

Getting Information Literacy into the Academy – Problem and Prospect: Keynote Address for the Annual Conference of the Association of Christian Librarians, June 11, 2013

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Every time I write or speak about our struggles with making information literacy a genuine and strong element of academia, I feel uneasy. Paul Zurkowski coined the term “information literacy” in 1974 (Zurkowski, 1974) and proposed an ambitious plan to make the United States substantially information literate within 10 years. At his time of writing, he estimated that only about 20% of the population was information literate. Today, as I look at the information landscape of our society, I would estimate that about 20% of the population is information literate. The bottom line is that we do not seem to be making many gains.

It’s probably a good idea to start with my definition of “information literacy.” It is the ability to clearly identify a problem, determine what information is needed to find a solution to the problem, acquire and evaluate that information efficiently and effectively, and apply the information well to the stated problem. The various sub-skills have been delineated by the Association of College and Research Libraries *Information Literacy Competency Standards* (ACRL, 2000). Information literacy is quite simply the ability to handle information well in the context of research and problem-solving.

I’ve tended to get quite passionate about the topic. Here’s an example of my rhetoric from a column I did for *Online Searcher* (Badke, 2013a, p. 67):

Academia is all about a profound discontent, about a quest to discover more, about a burning desire to solve society’s problems and make a better world. Research is at the heart of this academic yearning, and our students need to be able to do it well, way beyond the uneven vagaries of a Google search.

In the world of Christian librarianship, our passion for information literacy arises from the fact that we are a “faith of the Word.” We believe that the Word came from God to give us understanding of our Maker’s claims upon us. As such, the ability to discern the Word in a world of many words is essential to navigating a path of truth. So we, as much as, or even more than, other information professionals need to be fostering the abilities of our students in the area of handling information with skill.

Does it Matter?

Let me preach to the choir for a moment. You know this, but I still feel that I need to say it: Today's students, whether undergraduate or graduate, are no more skilled in information literacy than were students 20 or 40 years ago. In some senses, they may be less skilled.

We've all heard the detractors to this assertion. They argue that today's students are absolutely flush with technology and can run rings around most adults when it comes to searching Google and filtering through tons of data. "If students have a problem," the detractors declare, "it's that we've made our academic databases too challenging, when they should be as simple as Google. Yet, give our students a bit of time and they can master any research task we throw at them. Have no fear. Students still graduate and go on into vital careers and ministries. They must have picked up on their own the information abilities they needed."

My response initially would be: Have you sat behind a reference desk recently? Life there is a tale of woe, starting with, "I don't understand the assignment," moving to, "I haven't used the library much," and ending with, "Can you help me (but I fear you can't)?" If anecdotal evidence were sufficient, we would have enough of it in this room to push most professors into a depression.

But there is ample social scientific evidence as well that our students are doing terribly at the tasks of information handling. Let me cite two recent streams of research about students: The ERIAL project and Project Information Literacy. The ERIAL Project (Asher, Duke & Green, 2010) did detailed surveys of 161 students in higher education, 75 teaching faculty, and 48 librarians in the Chicago area. Its findings: "Almost without exception, students exhibited a lack of understanding of search logic, how to build a search to narrow/expand results, how to use subject headings, and how various search engines (including Google) organize and display results."

Project Information Literacy (2013) is a longstanding program to assess young adults in their information handling experiences and abilities. Alison Head and Michael Eisenberg (2009), who run Project Information Literacy, point out, based on data from thousands of university students: "In general, students reported little information-seeking solace in the age of the Internet and digital information. Frustrations were exacerbated, not resolved by their lack of familiarity with a rapidly expanding and increasingly complex

digital information landscape in which ascertaining the credibility of sources was particularly problematic” (p. 9).

Study after study finds the same thing that most of us are seeing: Students doing research are lost. They don't understand the information world in which they are supposed to function. They don't understand what the professor wants from them. Indeed, they don't understand the point of research itself. They can find information but not the best or most specific information. They say they evaluate their resources but they don't know the best criteria to use in doing so.

Professors, in turn, remain frustrated with the low levels they see in student research. The result has been that some professors are dumbing down their requirements, asking for fewer items in bibliographies and generally assuming that what they are getting in student papers is the new normal. The one thing I seldom find in professors, despite their frustration, is any belief that students can be trained to become excellent researchers.

#### Professors and Information Literacy

I might as well come out and say it: I don't think most professors grasp the concept of information literacy. Every time I say that I startle even myself. I've been a professor, and I teach credit courses to this day. It seems so obvious to me that professors would get information literacy that it is almost inconceivable that they wouldn't. But they don't. So what, exactly, is it that they don't grasp?

