Scientists and librarians: friend or foe?

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Following the ScienceOnlin*e*2010 conference, librarian Dorothea Salo wrote on her blog:

> This disconnect is the number one threat to science librarianship today – perhaps to all academic librarianship. How can science libraries persist when scientists haven't the least notion that libraries or librarians are relevant to their work?

These are serious questions, and of course I don't have the answers. But I would like to add my thoughts from a researcher perspective. The role of libraries in providing teaching material for students (textbooks, etc.) is another story that I will not touch today.

Figure 1: Flickr image by Radioher

I'm old enough to remember the time (maybe 15 years ago) before literature searches were possible via the internet and scientific papers were available in electronic form. I had to go to the library to use Medline or Current Contents in printed form (and later on CD-ROM), or to flip through the newest issues of the most interesting journals. I would photocopy the papers I would then read at home, and then file away for later use.

PubMed, Scopus, Web of Science, and Google Scholar now allow me to search the literature from my desk at work (or from home). Most researchers (including myself) probably don't have the skills for sophisticated searches, but these tools more or less get the job done. Electronic publishing means that I can obtain a paper directly from the journal (as long as I access the journal from a computer

in the university network), and licensing is handled (almost) transparently by the library.

These developments have dramatically reduced the time researchers spend at a library. This is good, as this saves them a lot time. But interactions between researchers and librarians have also been dramatically reduced. Publishers and other companies (e.g. Thomson Reuters, Mendeley, Faculty of 1000, to name just a few) have used the opportunities to adapt their offerings to the internet (e.g. electronic-only journals), and to create new products that weren't possible (or even thinkable) before. Although libraries have in many ways adapted to the internet as well, they probably haven't seized the opportunity to the same degree. The homepage of my university library is a place I visit much less often than PubMed or the pages of my favorite journals. Some ideas of how this could be changed are listed below. Most of them are not new, but maybe at least some libraries haven't gone all the way to make their pages an attractive destination for the researchers of their institution.[1]

Provide and support online reference manager

Institutions should support at least one online reference manager, possible options include (in no particular order) Zotero, Mendeley, Endnote Web, Refworks and CiteULike. RefWorks and Endnote Web are commercial products and require a private (Endnote) and/or institutional license. The institution should either pick a free reference manager as their primary choice, or buy an institutional license in order to allow every researcher and student to use these tools without additional cost.2

As we can't expect everybody to use the same reference manager, libraries have to help with several products. The easiest way to do so is via an online forum (see next paragraph), as this is more efficient than one-to-one support and allows experienced users to help out. Online reference managers provide additional features (e.g. they can be used from different computers, allow shared folders for groups of users) and should therefore be preferred over standalone applications.

Online user training and support

User support is obviously one of the central functions of science libraries. This has two aspects: helping with a specific problem (e.g. finding scientific literature), but also training users to do this on their own. The required skills include use of PubMed and other databases, and reference managers such as Endnote or Zotero. Skills in evidence-based medicine are critical to find and appreciate the appropriate medical literature, but in my experience many physicians and medical students would benefit from additional training in this area.

Introductory classes, help in person or a phone call are sometimes the best way to do this, but often users require quick help for a specific situation that can best done with online tools. Appropriate tools include email, online forum, Twitter, Yammer (a microblogging tool similar to Twitter but for institutions), SlideShare,

FaceBook (and StudiVZ in Germany), FriendFeed, and Wikis. Every institution should make a decision about the services they plan to support, with emphasis on tools that are easy to use.

Institutional bibliographies

A regularly updated listing of all publications of an institution is not only a valuable PR service, but is often also required by administrations to evaluate research output. Librarians are often involved in this, but there is probably a lot of untapped potential. As unique identifiers for researchers become more widespread, there really no longer is a need for researchers to compile publication lists themselves.[3]

Article deposition in institutional repositories

Most journals allow researchers to post their accepted papers in institutional repositories of their institution. But because this requires technical skills and extra time, many researchers aren't particularly eager to make use of them. Institutional bibliographies can obviously be nicely integrated with institutional repositories, thus reducing redundant work.

Help authors with article submissions

Article processing charges for authors are often handled by their libraries, and sometimes libraries have membership deals with publishers that give authors a discount. But researchers often are left alone with the article submission process. Most authors submit at most a handful of papers each year, and they have to deal not only with different article formats between journals (most notably different reference styles), but also different article submission systems (e.g. Editorial Manager, eJournal Press, Manuscript Central or BenchPress). The total number of papers submitted by an institution is much larger, and thus at least some recurring problems could be avoided or at least the time required reduced with centralized support from the library.

Help with Web 2.0 tools for scientists

Libraries don't have to reinvent all the Web 2.0 tools for scientists that are already out there, but they are a good place to help interested researchers get started with some of them (e.g. ResearchGate, Nature Network, or Academia.edu). Ideally, these tools could be integrated into the library webpages via an API.

fn1. I would like to be proven wrong by great examples of libraries gone Web 2.0.

fn2. My university picked RefWorks as their primary reference manager.

fn3. Scopus is already pretty good in this.

Three events from last week inspired me to write this: a blog post by (and short Twitter conversation with) Dorothea Salo (Science Online 2010: Scientists and librariansonline_2010_scientists.php), a meeting with the other organizers of BibCamp Hannover ("a BarCamp for librarians and other hackers" in May 2010), and a discussion via email with Oliver Obst from the Medical Library, University of Münster.

Figure 2: