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# The Postmodern Shift in Library Instruction

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(Pre-edited and type-set version of chapter, same as presented at the Postmodernism conference)

## THE POSTMODERN SHIFT IN LIBRARY INSTRUCTION

### **Introduction**

Fifty years ago, prior to the digital revolution, library instruction consisted of a knowledgeable librarian guiding students through the various classes of documents, with examples of recognized authorities. Primary tools for bibliographic research included subject specific bibliographies, print periodical indexes, the card catalog of library holdings, and for advanced researchers, the massive National Union Catalogs. Each bibliographic tool was handcrafted by competent individuals, published by reputable publishers, and recommended by disciplinary practitioners. While working through these various tools was time consuming, and getting access to materials not held locally often proved slow, the student researcher could reasonably assume the sincerity and integrity of the sources.

With the digital revolution, much has changed. Now, instead of bibliographic instruction, librarians engage in “information literacy”(IL) training.

Rather than point students to authoritative, trustworthy sources, IL instructors have undertaken to empower students themselves to find the information. The standard definition of IL is: “a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.” (Iannuzzi et al. 2000, 2). When library instruction continues the trajectory of ‘one shot’ sessions, it has taken the form of technology training, with a nod to critical thinking.

The purpose of this paper is to argue that this shift is paradigmatic of the postmodern turn, and that the problems of IL education are also the problems that need attention in the communication of the gospel in the postmodern environment.

## **Lyotard, the *Postmodern Condition*, and the Library**

In a highly influential formulation of postmodernism, *The Postmodern Condition: A Report on Knowledge*, Jean-François Lyotard offers a definition of postmodernism, describing the problem it addresses along with its solution, and wraps up with his assessment of what needs to be done. Each of these facets has pertinent expressions and applications in IL theory.

“I define *postmodernism* as incredulity toward metanarratives.” (Lyotard 1984, xxiv) Throughout the essay, the context for this definition is science and technology, which is then extended and applied to educational institutions in these fields. Hence the assertion is that scientific claims cannot be legitimized by appeals to an authoritative logic or reasoning outside the context of the claim itself. Rather legitimization is now achieved through performativity, as evidenced by computerization. Thus more and more functions of administration are being “entrusted to machines. Increasingly, the central question is becoming who will have access to the information these machines must have in storage to guarantee that the right decisions are made. Access to data is, and will continue to be, the prerogative of experts of all stripes.” (Lyotard 1984, 14).

### **The Postmodern Library**

Thus for a library, it is not enough to claim to be the “heart of the university,” but rather through appropriate assessment measures, to demonstrate a positive return on investment. It is no longer appropriate to “give” library users “good” information, but now it has become the standard to “train” users to find and evaluate the information stored in the machines for themselves. The measure of success is the “life-long learner,” rather than self-proclaimed “quality.” This mindset has impacted the library in at least two ways: 1. access to information

using communication technologies; and 2. the role of the librarian in relationship to the library user.

## **Access**

The first involves the drive to provide access maximized by the use of digital technology. Whereas before this “condition” came to predominate, with a few notable exceptions, local academic library collections measured in the tens of thousands, with periodical subscriptions in the hundreds. Now, while “ownership” may continue to be constrained by finances and space, we can speak of “access” to virtually all commercially published and globally distributed scholarly communication either in digital format online or through computer mediated interlibrary loan, as well as wealth of gray literature (unpublished dissertations, conference proceedings, blogs, etc.) via the internet. The metanarrative of a limited, discrete and sufficient collection, intelligently constructed by scholars to meet the needs of the curriculum, organized in rational hierarchies, no longer obtains. In its place is a flat impersonal database, with each unit equally represented and in terms of metadata, equally valid. Its evaluation, or value, depends on its usefulness in a given instance, or for a given purpose.

Lyotard closes out his essay with a vision of his ideal computerized society, and it emphasizes this principle of technologically mediated universal access to information. While it could become a means to manipulate and control society, it could also “aid groups discussing metaprescriptives by supplying them with the information they usually lack for making knowledgeable decisions.” This can be accomplished by giving

“the public free access to the memory and data banks. Language games would then be games of perfect information at any given moment. But they would also be non-zero-sum games, and by virtue of that fact discussion would never risk fixating in a position of minimax equilibrium because it had exhausted its stakes. For the stakes would be knowledge (or information, if you will), and the reserve of knowledge—language’s reserve of possible

utterances—is inexhaustible. This sketches the outline of a politics that would respect both the desire for justice and the desire for the unknown.” (Lyotard 1984, 67).