1. They are unable to bundle up into a teachable package the idea of research as a process of identifying a problem, gathering relevant materials, evaluating those materials and using them effectively to address the problem. Sure, they have an intellectual understanding of this, but they don't seem either able or willing to communicate the process to their students. It's as if they know it intuitively but simply can't articulate or teach it. Instead, they tell their students to be sure they have a thesis statement, use critical thinking, and have the required number and type of citations in their bibliographies. Students don't really understand what any of this means. In fact, the most common complaint of students is that they don't much understand their professors' assignments. Head and Eisenberg (2010) found that, though struggles with grasping what a professor wants from an assignment were dominant among student frustrations, few professors offered the specific types of guidance students needed.

Let's break this down a bit:

- *Have a thesis statement* – What's a thesis statement?

- *Use critical thinking* – About what? If I’m gathering information, am I supposed to criticize it somehow?
- How am I supposed to find 5 citations for my paper? And 2 of them are journal articles? What’s the point anyway, when they all say the same thing?

Professors fail to recognize that this is alien territory for students who have only a vague idea what research is for beyond assuming that they are required to study up on a topic and report what they found.

2. Professors tend to view the challenge of student research ability either as remedial or as an insurmountable problem, and sometimes both. That is, they believe it is possible through brief instruction to get students to overcome some of the barriers to research, but they fail to see how it is possible to teach students to become *good* researchers. Their own efforts tend to be more along the lines of, “I showed them what to do. It’s really disappointing that they failed to do it.” Given enough of this kind of experience, and the average professor comes to believe that there is no ultimate solution to the abysmal level of research done by the student.

The result is that our efforts as librarians to increase the levels of information literacy on campus are met with the following responses by professors:

- “I can give you an hour, no more. Teaching research skills is a worthy task, but there just isn’t room for it in the curriculum.”
- “Just show them the databases. That seems to be their main problem. Let them figure out the rest on their own. It’s their responsibility, after all.”
- “My role, as a subject specialist, is to teach my discipline. You are not a subject specialist (and you don’t have a Ph.D.), so, while you’re a nice person and all, you’re a librarian. I can’t expect you to solve my problem with student research.”

We can do one-shot sessions, even two-shot sessions if we are blessed, but we still see the same challenge – students who are floundering in their research efforts, hating research, and disappointing their professors, some of whom believe students these days are just unmotivated.

Professors and Librarians in the Information Literacy World.

Back in 2005, I wrote an article entitled, “Can't Get No Respect: Helping Faculty to Understand the Educational Power of Information Literacy” (Badke, 2005), in which I lamented the fact that librarians can’t seem to get information literacy onto the academic agenda, despite their best efforts. This was followed up by the article, “Why

Information Literacy is Invisible,” (Badke, 2010) and the book, *Teaching Research Processes: The Faculty Role in the Development of Skilled Student Researchers* (Badke, 2012).

I refer to these works, not to blow my own horn but to say that, though I have been thinking and writing about the disconnection between librarians and professors over information literacy for a long time, I still don't really understand the problem. I mean, I understand it in my mind, but I don't in my heart. We are all seeking to educate, but librarians say that education must include information literacy, while professors don't see information literacy as a priority or even as particularly on their radar. This makes no sense to me.

I'll sit down with a professor and discuss the mutually experienced fact that he or she is getting terrible research papers from students. We'll both look sad about that. I'll share some of my successes with improving student abilities, and the professor will perk up and even begin discussing the possibilities. But the conversation will generally end in one of three directions. First, the professor may ask me to drop in on a class and share my insights (briefly) with the students so that they can get on to information literacy themselves. Second, the professor will say that information literacy is a nice thought, but today's curriculum is too full already. Third, the professor will appear to grasp the importance of information literacy and suggest that we discuss this again. But we won't.

It seems like librarians are talking to a stone or to someone who doesn't speak our language. That second option is pretty close to the truth. Librarians and professors speaking about information literacy are not speaking the same language. Let me detail some of the communication challenges we face:

1. Many professors have forgotten how difficult it was to develop their own research abilities. Perhaps there is some selective forgetting of their early blunders and their own poorly researched undergraduate papers. Or maybe they absolutely aced research, being the brilliant people they are. Thus they can't see why their students should have so much trouble with it. The result is that they come to assume that developing research skill is more like learning to tie your shoes than learning something complex like a new language. Librarians see the huge gaps in actual student ability and know that the problem is more than something requiring remedial attention.
2. Many professors assume that student skills develop over time simply by doing research. Librarians know that this rarely happens in any significant way and that many students often repeat old patterns again and again. (A variant notion is that students have lots of technological skills, so they are bound to figure it out sometime). As long as students are sent *out* of the classroom to do their

research, they will not advance in information literacy, since they are cut off from the sort of instruction that could guide their skill development.

