**Fake News & Information Literacy: Designing information literacy to empower students**

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## Introduction

How do we define truth? In its basest definition, we can reduce it to a belief supported by fact. But what is fact? Is it a long-standing statement, accepted and uncontested by many? A conclusion backed by research and extensive vetting? Are facts determined by the few or by the majority? And conversely, can fictions become facts, and eventually truths, if enough people believe them? The phrase "alternative facts" was recently used by a White House senior advisor in response to a proven falsehood regarding crowd size at the 2017 U.S. Presidential inauguration. Though multiple unadulterated photographs provided irrefutable evidence against the White House press secretary's claims on the audience size, the false declaration continued to circulate and was offered as an 'alternative fact' to those who preferred it. To have a falsehood so resolutely defended in the face of glaring evidence is one issue; but to have it come from the President of the United States, one of the most powerful figures in the world, is another issue completely. The message quickly becomes clear: we are living in a post-truth world, feel free to choose your own reality.

Today's rapid pace of information dissemination means legacy news sources no longer retain their monopoly on journalism. Platforms like Twitter and Reddit give credence to those with an

opinion and a smartphone. Anyone can be a reporter and a picture on social media may carry the same or more weight than extensively researched, vetted articles. Sophisticated Internet algorithms now equip websites with the power to display targeted or slanted articles based on what it believes their audience wants to see. Individuals can select their 'facts' based on what resonates most with them. What's more, many readers don't realize they are receiving one-sided accounts or potentially incorrect information. This drastic shift in the way news is circulated has brought with it a number of unintended consequences, but perhaps the most troubling is how many individuals are unaware that malicious Internet content exists or are not equipped with the skills needed to decipher the facts from the "alternative facts."

At the core of their profession, librarians endeavor to connect users with credible, authoritative sources that aid in deepening one's knowledge of a particular topic. Educating researchers on the best ways to locate valuable, trustworthy information is simple; getting users to apply these principles in their everyday news literacy habits is slightly more complex. In an age where photographic proof isn't enough to change the minds of believers and fake news stories lurk in every corner of the Internet, equipping students and researchers with the skillset needed to identify facts from falsehoods is crucial. In this article, the researchers explore the intersection of information literacy and feminist theory in modern librarianship and its pedagogical applications for library instruction sessions in academic classrooms.

**The Information Literacy Landscape**

The adoption on January 11, 2016 of the Association for College & Research Libraries (ACRL) Board's updated *Framework for information literacy for higher education* marked an important moment in the incorporation of feminist and postmodern principles in academic librarianship.

This document exists as the latest statement of the scholarly and professional preoccupations with critical, feminist approaches to information which began to spread throughout the professional literature a decade earlier. In many ways, this transition has been structured by responses to the prevailing *ACRL information literacy competency standards for higher education* (2000) a document which was widely criticized for its emphasis on adherence to standards over critical engagement with the meaning, origin, and usages of information, notably by Jeff Lilburn (2007-2008).

The desire to explore key questions concerning gender in the context of library services, collections, and approaches to information is well documented in the professional literature of the past fifteen years. In 2007, Cindy Ingold and Susan E. Searing edited a special issue of *Library Trends*, entitled *Gender issues in information needs and services*. Their introduction to this volume stresses the continued importance and topicality of gender issues in libraries (Ingold and Searing, 2007).

Articles address questions of access to both spaces and technologies in public libraries, as well as the ways in which librarians can contribute to the development of literacy in children using the libraries. However, two articles stand out in their critical exploration of canonical library practices: classification and instruction. Hope A. Olson (2007) engages with the Aristotelian logic which underpins library classification, unpacking the ways in which it privileges traditional hierarchies and ways of organizing information. Ellen Broidy (2007) discusses her use of information literacy and feminist theory to design a course for upper-division women's studies students on, "the changing nature of information and to explode the myth of its neutrality" (494).

Her article insists that librarians have a responsibility to teach students how to encounter information from a critical perspective and to evaluate it effectively.

This kind of interrogation of key tenets in the library profession is embodied by the new ACRL framework, following continued development in the decade following Olson's and Broidy's analyses. In her reaction to the *Library Trends* special issue, Phyllis Holman Weisbard (2008) emphasized the questions raised by the articles in the issue, particularly on the fact that these fundamental questions were not well answered in the professional literature. Her review of the issue draws into relief the need for this kind of scholarship, at a moment when the professional literature surrounding gender and library services was becoming more critical of tradition.

