

“I Don’t Think Librarians Can Save Us”: The Material Conditions of Information Literacy Instruction in the Misinformation Age

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This national qualitative study investigates academic librarians’ instructional experiences, views, and challenges regarding the widespread problem of misinformation. Findings from phenomenological interviews reveal a tension between librarians’ professional, moral, and civic obligations to address misinformation and the actual material conditions of information literacy instruction, which influence and often constrain librarians’ pedagogical and institutional roles. The authors call for greater professional reflection on current information literacy models that focus on achieving ambitious educational goals, but which may be unsuitable for addressing the larger social and political crisis of misinformation.

Introduction

Donald Trump’s unlikely presidential victory in 2016 has become inextricably associated with growing public concern about the potentially negative impact of false and deceptive information on democratic society (Allcott & Gentzkow, 2017; Tenove, 2020). While media saturation and political distortion eventually rendered phrases such as “fake news” and “alternative facts” virtually meaningless, ongoing waves of COVID-19 skepticism, QAnon cultism, and 2020 election denialism suggest that various forms of misinformation and disinformation will continue to play a worrisome role in political discourse going forward. Misinformation—defined broadly to encompass disinformation and related concepts—is not a new problem for democracy; however, in today’s environment, online social networks facilitate the rapid and widespread circulation of misinformation into the larger media ecosystem, making verification exceedingly difficult and enabling interference in political campaigns and elections (Muhammed & Mathew, 2022; Tenove et al., 2018). Unsurprisingly, as long-time information literacy educators and advocates, many librarians feel professionally and morally obligated to address this crisis.

In recent years, innumerable scholarly works, think pieces, and statements from professional organizations have asserted that librarians have an especially important role to play in helping students and other library users evaluate information sources more effectively against the backdrop of civic discord and online propaganda (ALA, 2017; Batchelor, 2017; Cooke, 2017;

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Eva & Shea, 2018; Fister, 2021a; IFLA, 2018; Jaeger et al., 2021; Musgrove et al., 2018). Succinctly encapsulating what has become the consensus view, Beene and Greer (2021) state, “Librarians are uniquely poised to prepare learners for a lifetime of critical thinking, analytical reasoning, and information literacy” (p. 3). Based purely on the literature, the outpouring of classes, workshops, events, online guides, and other content focusing on fake news and related topics indicates that instruction librarians have largely accepted some measure of responsibility for combating misinformation as part of their efforts to advance information literacy on a broad scale (De Paor & Heravi, 2020; Revez & Corujo, 2021).

At the same time, while there appears to be general agreement that librarians should involve themselves in teaching students to identify misinformation, there is controversy surrounding the nature of that involvement. For example, librarians have been criticized for their apparent lack of engagement with research from other disciplines regarding the psychological and emotional dimensions of misinformation, specifically cognitive biases such as motivated reasoning, as well as imperfections in human memory, that can lead people to cling to false beliefs, even after they have been corrected (Sullivan 2019). Librarians have also been called out for their reliance on checklist heuristics that stress evaluating the superficial features of web sources in isolation, rather than thinking critically and holistically about sources in relation to one another (Beene & Greer, 2021; Faix & Fyn, 2020; Lor, 2018; Ziv & Bene, 2022). The popular “CRAAP Test” (Blakeslee, 2004) is perhaps the most notable—and now increasingly notorious—example of this problematic checklist approach. Additionally, to more fully understand how librarians and other educators are teaching students to evaluate information, several researchers have conducted content analyses of library and university websites (Bangani, 2021; Lim, 2020; Wineburg et al., 2020; Ziv & Bene, 2022). This body of scholarship consistently shows that such websites emphasize outdated, inadequate, and counterproductive evaluation guidance, as opposed to what Ziv and Bene (2022) refer to as “networked interventions,” (i.e., proven techniques such as lateral reading that focus on evaluation within the context of the larger web) (p. 917). Although providing a certain level of insight into the instructional approaches employed by librarians and offering fully justifiable critiques of those approaches as they appear online, these studies are necessarily limited by their dependence on websites, which, divorced from the context of lived experience, may ultimately tell us very little about how librarians actually teach their students about misinformation.

As valuable as they are, these existing critiques of the library profession’s handling of the misinformation crisis mostly fail to consider the material conditions of instruction librarianship, those professional and organizational dynamics that influence and often constrain this work. There is a lack of nuance and detail regarding the day-to-day experiences of librarians and the motivations behind the pedagogical choices they make. The present study, then, begins to address this gap in the literature through an in-depth, qualitative investigation into academic librarians’ instructional experiences in relation to the misinformation crisis, the various strategies and methods they utilize with students, and the individual and institutional challenges they navigate along the way. Using semi-structured phenomenological interviews, the study explores the following research questions:

- What strategies do academic instruction librarians use to teach students to evaluate information and identify misinformation?
- What challenges do academic instruction librarians experience in teaching students about misinformation?

- How do academic instruction librarians envision a path forward for teaching information literacy in an age of misinformation?

It is hoped that the findings will extend and enhance conversations about the roles librarians are playing in teaching and promoting evaluation skills and help the profession move forward in a time of potential democratic peril.

Literature Review

Academic librarians have a longstanding professional investment in teaching evaluation skills in connection to their work as information literacy educators and advocates. O'Connor (2009) has shown that librarians have been closely associating evaluation skills with information literacy and democratic citizenship since the modern information literacy movement began in the mid-1980s. This interest in teaching students how to evaluate information and identify authoritative, trustworthy sources has continued unabated through the publication of widely influential professional documents, including the Association of College and Research Libraries' *Information Literacy Competency Standards for Higher Education* (2000) (*Standards*) and its eventual successor, the *Framework for Information Literacy for Higher Education* (2016) (*Framework*). Predating the appearance of contemporary online social networks such as Facebook and Twitter (now known as X), the *Standards* point to evaluation as a foundational component of information literacy, warning that, in a technologically rich society, "unfiltered" information of an "uncertain quality" threatens the development of an "informed citizenry" (2000, p. 2). Likewise, the current *Framework*, which offers a more nuanced approach drawing on threshold concepts from the field of education, rather than a "prescriptive enumeration of skills," refers to a "dynamic and often uncertain information ecosystem," with librarians presented at the forefront of teaching the critical evaluation of information in various contexts (2016, p. 7). In keeping with this conception of information literacy, source evaluation has been a consistent topic of discussion and debate in the library literature for many years, reinforcing this particular instructional role for librarians, despite evolving views on the most suitable pedagogical methods and tools (Angell & Tewell, 2017; Mandalios, 2013; Meola, 2004; Ostenson, 2014).