3. Many faculty members think in terms of content, and specifically content within their own disciplines, rather than in terms of process and skill development that can be transferable to a wider range of subjects. Librarians tend to emphasize process. This may well be a significant reason why professors give so little time to librarians to help their students with information literacy - there is scarcely enough time to cover course content, which is the primary goal. A librarian's suggestion that the teaching of research processes needs to come alongside the teaching of content means that less content will be taught. For those faculty members who focus on content, such a suggestion is not likely to get much of a hearing.

### What Do We Need?

If we were to develop significant information literacy in our students, what would we need to teach and what would they need to learn? Given that we are convinced that this is more than a remedial issue, we are looking at a long-term process of instruction and guided student practice. Sure, we can take opportunities for one-shots as they are offered, but we cannot delude ourselves into believing that one-shots create information literacy. Here are some elements of what students require to become information literate:

First, they need a substantial understanding of the current information landscape. As a test, ask a group of students, "What's the difference between a journal and an article?" About 10% of first and second year undergraduates will know, maybe 25% of senior undergraduates and 40-50% of graduate students. Amazing. Why the low scores on a question that seems so obvious? (A journal is comprised of articles, or a journal is the "container" within which articles are found). To answer, ask yourself, "How often do students today actually see a physical journal?" Their articles are delivered electronically through databases without the journal packaging being made visible except in citations. I find, in fact, that many students speak of journal citations in databases as if they were websites. They lack a conceptual framework to see articles as part of a larger publication program.

Another example – How many students have you encountered who were told to use only scholarly literature, but they couldn't for the life of them determine what was scholarly and what was not? We could say that scholarly literature has footnotes and bibliographies, but they could well respond, "So do Wikipedia articles, but we were told we couldn't use Wikipedia." The information landscape today is highly complicated and students are not getting the guidance that they need to navigate it intelligently.

As more and more information is appearing without peer review and is being made more and more accessible, students themselves need to become their own gatekeepers, yet they lack the basic skills or even simple criteria to do so. Most of my students initially don't think to check out the author or publisher of information to determine their qualifications for producing the information they have made available. Thus, being able to navigate intelligently through the increasingly mix bag of knowledge in our information age is something that needs to be taught intentionally and well.

Second, they need to understand the purpose of research and have the skills to design it well. If you ask the average undergraduate, or even beginning graduate student why professors assign research papers, the common answer is that professors want their students to do independent study of a particular subject. That is, many students see research as a learning process in which they read up on something and report back their success to the professor by writing a summary of what they have learned. What they end up with is a reading report, not a research paper.

Here, in my own teaching, I make a distinction between data compilation followed by synthesis, which is not really research ("Dear professor, I studied up on this topic and here is what I learned"), and research that enlists information as a tool to solve a problem. Many students lack the ability to formulate a concise problem statement (research question or thesis) that transforms their research into a *problem-solving exercise* with a clear goal. They easily fall back into the compilation model unless they have a lot of guidance.

Third, students need to know how to move beyond Google thinking in information acquisition. It is a revelation to many of them that only a small percentage of the world's knowledge is available to them through a Google search. When they discover our catalogs and databases, however, they generally find them to be clunky and difficult. Thus they treat them like Google – they throw some keywords into the first box they see and take the first few results as the best for their purposes, even if they aren't particularly relevant. We've even encouraged this kind of behavior by purchasing expensive discovery tools (don't get me started on discovery tools).

Students need guidance to enable them to appreciate the fact that databases using metadata and faceted searching can actually work better than Google to reveal high quality and highly relevant results. They need to learn the database features that can expose such results. Google may appear easy, but when it comes to precisely relevant results, academic databases do a much better job. In my graduate seminary research course, I have students do assignments with the catalog and journal databases before they do an assignment with Google Scholar. Their response? Consistently it is that, having used academic databases, Google Scholar seems messy, imprecise and ultimately more difficult to use. Here's a quotation from one of my students:

“I have never found Google Scholar as frustrating and limiting as I did with this assignment. I'm so grateful for other, better options of researching articles and books!”

Fourth, students need to develop solid skills in evaluating information for both quality and its relevance to whatever research problem they are dealing with. This involves us helping them with criteria to use and giving them a lot of practice.