At the 2013 conference of the Library Association of the City University of New York, the theme was "Libraries and the right to the city." Lisa Sloniowski, Mita Williams, and Patti Ryan presented a panel entitled, "Grinding the gears: Academic libraries and civic responsibility." Intended to, "foster civic engagement and citizenship in our urban library communities," the panel included discussion of collections, access, and instruction to foster a culture of inclusivity, engagement, and critical examination (Sloniowski et al., 2013). Particularly, Patti Ryan's, "Occupying information literacy," combined these goals in its discussion of an occupy-inspired event held at York University. This event engaged the ACRL *Standards for information literacy,* the predecessor of the 2016 *Framework,* insisting on the role of information in seeking social justice and engagement.

During the past five years, Library Juice Press has published series of titles intended to help information professionals to reconceptualize their information literacy instruction practice in

ways which embrace a more holistic, contextual, and inclusive approach to information. Titles, such as *Feminist pedagogy for library instruction* (Accardi, 2013) and *Ephemeral material: Queering the archive* (Kumbier, 2014) were produced as part of the series *Gender and sexuality in information studies*. Another Library Juice Press title, *Information literacy and social justice: Radical professional praxis* (Gregory and Higgins, 2013) insists on the relationship between how information is encountered and contextualized. These few examples among many others demonstrate both an interest in and a need for discussions of the ways in which library services and collections are increasingly aware of opportunities to destabilize the binaries and hierarchies which had previously characterized normative approaches to the evaluation of information.

Recent articles address the ways in which new ideas in information literacy and library collections and access can be turned into active practice. Arthur Taylor and Heather A. Dalal (2017) report the results of a study of the ways in which gender influences the research behavior of college students, finding that female students tended to be more cautious of online sources, though less sure of themselves with regard to their search practices. Male students were seen to have more confidence in their abilities, accompanied by a greater faith in the validity and quality of search engine results. Taylor and Dalal seek to apply these findings to information literacy practice in an effort to help all students become more sensitive, aware researchers.

In addition to new critical directions and emphases in information literacy, there have been important questions posed regarding the ways in which information is organized and accessed in libraries. Ray Laura Henry (2015) engages with the literature surrounding the incorporation of feminist theory in the construction of library discovery services, whereby information is organized, retrieved, and made accessible to the user. Henry, citing Sadler and Bourg (Sadler

and Bourg, 2015) and Bardzell (2010), echoes the need for discovery services whose results are not presented in such a way as to prescribe a certain intellectual framework for conceptualizing information.

The general unpacking of traditional notions of information, access, and evaluation that has taken place over the past decade and a half is given an official voice in the new ACRL *Framework* of 2016. As a sign of current preoccupations in the field of academic librarianship, specifically with regard to instruction, this document provides important information about the ways in which information literacy has come to encompass ideas about social justice, critical evaluation of hierarchies, and a contextual approach to information. There are six key tenets of the new policy. As part of the *Framework's* emphasis on agility and applicability, it contains six key tenets which can be applied to a variety of institutions, situations, and types of learning:

      Authority is Constructed and Contextual

      Information Creation as a Process

      Information Has Value

      Research as Inquiry

      Scholarship as Conversation

      Searching as Strategic Exploration (ACRL, 2016)

Each of these ideas enshrines an important component of the transformation from student to scholar, emphasizing competencies (known in the *Framework* as "threshold concepts") and asking students and instructors to consider information sources and usages from a critical and informed perspective. This spirit of unpacking what is "known" and of seeking new pathways

for information is very much informed by feminist theory. The first concept, "Authority is Constructed and Contextual," insists that:

> Information resources reflect their creators' expertise and credibility, and are evaluated based on the information need and the context in which the information will be used. Authority is constructed in that various communities may recognize different types of authority. It is contextual in that the information need may help to determine the level of authority required.
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> [...] Experts understand the need to determine the validity of the information created by different authorities and to acknowledge biases that privilege some sources of authority over others, especially in terms of others' worldviews, gender, sexual orientation, and cultural orientations [...] novice learners come to respect the expertise that authority represents while remaining skeptical of the systems that have elevated that authority and the information created by it. (4)

The *Framework* insists that, in order to find truth, researchers must engage with the fact that authority is not absolute. To do this requires a critical approach which takes into account the background of the information, as well as that of the user. Students are exhorted to, "develop awareness of the importance of assessing content with a skeptical stance and with a self-awareness of their own biases and worldview," and to, "question traditional norms of granting authority and recognize the value of diverse ideas and worldviews" (4).

Of equal importance to the development of a critical eye in the student researcher is the concept that, "Information Has Value," which underscores the fact that:

value may also be leveraged by individuals and organizations to effect change and

for civic, economic, social, or personal gains.  Experts also understand that the individual

is responsible for making deliberate and informed choices about when to comply with

and when to contest current legal and socioeconomic practices concerning the value of

Information.  (6)


By considering how information is produced, consumed, and interpreted, researchers and

students are empowered to make better choices about the resources that they encounter without

being hampered by received ideas concerning the inherent "value" of certain kinds of content

over others.  This concept is crucial to the development of an informed, information-literate

researcher, and to the creation of a populace capable of, and responsible for, coming to informed,

well-reasoned opinions based on the information ecosystem in which they function.