This dream is presently finding expression in the “open access” movement within the scholarly publishing ecosphere, a model David A. Lewis (2012) predicts will predominate for academic journal literature within the next decade.

## **Librarianship**

The second impact is on the relationship of the librarian with the user. Prior to this “condition,” the librarian served the education community as a knowledgeable authority on which resources to use and how to access them. That professional metanarrative has been replaced by a performativity paradigm in which the librarian has become an expert in using technology. Yoder (2003) describes this postmodern paradigm shift as defining the librarian as a cyborg, “a ‘human-machine,’ a physical being engaging in meaningful human interactions with students while simultaneously a machine, navigating a network of hypertext discourses, unearthing research sources through online indexes and commercial search engines, and retrieving fragments of information from such disparate sources as reference books, websites, and other human beings.” (389).

In commenting on some apparent clinging to an authoritarian metanarrative of the library, (Lankes 2007) observed:

“This resistance to the democratization of authority among librarians is ironic because there are few professions better suited to the authoritative world of the internet than librarians. They have a culture of open and free expression and access to ideas. They are generalists who move agilely across different topical domains. They are skilled at searching out information, and locating potential biases (and uses) in information. Their enterprises (i.e. libraries) have little invested in the production of information, and much invested in the consumption of information products from a wide variety of sources. Further, librarians already have a reputation as authoritative, not authoritarian.” (679).

An important conclusion that Lankes is leading up to is that information technology users are becoming competent in their own right.

“Through this direct access to source data a person can train themselves, formally or informally, until they feel they have sufficient expertise and trustworthiness to credibly interpret the information. Once the user takes it upon himself or herself to become an authority by directly evaluating and synthesizing often raw information, authority ends, and “reliability” becomes the predominant form of credibility assessment. (680).

It is no longer enough that people come to the library to find credible information by using library technology. They now are trained and become independent evaluators of reliable information they sought out for themselves using sophisticated tools such as the internet, a tool not managed by the library. But for many in the library community, this is evidence of success in a larger view of the role of the library in society.

### The Shift to “Information Literacy”

The conceptual shift from bibliographic instruction to IL began shortly after the publication of Lyotard’s book in English. The American Library Association focused attention on the concept in 1987 by forming a presidential committee on IL. Two years later the committee submitted a report. Work continued in various committees and national forums discussing the principles and applying them in different contexts. (Eisenberg, Lowe, and Spitzer 2004). In 2000, ACRL published the *Information Literacy Competency Standards for Higher Education*. (Iannuzzi et al. 2000).

Since then, the professional and scholarly conversation on IL has been robust and unabated. Stevens (2007) reports the finding that on average 148 articles were published per year, 2000-2004, specifically relating to IL in academic libraries.. Her point is that though the conversation is robust among library professionals, much more should be done in engaging educators across the disciplines in terms of publishing in discipline specific journals. Some is

happening. She reports that in 54 journals in the field education, only 19 articles appeared in five years.

The ALA and ACRL definitions have become canonical. One of the core functions of librarianship has been instructing students on how to use library resources. Some view the emphasis on IL as an adaptation of that function to the emerging technologies that provide access to information. Most of the literature describes and proposes innovative ways to teach IL in the educational setting. Another significant topic is how to engage the teaching faculty so that students have the opportunity to use the exponentially expanding resources that are available.

While there has always been a form of assessment of the academic library as a facet of accreditation, the emphasis was originally on the quality of the collection and the competence of the staff. This current shift now assesses the library, and the IL component, on the performativity of the students. This is usually measured by how well the students use information and communication technologies without considering their learning. (Budd 2009, 34-36). Whether or not librarians should be responsible for critical thinking skills above and beyond the basic library skills is an open question. The problem is that IL may be deemed achieved when someone masters computer mediated access to published literatures, without demonstrating competence by the serious evaluation of the original content.