While this focus on evaluating information has been well-established in information literacy circles for decades, a renewed and more pronounced concern with evaluation has emerged in response to growing fears surrounding the circulation of deceptive content within the media ecosystem, especially on social networks. Such content can be categorized in various ways, based in part on the intention behind creating or sharing it, but "misinformation" frequently serves as a collective term for all forms of false and misleading content (Ha et al., 2021; Southwell et al., 2018; Wardle, 2020). The public at large became increasingly aware of misinformation as a serious threat to social stability in the wake of "fake news" controversies and online propaganda campaigns connected to recent elections as well as the COVID-19 pandemic. Though by no means a new research topic in fields such as psychology and communications, scholars across disciplines have noted the detrimental influence of misinformation, including so-called fake news, on democratic norms and health outcomes (Gisondi et al., 2022; Lee, 2019; Monsees, 2023; Rocha et al., 2023). With public anxieties regarding a misinformation crisis at peak levels, many librarians have embraced the opportunity to reinvigorate their professional identity as information literacy educators and, in particular, advance their role in shaping an informed democratic citizenry by teaching evaluation skills that seem more important than ever before (Batchelor, 2017; Beene & Greer, 2021; Cooke, 2017; Eva &

Shea, 2018; Jaeger et al., 2021; Musgrove et al., 2018). The tenor of much of this literature is that there is a political and moral imperative for librarians to play a lead role in countering misinformation, with the very foundations of democracy potentially at stake. For instance, Batchelor (2017) calls teaching critical thinking about information a “professional and civic obligation” for librarians, presenting it as “essential to democracy” (p. 143).

Given this perceived obligation, methods and strategies for teaching students about fake news and other types of misinformation have become pervasive in the library literature. In a systematic review of recent literature in this area, Revez and Corujo (2021) highlight a variety of instructional practices among librarians, including the creation and/or use of specific evaluation tools, infographics, and websites; the development of news literacy workshops and tutorials; and the cultivation of partnerships with journalists. De Paor and Heravi (2020) discuss similar practices, such as online guides and news literacy programming, and encourage librarians to collaborate with faculty to promote information literacy on a broader scale and to ground this work in the larger body of research on the psychology of misinformation. Indeed, there is now widespread agreement that librarians need to acknowledge the limitations of their disciplinary knowledge, to learn more about the complexity of belief in misinformation from other fields, and to implement more informed pedagogies to address misinformation (Elmwood, 2020; Faix & Fyn, 2020; Lor, 2018; Rush, 2018; Sullivan, 2019; Tripodi et al., 2023). Moreover, online library resources featuring the CRAAP Test and other outdated, checklist-based models of evaluation have received substantial criticism for failing to incorporate more dynamic and evidence-based approaches, including reading techniques associated with research from the Stanford History Education Group (Lim, 2020; McGrew et al., 2019; Wineburg & McGrew, 2017; Wineburg et al., 2020; Ziv & Bene, 2022). Taken as a whole, the literature up to this point suggests that, despite a self-professed expectation that they do so, librarians may lack the expertise to design and deliver effective educational content aimed at combating misinformation.

On the other hand, very few studies have examined the lived experiences of librarians in relation to teaching about or addressing misinformation. In the public library realm, qualitative research has shown that staff members generally understand the psychological and social complexities of misinformation, but they face several challenges in working with patrons, including a lack of time and resources, as well as a lack of confidence in their expertise and a reluctance to engage with controversial political topics (Young et al., 2021). Despite such challenges, researchers have asserted that public library staff have an opportunity to become leaders in this area through closer collaboration with academic experts and members of the communities they serve (Tripodi et al., 2023; Young et al., 2021). In the academic sector, research has primarily examined how teaching faculty view the library’s potential role in educating students about misinformation. While faculty vary in their perceptions of librarian expertise, they do not appear to be working regularly with librarians to address misinformation with their students and may not recognize how librarians could support this work, indicating a need for greater library outreach (Alwan et al., 2021; Saunders, 2022). This situation may be exacerbated by curricular models that place librarians in a subservient role, such that faculty expectations drive the content and timing of information literacy instruction (Alwan et al., 2021).

These kinds of contextual factors suggest promising directions for further research on librarian engagement with the misinformation crisis, particularly from the perspective of

librarians themselves. In a recent survey of academic librarians, Saunders (2023) found that nearly all respondents have concerns about misinformation and that a substantial majority teach news literacy skills or other material on misinformation. However, Saunders (2023) also points to multiple challenges associated with teaching these skills, including the complicated psychological elements of misinformation and the significant contextual limitations of the one-shot model. From this vantage point, the present study—perhaps the first of its kind—builds on the existing research through phenomenological interviews that highlight the thoughts, emotions, and experiences of librarians as they navigate a treacherous misinformation landscape and their own identities within it.

Methods

The purpose of this study was to examine the experiences of academic instruction librarians who teach students about source evaluation and misinformation. To that end, a phenomenological approach, which seeks to understand the shared experiences of those involved in a particular phenomenon, was taken to better understand the lived experiences of librarians teaching information literacy in an age of misinformation (Fought, 2018). The study examined the strategies librarians use to teach students to evaluate information and identify misinformation, their challenges with teaching about misinformation, and how they envision a path forward for teaching information literacy in the misinformation age.

This study was approved by the authors' Institutional Review Board in January 2022, after which the authors recruited participants via ALA Connect discussion boards. In February and March 2022, the authors conducted semi-structured interviews (see Appendix A) with the twenty librarians who responded to recruitment messages for a study focusing on how academic librarians teach students to evaluate information and identify misinformation. Participants self-selected as full-time academic librarians with job responsibilities in information literacy instruction who teach students about evaluation; interviewers confirmed these participant characteristics during the interviews.

Sixteen participants identified as female, two identified as male, one identified as female/nonbinary, and one identified as female/agender. Participants ranged in age from 27 to 76 years of age. Nineteen participants identified as White and one participant identified as Hispanic. Length of employment as a professional librarian ranged from one year to forty-two years, with twelve years average in the field. Participants were currently employed at a range of public and private associates, baccalaureate, masters, and doctoral-granting institutions across the United States, and the FTE of participants' institutions ranged from 1,200 to over 100,000 students.

The authors conducted semi-structured interviews via phone or video conferencing software. While a detailed interview protocol was created by the interviewers, these questions served only as a guide; interviews tended to be more conversational between the interviewer and participant, and follow-up questions were directed by participant responses. The length of these conversations varied among participants but averaged one hour, the allotted time scheduled for the interview. To avoid influencing and limiting participants' responses, the authors did not define "misinformation" for participants but asked them to think broadly about misinformation and associated concepts like disinformation, propaganda, and fake news. The authors recorded, transcribed, and analyzed the interviews. The authors separately reviewed all interview transcripts for themes relevant to the research questions, then collaborated to compare their analyses and determine common themes across interviews. Once

common themes were identified, the authors collaboratively reviewed transcripts to code for participant quotes specific to each theme. Respondents are identified with pseudonyms throughout this paper to maintain anonymity.

Results

Strategies for Teaching Evaluation

In One-Shot Instruction

The first research question examined the strategies academic instruction librarians use to teach students to evaluate information and identify misinformation. Most participants discussed their strategies for teaching evaluation within the context of one-shot instruction sessions. In contrast to the previous findings that CRAAP is ubiquitous in teaching evaluation (Wineburg et al., 2020; Ziv & Bene, 2022), participants consistently derided the CRAAP Test as an outdated method of information evaluation not suited for the current information environment. Instead, participants most commonly described teaching evaluation skills through networked approaches like lateral reading, updated evaluation frameworks, and critical thinking activities.

Over half of participants expressly discussed the concept of “lateral reading,” an increasingly popular technique involving researching outside a given website to assess its credibility (Wineburg & McGrew, 2017). As Fraser stated:

I have one or two examples prepared of websites and I ask students, what else can we find out about a particular website by doing a little bit of basic web searching? And it's pretty incredible, at least in my experience, how engaging that is for students. Much more so than giving them a checklist.

Librarians found that lateral reading provided a method for teaching evaluation without taking a one-size-fits-all approach and while engaging students in the nuances of the online information ecosystem.

While most participants described CRAAP as outdated and ineffective for teaching evaluation skills, several librarians instead utilize updated evaluation frameworks to provide guidance to students in evaluating information. Librarians discussed how frameworks like SIFT, ACT UP, and IF I APPLY can be useful to students in the context of a one-shot session, but also described the limitations inherent in these acronyms. Raquel uses a framework in her teaching and explained these pros and cons:

I would say they're helpful tools as far as breaking apart this really big conversation about how to evaluate something ... That it's maybe easier to remember something like ASAP. On the flip side, they can feel limiting and prescriptive to students. And so they're not evaluating maybe as much in context of what the source is, particularly as misinformation gets more mature, it starts looking closer to real information. So I think [frameworks] can be helpful, as long as you're really emphasizing like this is one tool, it's not a checklist.

Beyond teaching lateral reading and updated frameworks, librarians described a multitude of creative lessons and activities that they use in one-shot instruction to get students

thinking critically about evaluation. Hannah provided instruction for a class themed around confederate statues and had students look at sources like social media, news, and scholarship on the topic to compare creation processes and strengths of each resource. Rayna teaches a lesson on fake news where students work in groups to answer critical guiding questions about a source's audience, purpose, and evidence and use sticky notes to place their source on a spectrum from less to more credible. Daisy gives students an online scavenger hunt to investigate the validity of sources from Google Scholar and Wikipedia. It is clear from librarians' descriptions of their strategies for teaching evaluation that their approaches in the classroom move far beyond the oversimplified checklist approach found on many university websites.

Beyond the One-Shot

While all participants confirmed that they address evaluation skills during one-shot instruction sessions, few talk explicitly about misinformation in that context. Librarians devoting the most time to teaching about misinformation do so by expanding instruction beyond the one-shot in the form of custom tutorials and guides, standalone workshops, and semester-long courses.

Several librarians have built online content that addresses timely misinformation topics. Abbi created a module on spotting misinformation using lateral reading, while Jennice's library has a misinformation tutorial and a fake news guide. Fraser described his library's disinformation guide, which contains "a mixture of videos and links that can be used whether they're students, not students, whatever. It's sort of got three very basic things: what is misinformation, how do we identify it, and what's misinformation being used for?" Librarians creating these guides and tutorials are often doing so to fill a need for students and faculty that they do not have the capacity to address in the context of one-shot instruction.

Librarians are also expanding their reach beyond the one-shot by offering standalone workshops on misinformation. Lee teaches several workshops each year on media literacy and misinformation, while Kate, Simone, and Sandy also host misinformation workshops targeted at various audiences of students, faculty, and the general population. Librarians were transparent about the deficits to this model of instruction, with Sandy stating, "Usually it's not a really large number of people attending these. But I would say actually the majority is faculty and staff. And often they seem to be looking at ways they can integrate this into their own teaching." Other librarians echoed this sentiment that workshops might not attract a large audience, but they are still a valuable way of bringing together stakeholders for conversations on an important topic.

Librarians doing the most robust work specific to misinformation are doing so in the context of credit-bearing courses. Hannah teaches a semester-long course on fake news in her university's Media Studies department, while Hayley teaches a one-credit class that dedicates multiple sessions to fact-checking and disinformation. Sierra highlighted the benefit of dedicating an entire course to practicing evaluation and discussing misinformation:

Everything that I do is talking about evaluating resources. So it's all building up until we get to the end where we really start talking about misinformation and fake news. But everything I do is like look at it, evaluate it. So we're starting to build skills almost into every session that I teach so it becomes a reoccurring habit.

When given the time and space, or when actively carving out their own opportunities to expand efforts in this area, librarians feel they can provide meaningful instruction around misinformation.

Challenges to Addressing Misinformation

The second research question delved deeper into the challenges librarians experience in teaching students about misinformation. Contextual challenges regarding the limits of one-shot instruction were the most common theme, while librarians also expressed personal concerns related to their own feelings about and knowledge of misinformation.

Contextual Challenges

Unsurprisingly, contextual challenges related to the limitations of the one-shot model of library instruction were commonly described by participants. Instruction librarians simply do not have time to teach about misinformation in a meaningful way. As Jason stated:

In fifty minutes, you can maybe have students do one thing, but to get some type of enduring, meaningful, lasting learning in fifty minutes or even in seventy-five? And let it be about something as sophisticated and charged as misinformation or disinformation? No. The way to do it is not to do it in a one-shot.

Librarians were skeptical about the value of a single instruction session as a tool for addressing misinformation.

Participants also frequently described faculty expectations of one-shot instruction as a limitation to doing more with misinformation. Fraser said he has received pushback from instructors for “focusing a little too much on misinformation in a one-shot, that they’d much rather have their students learn advanced database searching techniques.” Many librarians echoed this feeling that teaching faculty expect one-shot instruction to only address database searching and scholarly sources and that straying from these expectations would harm their teaching relationships or stray too far from the primary purpose of a course-integrated instruction session.

A final challenge related to the one-shot and to concerns about time and faculty expectations was the necessity to meet students’ immediate academic needs. Sandy discussed this need to help students succeed in their coursework: “The majority of classes I offer are tailored to an academic research assignment. And so when I do those types of sessions, misinformation is not a primary focus. We’re often focusing largely on library resources.” Some librarians, like Rayna, also stated that students are not engaged with conversations around misinformation and find more value in traditional research help: “When we ask students what’s the most important thing they learned, they almost never talk about evaluating information. They kind of focus on the things that they think are going to be most applicable to their research assignment.”

Personal Challenges

Beyond the contextual limitations of one-shot instruction, librarians described several personal challenges that inhibit them from addressing misinformation in their teaching. These personal challenges include professional angst around the enormity of the misinformation crisis, a perceived lack of expertise on misinformation topics, and discomfort in addressing potentially charged topics with students and faculty.

The theme of professional angst was pervasive among participants throughout these interviews, especially when discussing the challenges of teaching about misinformation. Librarians in this study are overwhelmed by the misinformation problem and expressed anxiety and distress about its societal implications and librarianship's ability to combat the issue. Participants like Sandy described a sense of paralysis tied to their personal responsibility to tackle misinformation, and many librarians, like Simone, feel demoralized by the lack of a clear path forward for the profession:

Everybody recognizes it's a problem and wants to do something about it, but what do we do? And I think that's where everybody feels like we've been thrown into a pool. And we're in the deep end. Anybody have any water wings? I need a floatie. And nobody really has that floatie.

Participants were also skeptical about their ability to address misinformation due to their own perceived lack of expertise on the topic. Some participants, like Hannah, described how librarians are taking up a mantle that they are unprepared for and need to "understand the limits of our expertise" around misinformation. Similarly, Kate believes librarians should defer to other misinformation experts:

I don't think librarians can save us, if that makes sense. We're not situated and we're not in many places respected enough or given enough time, nor do I think we really have the background to be the most effective people to do this.

Other participants described an obligation to do this work despite a lack of expertise, like Francesca:

As much as I feel like sometimes I don't know enough to be teaching this, I don't see any other group that this is their position to be teaching people about misinformation. I think that librarians are actually the best poised to be continuing to teach about this.

A final personal challenge described by participants involved feelings of discomfort around engaging students in potentially politically charged discussions. For some participants, the possibility of pushback from students was enough to deter them from attempting nuanced misinformation conversations. Rhylee is careful to choose examples for class that she deems neutral because "there's always the chance that I have a student in the class who's very sold on their opinion and wants to argue with me." Several others echoed that they consciously choose apolitical examples that do not address controversial topics like vaccines or climate change. Additionally, some participants recounted actual experiences with student pushback, like Simone:

In a class, I had a *New York Times* article, and an older male student started going on and on, very loudly and belligerently, about why would I use the *New York Times*? It's fake news, what's my agenda? And it was very uncomfortable. I was

completely unprepared for that. Now I just don't use the *New York Times*. I mean, they've scared me. My students have scared me into the things I use and the way I teach, to tell you the truth.

Envisioning a Path Forward for Information Literacy Instruction

The third and final research question explored how academic librarians envision a path forward for teaching information literacy in an age of misinformation. Participants described necessary internal changes related to their own teaching, and shared ideas for learning from and collaborating with external researchers and practitioners to move forward.

Internal Changes

Many librarians discussed their vision for working within the confines of the one-shot since this model of information literacy instruction continues to be standard in academia. Participants were hopeful that they could make one-shot instruction more impactful in the future by flipping instruction. Caroline described her ideal one-shot scenario:

It might be more of a hope or a delusion, but that there will be less focus on finding information and that maybe that can shift more with flipped instruction and offload a lot of stuff to online where it can be more of a Q&A in class and we can focus more on those critical thinking skills that will impact students outside of just that class and that assignment.

Several librarians agreed that, while flipping instruction does involve some buy-in from instructors, it would be the simplest change necessary to get more value from the one-shot.

Participants also called for a general shift in academic librarians' focus when it comes to teaching information literacy. Librarians expressed concerns about the focus on teaching database searching and worried that we are not preparing students for the real world of information they will encounter after college. Raquel said:

Beyond a two-year degree or a four-year degree, so many students are never going to write a research paper again or use a library database again. So using Boolean operators is great, but that's not particularly a lifelong skill for most of our students. But critical thinking certainly is.

Indeed, many librarians described a future where information literacy instruction would focus more on Google and the everyday information experiences of students rather than information literacy for academic research.

Finally, several participants called on academic instruction librarians to propose credit-bearing information literacy courses. Rayna described the way these courses could benefit students far more than one-shot instruction for a research assignment:

I think librarians are really pushing to have credit-bearing courses at their institutions and I think that's a really positive trend because we're able to engage more deeply in information literacy as a discipline and less as a service that we're

providing to students and faculty. So I think that's a trend that can also help with evaluation because we can dedicate more time to talking about that, especially how it affects students' daily lives because it's not necessarily associated with academic research.

