experts because the reliability of the content starts with the level of engagement from advisors who plan article topics and recommend authors, it carries through to the level of engagement of the authors when they write for the work, and it is what makes a peer-review process more meaningful than a simple up or down vote.

WHAT SETS SCHOLARLY REFERENCE APART FROM SOURCES WITHOUT FORMAL VETTING?

In the current information ecosystem, it has become increasingly important that facts are presented in context so that they may be evaluated and understood. This context, because it depends on the considered judgments of experts, is difficult to produce, but it is also valuable for research. Knowing who has produced a piece of content—both its author and the advisors who direct the containing work—is essential. Because it is the source of quality authors, quality vetting, and overall direction, the active participation of a community of experts sets scholarly reference apart from the masses of unvetted material found online. Without involvement by specialists in the planning and producing of content, it is difficult—if not impossible—for a reference work to remain relevant, useful, and authoritative. This is the key element behind the trustworthiness and authority of OUP's scholarly reference publications.

Cutting through the Fog

Government Information, Librarians, and the Forty-Fifth Presidency

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The presidential election of 2016 and the ensuing forty-fifth presidential administration have been marked by an increasingly polarized electorate, concerns about "fake news," and a greater use of social media. President Trump and his administration have utilized the increased disintermediation of information consumption by communicating directly to the public and going around the "experts." These phenomena raise issues for government information librarians concerned with the production, distribution, consumption, and preservation of government information, and impact the public's understanding of—and trust in—government information. The government information issues we see today are not entirely new, as past governmental obfuscation has been well documented, but confronting these issues in the twenty-first century poses unique challenges. Fortunately, individuals, institutions, and libraries across the country are responding to this unique moment with a host of innovative solutions that promise to keep Americans informed in these turbulent times. Current engagement around these issues is reflected in educational programming at universities and public libraries, citizen actions such as the Data Rescue movement, and hybrid projects such as the End of Term Archive. The Government Publishing Office (GPO) is due for modernization, and statutory reform of 44 U.S.C., chapter 19, is being debated by the Committee on House Administration, library associations, and the Federal Depository Library Program (FDLP) community. To meet the long-term needs of our users, librarians should advocate for the strengthening of existing structures for federal information such as the FDLP, LOCKSS-USDOCS, and the Hathi Trust Digital Library. Future initiatives must ensure that official legal processes remain in place to protect government information, while leaving room for creative nongovernmental collaborations as well.

I would say to my friend that while this topic (public access to government information) may not be on the front page of tomorrow's newspapers, it is vital to the continued health of a great democracy. And, to paraphrase . . . Thomas Jefferson: 'If we are to remain free, it is the responsibility of every American to be informed'—and our responsibility is to assist them with that information.

—Senator Wendell H. Ford, speaking during a hearing on Public Access to Government Information in the 21st Century, June 18th, 1996[1]

When Senator Wendell H. Ford of Kentucky checked the next morning's papers, he was probably not surprised to find no mention of the previous day's senate hearings on public access to government information. The four days' worth of congressional hearings on the topic in the summer of 1996, in fact, didn't merit a mention in any of the major American newspapers. More than twenty years have passed since those hearings, yet the issues related to public access to government information in the digital age have not disappeared. In fact, the 2016 election and the first year of this new US presidential administration have brought to light for the general public a host of issues related to the production, distribution, consumption, and preservation of government information. While these issues have been bubbling under the surface over the last few decades, they have taken on a new urgency in an era when a presidential retweet can dominate a day's news cycle, and thousands of ordinary citizens across the country gather together in computer labs to save government data they fear is threatened for partisan political reasons. Communication norms have been dramatically changing, but has the way government information librarians teach and preserve government information evolved with these shifting norms?[2]

In the middle of this historical moment, what is the unique perspective that government information librarians can bring to the table? How do we function when the integrity, reliability, and permanence of federal government information is itself in question? In this essay, we hope to establish that although government information has a unique flavor in this presidential administration, there are interesting and encouraging developments underway at libraries, universities, and other institutions across the country that present a path forward for handling government information in these uncertain times.

Today, as in the past, the bread and butter of our work has been connecting scholars and the general public with government information. Historically, that information took the form of tangible artifacts deposited by the Government Printing Office (now the Government Publishing Office) through the Federal Depository Library Program (FDLP): congressional hearings, environmental impact statements, or presidential speeches enshrined in the Public Papers of the Presidents of the United States. Now that information web extends to include thousands of government agency websites, databases, and Twitter feeds. Our users are often enthusiastic about tracking down official documents, but how can government information librarians better equip these users to evaluate and analyze the government content that is pouring out across a variety of platforms, including nongovernmental platforms? Today's information landscape provides a good reminder that to properly carry out GPO's motto of "keeping America informed," government information librarians need to go above and beyond merely providing content and assist users in understanding the information's creation and context.

THE PRESIDENT'S OWN NEWSPAPER: DIRECT COMMUNICATION TO THE AMERICAN PEOPLE

To understand how we got where we are today—and where we may be headed next—it's important to rewind back to the 2016 US presidential campaign. Donald Trump's meteoric rise from political neophyte to the US presidency was aided, in part, by increased disintermediation in how information is produced, distributed, and consumed in the Internet—and, specifically, social media—era.[3] In an in-depth study of election coverage from ten major print and television sources, the Shorenstein Center at the Harvard Kennedy School found that 77 percent of news reports related to candidate Trump were deemed to be "negative" in tone (Hillary Clinton also received mostly negative coverage).[4] Trump, however, was able to circumvent this negative coverage by tweeting his message directly to his millions of followers during the campaign. Trump was not the first politician or president to effectively use social media (as of October 2017, former President Obama had over twice the number of Twitter followers as Trump), but his use of it has been unique in its ability to influence media narratives. The Shorenstein Center found that while both candidates tweeted heavily during the 2016 campaign, "journalists monitored [Trump's] tweets more closely. . . . [He] met journalists' story needs as no other presidential nominee in modern times." As Trump wrote about his Twitter account in an especially prophetic tweet back in 2012: "it's like having your own newspaper."[5]

And as he campaigned, so has he governed. Unlike previous presidents, who have used more official channels to make policy announcements, Trump has frequently bypassed official government channels and delivered unexpected announcements on his personal Twitter account or through other informal methods.

In one instance, Trump tweeted early one morning in July 2017 that he had decided the United States "will not accept or allow transgender individuals to serve in any capacity in the U.S. Military."[6] The announcement, however, blindsided the Joint Chiefs of Staff, who had not been consulted prior to the tweet. Several weeks later, Secretary of Defense Jim Mattis noted that the White House still had not provided policy guidance on the ban and would not execute a policy

until it had done so. An official presidential memorandum wasn't drafted and signed until a month after Trump's initial tweet.[7] Later that year, a federal judge barred the Trump administration from executing the policy and "directed a return to the situation that existed before Trump announced his new policy."[8]

In another instance, Trump told reporters on August 10, 2017, that "the opioid crisis is an emergency, and I'm saying officially right now it is an emergency. . . . It's a national emergency."[9] But, as required by the National Emergencies Act, in order to officially declare a national emergency, the president must notify Congress to stipulate what the emergency provisions are.[10] Two months later, a national emergency on opioids had still not officially been declared. On October 26, Trump officially declared the opioid crisis to be a "public health emergency"—a declaration that does not put into motion the same mechanisms as a "national emergency" declaration.[11]

ELUDING CAPTURE: THE SOCIAL MEDIA–CENTRIC FEDERAL GOVERNMENT INFORMATION OF THE LATE 2010s

For the public, our students, and our patrons, these can be disorienting policy developments to track and research. Following an election cycle that saw a huge proliferation of fake news across the web, patrons are approaching information with heightened skepticism and wariness. Skepticism is understandable in light of revelations that many of the hyperpartisan "clickbait" stories that circulated around social media in the lead up to the 2016 election were traceable to a surprising source: very young hired workers in Veles, Macedonia.[12] There have been reference questions at our service points from patrons trying to confirm the reliability of information they've read on their social media feeds or through different media outlets. Historically, librarians have relied on official government information as the "authoritative" record of the government's doings, but when government information takes the form of unvetted tweets that can be instantaneously deleted, where should librarians direct patrons?

Adding to the confusion is the speed at which information travels in the social media age. During a House Intelligence Committee hearing on March 20 regarding Russian interference in the US election in 2016, the official Twitter account of the president (@POTUS) tweeted out commentary on the hearing several times with embedded video. Many were alarmed by the live, running commentary coming from the White House during the hearing that often contradicted the testimony that FBI Director James Comey and NSA Director Mike Rogers were giving. One @POTUS tweet led to a remarkable moment in the hearing when Democratic Congressman Jim Hines asked James Comey to clarify an assertion that the POTUS account had made about Comey's testimony. Comey, somewhat taken aback, replied, "I'm sorry, I haven't been following anybody on Twitter while I've been sitting here," and then remarked that the assertion made in the tweet was a misrepresentation of his testimony.[13] McKay Coppins remarked in the *Atlantic*, "This was not just campaign spin, or even presidential obfuscation. It was an official government communications arm of the executive branch with massive reach—something akin to a state-run media outlet—deliberately misreporting, in real time, what was happening on Capitol Hill."[14]

Now, certainly, government obfuscation is not unique to the current administration or era. The Washington office of the American Library Association, for example, published a series titled *Less Access to Less Information by and about the U.S. Government* throughout the 1980s and 1990s, which documented efforts by the federal government to limit or restrict the creation, distribution, and preservation of government information.[15] However, the overwhelming amount of government content that is being created today, without a reliable mechanism in place for its long-term access and preservation, makes this an especially perilous time for government information and an especially important time for librarians to advocate for its preservation.

James A. Jacobs and James R. Jacobs estimate that 310 million website pages were harvested from government websites in 2016 (double the number that were harvested in 2008) as part of the End of Term Archive project, an effort organized by libraries and other organizations such as the Internet Archive to capture the online record at the end of each four-year presidential term; see http://eotarchive.cdlib.org/2016.html. In comparison, GPO distributed only 3 million items to FDLP libraries in the previous two hundred years combined.[16] In 2013, GPO estimated that 97 percent of federal government information was "born digital" and "not held, managed, organized, served, or preserved by libraries" since current GPO policy excludes nontangible materials from being deposited to libraries as part of the FDLP. Jacobs and Jacobs came to the sobering conclusion that "most government born-digital information is in dire straits of being lost."[17]

This is especially concerning when an administration seems intent on erasing or rewriting government information from previous administrations. In October, the Environmental Protection Agency (EPA) removed dozens of online resources meant to help local officials deal with the impacts of climate change from their "Energy Resources" website (which, under the Obama administration, had previously been named "Climate and Energy Resources"). Overnight, pages detailing the risks of climate change and plans to adapt to extreme weather were no longer accessible on the site, which has been reduced from 380 to 175 pages, according to a report from the Environmental Data and Government Initiative.[18]

And it's not just old data and information that is at risk of being targeted for deletion. New data releases and reports under the Trump administration have been less complete and transparent than their predecessors. The first Crime in the United States report—an annual publication of the

FBI—released by the Trump administration reduced the number of data tables provided from eighty-one to twenty-nine from the previous year's report.[19] The report no longer includes homicide data on the relationship between victims and offenders; the age, sex, and race of victims and offenders; and what types of weapons were used in the crimes. The data no longer included in the report is available upon request from the FBI, but *FiveThirtyEight* reported that the FBI only provided a raw data file upon request, which is less accessible and user friendly.[20]

There is a natural discomfort in navigating the federal web in the height of any administrative switchover, especially WhiteHouse.gov; however, the Trump administration's transition was notably rocky. In early 2017, days stretched to weeks as the public had to rely on frozen pages from the previous administration, particularly for agencies under the Executive Office of the President (https://www.whitehouse.gov/administration/eop), such as the Council on Environmental Quality and the Office of Science and Technology Policy. As of this writing, these pages have been updated by the current administration, but neither page is adequately populated relative to its cached equivalent from one year into the Obama presidency, and several others under the EOP are not yet restored, at least not in the WhiteHouse.gov directory.

