With academic institutions’ current emphasis on assessment, I believe that libraries are enjoying unprecedented opportunities in the area of information literacy. The library world appears to be ahead of the game in terms of standards and outcomes. The ability to articulate an assessable program when other entities at an institution may still be struggling to develop outcomes has no doubt made it easier for libraries to integrate information literacy into general education and discipline specific curricula, and develop and justify information literacy (IL) programs. The downside to all this is that our institutions want results based on measurable outcomes. For this reason, it is no surprise that libraries tend to develop programs around easier to measure cognitive outcomes, and thus put less attention on important, but harder to measure affective outcomes. In addition, it is also easier for libraries to focus on the parts of the sum and not the sum of the parts. As a result, information literacy programs may be losing sight of core tenets of information literacy related lifelong learning, such as reflection and critical thinking.

Each year I feel less enthused about teaching students the “how to”, or more readily measurable, aspects of information literacy, and more adamant about giving students time to reflect on the ways in which they interact with information. I attribute this changing attitude to partnerships outside my library and my institution. These experiences, particularly with future teachers and their project portfolios, have made me reconsider what aspects of IL that I want college students at my institution to learn and how I can better facilitate that learning.

Although I advocate for more critical thinking and reflection among students in order to enhance learning about information literacy, those who know me realize that critical and reflective thinking are not necessarily my personal strong suit; I tend to not test the waters, but rather jump right into the deep end. This article will discuss some small and not-so-small attempts to get my students to think about their interactions with information. Some of these are by no means new or even unique; I have had many mentors and idols over the years. By grouping these activities together in one place, I hope to show that as librarians we have options beyond the more measurable outcomes and task oriented activities to expand our role as developers of lifelong learners.

Tiny

As advocates for IL, we need to get people thinking about information in general. Why not start with a warm up activity to get people in the mood? I ask students to create a grid of all the pieces of information they have received that day. The first column is the piece of information; the second column is the source of the information; the third column asks them how they processed the information (ignored, believed, repeated, etc.); the final column asked them to explain why they processed it the way they did. The individual grids are then discussed by the larger group. Even if the only thing the student did before this class was wake up and walk to class, there is something in the grid; if the activity is done later in the day, the grid is overflowing. The discussion always touches relevance, trust, believability, reliability, and context -- although those words rarely enter the conversation. Instead, the conversation usually centers on BFF talk, the latest jailed sports personality, and why it is so important to know who is knocked up in Hollywood. Although those types of topics might be mind numbing, the underlying concepts this grid enables make it much easier to make the links later in that session, or in subsequent sessions, to these information concepts in the research context.

Small

As librarians that facilitate learning, we need to think about the questions we ask students, how we react to the answers, and reflect on who answers them. I believe that there are some fundamental questions, not dependent on discipline or level, which can help with reflection. I did not come up with these questions, but like any good librarian stole them from here and there from much smarter people. Here are three I always try to ask, but not answer.

- I start every session with the question: why are you here? The session does not move forward until this question is sufficiently answered by the class and not by me or the faculty member. I have had library sessions that were quite successful that never moved beyond this question. Some indications, in my opinion, of success include: the faculty member and students leaving energized to seek information, the desire for a second session, and students asking good
questions at the reference desk. It may be completely unrelated, but most CSUCI composition classes now come in for additional library sessions each semester, which also seem to be better timed to lend assistance with the research process or particular papers.

- A second question is: who has a stake in the information you are seeking? This question gets people thinking about how information is produced, housed, controlled, and then of course why there is not yet a one-stop shop to efficiently locate information.

- A third question is: how would you describe the perfect piece(s) of information you are seeking? This will help people think about how they might go about evaluating format, relevance, and content along the way instead of finding unrelated items and trying to make things work.

These are just a few questions; there are others. To facilitate reflection it may not be the specific question that is important, but who is asking and answering them. Over the years I have found that librarians use questions to frame their library sessions, and the questions and answers become woven together as a monologue that may not provide much more engagement than a lecture. Have a colleague sit in on one of your library sessions, and write down every time you answer your own question. It likely will be more than you expect. For example, “What is your research topic? I know from your professor that you are here to get articles on global warming.”

Medium

Another area of information literacy that is ripe for infusing more reflection and critical thinking is website evaluation. Every month or so, something gets posted to one of the information literacy listservs on this topic, and immediately people respond with hoax sites and the “best” criteria used to evaluate websites. These are useful, but there is also a real need to look beyond the exceptions and the outcomes that focus solely on application of an existing, given criteria.