Participants believed that dedicating more time and resources to information literacy instruction in the form of credit-bearing courses could provide more meaningful opportunities for teaching about misinformation. Taken as a whole, comments from participants suggest that the content and instructional methods associated with the one-shot need to be revised to adequately address misinformation.

External Changes

Beyond envisioning a path forward for their own teaching, participants also expressed ideas related to external partnerships. Because of their limited time with students, several librarians stressed the importance of collaboration with teaching faculty to make topics like misinformation and evaluation a part of everyone's work, like Sandy:

I think my ideal would be that I would have stronger connections with faculty across departments, that there would be more conversations going on and more collaboration thinking about how to integrate some of this material into those courses and curricula.

Sandy and other participants also described collaborations outside of academia being an important move forward:

I would really like to see more collaboration happening between universities and high schools, middle schools, and out into the community. That it doesn't just get isolated within higher ed, but that there's much more community building, getting to the relevance of this to everyone.

Related to the lack of expertise on misinformation felt by some participants, librarians like Rayna also described learning from other disciplines as a path forward in our information literacy work:

There's a lot of research outside of LIS that's also related to information literacy that talks about information practices and how people in different careers or hobbies interact with information literacy. So I think that's a really positive research trend that's kind of outside librarianship but can still inform our instruction.

Participants believed that librarians should prioritize learning from fields like psychology and journalism by reading outside of the library science literature and incorporating knowledge from other disciplines into their instruction work.

A final path forward voiced by some participants moved beyond what librarians alone could do with information literacy instruction. Librarians like Kate envisioned a world in

which librarians lead an urgent call to action around information literacy involving government, business, and other stakeholders:

I really think that combating misinformation and also preparing people to be better skeptics of misinformation really needs to be a larger-scale effort and something that has a system of pieces that are moving together. And so that involves working with government and tech in order to provide that. So I would love to see advocacy at that level that could maybe inform what some of those players in outside spaces are doing.

Other participants believe there is too much pressure on librarians to fix things, and Simone called on another authority to take the lead:

Somebody in academia, maybe AAC&U, will come up with some kind of directive and say we need to be more comprehensive with this. Because what I think about information literacy is that everybody owns it, so nobody's accountable for it.

These findings indicate that participants are aware that librarians cannot combat the misinformation crisis without connecting with educators, researchers, and organizations outside the library profession.

Discussion

The purpose of this study was to explore the thoughts, emotions, and lived experiences of academic instruction librarians teaching about misinformation. Findings related to librarians' instructional approaches and challenges to teaching about misinformation reinforce much of the existing literature, while providing new insights and nuanced perspectives through semi-structured interviews. Participants in this study feel professionally obligated to address misinformation while simultaneously acknowledging the limits of their expertise and the constraints of their position, leading to feelings of professional angst around this dichotomy. Participants were consistently critical of checklist approaches and often teach evaluation in nuanced ways that emphasize networked interventions and critical thinking, despite the findings from previous research (Lim, 2020; Wineburg et al., 2020; Ziv & Bene, 2022). However, participants remain limited by the one-shot model in terms of time, faculty expectations, and student needs, hindering their ability to play a more significant role in misinformation education. Unlike previous research, this study moves beyond analyzing university websites or describing how teaching faculty view the library's role in misinformation and considers the on-the-ground experiences of librarians teaching information literacy in an age of misinformation. This research reveals the material conditions of academic instruction librarianship, exposing a fundamental tension librarians experience: the moral and professional obligation to address the misinformation crisis, and the larger dynamics that render fulfillment of that obligation nearly impossible.

So, can librarians save us from misinformation? Based on the results of this study and coupled with previous research, the answer seems to be no. Or at least, not without changing the material conditions of instruction librarianship that limit and constrain librarians' role.

Another question, though, is *should* librarians save us? Are these aspirations beyond librarians' abilities and professional circumstances, and are they losing sight of a clearer, albeit more narrow, instructional mission? Given the endless conversations, research articles, and think pieces about librarians' role in misinformation, it seems like a professional reckoning is necessary to move the profession forward: librarians must either accept their position within the organization and come to terms with their supporting role in misinformation education, or push past the boundaries of a model that is directed by faculty expectations and limited by time and make it their professional obligation to become experts on theory and pedagogical techniques for teaching about misinformation. Indeed, for many librarians, the status quo appears to be untenable as a conducive environment for addressing the complex psychological, social, and political problems associated with misinformation on a broad scale.

If librarians choose the first path—leaning into the status quo—all is not lost. Information literacy instruction has evolved for decades based on the changing needs of students and society, and it is clear from this study and from previous research that librarians can and do contribute to educating about misinformation in small ways through their teaching. While most librarians are not equipped to play more than a supportive role because of the limits of the one-shot, their own expertise, or other organizational and professional factors, librarians are still doing important work within their wheelhouse of teaching evaluation, a small yet valuable piece of preparing students to encounter and question misinformation. Clearly, focusing on finding and evaluating information is not sufficient to solve the misinformation problem (Fister, 2021b), but that does not negate the fact that college students need to find and evaluate information for their assignments. If librarians choose to work within the confines of their material conditions, it could be a disservice to students to spend a one-shot session diving into the nuances and complexity of misinformation, ultimately leaving students without the tools to succeed in their coursework. If librarians remove the weight of the misinformation mantle that they have placed upon themselves, they could alleviate professional angst about librarianship's ability to change the world and instead focus their energy on the narrower but still important mission of contributing to students' academic success.

The alternative path is more complex. If librarians want to take greater responsibility for combating misinformation, they must change the status quo, fundamentally altering the material conditions of instruction librarianship. Within their organizations, librarians would need to stop lamenting about the ineffectiveness of the one-shot model and rebuild information literacy programs from the ground up, shifting the focus from traditional academic information literacy instruction to instilling a broader understanding of information systems, as described by Fister (2021b). The one-shot model is simply not the avenue for these aspirations; librarians would need to develop and teach information literacy courses addressing misinformation topics like some of the participants in the present study, requiring them to hone their expertise in misinformation theory and pedagogy by looking to other fields and learning from the research and practice of journalists, psychologists, sociologists, educators, and others. The profession would need to collectively agree on this shared endeavor, to update library school curricula, provide interdisciplinary professional development offerings, and ultimately to work toward development of information literacy as an academic discipline with a coherent focus in order to facilitate more robust collaborations with other disciplines around misinformation (Webber & Johnston, 2017).