In the early days of the Internet and social media, there was hope that these tools had the potential to, as Alphabet Inc. chairman Eric Schmidt argued in 2010, empower "individuals to consume, distribute, and create their own content without government control."[21] But today, as this dream of the disintermediation of information starts to come into focus, one has to wonder if the American public is using all the necessary analytic tools to consume and preserve this content—and specifically government content—in a rational and meaningful way.

SHINING A LIGHT: EDUCATIONAL PROGRAMMING AND CITIZEN ACTION

While these have certainly been disturbing trends and developments in the government information world, the modern era also offers up new opportunities for civic engagement and action with government information. Individuals, libraries, and other institutions have seized on these opportunities in different ways, hinting at promising paths toward keeping Americans informed about the inner workings of their government.

Educational Programming about Government Resources

Around us, we see civic institutions offering reviews of government basics, including colleges and universities opening their doors—and online portals—by offering classes to expanded audiences. Ivory-tower lectures are now viewable by a global audience, such as a University of Washington School of Law class Presidential Power and Its Limits, in which the public was encouraged to follow along with the assigned readings via a LibGuide and attend a related town-hall panel discussion with School of Law faculty.[22]

Scholarly projects feature exciting opportunities for new kinds of reading and new kinds of engagement with the material. One Data Science Institute project of Columbia University, the Declassification Engine, allows scientists to examine "millions of documents that have been [declassified], often in digital form, [that] create opportunities to use Natural Language Processing (NLP) and statistical/machine learning to explore the historical record in very new ways."[23] Legislative Explorer (http://legex.org) allows users to follow the movement of bills from 1973 to the present: the bills are like tiny lights in a video game, with the option to filter them by topic, type of legislation, chamber, party, or specific bill. And several tools, like FOIA Machine (https://www.opengovva.org/blog/digital-tools-managing-foia-requests-0), help people generate Freedom of Information Act requests online. Such projects are ripe for highlighting in educational programming with the public.

Higher education alliances, such as the All-In Campus Democracy Challenge and the broader thirty-year-old Campus Compact alliance for civic engagement, are other examples of higher education as spaces for intentional democracy. K–12 students and teachers turn to iCivics.org, a suite of online games and tools that are the brainchild of Justice Sandra Day O'Connor. Public libraries also continue to take their role as sites for community discourse and education seriously: ALA's Center for Civic Engagement offered seven webinars called "The Conversation Continues @ your library: The Place Where Democracy Happens" (http://discuss.ala.org/civicengagement/). New user-friendly texts have emerged to help us with current practices, such as *Government Information Essentials* (Chicago: ALA Editions, 2018), edited by University of Montana librarian Susanne Caro. And new professional networks are forming, such as the Digital Library Federation's Interest Group on Government Records/Transparency (https://www.diglib.org/groups/transparency-accountability).

Radio shows and podcasts such as the Seattle area's *Unpacking Government* from radio station KNKX (http://knkx.org/unpacking-government), the Radiolab spinoff *More Perfect* (http://www.npr.org/podcasts/481105292/more-perfect), and the Center for Civic Education's *60 Second Civics* podcast (http://www.civiced.org/60-second-civics) are reaching new audiences with their engaging takes on government intricacies.

The dream of a government documents librarian would be that such venues would serve as springboards to greater engagement with government literature in general. Despite creative efforts like govbooktalk.gpo.gov and features like *Library Journal*'s annual Notable Documents column, government publications do not generally evoke an impassioned readership—or really any readership at all. Sometimes even lawmakers and their staff do not read government

documents thoroughly, simply because of the overwhelming quantity of material. The *Washington Post* found that most government reports mandated by Congress go unread.[24] In the film *Fahrenheit 9/11*, producer Michael Moore famously asked, "How could Congress pass this PATRIOT Act without even reading it?" to which Representative John Conyers replied, "Sit down, my son. We don't read most of the bills."[25]

We can now see in real time how many Americans—and people from around the world—are reading WhiteHouse.gov, watching the president's weekly video addresses, or reading the Daily Compilation of Presidential Documents. Spending some time at https://analytics.usa.gov (select "All Participating Websites") provides an illuminating look at federal web readership. In figure 1, we get a sense of how many people interact with federal government websites over the course of a day. In figure 2, we can see that the Postal Service, National Library of Medicine, and Weather Service are by far the most viewed sites on the federal web. How can we use this information to create better services and programming? For these sites, and those that receive far fewer hits, is there any guarantee—or hope—that their content will be available for future generations to analyze and look back on? To raise awareness of the importance of preservation of this content, librarians should select some of the most popular examples of these official agency sites, and then use the opportunity to point out that long-term preservation of digital resources requires a more active approach than that for tangible materials.

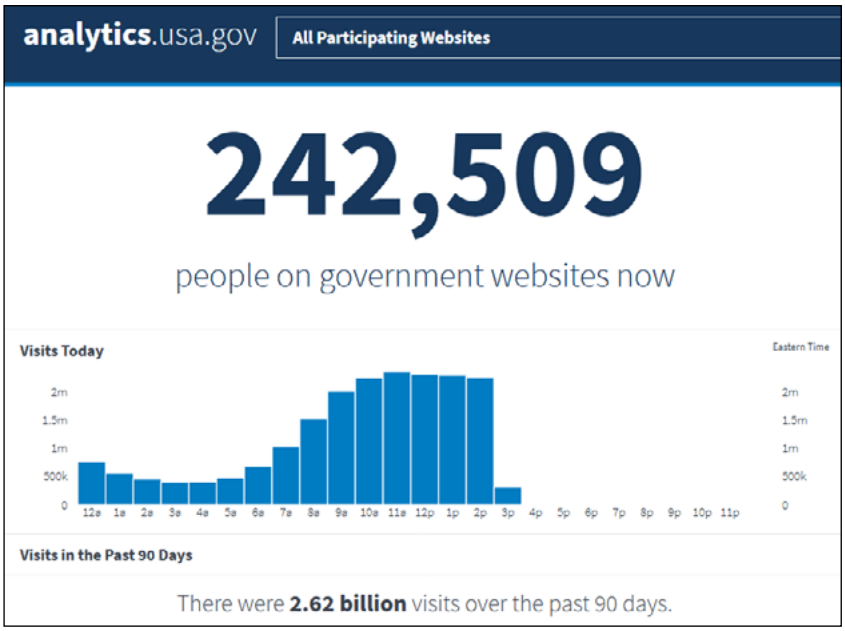

Figure 1. Dashboard style display: "People on Government Websites Now," https://analytics.usa.gov/.

Citizen Action about Government Resources

Another fascinating development of the past year is the DataRefuge/DataRescue movement, originally centered at the University of Pennsylvania's Penn Program for the Environmental Humanities (PPEH) (www.ppehlab.org/datarefuge), which resulted in more than forty DataRescue events nationally.[26] Typical DataRescue events were open to interested members of the public, who, armed with laptops and a Wi-Fi connection, would find federal environmental and climate data and identify them as potential candidates for "rescue" and preservation in multiple trusted locations. As courts librarian Anna Russell points out, "It's hard to imagine another period in history when socially motivated organizations were excited about archiving information. Sure, people were excited about having information, but never were they excited about just the procedural process of preserving data. It is here that a librarian can engage patrons and inform them on an issue central to our profession."[27]

STRENGTHENING EXISTING ACCESS POINTS: STRUCTURES WORTH SAVING

The Federal Depository Library Program and Proposed Statutory Changes

The past year also saw an effort to modernize the FDLP's longtime system of federal information dissemination. The Committee on House Administration called for a new look at GPO's underlying statutory authority, found in Title 44 of the United States Code, chapter 19.[28] In a matter of weeks, a broad representative sample of depository libraries came forward, submitting more than 130 comments to the Depository Library Council regarding specific statutory changes to Title 44. The 2017 Depository Library Council and Conference featured an exchange of ideas on the future of government information and the development of a modern legal structure to grow a future system. It is helpful to position this exchange within the broader conversation about the public record (as curated by a wide variety of stakeholders, such as depository libraries, federal government libraries, and three very large cultural heritage organizations: GPO, the Library of Congress, and the National Archives and Records Administration). Exactly how (or if) the federal legal definition of "government publication" will change, or how certain aspects of the FDLP will be modernized, remains to be seen at the time of this writing. These efforts coincide with GPO's recent push to become a Trusted Digital Repository (TDR) in accordance with the ISO 16363 standard.[29] With the retirement of GPO executive director Davita Vance-Cooks in November 2017, the agency is again experiencing its expected shift in leadership. As the position is a presidential

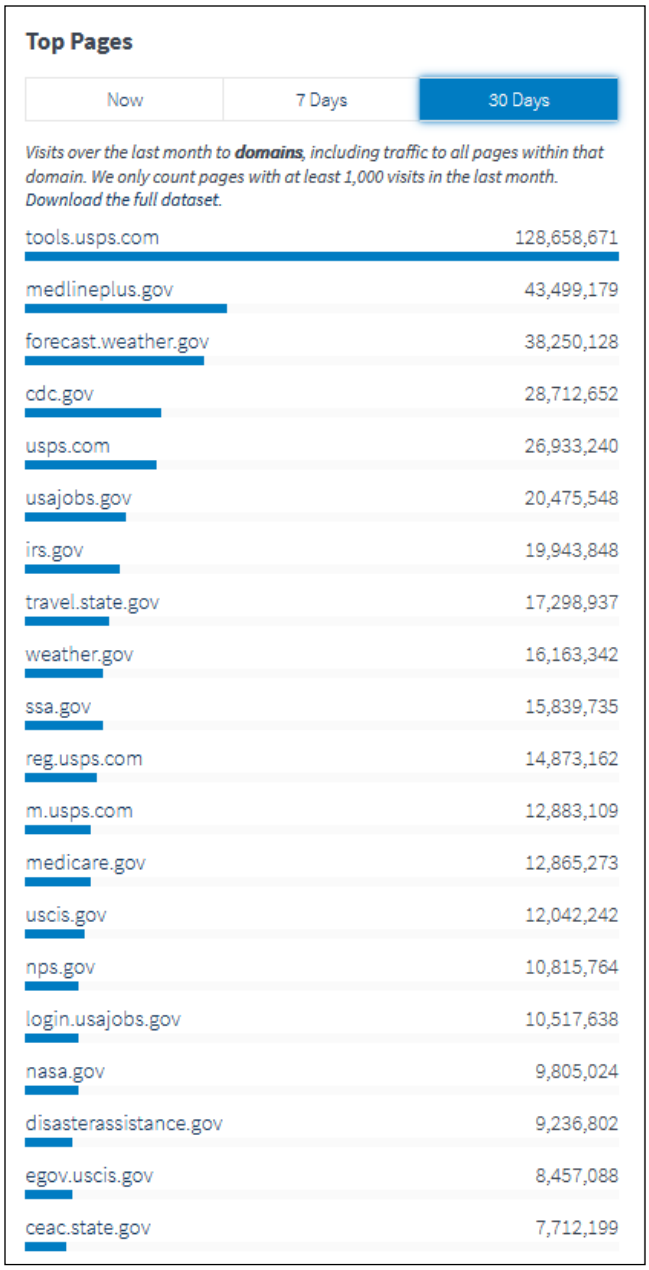

Figure 2. Top pages, US federal government web domains, past thirty days (October 16–November 14, 2017), https://analytics.usa.gov/.

appointee, ultimately the next head will reflect the goals of the new administration.