Communication technologies are at the center of the competency, so performativity skills in using them is now a necessity for scholarship. The presence of critical thinking dispositions cannot be assumed, as evidenced by frequent naïve or uncritical reliance on machines which then tends to be misguided and counterproductive, as illustrated by the case studies described below. When that happens, it impacts the assessment of the library program, and so the librarian profession has a vested interest in proactively promoting IL.

One facet of IL as it is generally taught, that of evaluating information, is particularly pertinent for communicating the Gospel. Hjørland (2012) catalogs the various standard methods that are included in this pedagogy. These include criteria such as peer review, comparative studies, credentials of the author, reputation of the publisher, book reviews, and several more. Each is open to criticism. He concludes by stating,

I do not believe that any of these methods can do the job, alone or in combination. I think the goal is to teach students to read texts, to understand them, and to be able to provide a relevant criticism of them. That is the end goal, and that should be sufficient. All the methods are 'just' steps on our way in learning how to read, understand, and criticize texts. But as such they may represent valuable or indeed necessary steps that counteract the use of narrow and one-sided approaches. To read a text is often not a simple process. It involves considering a text in relation to other texts, in relation to the methods used and the social interests it serves and counteracts, and in relation to its public reception as indicated by, for example, bibliometric measures. In other words, it involves the subjectivity of the reader, and that subjectivity is influenced – more or less – by different theoretical perspectives. Good, scholarly reading is to be aware of different perspectives, and to situate oneself among them. less – by different theoretical perspectives. Good, scholarly reading is to be aware of different perspectives, and to situate oneself among them. (266).

Each of these 'methods' would be classified by Budd (2009, 45) as 'instrumental.' For those with minimal prior knowledge of the topic, these may pragmatically delimit the choices and make typical short writing assignments manageable. But should they be rigorously applied when encountering evangelistic Adventist publications, the IL response would be to discount them. As a faith based, minority countercultural message with ideological intent, any document with evangelistic purpose that Adventists produce could be construed as not meeting at least some of the conventional criteria. Thus the information literate would tend to discount it up front.

### The Critique of Information Literacy

Yet this emergent IL is not without its critics. Wisner (2000) begins his summation of his poetic lament over the postmodern turn in the library as follows: "The postmodern library, from

which I write, is a mirror held up to the postmodern world. That world, at every level, rocks gently now in a bath of ironies too numerous and subtle to count, and, of course, partakes of those very human delusions which have [always] characterized the toolmaking animal.” (86) He then provides an impassioned description of what is being lost with the ascendancy of digital technology over traditional reified forms of communication technology. The familiar metanarratives have been set aside, and replaced by performativity.

In a detailed critique of IL, Budd (2009) distinguishes between performance indicators and transformative learning. The ACRL standards address instrumental activities that each student should master. It is one thing to find a list of reliable documents to use in an assignment. It is another to learn life changing knowledge from those documents. His intention is to create a way to understand and guide students towards that next step. (40-48)

A different critique of IL is offered by Lloyd (2012). Her *people- in-practice* perspective “offers an approach for understanding and researching information literacy – not as the outcome of skills, but as the outcome of co-location and co-participation, where people shape and inform their practices (including information literacy practice) and operationalize information skills, in agreed upon ways.” (11).

### Conclusion

Lyotard envisioned that access to information would be the means by which the legitimization of knowledge could be achieved. With the advent of digital publishing and the distribution potential of the internet, this vision has come to fruition. Libraries and librarians have been at the cutting edge of this progression which has not only impacted the assessment of their collections and services, but also their pedagogical impact on the populations they serve. This has resulted in a shift from bibliographic instruction to IL. The major critique of IL is that

while it trains in the use of technology, it inadequately addresses whether or not the student outcomes include transformative learning.

This distinction is important for understanding the mission of the church. Paul wrote, “Don’t be conformed to the patterns of this world, but be transformed by the renewing of your minds so that you can figure out what God’s will is—what is good and pleasing and mature.” (Rom 12:2, CEB). Conventional IL delimited to technological competence and canonical methods of evaluating information could thus be understood as one more way students taught to “be conformed to the patterns” of culture. Rather, IL should be viewed as a means to being “transformed by the renewing” of the mind, with the desired outcome as knowledge of the will of God.