In reality, the profession as a whole cannot simply choose one path or the other, and individual librarians are always in the process of shaping their professional circumstances in response to contextual factors; however, there is clearly a need for greater reflection on the relationship between misinformation and current information literacy models, specifically the suitability of such models for achieving ambitious educational goals. Given the experiences of librarians in the present study, as well as the pedagogical and professional challenges highlighted in the existing literature, the library profession is long overdue for this kind of reflection.

Conclusion

This study provides valuable and in-depth insight into the strategies academic instruction librarians use to teach students about evaluation and misinformation, the challenges they face in this instruction work, and how they envision a path forward for teaching information literacy in an age of misinformation. The authors recognize the limitations of this research. Nineteen of the twenty participants identified as White, and sixteen participants identified as female; experiences teaching about misinformation, especially challenges associated with discomfort engaging with students about misinformation, might be vastly different among members of underrepresented demographic groups. All twenty participants self-selected to be interviewed for this study, so their interest in, knowledge of, and experience with teaching about misinformation may not be representative of the typical instruction librarian. While experiences of staff and faculty librarians were not differentiated, these statuses could play a role in librarians' experiences of autonomy over the content of their instruction and their ability to engage in misinformation conversations with students and teaching faculty.

As noted by Sullivan (2019), among others, future research should move beyond simply describing librarians' strategies for teaching about misinformation and instead assess the efficacy of specific instructional methods. The present study makes it clear that librarians are employing various methods but that there is uncertainty around their impact. Interdisciplinary research between librarians and other academics interested in misinformation is also necessary to account for the complexity of this issue and facilitate the development of more effective pedagogies. The profession should also explore and report on alternative models for designing, organizing, and implementing information literacy instruction. Such models would need to take into consideration not only the content of instruction but also the administrative structure of academic libraries within higher education institutions. Findings from this study show that librarians face numerous challenges because their instructional models are overly dependent on the faculty and curricula of more traditional academic departments. Researchers might investigate whether library instruction departments need to operate and organize themselves in a manner similar to other academic units on campus. Finally, the present study as well as the existing body of research on this topic make clear that many librarians feel obligated to address misinformation in their work and that responsibility for remedying this societal problem is tied to their professional identities. However, this study did not explicitly ask participants to address *why* they feel personally or professionally obligated to combat misinformation. Future research could more directly investigate librarians' motivations for continuing to teach about misinformation, especially given the significant contextual and personal challenges to doing so described in this study.

With fake news sounding more and more like a quaint term from a simpler time, and online culture continuing its inexorable mutation into an AI-generated hellscape of deepfake deception, the library profession appears to be at a crossroads regarding the misinformation crisis. Whether we can save anyone will surely depend on our ability to face the reality of our professional circumstances, build new models and partnerships across disciplinary communities, and evolve as educators.

APPENDIX A: Interview Questions

Professional Variables

- What is your job title?
- How long have you been employed as a librarian?
- What did you major in as an undergraduate student?
- Where did you obtain your undergraduate degree?
- Where did you obtain your Master of Library Science degree?
- Are there any other degrees or training you have?
- Do you have any specific training in teaching?
- How many classes do you teach in an academic year?
- Which description is the best fit for your institution type? [multiple choice]
 - Doctoral University
 - Master's University/College
 - Baccalaureate College
 - Associate's College
 - Other—Please Describe
- Is your institution public or private?
- What is the approximate FTE of your institution?

Current Practices

- Describe your job responsibilities related to information literacy and/or instruction? (e.g., teaching one-shots, teaching for-credit courses, creating instructional videos/modules, etc.)
- What percentage of your total job duties would you assign to your responsibilities related to information literacy and/or instruction?
- What percentage of your job duties related to information literacy and/or instruction relate to teaching one-shot instruction sessions?
- What level of students do you normally teach? (e.g., lower level, upper level, freshmen, etc.)
- What academic subject areas do you normally teach information literacy for?
- What role do you think librarians currently play in preparing students to distinguish trustworthy information from misinformation?
- Describe your approach to a typical instruction session. What general topics do you tend to cover with students?
- In a typical instruction session, how much time, if any, do you devote to teaching students evaluation skills?
- What techniques, strategies, or activities do you use to teach students how to evaluate information?
- What challenges, if any, do you face in teaching students how to evaluate information?
- In a typical instruction session, how much time, if any, do you devote to teaching students about Google and/or Google Scholar?
- What techniques, strategies, or activities do you use to teach students about Google and/or Google Scholar?
- What challenges, if any, do you face in teaching students about Google and/or Google Scholar?
- In a typical instruction session, how much time, if any, do you devote to teaching students about Wikipedia?

- What techniques, strategies, or activities do you use to teach students about Wikipedia?
- What challenges, if any, do you face in teaching students about Wikipedia?
- In a typical instruction session, how much time, if any, do you devote to talking to students specifically about misinformation?
- What techniques, strategies, or activities do you use to talk to students about misinformation?
- What challenges, if any, do you face when talking to students about misinformation?
- What are your thoughts on evaluation frameworks like CRAAP, SIFT, etc.?
- Outside of instruction sessions, what types of instructional tools does your library provide to students to learn more about evaluating information and/or identifying misinformation? (e.g., LibGuides, videos, etc.)
- Do the instructional tools your library provides match the techniques/strategies/activities you use in instruction sessions to teach about evaluating information/identifying misinformation?
- Since you first began teaching as a librarian, have your instructional techniques, strategies, or activities changed as a result of misinformation?
- Do other librarians at your institution play a role in teaching students to evaluate information and/or identify misinformation? Do conversations about these topics happen among librarians at your institution?
- What methods do you use to stay up to date on current practices of instruction librarians related to teaching students how to evaluate information and/or identify misinformation?
- In your current experience, what role do teaching faculty at your institution play in teaching students about evaluating information and identifying misinformation?

