

Open access publishing

This essay outlines the history and development of open access publishing from the author's perspective, and it advocates librarians take a more active role in making open access publishing a norm for facilitating scholarly communication as opposed to an exception.

History

The history of open access publishing has been woven with strands from the serials pricing crisis and the development on the Internet.

You might say **Stevan Harnad** has been a driving force behind open access publishing for more than ten years now, and in his "**subversive proposal**" posted to a Virginia Tech mailing list in 1994 is a landmark in the history of open access. In a nutshell, it advocated the continuance of peer-reviewed scholarly publishing in print form but it also advocated scholarly articles be digitally self-archived by authors and made freely available through the Internet, much like the online network of pre-print archives of the physics community lead by Paul Ginsparg:

The scholarly author wants only to publish them [, the articles], that is, to reach the eyes and minds of peers, fellow esoteric scientists and scholars the world over, so that they can build on one another's contributions in that cumulative... If every esoteric author in the world this very day established a globally accessible local ftp archive for every piece of esoteric writing from this day forward, the long-heralded transition from paper publication to purely electronic publication (of esoteric research) would follow suit almost immediately... The subversion will be complete, because the (esoteric -- no-market) peer-reviewed literature will have taken to the airwaves, where it always belonged, and those airwaves will be free (to the benefit of us all) because their true minimal expenses will be covered the optimal way for the unimpeded flow of esoteric knowledge to all: In advance. -- Stevan Harnad (June 27, 1994)

Serial prices continue to rise. Other things in libraries continue to get cut. More people are

beginning to see what is happening, more scholars/researchers are affected, and the phrase "open access" is coined in the **Budapest Open Access Initiative (BOAI)** in 2002. This Initiative is/was an attempt to see how much an organization called the Open Society Institute (OSI) could help resolve the scholarly communication. One of the outcomes of this attempt was a definition of open access:

By "**open access**" to this [scientific and scholarly] literature, we mean its fee availability on the public internet, permitting any users to read, download, copy, distribute, print, search or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited. -- Budapest, Hungary (February 14, 2002)

The BOAI goes on to become the model for other open archive statements such as the Bethesda Statement on Open Access Publishing, the Berlin Declaration on Open Access to Knowledge, the ACRL Principles and Strategies for the Reform of Scholarly Communication, and the IFLA Statement on Open Access to Research Data from Public Funding. All the while there are a small but growing "independence statements" from journal article editors/staff as well as formal statements from large and larger institutions of higher education as some of them move away from the Big Deal.

Most recently, governments are now hearing the problems. The United States government is a bit behind times, compared to other countries, but on September 17 the Federal Register recorded a notice by the **National Institute of Health (NIH)** in support of open access:

The NIH intends to request that its grantees and supported Principal Investigators provide the NIH with electronic copies of all final version manuscripts upon acceptance for publication if the research was supported in whole or in part by NIH funding. This

would include all research grants, cooperative agreements, and contracts, as well as National Research Service Award (NRSA) fellowships. We define final manuscript as the author's version resulting after all modifications due to the peer review process.... The NIH considers final manuscripts to be an important record of the research funded by the Government and will archive these manuscripts and any appropriate supplementary information in PubMed Central (PMC), NIH's digital repository for biomedical research.

Librarianship

I like to boil librarianship down to a handful of processes surrounding data, information, and knowledge, namely: collection, organization, archiving and preservation, and dissemination.

Technically speaking, collection is easy, almost trivial. Libraries can use mirroring techniques to simply copy data from one location to another. Using **OAI-PMH** to collect the metadata is the next best thing. Organization is a bit more difficult, but much of traditional cataloging can come into play. The issues of archiving and preservation have not been ironed out.

LOCKSS (Lots of Copies Keep Stuff Safe) provides one solution, but migrating data from one format to another will almost undoubtedly be a part of the long-term solution. Dissemination is the hardest problem. Successful indexing techniques are only as good as the structure of the underlying data; if the indexing is poor, then search will not be so great. Librarians might consider providing the meta data for open access literature or help devise systems for deriving meta data automatically. Dissemination does not stop with indexing and search. The wealth of data/information available on the Web have increased people's expectations when it comes to information retrieval. People expect Google-esk simplicity and Amazon.com-like services. At the same time and at the risk of sounding passee, everybody is still "drinking from the fire hose". What people desire are ways to manage their information and put it to use. We need to ask ourselves, "What can we do to help learners, teachers, and scholars turn there data and information into knowledge and wisdom?" This is the real challenge here in the early 21st Century.

Besides implementing these traditional processes, libraries, in order to be part of the solution, must build stronger relationships with scholars and publishers. Most importantly, scholars and publishers need to trust librarians. They need to feel confident that librarians can hold up their end of the bargain. "If I publish my stuff electronically, will you, librarian, do the things you do best for the materials I create?" They answer has to be a definitive "Yes", and it has to be backed up by action. **SPARC**, the recently formed SPARC Europe, the activities they sponsor, and other national activities are great starts, but more has to happen on the local level. Conversations have to take place. A sincere appreciation of what everybody (scholars, publishers, and librarians) desires need to be shared and taken to heart. As Frazier said, scholarly publishing has been turned upside-down, and in order to turn it right-side up again, each one of us needs to take some sort of action.

Conclusion

In summary, the open access movement has been fermenting for at least a decade. It is the combined result of and reactions to the "serials pricing crisis" and the development of globally networked computers -- the Internet. Librarians are seen by scholars, open access journal publishers, and administrators as partners in the scholarly communications process. As partners librarians must learn to COAPP with the problem:

- Collect open access journal literature
- Organize open access journal literature
- Archive open access journal literature
- Preserve open access journal literature
- Provide access to open access journal literature

These are exciting times in the world of data, information, and knowledge. There are so many opportunities. It is an exciting time to be a librarian.

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