LOCKSS

Lots of Copies Keep Stuff Safe (LOCKSS) is a form of collaborative digital preservation developed at Stanford in 1999 so that libraries could work together to save digital assets. It emphasizes geographic dispersion of redundantly deposited electronic files, which are then checked by automatic file comparisons, a "tamper-evident" approach in which trustworthiness of the original content is paramount for long-term preservation. Corrupted or missing files can resolve over to locally stored versions. The larger LOCKSS Alliance Network has more than one hundred members, while GPO participates in a special iteration called LOCKSS-USDOCS, with thirty-six member institutions, that backs up FDSys/GovInfo.gov. Although this quiet network is likely not on public services librarians' radar, LOCKSS-USDOCS is proving to be one of the most commonsense ways to ensure the integrity of digital federal government documents, with its simple, open-source platform, low maintenance for each institution, and use of existing content and systems.

Hathi Trust Digital Library

The Hathi Trust Digital Library is another reliable avenue for everyday government documents access, and has the potential to provide basic access to far more documents than even those distributed by the FDLP. With its library catalog–like graphical user interface, Hathi provides access to usable—though not authenticated or in a strict sense "official"—full-text digital copies of 964,865 federal documents (as of October 2017) supplied mostly from Google digitizations.[30] Its expansion and development into a trust of partner institutions opened the door to further curation and collection growth as libraries continue to add digitized content (128 of the Trust members are FDLs, 17 of which are regional). It is interesting to note that in 2017, two out of Hathi Trust's three primary collaboration areas (https://www.hathitrust.org/collaborative-programs) are print-retention programs and federal documents, both of which have a huge impact on everyday citizens' access to government information.

Hathi's print-retention agreements were first filed in 2017 as part of the Hathi Trust Shared Print Program (HTSPP). These agreements strengthen the Trust, underscoring the notion that the original tangible publications are commodities not to be squandered. The HTSPP is developing at the same time that libraries are signing preservation steward agreements with GPO. As part of that agency's Federal Information Preservation Network (FIPNET) strategy, depository libraries agree to permanently preserve certain tangible titles, filing memoranda of understanding (MOUs) with GPO. FIPNET, a coordinated effort to bring together diverse stakeholders in government, libraries, and consortia with the aim of preserving federal government information output, holds much promise as it looks beyond any one stakeholder's particular "silo."

Hathi's US Federal Documents Program (https://www.hathitrust.org/usgovdocs) aims to "expand and enhance digital access to U.S. federal publications, including those issued by GPO and other federal agencies, through coordinated and collective action." With an advisory board, a framework document for the collection (https://www.hathitrust.org/hathitrust-federal-documents-collection-framework), and a truly remarkable set of digitized, cataloged items, the program is an asset. Its potential for "big data"

research (textual mining on specific sets of documents) and the building of specialized collections makes it exciting. Existing separate collections include US Federal Documents, Statistical Abstract of the United States, Bureau of Indian Affairs, Foreign Relations of the United States, US Congressional Serial Set, and US Environmental Protection Agency publications. Historians, journalists, students, and documents librarians revel in the digital runs of these series, out behind vendor paywalls, held in trust by libraries. These Hathi specialized collections make the power of the FDLP quite evident. Hathi's unauthenticated files will be perfectly acceptable to most users while GPO goes through its slower process of ingesting authenticated, official back files through its GovInfo.gov repository with the help of the depository community.

LIBRARIANS: COLLECTIONS WE SHOULD BE HIGHLIGHTING

Another path through the government fog is for librarians to highlight the work of three legislative branch agencies that are especially valued for their dispassionate, scholarly, "just the facts" approach to government stories: Government Accountability Office (GAO), Congressional Budget Office (CBO), and Congressional Research Service (CRS).

The Government Accountability Office, established in 1921, is a watchdog agency for the entire federal government. GAO focuses on the need for government efficiency. Recently published titles include *Opioid Use Disorders: HHS Needs Measures to Assess the Effectiveness of Efforts to Expand Access to Medication-Assisted Treatment* (GAO-18-44, October 2017) and *Syrian Refugees: U.S. Agencies Conduct Financial Oversight Activities for Humanitarian Assistance but Should Strengthen Monitoring* (GAO-18-15, October 2017).

The Congressional Budget Office, established in 1979, produces nonpartisan, objective cost estimates and projections for Congress. The CBO website lists thirteen different types of reports, such as federal mandates, sequestration reports, and scorekeeping for legislation. Late 2017 releases included *Measuring the Adequacy of Retirement Income: A Primer* and *Approaches to Changing Military Health Care*. CBO is out of the limelight for the most part but at various points becomes a focus of public and political scrutiny, such as during the "repeal and replace" legislative attempts regarding the Affordable Care Act. The agency's health-care scoring was labeled "fake news" in a *Washington Post* op-ed written by two senior Trump aides, which prompted a former counselor to the Treasury secretary to note that he couldn't "recall anything remotely like this criticism of the C.B.O." coming from Washington politicians in forty years of observing the budgeting process.[31]

The Congressional Research Service, a seven-hundred-person bureau within the Library of Congress, churns out high-quality reports that are usually under thirty pages in length. CRS reports provide background material or a literature review on all kinds of topics, sometimes before a bill is drafted. Recent CRS reports include *Justice Department's Role in Cyber Incident Response* and *The "Islamic State" Crisis and U.S. Policy*. Although CRS reports are not part of the FDLP, many are freely available online (http://guides.lib.uw.edu/law/crs).

Librarians should also supplement our government resources with those of nongovernmental organizations (NGOs), which have gained additional attention in the acquisitions world. Calls for librarians to collect more NGO literature in libraries have been around for fifteen years or more.[32] NGOs can add value with their sharpened focus, expertise, and perspective, providing a secondary view so desperately needed with government information. Publications from intergovernment organizations (IGOs) also can add invaluable context, such as comparative reports on topics like telecommunication, transportation infrastructure, health outcomes, and energy use.

No matter the authoring agency or individual, however, librarians need to be teaching and advocating for the critical analysis of information, including government information, now more than ever. One helpful research guide, "Savvy Info Consumers" (http://guides.lib.uw.edu/research/evaluate), created by Jessica Albano at the University of Washington Libraries implores users to "evaluate sources before citing, posting, or tweeting them." The guide provides evaluative criteria with handy acronyms to walk users through the process of determining the credibility of a given source and assessing the context of the information. The guide has resonated with users on campus, garnering more than twenty thousand views in a little under a year.

CONCLUSION

The late Senator Wendell Ford probably would not be surprised to hear that the recent congressional hearings on modernizing the GPO and revising Title 44 have not been front-page news; however, twenty years on, many of the fears expressed during the 1996 hearings on public access to government information in the twenty-first century have become realities.

At the conclusion of the 2014 Global Resources Forum on Libraries and Government in the Age of Big Data, also known as the Leviathan Conference, Center for Research Libraries President Bernard F. Reilly described a "fog" of technology, finance, and politics that conspires to keep government information creation and maintenance from being transparent. Reilly reflected that librarians' next task must be to better understand the production of born-digital information, working collectively to "drill down" and "act up" as we encounter government e-resources at risk.[33]

Going forward, librarians must face the present—and the future—state of government information in order to cut through this fog. We need to work together to pursue collaborative partnerships to safeguard past, present, and future

government information for the public's long-term access and consumption, and to promote services that encourage our users to critically evaluate and interrogate all information. Our collaborations must move in two directions at once: (1) We need to ensure that official legal processes are in place to best manage government information (the hoped-for outcome of Title 44 reform). And (2) we need to create non-governmental solutions to preserve secondary "use copies" of government information as well (read: backups), holding the information in trust together. The solutions we create today need to be adaptable for the government information landscape of the future. Our next president may not release information in a torrent of presidential tweets but rather a mist of holographic videos. No matter the medium, we will assist others in navigating the content and work together to safeguard it. Going forward, we carry with us the first precept of ACRL's *Framework for Information Literacy*, that authority is constructed and contextual, understanding it perhaps in these times as never before.[34]

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Professional Materials

Karen Antell, Editor

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

Correspondence concerning these reviews should be addressed to "Professional Materials" editor Karen Antell, Public Services Librarian, Bizzell Memorial Library, University of Oklahoma, 401 West Brooks St., Norman, OK 73019; email: kantell@ou.edu.

Affordable Course Materials: Electronic Textbooks and Open Educational Resources. Edited by Chris Diaz. Chicago, IL: ALA, 2017. 160 p. Paper $65.00 (ISBN 978-0-8389-1580-6).

Editor Chris Diaz opens this book with a boundary-pushing question: "What if I just bought all the textbooks?" The case studies that follow begin with other daring questions, all searching for an answer to the question of how to reduce student costs through affordable course materials. The nine case studies in the book represent universities from across the United States and a global campus (New York University at Shanghai). Each case study presents a different approach to providing affordable course materials, based on the campus context and student needs. Despite the differences, however, this edited volume makes it quite clear that affordability efforts can benefit greatly when they borrow insights from the models in place at other institutions. This is illustrated especially well in the University of Southern Mississippi's Open Textbook Initiative, adapted from a program at the University of Massachusetts at Amherst (Josh Cromwell, chapter 7). Other efforts, like that at Louisiana State University Libraries, included reviews and shifts in long-standing collection-development practices and policies (Alice Daugherty and Emily Frank, chapter 4). Perhaps most notable throughout this collection is the variety of types of librarians working on course material projects, further proof that affordability is truly a library-wide initiative. *Affordable Course Materials* is a perfect quick view into the evolving world of university and library efforts to keep student costs down and educational quality up. Readers will be left asking themselves a new batch of "what if" questions that can only lead to more innovation.—*Emma Molls, Publishing Services Librarian, University of Minnesota, Minneapolis*

The Collection All Around: Sharing Our Cities, Towns, and Natural Places. By Jeffrey T. Davis. Chicago, IL: ALA, 2017. 152 p. Paper $57.00 (ISBN 978-0-8389-1505-9).

This book is not intended to be a guide to creating outreach opportunities, nor to bringing experiences into the library. Instead, it is an attempt to bring awareness to creating shared access between libraries and their communities. Davis creates a strong argument that public libraries are not just isolated spaces but rather a well-integrated part of any community. As such, libraries have the unique opportunity and skill set to foster shared access to resources outside the library that patrons may not otherwise be aware of or capable of accessing for various reasons, including socioeconomic and physical access difficulties. Davis defines improving this access as an effort that combines outreach, customer service, event management, collection development, and acquisitions. This in turn raises the library's visibility in the community, along with that of its community partners.

The author has divided the book into several chapters based on different ways that libraries can provide shared access within the community. Each of these chapters outlines

an idea for how to accomplish this goal, describes in detail how other libraries in the United States have carried out projects along these lines, and points out where their successes and challenges lie. These examples provide some wonderful ideas about how libraries can take on projects of their own as well as how well they might work in different communities. Because each community library has its own challenges and strengths, it is important that the reader keep these in mind while looking at how some other libraries have created these access points.