### **Recent Informational Episodes as Case Studies**

Three recent information related episodes illustrate the potential negative impact of a rejection of metanarratives empowered by technological competence but without the corresponding performativity of critical thinking. Cases like these are used to illustrate the principles of evaluating information in IL settings. Fallis (2004) outlines four such principles, (authority, validity, verifiability, and presentation), which provide a useful standard for discussing these cases. Two completely bypass these principles which results in misinformation and costly dysfunction. The third relegates to a machine the power over which information source is readily accessed. The problem for Christian mission is that although these principles seem warranted in evaluating information across the board, when applied to specific attempts to communicate the Gospel, they can be used to justify the its rejection.

## Climategate

In November, 2009, over 1000 emails were hacked from the Climatic Research Unit at the University of East Anglia. In these emails, a group of scientists were struggling with how to frame and present their research to the public. Some emails hinted at manipulating data, and others commented critically on the work of other scientists. These were let loose in the news media and in the blogosphere, and the scandal made the headlines. Investigations into the matter exonerated the integrity of the scientists and their findings, but did suggest that written communication and research results with the data be more transparent. (Russell et al. 2010). Ryghaug and Skjølsvold (2010) carefully analyzed all the hacked emails and concluded that those the media found most controversial were taken out of context, and that most of the emails consisted of normal debate, participating in routine patterns of “deliberation and persuasion,” in other words, “scientific business as usual.” (304).

One point noted by the Russell commission with regard to the blogosphere is pertinent for this discussion.

“One of the most obvious features of the climate change debate is the influence of the blogosphere. This provides an opportunity for unmoderated comment to stand alongside peer reviewed publications; for presentations or lectures at learned conferences to be challenged without inhibition; and for highly personalized critiques of individuals and their work to be promulgated without hindrance.” (Russell et al. 2010, 15)

This episode illustrates the discontinuity that can occur when the metanarrative of authoritative expertise is ignored and performativity does not include being epistemically trustworthy. In response to this kind of misinformation/disinformation, particularly addressing the practice of journalism, Kovach and Rosenstiel (2010) outline a way of thinking they label as skeptical knowing. This includes asking six questions:

1. What kind of content am I encountering?
2. Is the information complete; and if not, what is missing?

3. Who or what are the sources, and why should I believe them?
4. What evidence is presented, and how was it tested or vetted?
5. What might be an alternative explanation or understanding?
6. Am I learning what I need to? (32).

Again, this illustrates the rejection of the metanarrative of journalistic objectivity and replaces it with a self-reliant performativity measure. In this case, a successful outcome of the performance is accurate knowledge. The assumption is that the information can be independently verified and validated empirically, one way or another.

In view of these issues, the open question is how spiritual knowledge is to be verified and validated. This episode underscores that just like the scientific community, the community of faith must also reflect authenticity and transparency in the communication of the Gospel.

#### *Wikipedia* and the Haymarket Riots

Messer-Kruse (2012) described his frustrations with editing a factual error in *Wikipedia* in the *Chronicles of Higher Education*. He made the change, and immediately the change was reverted by gatekeeping editors. He was informed he needed proper documentation. Later, after publishing a book on the topic, he tried again, giving proper documentation by referencing the research he did as report in his book. Again the correction was rejected, primarily on the grounds of self-citation. He quotes one reason he was given for this,

“I hope you will familiarize yourself with some of Wikipedia's policies, such as verifiability and undue weight. If all historians save one say that the sky was green in 1888, our policies require that we write 'Most historians write that the sky was green, but one says the sky was blue.' ... As individual editors, we're not in the business of weighing claims, just reporting what reliable sources write.”

The article received 423 comments, ranging from chiding the professor for academic arrogance in support of *Wikipedia* policy to using the story as one more reason to question the overall reliability of *Wikipedia*. Rosen (2012) provides a more positive and measured response. After noting that within academic history, it normally takes time for a new understanding, such

as Messer-Kruse's, to be accepted, so it should have been anticipated that it would take some time within *Wikipedia*, she comments:

“This isn't to say that Messer-Kruse's edits shouldn't have been reviewed with more care or seriousness, but just a note that the whole fracas reflects that though people will rant and rail over Wikipedia's faults, we hold this massive experiment in collaborative knowledge to a standard that is higher than any other source. We don't want Wikipedia to be just as accurate as the Encyclopedia Britannica: We want it to have 55 times as many entries, present contentious debates fairly, and reflect brand new scholarly research, all while being edited and overseen primarily by volunteers.”