The concept requiring seekers to accept, "Scholarship as Conversation," emphasizes the

contextual nature of information and the need to engage with it on an informed, open-minded

footing:

> Instead of seeking discrete answers to complex problems, experts understand that a given
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> issue may be characterized by several competing perspectives as part of an ongoing
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> conversation in which information users and creators come together and negotiate
>
> meaning [...] while some topics have established answers through this process, a query
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> may not have a single uncontested answer.
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> [...] Learners who are developing their information literate abilities: recognize that
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> systems privilege authorities and that not having a fluency in the language and process of

a discipline disempowers their ability to participate and engage. (8)

This non-normative, inclusive approach to the evaluation and consumption of information precludes the possibility of a single, canonical path to truth. By threatening accepted hierarchies, the notion of a polyvalent approach to establishing answers destabilizes the idea that information does not need to be digested.

The 2016 ACRL *Framework for information literacy for higher education* is intended as a living document capable of supporting learning and development across institutions, disciplines, and levels of competency. The *Framework* includes information for a variety of stakeholders, including librarians, non-librarian instructors, and administrators, each of whom has an important role to play in the development of information literacy on college and university campuses (Appendix 1). By privileging a postmodern, feminist approach to information, the *Framework* recreates information literacy as a process, rather than a finite, prescriptive goal.

**Empowerment through Information Literacy**

The self-efficacy of today's undergraduate students is very high concerning technology, but this doesn't mean that they are tech savvy with academic research tools or even authenticating information. Today, with news available through an unprecedented amount of websites, content preferences determine more of what those with cable or Internet access watch, read, and hear (Prior, 2005). What's more is the ability to essentially curate content via the types of information, complete with biases and questionable validity, is assessed depending on an individual's preferred media resource for accessing information. However, despite their ability

to readily access materials, recent studies have shown that while students have greater access to information than ever before, they are unable to discern what materials are credible. While all of the new and emerging methods for communication online are broadening understanding with regards to emigration, diaspora, and global communication (Lam, 2014) information literacy is a competency that is assumed, but often these skills are not developed to the point they should be.

The gap between access and ability leaves students unprepared to appropriately navigate research at the college level. This leaves undergraduates ill-equipped to locate scholarly resources as they transition to college level coursework and thereby unable to produce papers that incorporate credible information, let alone high-level research. A recent study from Stanford noted that "the kinds of duties that used to be the responsibility of editors, of librarians now fall on the shoulders of anyone who uses a screen to become informed about the world," and like any other advance in technology, "the response is not to take away these rights from ordinary citizens but to teach them how to thoughtfully engage in information seeking and evaluating in a cacophonous democracy" (Wineburg et al., 2016) (Stanford History Education Group, 2016). There is a growing concern of "real" and "fake" news, however the problem is more expansive than just news reliability or credibility. New Literacy has achieved growing attention because its impact is immediately understood by a broad community: we are all continually seeking news and it's significant to the majority of people to have equitable and credible access to news reports and information. What is less publicized, but no less significant, is the need for credible sources across the board, from reliable websites, to well-researched news items, to scholarly information, to clinical research studies.

Should it be the responsibility of the public to evaluate every bit of information regardless of the media in which that information is delivered? What is the quality of the information that the society is exposed to? Would a more discerning public drive the demand for more responsible dissemination of news information? In the current climate in the United States, it is imperative that all members of society are empowered to engage with news and information critically.

In the field of information literacy we know that "it is evident that students can find information, but have great difficulty interacting with and understanding what they are reading" (Ludovico and Wittig, 2015). The same challenges for evaluating information are true for society as a whole, the myriad methods through which information is shared has increased exponentially in recent years. Many individuals simply have not been introduced to the skills needed to adjust to these changes and that leaves them at a disadvantage for interacting with the global impact news, media and information has on the wider world.

At the university level it is the responsibility of academic institutions, libraries specifically, to introduce the next generation of society to the skill set they will need to become informed thinkers and leaders. This skill set comes in the framework of information literacy and once acquired and understood an information literate individual is prepared to interact with all varieties of information. Information literacy, in addition to the ability to evaluate credibility of a resource, also strengthens metacognitive skills thereby developing critical thinking and reasoning skills of students. The role of the academic library is to prepare students to critically evaluate and interact with information from all varieties of media and scholarly sources. As the *Framework*

*for Information Literacy for Higher Education* states, we will guide students to: "make informed choices regarding their online actions" (ACRL, 2016).