As one example of creating shared access, Davis covers library membership at the start of the book, claiming that access to the library creates a sense of belonging in a community and is therefore an excellent place to start. He discusses examples of how libraries have expanded on membership, such as tying library loaning privileges to other community access points via a single card. New York City public libraries use this approach with the city's municipal ID cards, which also serve as official identification and discount cards to various city venues. Using library membership to provide access to transportation is another idea explored in this chapter. Other chapters address programs in which the library checks out passes to local attractions, museums, and historical sites; develops guides and community-event information for patrons; creates safe and welcoming spaces around the library; and connects patrons and community members to the natural world around them through park passes, nature programs, and inviting natural spaces around the library.

This book is strongly recommended for public libraries with an interest in and time for exploring opportunities outside of the branch and working on ways to provide access to them. It is an excellent source of ideas and resources for providing your patrons with better access to your community.—*Teralee ElBasri, Librarian, La Prade Branch Library, North Chesterfield, Virginia*

Creating and Sharing Online Library Instruction. By Joelle Pitts, Sara K. Kearns, and Heather Collins. Chicago, IL: Neal-Schuman, 2017. 160 p. Paper $54.00 (ISBN 978-0-8389-1562-2).

Online instruction over the last decade has proliferated in many academic areas, and library instruction is no exception. The ability to teach important topics such as critical thinking and research skills to a large number of students at once has created demand for more online library instruction. In the past, bibliographic instruction differed from library to library, even as online instruction became commonplace at many institutions. But recently, many libraries have begun collaborating, sharing their online instruction content and assessment as a time-saving (and budget-saving) alternative to conducting their instruction on their own.

One such consortium is the New Literacies Alliance (NLA), consisting of the Kansas State University Libraries and the University of Kansas Medical Center Dykes Library. Created in 2012, the NLA maximizes the two institutions' resources to provide improved instruction content and assessment. The consortium received the 2016 ACRL IS Innovation Award, and three of its librarians have followed up on this success by writing a timely and valuable manual on how academic libraries can create and assess similar collaborative online instruction programs. *Creating and Sharing Online Library Instruction*, the newest publication in ALA's How-to-Do-It series, guides the reader through the entire process of developing shared online instruction, from conception to design, implementation, and assessment. Each chapter includes a checklist of tasks to accomplish for each step, including relevant terms and critical questions about how to complete each step successfully. The numerous and useful appendixes include helpful rubrics, a storyboard template, and response forms for assessments.

Creating and Sharing Online Library Instruction is a welcome addition to the How-to-Do-It series, enabling academic libraries to create, share, and assess online library instruction for their students. Highly recommended.—*Larry Cooperman, University of Central Florida Libraries, Orlando*

Creative Instructional Design: Practical Applications for Librarians. Edited by Brandon K. West, Kimberly D. Hoffman, and Michelle Costello. Chicago: ACRL, 2017. 384 p. Paper $72.00 (ISBN 978-0-83898-929-6).

The title of this book might lead readers to expect a manual filled with examples of jazzy learning objects; however, the content goes far beyond that, broadly defining instructional design as "intentional, sound instructional or programmatic creation, delivery, and assessment that takes into account the audience, course, or program context, and shared learning goals" (p. ix). Why does instructional design in this larger sense matter for librarians? The way that libraries define themselves has shifted from materials to services, so the quality and relevance of instruction classes, online content, programs, and outreach initiatives are increasingly critical to their success.

This book's stated purpose is to present real-life examples showing "how librarians are applying the theoretical perspectives of instructional design in practical ways" (p. xi), and it does so admirably. Written by librarians responsible for instruction, outreach, instructional design, and related specialties, the twenty-five chapters are generally brief but thorough and include notes and bibliographies.

In the first section, librarians describe how they have used instructional design principles to inform, construct, or evaluate information literacy initiatives. For example, Meggan Press of Paul Smith's College, in "Perfect Pairings: Instructional Design Meets Required Library Instruction," and Kathleen A. Langan and Dianna E. Sachs of Western Michigan University, in "Mapping Information Literacy to a First-Year Writing Curriculum," provide accounts of successful transformations of instruction programs. Kimberley Davies Hoffman of the University of Rochester presents similar successes in the book's concluding chapter, "Leading

Change: Using Instructional Design to Refocus an Information Literacy Program."

The second section details ways that librarians have used design in online library instruction and services. Chapters such as "Employing the ADDIE Model to Produce Instructional Videos and Support the Development of a New Partnership" by Christina Heady and Joshua Vossler of Southern Illinois University Carbondale and "Designing Stories: A Storytelling Approach to Tutorial Videos" by Julia Feerar of the University of North Carolina at Chapel Hill are good examples from this section.

The final section offers descriptions of innovative programming and outreach efforts. A few examples are "Recalling Liminality: Adapting Instructional Design for New Faculty Orientation" by Kelly J. Grossmann and Michelle Guittar of Northeastern Illinois University; "Film for Four: Teaching the Libraries through Film Production and Instructional Design" by Michelle H. Brannen and Ingrid J. Ruffin of the University of Tennessee, Knoxville; and "Structuring the Unstructured: Plan Your Library Makerspace with Instructional Design," by Sharonna Ginsberg of the State University of New York at Oswego.

The editors have assembled a solid collection of case studies that will inspire readers of varying experience with instructional design to adopt similar ideas at their own institutions.—*Joan Plungis, Reference and Instruction Librarian, University of Dayton, Dayton, Ohio*

International Librarianship at Home and Abroad. By Karen Bordonaro. Cambridge, MA: Chandos Publishing, 2017. 196 p. Paper $89.95 (ISBN 978-0-08-101896-5).

What is meant by "international librarianship"? The term can be difficult to define, potentially encompassing a vast array of library activities, including collecting materials published abroad, participating in librarian exchanges, and attending international library conferences.

J. S. Parker's classic 1974 definition of international librarianship, which author Karen Bordonaro includes in her book *International Librarianship at Home and Abroad*, is this: "International librarianship consists of activities carried out among or between governmental or non-governmental institutions, organizations, groups or individuals of two or more nations, to promote, establish, develop, maintain and evaluate library, documentation and allied services, and librarianship and the library profession generally, in any part of the world" (p. 4).

Bordonaro's work springs from her own vastly more general definition, which is "one professional, many communities, connecting to each other to promote learning globally and locally" (p. 12). Bordonaro seeks to explore the views on international librarianship from practicing librarians worldwide, drawing on a 2016 online questionnaire and series of professional interviews she conducted with 320 participants worldwide.

The book includes an extensive literature review on the topic, including a useful list of core journals. Bordonaro then delves into a discussion of sources of current practices in the field, including standards and guidelines, professional associations, conferences, workshops, professional and educational programs, and so forth. Examples of an international focus in library collection development, preservation, and cataloging are also a focus, as well as partnership arrangements with libraries abroad.

The remainder of the book consists of a lengthy discussion and analysis of the results of Bordonaro's research study. She identifies three major findings arising from the study: international librarianship can take many forms, international librarianship can be practiced at home, and reframing attitudes is an important part of international librarianship.

In summary, *International Librarianship at Home and Abroad* is an interesting, well-researched overview of current literature and perceptions, but it serves as more of an armchair perspective of the landscape rather than a firsthand account. Librarians interested in perspectives from the field might consult recent works such as Constantia Constantinou, Michael J. Miller, and Kenneth Schlesinger's *International Librarianship: Developing Professional, Intercultural, and Educational Leadership* (SUNY Press, 2017) and Peter Johan Lor's *International and Comparative Librarianship: A Thematic Approach* (de Gruyter, 2014).—*Jennifer A. Bartlett, Interim Associate Dean of Teaching, Learning, and Research, University of Kentucky Libraries, Lexington*

Learner-Centered Pedagogy: Principles and Practice. By Kevin Michael Klipfel and Dani Brecher Cook. Chicago: ACRL, 2017. 208 p. Paper $60.00 (ISBN: 978-0-8389-1557-8).

In *Learner-Centered Pedagogy*, Klipfel and Cook fuse philosophy and learner theory to provide the instruction librarian community with the pedagogical foundation it requires. This foundation is especially vital given that many employers today require applicants for even entry-level reference and instruction positions to be well versed in both theoretical and practical educational methodologies, and the "library school curriculum has been slow to catch up" (p. xii). As Klipfel and Cook point out, despite the "professional transition toward librarians as educators," most ALA-accredited library programs do not require or even provide adequate "courses in instructional pedagogy or user education" (xii). Although this curricular inadequacy can be debilitating to recent graduates seeking employment as instruction librarian, books such as this one can provide the theoretical base necessary for applicants to gain a foothold in the profession and for current instructional librarians to improve and expand their information literacy programs.

Although *Learner-Centered Pedagogy* heavily focuses on theoretical knowledge, Klipfel and Cook do not neglect practice, peppering each chapter with personal and entertaining tales of how these theories have been put into action. In fact, the authors begin by discussing theory that sounds good but proves itself unable to "facilitate learning," likening it to

"trying to buy a sandwich with a pile of Monopoly money" (p. xiii). Instead, the authors focus on grounded theory that "can deliver successful results in practice," and they use their own platform as instructors to demonstrate these results (p. xiv). The core theory presented by Klipfel and Cook, stitching together all six chapters, is the principle that "who we are as people matters in the context of learning" (p. xv).

Branching from this center, each chapter focuses on a particular learner-centered perspective, beginning with chapter 1's exploration of the use of empathy to facilitate significant learning or "learning that matters to the student from her own point of view" (p. 7). Chapter 2 builds from significant learning theory to investigate motivational theory, seeking to discover what makes a learner want to learn something and how to provide the autonomy learners need to discover their motivation. Chapter 3 also examines the application of empathy, specifically through the lens of cognitive science, exploring librarians' roles in the process of learning. Chapter 4 borrows from counseling psychology to help librarians build "a secure emotional foundation for fostering true classroom rapport" (p. 113). Chapter 5 combines theories of motivation (chapter 2) and cognition (chapter 3) to encourage librarians to champion a "growth mind-set" in every interaction with students, helping "learners focus on process as a natural part of their approach to research" (p. 137). Finally, chapter 6 asks librarians to examine the relationship between learners and classroom technology, inquiring whether each piece of technology enhances or impedes the process of learning.

Klipfel and Cook conclude by arguing that learner-centered pedagogy represents more than merely a trend in library instruction, being applicable to all areas of the library profession. As an instructional services librarian, I agree that who learners are as people is central to my work as an educator. This book's strength is that it makes this foundational insight explicit.—*Calantha Tillotson, Instructional Services Librarian, East Central University, Ada, Oklahoma*

Providing Reference Services: A Practical Guide for Librarians. By John Gottfried and Katherine Pennavaria. Lanham, MD: Rowman and Littlefield, 2017. 166 p. Paper $65.00 (ISBN 978-1-4422-7911-7).

Providing Reference Services is number 32 in the Practical Guides for Libraries series. Beginning with a brief history of library reference service and a discussion of library stereotypes, the authors quickly move on to identifying criteria for building and maintaining a reference collection, as well as key points to consider when providing reference service, with particular emphasis on the reference interview. The authors note the need to incorporate emotional intelligence into reference work. Emotional intelligence is a topic that has recently garnered increasing interest in the business world, and it is good to see it addressed here in the context of libraries and reference services. This guide does not give detailed plans for implementing reference services but instead highlights key points and concerns to consider when developing reference services. The authors' approach is broadly based, and the key points can be adapted by small public libraries as well large academic institutions. Each chapter ends with a helpful bibliography of sources and additional reading, and the authors also refer to another guide in the series for readers seeking more detailed help; this kind of continuity within the Practical Guides for Libraries series is useful and appreciated.