Ford and Geiger (2012) explained the conflict as a communication breakdown that fits in with the concepts of the rejection of metanarrative and in terms of performativity. *Wikipedia* is not simply a place for recording the latest information, but the product of a community of editors, an “organizational text,” which functions under a set of “particular tones, styles and codes.” So because he was “unable to decode these organizational texts, Messer-Kruse was unable to participate effectively in the social action relating to the article or even ... see what action and those relations are.”

A review of *Wikipedia's* policies for editors corresponds closely with the standard instructional content of IL. (Wikimedia Foundation 2012). As such, it is suggestive that the Wikipedia editors' intuitive response to the new information presented by Messer-Kruse would be a likely response by a typical information literate reader engaging skeptical knowing strategies when confronted with new spiritual information. This underscores the role interpersonal relations, humility, and contextual sensitivity play in communicating the Gospel.

### Google and PageRank

Accessing information has always been a challenge. Traditional paper-based technologies created a reified copy that could only be used in one place by one user at a time. Thus to broadly distribute a document, it required the creation of many copies. With digitization and publication

on the Internet, that limitation has been transcended. Now it is possible for any number of people to access the same document at the same time anywhere they might be. Thus it has become the assumption that publishing on the web provides broad access.

The caveat to that assumption is the volume of information now published on the web. For example, a search using the Google search engine for the word “postmodernism” yielded 6,820,000 hits. Adding the word “Christianity” reduced that number to 1,200,000 hits. That amount of “stuff” is unmanageable. To address the quantity issue, Brin and Page (1998) developed an algorithm that ordered the results using the number of times a page was linked to as an indicator of how it should be ranked in the list of results. The intent is that most searches will yield satisfactory results among the first ten to twenty hits. The new metanarrative is a mathematical algorithm which determines what information is pragmatically accessible. And the algorithm counts what appeals to the most people.

A significant component of IL training provides a range of strategies for finding information on the internet. So if a specific document is needed, it can be found by multiplying known terms or by going directly to a known URL. But it is highly unlikely for a new document to make it into the top fifty hits so that it might result in serendipitous discovery. Publishing on the internet by the church should not anticipate discovery, it still requires an interpersonal exchange to facilitate. The most that can be done by the publisher to facilitate access is to provide quality metadata so that when it does surface, the user finds what they were expecting.

### Lessons to be Learned from the Case Studies

It is as challenging as ever to communicate the Gospel. At the beginning of the Adventist movement, the costs associated with publishing were significant. Yet the infant denomination invested in the necessary technology, mastered the tools, and spread publications around the

world, with remarkable success. The logistics of distribution may have been formidable. It wasn't long, however, before colporteurs and Book and Bible Houses became major distributing agents, and were frequently among the first employees of the denomination when entering new territories.

With the new technologies, as a facet of postmodernism, the communication of the Gospel may appear to require a smaller economic commitment and geographical distribution of paid personnel, but publications in this media are in danger of being ignored by the information literate.

As illustrated by the Climategate experience, the controversial is globally dispersed and ravenously latched onto by a multitude who craves freedom from constraint. In like manner, the scandals of the church are common knowledge, and feed the same perverse desires. Compared to this dramatic challenging of traditional authority, the simple presentation of the Gospel truth may seem normal, unexciting, and thus unlikely to grab the attention of the gullible and entertainment dependent. On the other hand, the thinking information literate, trained in skeptical knowing, may be wary of the Gospel presentation because it is either viewed a minority countercultural belief or as an outdated institutional metanarrative. Transparency and authenticity are essential.

Messer-Kruse's experience emphasizes the power of inertia in adopting new and novel information. For many, the Gospel is new and novel, and so the intended audience skeptically resists its appeal, preferring perhaps the local cultural norms or perhaps a radical, self-centered alternative. Persistence and continuity are values required for meeting this audience.