Here is the one approach that I have used at a number of levels and for a variety of disciplines. First, students are asked to define themselves what is a “good” website for their purposes, and produce a set of evaluation criteria. Second, students are asked to choose a search engine (which in my experience has always been Google). Third, students are asked collectively to agree on a search phrase to enter into the search box. The agreed upon search is executed and each student, or pair of students, is assigned a single website from the first 10-20 results. If not done in teams, I try and make sure that two students are assigned the same website. The students are then asked to answer questions such as:

- What is this thing you found: personal website, group website, online publication, blog, wiki, document, etc?
- Apply the criteria you developed in class. Is this a good website for your course assignment? Why or Why Not?

Then the students are asked to share their answers and discuss the following questions as a group:

- Were there different opinions on what was found? Were there differences in how the criteria was applied? How many would use the website? How many would not use the website?
- What does this activity tell you about using information from websites, or any media for that matter?

I have also done this activity a number of times using the discussion board or wiki feature in a course management system. Either in-person or virtually, the activity always results in interesting questions and debates. One of the most interesting to me was when no one in a class of 80 could identify that the document found was a press release; many thought it was an article with little to no bias. Another memorable time was when one of the top ten results was an .edu website – it often takes them some time to realize it was authored not by a professor, but by a student in a similar class at another institution. A lively discussion ensued on how reliable the information was, and what grade the student probably received. No matter what the context, the activity gets students to articulate what they found, how that item meets their criteria, and if it is usable.

Large

As librarians, we have a real opportunity to get people to explore more aspects of the IL Standards regarding citation and plagiarism. For many years, I discussed plagiarism like sex or drugs - I told the students to “Just Say No.” I taught citation as an imperative, but focused mostly on mechanics. With the advent of so many electronic tools for citation, time is freed up to try new things.
For example, I co-taught a critical thinking course for several years and early on I got assigned to give the “lecture” on plagiarism, and I gave my “Just Say No” lecture for a couple of semesters. I hated it, the students hated it, and the professors still got plagiarized papers. As a result, I decided to shift the focus of the lecture to an activity with some questions for discussion on authorship. I have the students read five passages attributed to an author and ask them to answer the following questions for each passage:

1. Is source likely to have the information or the good judgment we need?
2. Can we trust the authority to tell it to us straight?
3. Is this information provided believable?

I then re-show the passages with the actual author. One example: how did their answers change for a quote on communism attributed to Stalin when they find out the quote on communism was actually from Mandela? Another example: how did their answers change for a quote on immigration attributed to President Bush when they found out that he and a team of writers actually wrote the speech? Students are then asked to consider how authorship, the perceived authority of the author, the perceived authority of the authorities that the author refers to, and the perceived authority of the sources and statistics that the author refers to, and the perceived authority of the sources and statistics that the author refers to have impacted whether or not an author’s argument is believable. Ultimately, the students are asked to consider what happens if the stated author is not really the author. I have been also known to ask how do you think a professor feels when s/he receives a paper that states an author that is not really the author (but at that point it usually goes without asking).

So right about now you are thinking what in the world is she talking about? The point is that there are other ways to think about plagiarism. It is not just about attribution and stealing intellectual property. There are trust and believability dimensions, which fit nicely with teaching about the ethical uses of information. Resources for citations can be offered and degrees of plagiarism can be illustrated following the authorship piece, but I have found that this content is best conveyed via comments in context. Therefore, I always give extensive feedback on class papers and projects. For example, noting that a student may be technically plagiarizing because of poor format or that I can not find the resource mentioned. More important may not be what is taught, but following campus policies on acts of plagiarism, or facilitating a campus-wide dialog on the issue.

**Conclusion**

In this article, I have advocated the need to foster more critical thinking and reflection among students in order to enhance learning about information literacy. To do so will require librarians to do some reflecting of their own. Why do we teach what we do, and why do we teach it the way we do? Does everything we do have to be directly measurable? What reflection and critical thinking skills are you facilitating in your instruction in order to develop lifelong learners? Going beyond the measurable outcomes will no doubt mean taking risks and trying something new. Individual librarians will need the support of their libraries and institutions, but in the end hopefully it will mean a larger role for our profession in the area of helping people learn to learn.

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These questions just scratch the surface of the many copyright issues facing instruction librarians. Here are a few good resources where you can go to learn more:

- The website of the U.S. Copyright Office ([http://copyright.gov](http://copyright.gov)) has the complete text of the copyright law, along with detailed FAQs, searchable copyright records and information about copyright registration.

- Bound By Law: Tales from the Public Domain ([http://www.law.duke.edu/cspd/comics/](http://www.law.duke.edu/cspd/comics/)). This free online comic book from the Center for the Study of the Public Domain is an engaging and entertaining journey through the copyright-related obstacles that face the heroine, a documentary filmmaker named Akiko.

- ALA’s Copyright Advisory Network ([http://www.librarycopyright.net/](http://www.librarycopyright.net/)) offers a number of copyright resources for librarians, including a forum where anyone can ask copyright questions, and a blog about current copyright issues.