Moving Forward

- What do you think are the general trends in the direction that information literacy instruction is headed?
- What, if anything, do you think could be done with the one-shot instruction session to better prepare students to navigate a world of misinformation?
- What can librarians do beyond one-shot instruction to prepare students to navigate a world of misinformation?
- In an ideal world without teaching faculty expectations, what content should librarians focus on in one-shot instruction sessions?
- Do you believe database searching is an important skill for all students to learn in an instruction session? Why or why not?
- How can librarians prompt teaching faculty and other members of the higher education community to play a role in teaching students to evaluate information and identify misinformation?
- What role, if any, does information literacy instruction play in democratic citizenship?

Demographic Variables & Wrap-Up

- What is your age?
- How would you define your gender?
- How would you define your race or ethnicity?
- Is there anything else that I didn't ask and you'd like to discuss, or any questions you have for me?

References

- Allcott, H., & Gentzkow, M. (2017). Social media and fake news in the 2016 election. *Journal of Economic Perspectives*, 31(2), 211–236. <https://doi.org/10.1257/jep.31.2.211>
- Alwan, A., Garcia, E. P., Kirakosian, A. T., & Weiss, A. P. (2021). Fake news and libraries: How teaching faculty in higher education view librarians' roles in counteracting the spread of false information. *Partnership*, 16(2), 1–30. <https://doi.org/10.21083/partnership.v16i2.6483>
- American Library Association. (2017, January 24). *Resolution on access to accurate information*. <https://www.ala.org/advocacy/intfreedom/statementspols/ifresolutions/accurateinformation>
- Angell, K., & Tewell, E. (2017). Teaching and un-teaching source evaluation: Questioning authority in information literacy instruction. *Communications in Information Literacy*, 11(1), 95–121. <https://doi.org/10.15760/comminfolit.2017.11.1.37>
- Association of College and Research Libraries. (2000). *Information literacy competency standards for higher education*. <https://alair.ala.org/handle/11213/7668>
- Association of College and Research Libraries. (2016). *Framework for information literacy for higher education*. <https://www.ala.org/acrl/standards/ilframework>
- Bangani, S. (2021). The fake news wave: Academic libraries' battle against misinformation during COVID-19. *The Journal of Academic Librarianship*, 47(5), 1–8. <https://doi.org/10.1016/j.acalib.2021.102390>
- Batchelor, O. (2017). Getting out the truth: The role of libraries in the fight against fake news. *Reference Services Review*, 45(2), 143–148. <https://doi.org/10.1108/RSR-03-2017-0006>
- Beene, S., & Greer, K. (2021). A call to action for librarians: Countering conspiracy theories in the age of QAnon. *The Journal of Academic Librarianship*, 47(1), 1–8. <https://doi.org/10.1016/j.acalib.2020.102292>
- Blakeslee, S. (2004). The CRAAP Test. *LOEX Quarterly*, 31(3), 6–7. <https://commons.emich.edu/loexquarterly/vol31/iss3/4/>
- Cooke, N. A. (2017). Posttruth, truthiness, and alternative facts: Information behavior and critical information consumption for a new age. *The Library Quarterly*, 87(3), 211–221. <https://doi.org/10.1086/692298>
- De Paor, S., & Heravi, B. (2020). Information literacy and fake news: How the field of librarianship can help combat the epidemic of fake news. *Journal of Academic Librarianship*, 46(5), 1–8. <https://doi.org/10.1016/j.acalib.2020.102218>
- Elmwood, V. (2020). The journalistic approach: Evaluating web sources in an age of mass disinformation. *Communications in Information Literacy*, 14(2), 269–286. <https://doi.org/10.15760/comminfolit.2020.14.2.6>
- Eva, N., & Shea, E. (2018). Amplifying your impact: Marketing libraries in an era of “fake news.” *Reference & User Services Quarterly*, 57(3), 168–171. <https://doi.org/10.5860/rusq.57.3.6599>
- Faix, A., & Fyn, A. (2020). Framing fake news: Misinformation and the ACRL Framework. *portal: Libraries and the Academy*, 20(3), 495–508. <https://doi.org/10.1353/pla.2020.0027>
- Fister, B. (2021a). *Lizard people in the library*. Project Information Literacy. <https://projectinfolit.org/pubs/provocation-series/essays/lizard-people-in-the-library.html>
- Fister, B. (2021b). The librarian war against QAnon. *The Atlantic*. <https://www.theatlantic.com/education/archive/2021/02/how-librarians-can-fight-qanon/618047/>
- Fought, R. L., & Misawa, M. (2018). Accepting the challenge: What academic health sciences library directors do to become effective leaders. *Journal of the Medical Library Association: JMLA*, 106(2), 219–226. <https://doi.org/10.5195/jmla.2018.350>
- Gisondi, M. A., Barber, R., Faust, J. S., Raja, A., Strehlow, M. C., Westafer, L. M., & Gottlieb, M. (2022). A deadly infodemic: social media and the power of COVID-19 misinformation. *Journal of Medical Internet Research*, 24(2), <https://doi.org/10.2196/35552>
- Ha, L., Andreu Perez, L., & Ray, R. (2021). Mapping recent development in scholarship on fake news and misinformation, 2008 to 2017: Disciplinary contribution, topics, and impact. *American Behavioral Scientist*, 65(2), 290–315. <https://doi.org/10.1177/0002764219869402>
- International Federation of Library Associations and Institutions. (2018, August 20). *IFLA statement on fake news*. <https://repository.ifla.org/handle/123456789/1239>
- Jaeger, P. T., Kettlich, K., Gorham, U., & Taylor, N. G. (2021). Reverse the retreat: Countering disinformation and authoritarianism as the work of libraries. In N. G. Taylor, K. Kettlich, U. Gorham, & P. T. Jaeger (Eds.), *Libraries and the global retreat of democracy: Confronting polarization, misinformation, and suppression* (pp. 247–255). Emerald. <https://doi.org/10.1108/S0065-283020210000050012>
- Lee, T. (2019). The global rise of “fake news” and the threat to democratic elections in the USA. *Public Administration and Policy*, 22(1), 15–24. <https://doi.org/10.1108/pap-04-2019-0008>
- Lim, S. (2020). Academic library guides for tackling fake news: A content analysis. *The Journal of Academic Librarianship*, 46(5), 1–11. <https://doi.org/10.1016/j.acalib.2020.102195>