This episode also illustrates the power of social positioning and relationships. Messer-Kruse could have done much to have his conclusions accepted in a more timely manner by working with and not against the volunteer editorial staff of *Wikipedia* through a proper

contextualization within the community. Instead he played the power game by going to the press, the *Chronicle of Higher Education*, an influential trade magazine for college and university personnel. Getting his viewpoint included was successful, but in the end, both *Wikipedia* and the author suffered unnecessary credibility damage. In its outreach to new communities with the goal of making a change in the cultural fabric, the Church likewise needs to engage with the community in ways that will make possible the desired changes.

### **Summary and Theological Reflection**

Libraries and librarianship may indeed be paradigmatic postmodern institutions. Because of its shift from self-assessment in terms of institutional effectiveness to meeting user needs, as illustrated by IL, the model can be informative for the mission of the church. This involves at least two considerations: 1) making the Gospel message accessible by maximizing the effectiveness of the communication technologies, both current and emerging; and 2) framing the message so as to appeal to information literate readers who value authenticity and transparency, the contextually sensitive and the humble. The performativity of these strategies must then be assessed, not according to the capitalist tendencies of postmodernism in which institutional effectiveness is measured by acquisitions, but rather it must be assessed on the transformation of each person who comes to saving faith.

There is much that is commendable and helpful in the various shifts that are part of the postmodern condition. But as with all human constructions, it is finite and has its limitations. In order to provide some theological reflection and direction on participating in Lyotard's "database" so as to be accessed, I suggest the narrative of the temptation of Jesus in the wilderness (Matt 4:2-10 CEB).

The tempter came to him and said, "Since you are God's Son, command these stones to become bread." Jesus replied, "It's written, People won't live only by bread, but by every word spoken by God." (2-4)

A common measure of performativity is the acquisition of more, in this case, information. This speaks to the tendency to commodify information so that access to more is an achievement that can be counted. This temptation reminds us that having more quantitatively is not an end in and of itself. There is only one end that warrants our commitment. And that is the qualitative knowledge of God. Any attempt to ground that knowledge in sources other than the word spoken by God nullifies the validity and authenticity of the mission of the Church. Contrast this with the subsequent narrative of the feeding of the five thousand. (John 6:5-13). Five loaves and two fish fed a multitude. This contrasts the values associated with acquisitiveness and service.

After that the devil brought him into the holy city and stood him at the highest point of the temple. He said to him, "Since you are God's Son, throw yourself down; for it is written, I will command my angels concerning you, and they will take you up in their hands so that you won't hit your foot on a stone." Jesus replied, "Again it's written, Don't test the Lord your God." (5-7).

In the blogosphere, an effective means of achieving a readership is to frame a conversation around a scandal or some dramatic impending crisis. Many focus on a cause that includes establishing identity in contrast with that of those who do not conform to the author's way of thinking. Criticism is rampant and can be vitriolic. A similar cultural example involves the practice and language of marketing. The communicator seeks to persuade the listener to purchase their product or service, often through extravagant or incredible imagery. Thus this temptation speaks to the cultural tendency to want to attract readership by any means possible. When those efforts cross over into disinformation, figuratively jumping off the temple, God will deal with it, not by protecting the jumper, but by serving justice. (2 Pet 2). But it is much more

appropriate to with much care speak with transparency and clarity, and this is the best way to honor God, and not tempt Him by jumping off the temple.

Then the devil brought him to a very high mountain and showed him all the kingdoms of the world and their glory. He said, "I'll give you all these if you bow down and worship me." Jesus responded, "Go away, Satan, because it's written, You will worship the Lord your God and serve only him."

Lyotard closes out his essay appreciating the potential for the abuse of power by those who have information towards those who do not. This temptation instructs in the role worship plays in this metanarrative of power. There is a cultural tendency to desire personal power, corporate power, political power, economic power, social power, *ad infinitum*. Thus this temptation speaks to the desire for information as a means to dominate. But in Jesus response, we are reminded that all dominion is God's, and any power derived from access to information must be for the purpose of serving God.