This guide includes a brief index and could be used by any library staff member, but it will be especially valuable for managers, as it includes numerous tips regarding the planning, training, supervising, and staffing needed for evolving reference services. The importance of communication from the supervisor to staff is emphasized, as is finding the best communication style and method for each employee. The authors also note the importance of development opportunities for staff and the need for timely intervention when personnel issues arise. It is refreshing to see these simple managerial tips incorporated into the development of reference services, along with traditional focus on identifying community needs.

This guide also addresses the need for reference services to be a strong part of library budget planning, as reference services often play a key role in outreach to the community. There is a frank look at the trend toward more collaborative projects and services and a discussion of their impacts and benefits. The authors conclude by pointing out that libraries will need to compete with other services to keep their patrons in the future; this requires a greater focus on networking and outreach to the community. All in all, this guide provides significant food for thought and covers some of the basic concerns libraries should address when developing their reference services.—*Laura Graveline, Visual Arts Librarian, Dartmouth College, Hanover, New Hampshire*

So You Want to Be an Academic Library Director. Edited by Colleen S. Harris. Chicago, IL: ALA, 2017. 272 p. Paper $59.00 (ISBN 978-0-8389-1496-0).

This volume comprises thirteen reflective essays by library leaders offering perspectives on their personal experiences and lessons learned regarding academic library management. Editor Colleen S. Harris notes in the very brief preface: "To complement the formal research on academic library director characteristics, I have recruited library directors to write essays reflecting on various aspects of their work as library directors." Although she alludes to research studies regarding the knowledge, skills, and characteristics of successful managers and leaders, none of the chapters cite any such studies, and the book unfortunately lacks a substantive introductory chapter to complement and provide context for the essays by presenting relevant research findings. It almost seems as though the intent was to provide a more thorough introduction to this literature and the studies, but somehow that introductory chapter did not make it into the volume.

Overall, the volume's quality is uneven. Some chapters are focused, factual, and substantive, whereas others are more personal. Some essays simply seem unfocused and unfinished, and essential topics such as technology management and finances are missing altogether.

Another shortcoming is the haphazard placement of the chapters, which appear to be in no particular order and jump from one topic to another, with a few exceptions. For example, a chapter on facilities and a chapter on library safety and security are sensibly juxtaposed. Likewise, the final two chapters, on outreach and programming, complement each other. These four chapters are among the stronger with regard to content. Other chapters that seem to have some relationship to each other are scattered throughout the volume, which makes for a choppy read. For example, the initial chapter on navigating institutional context is well written and gets the volume off to a sound start, but this chapter should have been followed by the chapters on strategic planning, collaboration in Connecticut public higher education, and the very personal essay by Patricia Tully. The remaining five chapters focus on topics related to managing and supervising. Had these been presented in a different order—shared governance, communicating expectations, team building, human resources, and supervising faculty librarians—the flow of the volume would have been better. Nearly all of the authors offer notes, references, bibliographies, or recommended readings, yet the usefulness of these resources are relative to the chapter and how the topic is presented by the author.

Overall, the volume falls short of becoming a truly valuable resource for those considering a move into management. It does, however, provide a quick read and serves as a sampler of personal essays, which some readers will find valuable and appealing. But for the professional seeking to identify and learn about specific managerial and leadership skills in order to intentionally plan for their own professional development, this volume lacks substance and guidance.—*Pat Hawthorne, Associate Dean for Research and Education, University Libraries, University of Nevada, Las Vegas*

Summer Matters: Making All Learning Count. By Elizabeth M. McChesney and the Chicago Public Library, and Bryan W. Wunar and the Museum of Science and Industry. Chicago, IL: ALA, 2017. 160 p. Paper $50.00 (ISBN 978-0-8389-1561-5).

With the help of the Museum of Science and Industry, the Chicago Public Library now offers young patrons the opportunity to participate in an innovative summer program called Rahm's Readers Summer Learning Challenge. The program uses the principles of STEAM education (science, technology, engineering, arts, and mathematics) and design thinking to encourage the development of twenty-first-century skills. In *Summer Matters: Making All Learning Count*, Elizabeth M. McChesney of the Chicago Public Library and Bryan W. Wunar of the Museum of Science and Industry explain why and how they created their Summer Learning Challenge, and how readers can implement similar programs at their libraries.

McChesney and Wunar begin by laying out the evidence-based research they used to rationalize the need for a new summer program. The pair point to several studies that indicate the benefits of experiential, informal education and, in particular, the value of giving youth the agency to choose topics and experiences of interest to them as individuals. The research argues the importance of providing access to high-quality programming outside of school to low-income children who are at increased risk of suffering from summer slide. From this research, McChesney, Wunar, and their colleagues collaborated to devise a series of goals and desired outcomes and to create a summer program around them.

Subsequent chapters serve as a guide for other librarians who are considering developing learning-based summer programs. McChesney and Wunar outline best practices for developing community partnerships, explain how Chicago's Summer Learning Challenge works, discuss the role that reading plays in the program, and elaborate on the benefits of evaluation, assessment, and continuous improvement. The final chapter provides a simplified step-by-step formula that library staff can use to develop their own programs.

Throughout the book, practical insets and sidebars are included, enhancing the book's utility and making it more of a manual than a simple narrative. For example, the "Think about It" insets ask specific questions and offer librarians the opportunity to think about how the ideas discussed might be applied to their own libraries. They include templates for writing mission statements, surveys, and more. The "Librarian's Corner" sections offer commentary from Chicago Public Library staff members and capture their feelings about participating in and implementing STEAM-based programming.

The notion of shifting from reading-based to learning-based summer programs has generated widespread discussion in recent years. *Summer Matters* is an inspirational and informative guide that offers practical, hands-on advice for any public library or educational institution serving youth. It clearly demonstrates how and why the addition of inquiry-based participatory learning to traditional summer programs benefits not just patrons but entire communities.—*Jessica Hilbun Schwartz, Teen Services Librarian, Louisville Public Library, Louisville, Colorado*

Tactical Urbanism for Libraries: Quick, Low-Cost Ways to Make Big Changes. By Karen Munro. Chicago, IL: ALA, 2017. 164 p. Paper $57.00 (978-0-8389-1558-5).

Making the most out of limited resources is a familiar situation to many librarians. How do libraries spark significant change within the constraints of tight budgets, limited staff time, and red tape from within the library system and without? Munro offers a solution in tactical urbanism—hands-on, short-term approaches to improve a city, neighborhood, or library with minimal budget and oversight. A

popular concept in cities, it includes whimsical projects like yarn bombing and pop-up parks, as well as practical fixes to overlooked problems, such as building a footbridge over an obstructed walkway. Although long-term strategies are integral to developing cities or libraries, tactics can be used to address immediate needs or can mark the beginning of a large-scale initiative.

The author begins with an introduction to the concept of tactical urbanism, a glossary of urbanism concepts, and a discussion of how the approach is relevant to libraries. Like cities, libraries are often tasked with finding solutions to problems on the fly, without expertise or adequate funding. The book is filled with case studies of tactical urbanism projects, ranging from small, low-budget endeavors to massive city-wide initiatives. Chapter 2 describes several nonlibrary projects, each followed by a discussion of how the concept applies to libraries. Munro grounds the reader with a reality check before diving into library case studies. Potential pitfalls to consider include the possibility of alienating rather than connecting with the community, the risk of skirting legality, the need to handle the inevitable criticism constructively, and, of course, the lack of sufficient funding.

The library case studies range from public library projects (e.g., Dewey-less shelving systems), political activism (EveryLibrary), and metadata (MarcEdit, Koios, and Access Checker) to major city library renovations such as Washington, DC's interim branches and London's Idea Stores. Each case study includes a summary of the project, the key principles behind it, and the nature of the intervention. The author concludes each example with an interview with one of the project planners, providing further insight into the process.

Tactical urbanism is an approach that can be used for problem-solving and enhancing services in any type of library, as all librarians function within the constraints of budget and bureaucracy. I would most strongly recommend this book for public librarians. The many examples provide inspiration for innovative programs and community-library partnerships. Library directors will find helpful information in the "library leader's guide" for fostering passion projects in their organization. *Tactical Urbanism for Librarians* is a great resource for library staff looking for new ideas for doing more with less.—*Jessica Givens, Library Associate in Information Services, Southwest Oklahoma City Public Library, Oklahoma City*

Zotero: A Guide for Librarians, Researchers and Educators, 2nd ed. By Jason Puckett. Chicago: ACRL, 2017. 205 p. Paper $54.00 (ISBN: 978-0-83898-931-9).

Zotero is a reference management program that enables users to import references from online sources with a single click, organize them, use them to create citations and bibliographies, and share them with collaborators. Both free and remarkably easy to use, it has been making the lives of students and researchers a little easier for more than a decade. As one of the program's strengths is its intuitive interface, a book-length guide may seem unnecessary to some users who enjoy exploring software on their own; however, the new edition of Jason Puckett's *Zotero: A Guide for Librarians, Researchers and Educators* is nevertheless to be appreciated for the thoroughness with which it explains the program. For new users, it provides clear, step-by-step instructions to all Zotero's major functions, illustrated with extensive screenshots. It also provides enough detail about Zotero's advanced features that even experienced users are likely to learn something new. (I've been using it for years and had never noticed the "timeline" tool before reading this book.)

The guide is organized around the major functions of the Zotero program, with chapters on setting up, saving, and organizing references; creating citations and bibliographies; and synchronizing and sharing libraries. It also contains a chapter about add-ins that provide additional features and options for mobile users. As the primary intended audience is academic librarians, it concludes with a section on teaching and supporting Zotero, including sample session outlines for different audiences. There is no index.

The pace with which software changes always plagues writers of guides such as this one, and unfortunately—but predictably, as Puckett anticipates in the introduction—one major change to Zotero has already occurred since this book's publication. Zotero used to be available in two versions, a stand-alone program and a Firefox plug-in; support for the Firefox version was discontinued in mid-2017 with the release of Zotero 5.0. The book describes both versions, so its references to the Firefox plug-in are no longer current. However, most of the step-by-step instructions and screenshots refer to the stand-alone version of the program, so fortunately the impact on the book's usefulness is only minor.—*Molly Strothmann, Social and Behavioral Sciences Librarian and Collections Manager, University of Oklahoma, Norman*

Sources
Reference Books

Anita J. Slack, Editor

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

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

The American Political Party System: A Reference Handbook. By Michael C. LeMay. Contemporary World Issues. Santa Barbara, CA: ABC-CLIO, 2017. 368 p. $60.00 (ISBN 978-1-4408-5411-8). E-book available (978-1-4408-5412-5), call for pricing.

The American Political Party System: A Reference Handbook brings together readable, informative essays about the formation and influence of and controversies surrounding political parties in the United States; profiles of significant people and organizations; responsibly argued opinion essays from a variety of perspectives; and important primary-source documents and data. Major sections include "Background and History," "Problems, Controversies, and Solutions," "Perspectives," "Profiles," and "Data and Documents." Examples of subsections and entries include "The Transformative Election of McKinley and the Progressive Era, 1896–1932," "Structural Barriers or Impediments to Third-Party Candidates," "Make America Great Again PAC," "MoveOn.org," "David Koch (1935–)," "Harry Reid (1939)," "Jill Stein (1950–)," "Donald Trump's Proposed Immigration Policies," "Election Results, 2016 Presidential Vote, by Select Group Categories," and "Millard Fillmore's Speech, June 26, 1856, on American Party Principles."

This reference work provides similar discussion to the comparable *American Political Parties and Elections: A Very Short Introduction* (Oxford University Press, 2007); obviously, *The American Political Party System* is more up to date. The inclusion of opinions, biographical and organizational profiles, and data and documents also goes beyond the scope of the older work. Indeed, *The American Political Party System* has 368 pages, while the Oxford work has 175.