Fifth, students need to join the academy. What do I mean? I mean that students begin their studies as outsiders. The professor is the expert. They are not. Thus they are on the outside of the discipline, not participants in it. They need to become participants, practitioners of the discipline rather than spectators. The only way to do this effectively is to enable them to learn the culture of the discipline – what it values, how it does research, and what its discourse sounds like.

Let me give you an example. We had a graduate student in Old Testament who was involved in an oral defense of his thesis. Two of the three examiners were external experts. After a couple of preliminary questions, I observed something absolutely amazing. These experts were not examining our student. They were picking his brain for insights into research *they* were doing, because his particular theory of narrative indicators of the pleasure or displeasure of God was revolutionary. How did this turn into a conversation among colleagues when it was supposed to be an examination of a student? It happened because the student had demonstrated himself to be a colleague. He thought like they did, he talked like they did. He had things to offer them. He also got an A.

We have a long tradition in academia of delivering content to empty pots who need filling. That's all very well, but it is intensely alienating. Students learn *about* the professor's subject. It is not their subject even though they struggle to understand it and learn its content. They are outsiders looking in. When it comes time to do a research project, students are sent *out* to do the research (I almost said, “sent out into the wilderness to do the research”). They are offered what they often see to be inadequate instructions, and their main motive is to figure out “what the professor wants” and do whatever that is so they can get a good mark.

I submit that the best way to turn observers into practitioners is to teach them right in the classroom how to become good researchers. Information literacy within disciplines is the way to create active, participating learners.

### Reaching the Faculty

If we know the essence of our communication problems with faculty, and if we have a clear vision of our goals for information literacy, then getting the rest of academia on

board with a comprehensive information literacy program should be easy, right? Wrong. It's hard, the way rolling a big rock uphill all day is hard.

Let me tell you about some of our challenges and successes at Trinity Western University. In this, we are quite like a lot of other schools. At the undergraduate level, first year English courses have long been the primary venue for developing student research skills. We had our standard live one shot sessions with these students until the librarian doing all these hours became University Librarian and begged off. So we were left with dilemma. While one-shots accomplish little, they are still a foot in the door, and we now had no one to teach them. So, in conjunction with the head of first year English, we devised an online interactive tutorial that took 2 or 3 hours to complete and was required (for credit) of all English students. Brilliant. The head of first year English and I even won the university's innovative teaching award that year. But I knew that it was only a replacement for marginally successful one-shots, and after several years it died because we couldn't keep students from comparing answers and giving out the best ones to their friends, who completed the tutorial in 10 minutes. Fortunately, the first year English faculty members are now working with us on further options.

More recently, we managed to get a research and writing course into the Communications program core, and thus required of all students in this major. This gives librarians over 7 hours of research instruction along with assignments, and it appears to be working pretty well, though it is the only program that has adopted such a model.

Even more successfully, our graduate seminary – Associated Canadian Theological Schools – has had a very well regarded (by both students and faculty) one-credit research course required in all programs since 1988 (Badke, 2007; Badke, 2008). It's going strong and shows no sign of being threatened.

The most interesting developments, though, have been more subtle. First is the rise in the number of faculty members seeking help with their own research in an increasingly complex technological environment. Many faculty members seem to be struggling with databases almost as much as their students are. Second is the increasing recognition in our *graduate* programs that students have not acquired the research skills expected from their undergraduate education. Third is a growing number of information literacy instruction professional development opportunities for faculty led by librarians and encouraged by academic administrators who are growing uneasy about student research abilities. Fourth is a looming accreditation process that will call for us as a university to account for our information literacy efforts.

The fifth one is perhaps the most encouraging. There has been a groundswell of interest in information literacy among those who help students with their writing and

academic skills, including ESL instructors, study skills support staff, writing course professors and first year English faculty. I say “groundswell” deliberately, because the tide seems to be turning as we show them how research ability can actually be taught to good effect. This is one of the more hopeful signs in a very long struggle to interest academia in information literacy.

## Prospect

In what can we base any expectation that information literacy can be solidly lodged within the educational processes of our institutions, beyond what we already have in random one-shots and other basic orientations? If, as I believe, this is a problem that is going to have to be resolved in much larger ways, through the curriculum, getting it on the academic agenda is not going to be simple, nor quick.

So, where to begin? I think it has to be with faculty. For many of them, overworked and hard-pressed to deliver the content they feel they need to get into students, they are truly blind to the opportunities of information literacy. But we librarians can connect better with faculty than we are connecting currently.

How do we do this? First by helping to meet the needs of our faculty by offering them support for their own research. We can provide updating sessions to our databases, sessions that point out how important it is to optimize search features and how seldom our students do so. We can help faculty receive contents notifications for journals they are following. We can alert them to information or innovations in their fields. Above all, we can get to know them as well as possible and offer whatever services they require. This is crucial if we are going to communicate with them effectively on their own turf.