- Lor, P. J. (2018). Democracy, information, and libraries in a time of post-truth discourse. *Library Management*, 39(5), 307–321. <https://doi.org/10.1108/lm-06-2017-0061>
- Mandalios, J. (2013). RADAR: An approach for helping students evaluate internet sources. *Journal of Information Science*, 39(4), 470–478. <https://doi.org/10.1177/0165551513478889>
- McGrew, S., Smith, M., Breakstone, J., Ortega, T., & Wineburg, S. (2019). Improving university students' web savvy: An intervention study. *British Journal of Educational Psychology*, 89(3), 485–500. <https://doi.org/10.1111/bjep.12279>
- Meola, M. (2004). Chucking the checklist: A contextual approach to teaching undergraduates web-site evaluation. *portal: Libraries and the Academy*, 4(3), 331–344. <https://doi.org/10.1353/pla.2004.0055>
- Monsees, L. (2023). Information disorder, fake news and the future of democracy. *Globalizations*, 20(1), 153–168. <https://doi.org/10.1080/14747731.2021.1927470>
- Muhammed, S. T., & Mathew, S. K. (2022). The disaster of misinformation: A review of research in social media. *International Journal of Data Science and Analytics*, 13, 271–285. <https://doi.org/10.1007/s41060-022-00311-6>
- Musgrove, A. T., Powers, J. R., Rebar, L. C., & Musgrove, G. J. (2018). Real or fake? Resources for teaching college students how to identify fake news. *College & Undergraduate Libraries*, 25(3), 243–260. <https://doi.org/10.1080/10691316.2018.1480444>
- O'Connor, L. (2009). Information literacy as professional legitimization: The quest for a new jurisdiction. *Library Review*, 58(7), 493–508. <https://doi.org/10.1108/00242530910978190>
- Ostenson, J. (2014). Reconsidering the checklist in teaching internet source evaluation. *portal: Libraries and the Academy*, 14(1), 33–50. <https://doi.org/10.1353/pla.2013.0045>
- Revez, J., & Corujo, L. (2021). Librarians against fake news: A systematic literature review of library practices (Jan. 2018–Sept. 2020). *The Journal of Academic Librarianship*, 47(2). <https://doi.org/10.1016/j.acalib.2020.102304>
- Rocha, Y. M., de Moura, G. A., Desidério, G. A., de Oliveira, C. H., Lourenço, F. D., & de Figueiredo Nicolette, L. D. (2023). The impact of fake news on social media and its influence on health during the COVID-19 pandemic: A systematic review. *Journal of Public Health*, 31(7), 1007–1016. <https://doi.org/10.1007/s10389-021-01658-z>
- Rush, L. (2018). Examining student perceptions of their knowledge, roles, and power in the information cycle: Findings from a 'fake news' event. *Journal of Information Literacy*, 12(2), 121–130. <https://doi.org/10.11645/12.2.2484>
- Saunders, L. (2022). Faculty perspectives on mis- and disinformation across disciplines. *College & Research Libraries*, 83(2), 221–245. <https://doi.org/10.5860/crl.83.2.221>
- Saunders, L. (2023). Librarian perspectives on misinformation: A follow-up and comparative study. *College & Research Libraries*, 84(4), 478–494. <https://doi.org/10.5860/crl.84.4.478>
- Southwell, B. G., Thorson, E. A., & Sheble, L. (2018). Introduction: Misinformation among mass audiences as a focus for inquiry. In B. G. Southwell, E. A. Thorson, & L. Sheble (Eds.), *Misinformation and mass audiences* (pp. 1–12). University of Texas Press. <https://doi.org/10.7560/314555-002>
- Sullivan, M. C. (2019). Why librarians can't fight fake news. *Journal of Librarianship and Information Science*, 51(4), 1146–1156. <https://doi.org/10.1177/0961000618764258>
- Tenove, C. (2020). Protecting democracy from disinformation: Normative threats and policy responses. *The International Journal of Press/Politics*, 25(3), 517–537. <https://doi.org/10.1177/1940161220918740>
- Tenove, C., Buffie, J., McKay, S., & Moscrop, D. (2018). *Digital threats to democratic elections: How foreign actors use digital techniques to undermine democracy*. Centre for the Study of Democratic Institutions, University of British Columbia. <http://dx.doi.org/10.2139/ssrn.3235819>
- Tripodi, F. B., Stevenson, J. A., Slama, R., & Reich, J. (2023). Libraries combating disinformation: From the front line to the long game. *Library Quarterly*, 93(1), 48–71. <https://doi.org/10.1086/722551>
- Wardle, C. (2020). *Understanding information disorder: Essential guides*. First Draft. <https://firstdraftnews.org/long-form-article/understanding-information-disorder/>
- Webber, S., & Johnston, B. (2017). Information literacy: Conceptions, context and the formation of a discipline. *Journal of Information Literacy*, 11(1), 156–183. <https://doi.org/10.11645/11.1.2205>
- Wineburg, S., & McGrew, S. (2017). *Lateral reading: Reading less and learning more when evaluating digital information*. Stanford History Education Group. <http://dx.doi.org/10.2139/ssrn.3048994>
- Wineburg, S., Breakstone, J., Ziv, N., & Smith, M. (2020). *Educating for misunderstanding: How approaches to teaching digital literacy make students susceptible to scammers, rogues, bad actors, and hate mongers*. Stanford History Education Group. <https://purl.stanford.edu/mf412bt5333>
- Young, J. C., Boyd, B., Yefimova, K., Wedlake, S., Coward, C., & Hapel, R. (2021). The role of libraries in misinformation programming: A research agenda. *Journal of Librarianship and Information Science*, 53(4), 539–550. <https://doi.org/10.1177/0961000620966650>
- Ziv, N., & Bene, E. (2022). Preparing college students for a digital age: A survey of instructional approaches to spotting misinformation. *College & Research Libraries*, 83(6), 905–925. <https://doi.org/10.5860/crl.83.6.905>