The American Political Party System provides a very detailed, eleven-page table of contents and a thorough sixteen-page index with entries for people, organizations, and political events, controversies, and resolutions such as treaties and Constitutional amendments.

The American Political Party System succeeds in being politically fair. It provides a variety political perspectives and a fair treatment of major controversies. It also provides an excellent balance of historical context and present struggles. As such, the work models responsible scholarship, allowing various voices to speak for themselves and placing them in a contextual frame. One can imagine this work being useful not only for people studying political science and civics but also for students writing opinion essays and speeches in English and communication classes.

The American Political Party System: A Reference Handbook provides a great deal of breadth and potential use for a single hard-bound volume. It belongs on the shelves of public, high school, and two-year and four-year academic libraries, and it is an excellent value at its price.—*Steven R. Edscorn, Executive Director of Libraries, Northeastern State University, Tahlequah, Oklahoma*

Arab-Israeli Conflict: A Documentary and Reference Guide. Edited by Priscilla Roberts. Santa Barbara, CA: Greenwood Press, ABC-CLIO, 2017, 367 p. $108.00 (ISBN 978-1-4408-4390-7). E-book available (978-1-4408-4391-4), call for pricing.

The Arab-Israeli conflict continues to spark confusion, emotion, and anger in educational environments. Tension around these topics remains so high that strict ground rules and active arbitration remedies exist for those who wish to edit the Wikipedia articles for Israel, Palestine, and the Arab-Israeli conflict. As events progress in these regions, these Wikipedia articles experience a flurry of activity as editors around the world work to update and improve their content. This is the downfall of any traditionally published encyclopedia; once published, it becomes a snapshot in time, a historical artifact, as opposed to a living document that captures past, present, and future tense. The other disadvantage of traditionally published encyclopedias is that editors often give subject experts a template and writing guidelines for the entries that can make the subject expert look incompetent. Dr. Priscilla Roberts's "documentary and reference guide" to the Arab-Israeli conflict, for this reason, has strengths and weaknesses.

Roberts is a history professor at the University of Hong Kong, specializing in twentieth-century international history, Asian-Western relations, and Anglo-American foreign policy. Her research background gives her the required context to present information about the Arab-Israeli conflict in an objective, factual manner. Prior to this current guide, Roberts has edited two other encyclopedias about the Arab-Israeli conflict: the four volume *Encyclopedia of the Arab-Israeli Conflict: A Political, Social, and Military History* (coedited with Spencer C. Tucker, ABC-CLIO, 2008) and the single volume *Arab-Israeli Conflict: The Essential Reference Guide* (ABC-CLIO, 2014). At first glance, the 2017 documentary and reference guide and the 2014 essential reference guide appear identical, but there are some differences of which a researcher should be aware.

In the documentary and reference guide, Roberts provides an introduction that includes a section "The Challenge of Interpreting the Arab-Israeli Conflict." There she explains that on both sides there has been secrecy and falsification of evidence that has led to a multitude of confusing documents that obfuscate the truth. Roberts has settled on ninety-one core primary-source documents related to the conflict and arranged them in chronological order in five sections: (1) "The Origins" (i.e., the foundation of the conflict beginning in the nineteenth century, before the founding of the modern Israeli state); (2) "The 1950s and 1960s"; (3) "From War to Genuine Negotiations: 1973–1985"; (4) "The Way Forward: 1986–2000"; and (5) "The Second Intifada, September 11, 2001, and Beyond." This is an improvement from the essential reference guide, which provided a summary of the conflict and forty-nine reference entries that cover the significant countries, people, events, and organizations involved in the conflict. In the documentary and reference guide, each entry provides a summary box identifying the name of the document, when and where it was published, and its significance to the history of the conflict. After each document, Roberts follows with a section titled "Analysis," but the title is misleading, as it implies that Roberts will provide an interpretation of the document. Instead, Roberts summarizes the content of the document and provides historical and cultural context for its creation and wording. It would have been more accurate to title these subsections "Summary and Historical Background." This editorial decision could have been dictated by ABC-CLIO and not Roberts herself.

In the documentary and reference guide, Roberts is the sole author. While this makes for an even tone and uniform writing style for this encyclopedia, it is disadvantageous when writing about a topic that involves multiple perspectives. Roberts's neutral, objective voice of the removed Western academic, paired with an Israeli voice and a Palestinian voice for this volume, would have made it a true documentary and reference guide. While Roberts provides an extensive bibliography of resources that served as the backbone of her research for this volume, they are not arranged by chapter, so there is no way for the researcher to trace from where she received her information for each "Analysis" section. This was the strength of the 2014 reference guide—each entry, written by a different academic, provided an extensive "Further Reading" section.

If libraries choose to acquire Roberts's 2017 documentary and reference guide, they should keep her 2014 essential reference guide, as the 2017 guide provides explanation for the primary-source documents referenced in the 2014 guide. At this time, no other broad yet well-researched survey of the Arab-Israeli conflict exists as a single-volume reference resource. Libraries with the pair of Roberts's resources would still need *The Encyclopedia of the Israeli-Palestinian Conflict* (ed. Cheryl A. Rubenberg, Lynne Rienner Publishers, 2010), a three volume series that provides other nuances of the conflict, such as Israeli laws in the occupied territories and Palestinian school textbooks that indoctrinate students in anti-Semitism and terrorist activity.

Arab-Israeli Conflict: A Documentary and Reference Guide would be appropriate for high school, academic, and large public library collections. At the same time, don't weed any of your other encyclopedias on Israel, Palestine, and their conflict any time soon, and put the Israel, Palestine, and Arab-Israeli conflict Wikipedia pages on your watchlist for the most up-to-date information on these topics.—*Rachel Wexelbaum, Associate Professor and Collection Management Librarian, St. Cloud State University, St. Cloud, Minnesota*

The Big Con: Great Hoaxes, Frauds, Grifts, and Swindles in American History. By Nate Hendley. Santa Barbara, CA: ABC-CLIO, 2016. 380 p. $89.00 (ISBN 978-1-61069-585-5). E-book available (978-1-61069-586-2), call for pricing.

All cons require two participants: someone who lies and someone who believes. From the vantage point of someone not currently in the middle of being swindled, one can feel

superior to the chumps who fall for obvious cons. But the human capacity to believe and trust is vast, and let's face it: we all have fallen for something, whether it's the belief in a miracle cream or much worse—like losing your savings in a Ponzi scheme.

In Nate Hendley's *The Big Con: Great Hoaxes, Frauds, Grifts, and Swindles in American History*, this capacity for human credulity is on display. Hendley has compiled stories about common, bizarre, heartbreaking, and sometimes hilarious cons and con artists. This collection includes entertaining stories of man-bats on the moon (the original fake news), goat testicle transplants (meant to boost virility), the ubiquitous Nigerian prince e-mail (originally a Spanish prisoner letter), subliminal messages in Beatles songs ("turn me on, dead man" in "Revolution 9"), and more heartbreaking stories of baby-selling rings, scams that target the elderly, and fake investments that rob people of their savings.

Each of the eleven sections, focusing on topics like small cons, great pretenders, online scams, and para-abnormal fraud, contains detailed short entries and suggestions for further reading. The volume fills in the details of stories we've all heard of, like the hoax behind the book Go Ask Alice, and describes interesting scams like the Glim Dropper, which can only be performed by a con artist with one eye (certainly a niche market).

This book is immensely readable and a great resource for trivia nerds or those interested in human behavior. I would shelve it in nonfiction instead of reference, however, especially if your institution doesn't loan out reference materials: someone will want to check this book out and read every word. Recommended for libraries of all kinds.—*Tracy Carr, Library Services Director, Mississippi Library Commission, Jackson*

Encyclopedia of Cyber Warfare. Edited by Paul J. Springer. Santa Barbara, CA: ABC-CLIO, 2017. 379 p. $89.00 (ISBN 978-1-4408-4424-9). E-book available (978-1-4408-4425-6), call for pricing.

Great Britain was once the global power because it ruled the waves, but Germany ruled below the waves, and it almost won both world wars. Now the United States is the global power, but could the airwaves be our undoing?

The world remains innocent of an all-out cyber war, but cyber conflict has become routine. We read about cyber attacks on corporations, government agencies, and even the election system at home almost as often as reports of physical warfare abroad. Journalist Ted Koppel sent shivers through his readers with his book *Lights Out: A Cyberattack, a Nation Unprepared, Surviving the Aftermath* (Penguin Random House, 2015) when he conjured doomsday scenarios about the collapse of the American electric grid. This new work by Paul J. Springer, a professor of comparative military history at the Air Command and Staff College, is less sensational, but it still suggests ways America's economic and military superiority can be strangled by the Internet.

The single volume features a standard reference format of 223 entries by 59 authors arranged alphabetically by subject. The entries, which are largely focused on the experience of Western nations, include "see also" notes and suggested further readings. The front of the book has a guide to where specific topics can be found within broad subject areas. In the back, extra sections offer eight primary documents, a chronology, a bibliography, a list of contributors, and an index.

The entries will appeal mainly to academic or professional readers. They explain cyber conflict buzz terms—historical (Operation Shady Rat), technical (SQL Injection), bureaucratic (US Coast Guard Cyber Command), strategic (Cyber-Equivalence Doctrine), and biographical (Bradley—later Chelsea—Manning). There are also entries on certain pop culture topics, such as the 1983 movie *WarGames*.

Springer's encyclopedia follows his *Cyber Warfare* (ABC-CLIO, 2015). The older book is a more fundamental library resource. It contains full chapters on the history of cyber warfare and on the challenges and controversies facing those involved. It then provides perspective pieces by experts, profiles of key players and organizations, documents, resources, and a glossary. The newer work essentially expands on the profiles and glossary elements of the older one.

For readers ready to go beyond introductory material, an option is Paul Rosenzweig's *Cyber Warfare: How Conflicts in Cyberspace Are Challenging America and Changing the World* (ABC-CLIO, 2013), which addresses key issues at more length. Perhaps even more than with most reference topics these days, however, a book about cyber warfare that is only four years old is already at risk of being out of date.

Fortunately, while not reference books, there are other more recent options. Among them are Fred Kaplan's *Dark Territory: The Secret History of Cyber War* (Simon and Schuster, 2016) and Brandon Valeriano and Ryan C. Maness's *Cyber War Versus Cyber Realities: Cyber Conflict in the International System* (Oxford University Press, 2015).—*Evan Davis, Librarian, Allen County Public Library, Fort Wayne, Indiana*

Freedom of Speech: Documents Decoded. By David L. Hudson Jr. Documents Decoded. Santa Barbara, CA: ABC-CLIO, 2017. 207 p. $64.80 (ISBN 978-1-4408-4250-4). E-book available (978-1-4408-4251-1), call for pricing.

David L. Hudson's *Freedom of Speech: Documents Decoded* is another addition to the ABC-CLIO Documents Decoded series. Hudson, a prolific author of American legal issues, demonstrates his breadth of knowledge of the history of free speech in the United States in this volume. The Documents Decoded series volumes represent a new type of encyclopedia in which primary-source documents constitute the main texts. These primary-source documents are coupled with annotations by the authors that provide illuminating contextual information and situate the documents within broader events of the time. Hudson's *Freedom of Speech* follows this format and focuses largely on federal legal cases, but it also includes important speeches that either addressed

freedom of speech or represented national tests to the limits of freedom of speech.