Beyond our natural desire to support our faculty, there is an ulterior motive - we need to help ourselves to remove the stigma that librarians aren't real academics but are somewhere between professor and clerk. The more we enable faculty to meet their own research needs, the more we get a chance to show them what we can do. I know you probably cringe at the idea of trying to impress your faculty with your abilities, but it's for a good cause – to gain a hearing for a larger agenda in information literacy. It does mean, however, that, though we are rather timid people, are going to need to make more noise.

There is good noise and there is bad noise. Bad noise trumpets, at every opportunity, that faculty members are failing their students by not supporting their information literacy to our expectations. Lecturing people just creates deafness. Good noise is the kind that gets alongside faculty and administrators with a clear message that we librarians, who have supported our own faculty in their research, understand that student research is not what it could be, and we have ways of helping.

So what are the ways to come alongside faculty to enhance information literacy of students in your institution? Initiate dialogue with anyone who teaches writing (professors in writing courses, first year English, and so on). One thing that has amazed me is how often such people grasp full well the information illiteracy gaps in their students and are longing for help. We are the ones who have solutions, so coming alongside these teachers, either to provide instruction or (better) to show them how they can do it themselves, is a key driver in moving forward with the initial steps of information literacy.

I'm a great believer in research and writing courses that are required within the cores of various majors, having worked with one for several years now. You can get a better hearing in the planning and development of such courses by talking to professors and academic administrators about "writing." The point here is that many academics view the problem with information literacy (which is process) as a problem with writing (which is the product). If an academic department values the ability to write well within its discipline, then a writing course, specific to that department, is a solid way to express that value. This is where we can point out that writing is not isolated from research skills. Both are necessary to create good writers. If you can get 7 or 8 hours of research instruction into a 3 credit writing course, you are a winner. But you need to do more than teach. I've found that the best way to solidify the instruction is by having a required research paper for the course and calling for several assignments related to the various stages of research for that paper (Badke, 2013b).

Ultimately, information literacy has to move into the foundation of every course. Process and content must both be seen as essential to becoming an educated person. Earlier I said that students are made to feel alienated by being sent *out* to do their research. The message they hear is that they are responsible to learn the process of doing research on their own with minimal instruction. They also hear that the doing of research itself is not a high priority in their education, because the professor didn't teach them how to do it. Finally, they hear that, if the professor has sent them out to do research, and they are faltering at it, either they are really incompetent (that is, this must be easy or the professor would have taught them how to do it), or this is just another example of an impossible task expected of them by professors who really don't understand what their students are going through. Students blame themselves or their professors, but the one thing that are certain about is that they hate research.

The professor needs to understand that when you assign a research paper, get it from the student near the end of the semester and then grade it two weeks to a month later, the student has no opportunity to improve in research skills. Students often don't even read the comments on the paper, because reading comments doesn't get grades and

tends to bring on a gloomy mood. So we now have a common component of student requirement that is simply not helping those students to grow in their ability to do it.

The solution? Faceting assignments. It's a simple concept, but it can be revolutionary. Encourage professors who support the goals of information literacy to break their research assignments down into four or five smaller assignments. Students first submit their planned topic, along with a summary of the topic from a couple of reference sources they reviewed in order to get a working knowledge, and a proposed research question and preliminary outline. This is evaluated by the professor (perhaps in conjunction with review by a librarian), and students get a chance to resubmit if the work isn't up to par. Second, students do research in specified types of databases, journaling what they searched, the search terms and features they used, and the bibliography they came up with. Strategic librarian instruction in class, focusing on databases, is crucial at this state. Once again, students get a chance for resubmission if there is a problem. This can be split into two assignments if you want to distinguish book catalog searching from journals. Third, students provide an annotated bibliography and a more developed paper outline. Fourth, students submit the final paper.

Several key factors are involved here. First, professors must learn to focus on process as much as on content when they evaluate student research. Thus they need to look at *how* students carried out their research (method) as well as *what* they produced (content). Second, professors can really use the help of librarians in developing faceted assignments and in having librarians come into class for instruction at key points. Third, students need to recognize that the only way to get good grades is to read the professor's comments and revise any assignments that are not up to par.

Faceting provides an opportunity to develop student researchers, skilled handlers of information, especially if it is done through the curriculum (Badke, 2012).

Hope

I think we are on the verge of an information literacy revolution. As the world of information becomes more and more confusing, and as databases become more and more complex, I see a growing hunger among academics and students for someone to lead them out of the fog. I believe our day has come.

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