Academic librarians have long been teaching information literacy and are able to provide students with the necessary context for understanding both information and digital literacies. Students must expand their knowledge seeking behaviors to include evaluating information, constructing searches, and reflecting on the research practice in order to develop critical thinking skills and it is academic librarians that will guide them through this process. We know that social capital is "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition" (Bourdieu, 1986) and without the skill set to navigate these resources students are at a disadvantage. The increase in content and equitable access to information will not further society if the members of that society are unable to successfully distinguish whether or not a specific website or publication is authentic.

Once they are navigating college level materials the disconnect between what they learn in school, what they practice in their daily lives, and what they need to learn to move within different social spheres as engaged learners and citizens becomes more apparent. Not only is their ability to discern the quality of information impaired, but the chance to engage in any sort of academic discourse is stunted. Faculty have often made comment of the quality of papers being turned in, especially at the freshmen level, and during the first few semesters of college - ideally the first - is when students are most in need of information literacy instruction.

Information Literacy's goal is to familiarize students with the process of research through any media: internet, news, scholarly databases, etc., and to have them evaluate information as a regular research practice over the course of their academic careers. The information seeking behavior and patterns must be altered in order to achieve the type of research required at the undergraduate level. The nearly daily explosion of information resources contributes to the information overload keenly felt by students and this abundant access can lead to challenges in how that information is accessed and used by students (Kasowitz-Scheer and Pasqualoni, 2002).

Information literacy instruction must be designed to empower students to effectively engage with all media and resources within their academic and personal lives. In online and in-person environments, librarians must begin conversation about the way in which information is disseminated and how searches may be constructed as a means for deeper engagement. In-person, it is possible to begin conversations in the classroom that will stimulate reflective thinking while acquiring information literacy skills. The American Library Association's *Information Literacy Competency Standards for Higher Education* were first drafted in 2000 and recently underwent a change to the *Framework for Information Literacy for Higher Education*. Both of these documents acknowledge that there is overlap with technology skills, but while the two are related, information literacy has only a component of technological savvy within it and the core function remains in acquiring the skills that allow students to think deeply about the materials with which they are engaging. For instance, students may be comfortable navigating Google, Facebook, and Twitter, but are they able to discern where the information accessed from any of these resources originates and whether or not the content is biased or sponsored by a group with a particular agenda or slant?

**Conclusion**

In the time since the presidential inauguration, the world has been overwhelmed by an exhausting influx of news and information. Even the new president is known to let loose on Twitter – which then prompts another flurry of news content. Those alarmed by the results of the election have struggled to stay abreast of developments and react to them. This crisis has brought to the forefront the need to have a citizenship that is information literate.

Teaching students to evaluate information with a critical eye is important, not only for their research and coursework, but also to develop media literacy skills. These literacy skills are important tools for students as they become active participants in our democracy. "Today's students live in an information age and increasingly connect and interact with diverse cultures and traditions around the world" (Dwyer, 2016). At a time when people are inundated with content from any number of sources, "the ability to identify, understand, interpret, create, compute and communicate using visual, audible, and digital materials across disciplines and in any context" (Why Literacy?, n.d.) is crucial to the development of a population of independent thinkers who can combine unprecedented access to information with assessment and evaluation.

Libraries and librarians play an important role in this effort, empowering students to discern credible sources of information from the vast array of content to which they are exposed. The Framework for Information Literacy for Higher Education provides a guidelines for academic librarians to teach students how to evaluate and interpret information, not only for academics but for all types of information they encounter. Information literacy instruction can be expanded organically to include teaching students how to evaluate and interpret news and put it in context with their own beliefs and what they know to be true but also recognizing bias, even if it supports their beliefs.

Bias in news reporting is an age-old topic. The concept of "hostile media effect" or HME (Vraga and Tully, 2015) is also not new.  Relative HME is the tendency to view news as neutral or less biased when it supports one's own beliefs. With students often operating within the "echo chamber" of social media feeds, recognizing bias and selecting appropriate sources of information becomes a challenge.

"News media literacy – designed to help individuals understand the constraints of the news process, the role the press plays in American democracy, and develop critical thinking skills to analyze news content – seems a promising direction in limiting the biased processing that leads to HME [hostile media effect]" (Vraga and Tully, 2015).

At a time when the rights and values that many feel embody what is good about our country are being threatened, when equitable access to healthcare and the right to govern one's own body are at risk, and when it appears that many of our leaders are deliberately engaging in a campaign of misinformation and disinformation, an educated and informed citizenship provides a strong defense.

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