Hudson opens his volume with a concise introduction that frames the complexities of free speech in the United States and immediately provides the reader with a clear sense of the importance of the topic. Hudson concludes his introduction by noting that the volume "aims to strengthen public debate and provide a greater awareness and appreciation of First Amendment controversies and cases" (ix). Its stated aim sets *Freedom of Speech* apart from typical reference works, as it seeks a higher goal than simply providing the public with fact-based information. With Hudson's engaging introduction, his well-selected primary-source documents, and his annotations that provide expert interpretation, as well as rich and insightful details about historical context, *Freedom of Speech* undoubtedly provides readers with a much greater awareness and understanding of what freedom of speech means in the United States and how this idea has and continues to evolve. The thirty-eight primary sources are arranged chronologically and begin with the 1798 Sedition Act and conclude with the 2015 Reed v. Town of Gilbert case. This chronological ordering that begins shortly after the founding of the nation takes the reader through the country's inherent tensions with the concept of freedom of speech and the legal and intellectual struggles with defining limits to this idea.

Hudson's *Freedom of Speech: Documents Decoded* differs from other more traditional reference volumes such as Nancy Lind and Erik Rankin's 2012 *First Amendment Rights: An Encyclopedia* (ABC-CLIO) and John Vile, David Hudson, and David Schultz's 2007 *Encyclopedia of the First Amendment* (CQ Press) in that it does not contain typical encyclopedia-style topical entries. Rather, it is a reference work that reads more like a work of historical scholarship. To fully appreciate this volume, it should be read in its entirety. Its engaging content and structure make this a reference work that lends itself well to this type of reading. *Freedom of Speech: Documents Decoded* is highly recommended for medium to large public libraries and academic libraries.—*Joseph A. Hurley, Data Services and GIS Librarian, Georgia State University Library, Atlanta*

Freedom of Speech: Reflections in Art and Popular Culture. By Patricia L. Dooley. Santa Barbara, CA: ABC-CLIO, 2017. 166 p. $37.00 (ISBN 978-1-4408-4339-6). E-book available (978-1-4408-4340-2), call for pricing.

For a country that prides itself on the freedoms it bestows on its citizens, the United States has a surprisingly extensive history of censorship. As Patricia L. Dooley's *Freedom of Speech: Reflections in Art and Popular Culture* demonstrates, the arts and pop culture have long been favored targets of censors. Sometimes the censors are private citizens or organizations acting as self-appointed guardians of morality. More ominously, they sometimes are government entities intent on controlling the dissemination and consumption of creative products.

Although the book is a slender 166 pages, the author covers a broad range of artistic forms and instances of censorship. Chapters are devoted to literature, theater, games and sports, music, visual arts, film, fashion, television and radio, and the Internet. Coverage of topics within each chapter begins with the advent of the particular medium or its earliest known introduction in North America and continues to contemporary issues. For example, the chapter dealing with literature begins with an entry on the banning of William Pynchon's *The Meritorious Price of Our Redemption* in the 1650s by Massachusetts Bay Puritans. From there, the entries progress into the twenty-first century, covering such topics along the way as the US Post Office's 1933 confiscation of copies of James Joyce's *Ulysses* and the 1950s crusade against comic books, up to the 2003 firing of a high-school teacher due to the content of a student's slam poetry.

Each chapter begins with a brief general introduction. Entries range in length from a half page to two pages and generally include a discussion of the censors and their motivations, the outcome of the dispute, and the broader ramifications of the dispute. A "Further Reading" section is included at the end of each chapter. This reviewer found no reference resources comparable to this title, so *Freedom of Speech: Reflections in Art and Popular Culture* is indeed a unique offering, but its usefulness may be limited by the brevity of the entries. Many of the broader subjects covered (such as the backlash against the comic-book industry and heavy metal music) would have benefited from a more in-depth discussion. Due to the brief nature of most entries, this title is recommended mainly for public and K–12 libraries.—*Edward Whatley, Instruction and Research Services Librarian, Georgia College and State University, Milledgeville*

Gun Control in the United States, 2nd ed. By Gregg Lee Carter. Contemporary World Issues. Santa Barbara, CA: ABC-CLIO, 2017. 401 p. $60.00 (ISBN 978-1-4408-3566-7). E-book available (978-1-4408-3567-4), call for pricing.

In today's political climate, there are few issues more polarizing than gun control. Unfortunately, the plethora of news commentary and websites on this heavily debated topic may lack objectivity. The author's goal for this book is to provide information for the reader to decide on the amount or level of gun control and which types will be successful. This book is appropriate for high school and undergraduate students.

This reference book is a good starting point in the research process. "Chronology," found in the back matter, gives a list of watershed events that shaped the gun debate from the years 1787 to 2016. It provides a needed long-range perspective on the topic, especially since the focus during the twenty-four-hour news cycle is normally on the latest gun incident. The well-executed glossary clarifies what can be a confusing array of proprietary terms about guns, statutes, and laws. The "Profiles" section offers a comprehensive, balanced review of key people and organizations in the gun-control debate, providing depth to the topic and options for further research.

Currency is a challenge for presenting data in a reference book, especially for a topic with the volatility and variables inherent in gun control. While there is often a publication delay for statistical data sets, major websites will have more current information. For example, the data in the book on homicides and suicides by guns are from 2013. "Key State Gun Laws," a major table in the "Data and Documents" section, has a detailed legend and explanations that continue over several pages, making it difficult to draw conclusions easily. Other charts and graphs in the book with fewer variables are more effective. There are ample credible reference lists in each chapter from highly respected scholarly journals, books, and websites such as the CDC, FBI, and Bureau of Justice Statistics.

In comparison to the question-and-answer format of *The Gun Debate: What Everyone Needs to Know* by Philip J. Cook and Kristin A. Goss (Oxford University, 2014), this reference book presents comprehensive information in a neutral fashion, creating an important niche in the marketplace for student researchers. Given the fact that many students now begin research on the Internet, this book should be recommended by librarians to students during the research process.—*Terry Darr, Library Director, Loyola Blakefield, Baltimore, Maryland*

Modern Conflict in the Greater Middle East. Edited by Spencer C. Tucker. Santa Barbara, CA: ABC-CLIO, 2017. 420 p. $94.00 (ISBN: 978-1-4408-4360-0). E-book available (978-1-4408-4361-7), call for pricing.

Modern Conflict in the Greater Middle East, edited by Spencer C. Tucker, dates modern conflicts between and among twenty-two countries from the dissolution of the Ottoman Empire beginning in 1918 to when the book went to press in 2016, with no end in sight for the civil war in Syria, much less for peace between Israel and the Palestinians. Linked by religious and cultural affinities, Afghanistan, Pakistan, and the North African countries of Algeria, Morocco, and Tunisia are included as part of a lately considered greater Middle East, as are Cyprus, Iran, and Turkey. A brief overview of the historical events out of which the geopolitical greater Middle East emerged sets the stage for the seemingly intractable modern conflict of the volume's title.

Modern Conflict in the Greater Middle East is arranged by countries in alphabetical order and follows a consistent format. Preceding each country chapter is a map that shows the location of its major cities and situates the country in relationship to its neighbors. The author or authors of the narrative history that follows are cited at the head of each essay. Their credentials are listed in the "Contributors" section at the end of the volume.

A timeline affords the opportunity to insert additional material as well as to summarize significant events in chronological order, though with less attention paid to the military, political, and biographical details that the prolific Tucker's six-volume *A Global Chronology of Conflict: From the Ancient World to the Modern Middle East* (ABC-CLIO, 2010) contains. Books in the "Further Reading" lists include trade and academic titles, most published between the late 1970s and the mid-2000s. Sidebars and black-and-white photographs accompany some of the country essays. A chronologically arranged section of primary documents with source citations and an index of names and subjects conclude the work.

In addition to the aforementioned *A Global Chronology of Conflict*, Tucker has edited or authored several other reference works touching on the theme of wars and warfare in the contemporary Middle East, among them the five-volume *The Encyclopedia of Middle East Wars: The United States in the Persian Gulf, Afghanistan, and Iraq Conflicts* (ABC-CLIO, 2010) and the four-volume *The Encyclopedia of the Arab-Israeli Conflict: A Political, Social, and Military History* (ABC-CLIO, 2008). *Modern Conflict in the Greater Middle East* supplements these two comprehensively focused sets by providing students with an overview of the background causes and political realities that fuel the besetting strife and discord, internal and external, afflicting a grouping of geographically situated countries labeled together as "the greater Middle East." Coverage of the history, culture, society, religion, politics, organizations, and personalities that does not dwell exclusively on the region's persistent turmoil is better addressed by the four-volume second edition of *Encyclopedia of the Modern Middle East and North Africa*, edited by Philip Mattar (Macmillan Reference USA, 2004).

Modern Conflict in the Greater Middle East is a vade mecum for students needing an easily accessible guide to modern conflict in the greater Middle Eastern region, its roots, causes, and consequences. As such, *Modern Conflict in the Greater Middle East* is a suitable addition to reference collections in public libraries, high-school libraries, and college and university libraries.—*Sally Moffitt, Bibliographer and Reference Librarian, Langsam Library, University of Cincinnati, Cincinnati, Ohio*

Presidential Power: Documents Decoded. By Brian M. Harward. Documents Decoded. Santa Barbara, CA: ABC-CLIO, 2016. 342 p. $81.00 (ISBN 978-1-6106-9829-0). E-book available (978-1-61069-830-6), call for pricing.

Debates of presidential powers are often tied to the founding documents of the United States of America and the documents produced by those who have held its highest office. *Presidential Power*, therefore, is a natural fit for ABC-CLIO's Documents Decoded series. The introduction does a thorough job of explaining both the nuances of expressed and implied presidential powers as defined (or not) by the Constitution, and how these powers are expanded or constrained by the branches of government using concrete examples from US history.

The documents covered within the volume do not include the Constitution, which distinguishes its exploration of presidential powers from many other books on the subject. Instead, it illuminates documents that round out our understanding of presidential actions, such as proclamations, letters, speeches,

Supreme Court opinions, reports, and memos. Different documents allow the reader to explore how the presidents themselves saw their powers, and to understand the thinking of those who agreed or disagreed with these assertions of executive authority. Though not directly presented or annotated, the Constitution is discussed within the other document annotations, providing Constitutional context that supports or refutes the claims made by document authors.

The volume presents sixty-four selected documents with context to explain not only the particular presidential powers being examined but also the people, politics, and other compounding forces that shape our government. Though documents from many presidential eras are explored, the largest groups of documents are from the presidencies of George W. Bush (twelve), Barack Obama (nine), and Franklin Delano Roosevelt (nine).

End matter includes a timeline that gives brief context for each event related to the presented documents, additional reading, and an index. The timeline is not particularly useful, as the documents are already presented in a chronological format, but it may be helpful for quick references. The additional readings are organized alphabetically by author, rather than by subject or time period, which may present a challenge for novice researchers.

In comparison to a similar work, CQ Press's *The Evolving Presidency: Landmark Documents, 1787–2015*, edited by Michael Nelson (2015), there is some, but not much, overlap between documents explored. Additionally, *Presidential Power* is unique in its approach to annotate the primary sources themselves, instead of providing commentary ahead of or after the document text.

Presidential Power is a good resource for high school or undergraduate students exploring the presidency and its balance with the other branches of federal government. It exposes students to the use of primary documents—which are critical to this area of research—and provides enough context for those who are exploring the subject for the first time.—*Emily Mross, Business and Public Administration Librarian, Penn State Harrisburg, Middletown, Pennsylvania*

Race in American Film: Voices and Visions That Shaped a Nation. Edited by Daniel Bernardi and Michael Green. Santa Barbara, CA: Greenwood, 2017. 3 vols. 1,026 p. $294.00 (ISBN 978-0-313-39839-1). E-book available (978-0-313-39840-7), call for pricing.