## BIBLIOGRAPHY

- Brin, Sergey, and Lawrence Page. 1998. "The Anatomy of a Large-Scale Hypertextual Web Search Engine." *Computer Networks and ISDN Systems* no. 30:107-117.
- Budd, John. 2009. *Framing Library Instruction*. Chicago: Association of College and Research Libraries.
- Eisenberg, Michael, Carrie A. Lowe, and Kathleen L. Spitzer. 2004. *Information Literacy: Essential Skills for the Information Age*. 2nd ed. Westport, CT: Libraries Unlimited.
- Fallis, Don. 2004. "On Verifying the Accuracy of Information: Philosophical Perspectives." *Library Trends* no. 52 (3):463-487.
- Ford, Heather, and R. Stuart Geiger. 2012. "Writing up Rather Than Writing Down": Becoming Wikipedia Literate. In *WikiSym 2012*. Linz, Austria.
- Hjørland, Birger. 2012. "Methods for Evaluating Information Sources: An Annotated Catalogue." *Journal of Information Science* no. 38 (3):258-268. doi: 10.1177/0165551512439178.
- Iannuzzi, Patricia, Michael B. Eisenberg, Donald W. Farmer, Craig Gibson, Lori A. Goetsch, Barton Lessin, Bonnie Gratch Lindauer, Hannelore B. Rader, Oswald Ratteray, and Althea H. Jenkins. 2000. *Information Literacy Competency Standards for Higher Education*. Chicago: Association of College and Research Libraries.
- Kovach, Bill, and Tom Rosenstiel. 2010. *Blur: How to Know What's True in the Age of Information Overload*. New York: Bloomsbury.
- Lankes, R. David. 2007. "Credibility on the Internet: Shifting from Authority to Reliability." *Journal of Documentation* no. 64 (5):667-686.
- Lewis, David W. 2012. "The Inevitability of Open Access." *College & Research Libraries* no. 73 (5):493-506.
- Lloyd, Annemaree. 2012. "Information Literacy as a Socially Enacted Practice: Sensitising Themes for an Emerging Perspective of People-in-Practice." *Journal of Documentation* no. 68 (6):1-14.
- Lyotard, Jean François. 1984. *The Postmodern Condition: A Report on Knowledge, Theory and History of Literature, Vol. 10*. Minneapolis: University of Minnesota Press.
- Messer-Kruse, Timothy. 2012. The 'Undue Weight' of Truth on Wikipedia. *The Chronicle Review*, <http://chronicle.com/article/The-Undue-Weight-of-Truth-on/130704/>.
- Rosen, Rebecca J. 2012. Does Wikipedia Have an Accuracy Problem? *Atlantic*, <http://www.theatlantic.com/technology/archive/2012/02/does-wikipedia-have-an-accuracy-problem/253216/>.
- Russell, Muir, Geoffrey Boulton, Peter Clarke, David Eyton, and James Norton. 2011. *The Independent Climate Change E-Mails Review*, July 2010 [cited 11 May 2011]. Available from <http://www.cce-review.org/pdf/FINAL%20REPORT.pdf>.
- Ryghaug, Marianne, and Tomas Moe Skjølsvold. 2010. "The Global Warming of Climate Science: Climategate and the Construction of Scientific Facts." *International Studies in the Philosophy of Science* no. 24 (3):287-307.

- Stevens, Christy R. 2007. "Beyond Preaching to the Choir: Information Literacy, Faculty Outreach, and Disciplinary Journals." *The Journal of Academic Librarianship* no. 33 (2):254-267.
- Wikimedia Foundation. 2012. *Wikipedia: Policies and Guidelines*. Wikimedia Foundation, 11 September 2012 2012 [cited 12 September 2012]. Available from [http://en.wikipedia.org/wiki/Wikipedia:Policies\\_and\\_guidelines](http://en.wikipedia.org/wiki/Wikipedia:Policies_and_guidelines).
- Wisner, William H. 2000. *Whither the Postmodern Library? Libraries, Technology, and Education in the Information Age*. Jefferson, NC: McFarland.
- Yoder, Amanda R. 2003. "The Cyborg Librarian as Interface: Interpreting Postmodern Discourse on Knowledge Construction, Validation, and Navigation within Academic Libraries." *portal: Libraries & the Academy* no. 3 (3):381-392.