Race in American Film is a three-volume encyclopedic treatment of race and racism in American cinema, from the early film era to modern times. The editors, Daniel Bernardi and Michael Green, address the question of "American cinema's place in American and world culture with respect to the question of race" (xxx). For the purpose of this three-volume set, they define "race" broadly, using Omi and Winant's definition of race as a "'shifting yet reforming' complex of meanings that works to shape our sense of selves and those we see as similar—thereby allowing us to see others as different." (xxi) The concept of race, therefore, is subject to change over time and among different social groups.

The volumes that make up *Race in American Film* cover three categories: films that are considered as outright racist; films that attempt to subvert (however poorly or imperfectly) racism; and those films by nonwhite directors that feature nonwhite characters and themes (xxvi). The entries, signed by their authors, are listed in alphabetical order with cross references to other entries in the volumes. Each topic has a "Further Viewing" section, suggesting other films covering the same topics but not discussed in the encyclopedia, and a "Further Reading" section that includes bibliographical sources used to research the article as well as additional references for study. Each entry is written in accessible English, without jargon, and should be easily understandable by most general readers. At the beginning of each volume is an alphabetical list of entries and a list of films broken down by era ("Early Film to 1928," "Classic and Mid-century Era, 1929–1969," and "Contemporary Films, 1970–"). There is also a guide to related topics that lists films dealing with a particular subject or genre, such as film noir or immigration, and volume 3 contains a comprehensive bibliography and index, as well as a list of contributors and their credentials. Bernardi and Green, the editors, are film and media scholars at San Francisco State University and Arizona State University, respectively, and their contributors are experts in film studies, sociology, history, ethnic studies, and related fields.

Race in American Film succeeds well in its intent to present a comprehensive history and reflection of race and racism in American cinema. It is admirably current, discussing events such as the Black Lives Matter movement and films released as recently as 2015. Missing are entries on some contemporary African American directors, such as Steve McQueen and Ava DuVernay; it is to be hoped that a future edition would include some of these filmmakers as well. Overall, *Race in American Film* nicely fulfills its stated purpose, providing in one resource a good jumping off place for readers interested in the topic of race and film and giving researchers suggestions for further study. Highly recommended for high schools, public libraries, and colleges and universities, particularly those that support film and media studies programs.—*Amanda K. Sprochi, Health Sciences Cataloger, University of Missouri, Columbia*

The Routledge Companion to Media and Race. Edited by Christopher P. Campbell. New York: Routledge, 2017. 326 p. $204.00 (ISBN 978-1-138-02072-6). E-book available (978-1-315-77822-8), call for pricing.

In recent years, Routledge has published several works on various aspects of race and media, including *The Race and Media Reader*, edited by Gilbert B. Rodman (2014). The book under review complements Rodman's earlier work, although it has a different purpose and focus within this well-studied subject. Campbell also carves out a bit of space for his work

in a crowded field by concentrating solely on race and media as opposed to coupling them with gender and/or class, as is often the case.

The stated purpose of Campbell's work is to be a "comprehensive guide for scholars, students, and media professionals who seek to understand key debates about the impact of media messages on racial attitudes and understanding" (i). This is attempted by collocating twenty-eight essays written by scholars in media studies, communications, journalism, and other disciplines. The essays are presented in three parts: "Studying Race and Media: Theories and Approaches," "Race, the Medium, the Message," and "Race, Ethnicity, and Intersectionality." Part 1 does well in introducing several interesting theories and approaches to studying the subject. Part 2 delves into many of the contemporary issues within various mediums, including ethnic media, sports media, advertising, social media, and others; however, this section did not live up to the "comprehensive guide" goal set out by the editor. Conspicuously absent, given their prominence in contemporary American culture, were stand-alone essays and analyses of gaming and the political media; in fact, the 2016 elections are not covered in any depth. Part 3 is generally representative of the prominent ethnic groups in the United States and delves into some international coverage of India, Europe, East Asia, and others.

Readers would be hard-pressed to identify this collection of essays as a reference book, but it does bring together essays on important aspects of race and media, and it would be useful for academic libraries to consider purchasing.—*Brent D. Singleton, Coordinator for Reference Services, California State University, San Bernardino*

The Use and Abuse of Police Power in America: Historical Milestones and Current Controversies. Edited by Gina Robertiello. Santa Barbara, CA: ABC-CLIO, 2017. 370 p. $71.20 (ISBN 978-1-4408-4372-3). E-book available (978-1-4408-4373-0), call for pricing.

This reference book is a timely encyclopedia that captures some of the most recent and critical events that involved law enforcement, as well as a number of historically significant milestones in the relationship between law enforcement and citizens in the United States. This book is a quick reference that is structured in a way to give researchers an easy-to-use timeline of events, technological advances, changes in the law, and debates and incidents with police that have infiltrated everyday life and the news.

This reference covers an expansive date and topic range, from the 1600s to the present, from colonial night watches to racial profiling. It is subdivided by broader topics (wiretapping, corruption, and body cameras, as examples), specific case studies (the Trayvon Martin shooting, Frank Serpico, and Teddy Roosevelt and the fight against police corruption), and important court proceedings (*Brown v. Mississippi*, *Miranda v. Arizona*).

A strength of this reference is its effort to objectively cover the number of recent incidents that involved police officers causing the death of minorities. Contributors try to offer unbiased accounts and offer little to no speculation on unverified elements of the interactions, but bibliographies for further reading are presented to offer researchers the opportunity to investigate these incidents on their own and draw their own conclusions based on their findings. It also benefits from being one of perhaps very few reference texts that examines the criminal justice system through the lens of policing in accessible entries that would provide useful starting points for researchers at a variety of reading levels.

I would recommend this reference to two- and four-year undergraduate institutions, especially those with criminal justice programs. The analysis of policing in America is unlikely to wane in the coming years, and this book will retain its relevance for years to come.—*Amanda Babirad, Instructional Services Librarian, Morrisville State College, Morrisville, New York*

Today's Foreign Policy Issues: Democrats and Republicans. By Trevor Rubenzer. Across the Aisle. Santa Barbara, CA: ABC-CLIO, 2017, 400 p. $97.00 (ISBN 978-1-4408-4366-2). E-book available (ISBN 978-1-4408-4367-9), call for pricing.

Today's Foreign Policy Issues: Democrats and Republicans, as the title suggests, examines international and "intermestic" policy issues from the perspectives of our two major political parties. According to the introduction, this book "examines the proposals and positions of the two parties—from profound disagreements to areas of common ground" (p. viii); however, this nuanced approach is difficult to achieve in a volume written for the novice researcher. Further, the structure of the articles stresses differences rather than similarities. Presenting political parties as monolithic structures is also problematic. While parties have unifying platforms that are referred to often throughout the book, they tend to obscure internal divisions. This partisan framework also seems to lend itself to deepening cleavages, both real and imagined, for readers approaching the material from entrenched perspectives. And what of independent, libertarian, and green-party positions, among others?

The work is written by Trevor Rubenzer, and the singular voice allows for consistency of treatment across topics. The disadvantage of the single-author model is that we don't hear the voices of experts on various topics covered. There is a unifying organizational template used for entries that enables readers to seamlessly compare and contrast topics. Every article begins with an overview paragraph followed by bulleted lists that summarize the positions of each party, a historical overview, and then sections that go into further detail about each party. "Further Reading" lists guide the reader to content from various sources that are readily available on the open web, at least for the time being. Articles are clearly written, avoid jargon, and provide concise overviews

of topics ranging from climate change to nation building to China at a level appropriate for novice researchers.

The most significant contribution of this work is that it adds a much-needed update to current reference options addressing foreign policy. Alexander DeConde, Richard Dean Burns, and Fredrik Logevall's *Encyclopedia of American Foreign Policy* (Charles Scribner's Sons, 2002), and Bruce W. Jentleson and Thomas G. Paterson's *Encyclopedia of U.S. Foreign Relations* (Oxford, 1997), both excellent reference resources structured by topic with articles written by experts, are showing their age. And while Robert J. McMahon and Thomas W. Zeiler's *Guide to U.S. Foreign Policy: A Diplomatic History* (CQ Press, 2012) is a bit more recent, its historical organization makes it difficult to compare. Unfortunately, currency is not enough to recommend the work, as it is fleeting. *Today's Foreign Policy Issues: Democrats and Republicans* provides rather narrow and shallow coverage of foreign policy from a very specific and, in this reviewer's opinion, questionable perspective.—*Anne C. Deutsch, Sojourner Truth Library Instruction Program Coordinator and Research and Education Librarian, State University of New York at New Paltz*

Tweeting to Freedom: An Encyclopedia of Citizen Protests and Uprisings Around the World. By Jim Willis and Anthony R. Fellow. Santa Barbara, CA: ABC-CLIO. 367 p. $89.00 (ISBN: 978-1-4408-4004-3). E-book available (978-1-4408-4005-0), call for pricing.

Professors Jim Willis (Azusa Pacific University) and Anthony R. Fellow (California State University at Fullerton) edited the affordable and relevant single-volume *Tweeting to Freedom: An Encyclopedia of Citizen Protests and Uprisings Around the World*. The extensive teaching and research experience of Willis and Fellow is evident in the instructive and informative writing throughout. A major consideration with a reference work on a topic as quickly evolving as social media is how quickly the text will become outdated. The focus on providing context for social media movements will serve to keep the content in *Tweeting to Freedom* relevant, especially as the memory of the reasons for protests gets shorter and shorter. The analysis will be useful even when the examples are inevitably no longer current; however, there are many timely examples, such as references to the 2016 US presidential election.

Tweeting to Freedom provides an extensive introductory essay on "Worldwide Internet Activism and Movements," along with thirty-five country studies, ranging from seven to twenty pages in length, all authored by Willis and Fellow. Country essays provide an overview, subsections on economic or social conditions, media and online activity, and a review of journalistic freedom. Countries selected represent both developed and developing countries, a mix of types of governments, and a variety of regions. The approach to the country studies provides more than just a review of social media and protests, and offers an overarching analysis of media and freedom of expression. Broad issues such as privacy and the problematic nature of an open Internet are mixed with specific individual narratives throughout. References are mostly web content, including news sites, online magazines, and government publications.

There are other recent similar titles on the topic of social media and social movements. The 2011 *Encyclopedia of Social Movement Media* (Sage) is a quality work, albeit with a scope that goes beyond social media, but the six years since its publication have brought major changes in how social media is used to organize protests. Sage also published the 2014 *Encyclopedia of Social Media and Politics*, a comprehensive three-volume set that covers several hundred general topics but is focused on the United States and serves as a background source with mostly short single-page articles. *The Routledge Companion to Social Media and Politics* published in 2016 is an excellent work that provides an extensive theoretical overview, covers international perspectives, and includes several specific country studies; however, *Tweeting to Freedom* is more focused on the use of social media for protest movements in specific countries, offers less theory, and is less academic in its approach. *Tweeting to Freedom* is perhaps more appropriate for advanced high-school students and undergraduates than the more advanced *Routledge Companion to Social Media and Politics*. ABC-CLIO also released a related work this year, *Social Media: A Reference Handbook* that would be a useful general companion to provide the larger context of social media outside of social movements and politics.

The one shortcoming of *Tweeting to Freedom* is its length (367 pages), which, coupled with the extensive scope, does not leave much room for in-depth analysis. Overall, this volume is a quality addition to the existing body of reference works on social media and international social movements, and it is highly accessible yet well researched and informative. Recommended for high-school libraries and colleges.—*Shannon Pritting, Library Director, SUNY Polytechnic Institute, Utica, New York*