Open access as an Unprecedented Public Good:

The Transformative Potential of the Internet for Scholarship and Society

Association for Internet Research (AoIR)
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http://poeticeconomics.blogspot.com

Outline

- BOAI
- Definition of OA
- Scholars, keep your copyright!
- What's out there
- Transformative potential
- Conclusions

"An old tradition and a new technology have converged to make possible an unprecedented public good. The old tradition is the willingness of scientists and scholars to publish the fruits of their research in scholarly journals without payment, for the sake of inquiry and knowledge. The new technology is the internet".

Budapest Open Access Initiative, February 14, 2002
http://www.soros.org/openaccess/

The Budapest Open Access Initiative is the first major international defining moment of the open access movement. For more basic information about open access, including definitions, see Peter Suber's Open Access Overview, at http://www.earlham.edu/~peters/fos/overview.htm, or his A Very Brief Introduction to Open Access at http://www.earlham.edu/~peters/fos/brief.htm.

What is open access?

By "open access" to this literature, we mean its free 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.

Budapest Open Access Initiative, February 14, 2002
http://www.soros.org/openaccess/

Open access means much more than just free access; it means that literature is availabe for use, including downloading, archiving, searching, or data mining. The only element missing from this definition is that true open access is immediate on publication. Free access after an embargo period is usually referred to as free back access.

Two approaches to open access

- Open access publishing
- Open access archives
- Dramatic growth in both approaches

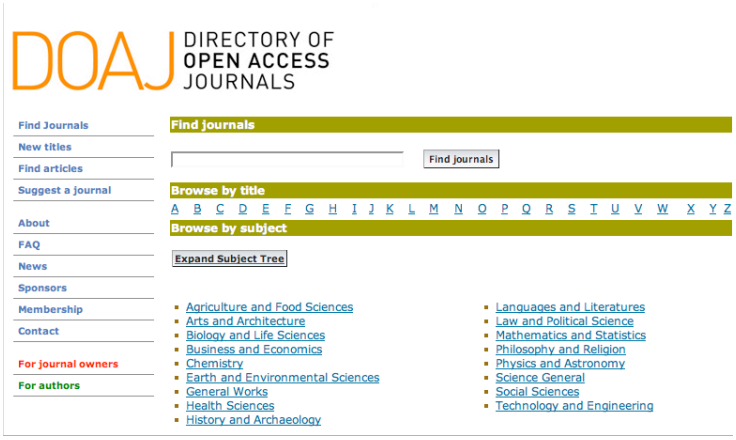
There are two basic approaches to open access. Open access publishing (sometimes called the gold road) in when articles are made openly accesible immediately on publication, as part of the publishing process. Open access archiving (also called the green approach) is when authors or their designates self-archive a copy of the author's work for open access in an institutional or disciplinary repository. There has been dramatic growth in open access in both open access publishing and open access archiving.

The Dramatic Growth of Open Access

- Directory of Open Access Journals (DOAJ): 2,866 journals
- More than 10% of the world's peer-reviewed journals
- 1.2 new titles per calendar day
- http://www.doaj.org

The presenter maintains a quarterly series called The Dramatic Growth of Open Access. The latest edition (September 30, 2007) can be found at http://poeticeconomics.blogspot.com/2007/09/dramatic-growth-of-open-access-series.html. As of October 17, 2007, the Directory of Open Access Journals, a list of fully open access, peer-reviewed scholarly journals carefully vetted by a professional librarian, includes 2,866 journals, more than 10% of the total peer-reviewed journals in the world. Note that this only includes fully open access journals; journals that are free after an embargo period, or hybrid journals with some open access content, are not included in this total. DOAJ has been growing at a rate of about 1.2 new titles per calendar day.

Directory of Open Access Journals
http://www.doaj.org



Here is the DOAJ. Note the search options: find journals by title, keyword, or through a subject hierarchy. There is a search for authors, providing a means for authors wishing to provide OA to their works to search for fully OA or hybrid journals.

Here is one example of a journal listed in the Directory of Open Access Journals that may be of interest to AoIR workshop attendees: Webology. This journal, published in Iran, features a familiar name for me; the article Web 2.0 as a Social Movement is written by a Canadian, Wiliam F. Birdsall.

Partnership: the Canadian Journal of Library and Information Practice and Research
http://journal.lib.uoguelph.ca/index.php/perj/

Partnership, the Canadian Journal of Library and Information Practice and Research, is another example of a journal listed in DOAJ. The presenter is the Editor of the Theory / Research section of Partnership. Partnership follows a double-blind peer review procedure, and, as an Editor, I can assure you that I've never seen more rigorous review! It is my totally subjective impression that many open access publishers, reviewers, authors, and editors, especially new journals, very much want to prove that OA can be high-quality, and so we hold ourselves to very high standards. Partnership uses the free, open source Open Journal Systems software, http://pkp.sfu.ca/?q=ojs, and an in-kind / volunteer labor business model. That is, Partnership is hosted by the University of Guelph library, and all editorial labor, including copyediting is provided gratis. Although Partnership is based in Canada, international submissions are welcome, and we look forward to publishing an article on information services in Uganda in our upcoming issue.

Open Journal Systems

- Free, open source software
- Automates most routine elements of publication
- Advanced features & technologies - RSS feeds, reader tools
- Used by about 1,000 journals worldwide
- http://pkp.sfu.ca/?q=ojs

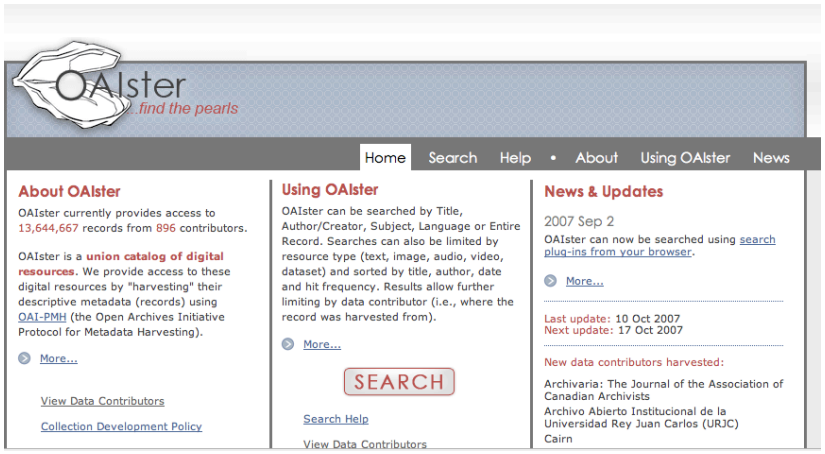
One of the keys to making open access a possibility is new publishing software which automates most routine elements of publishing, such as keeping track of articles in process and pre-paired e-mail messages. OJS also has advanced technology features, including RSS feeds, the ability to work with OAI (open access initiative) harvesters, and LOCKKS preservation software. Released just a few years ago, OJS is currently in use by about 1,000 journals worldwide. About half are open access journals; all have some elements of free access, just as free back issues.

OAIster:

a union catalogue of digital resources

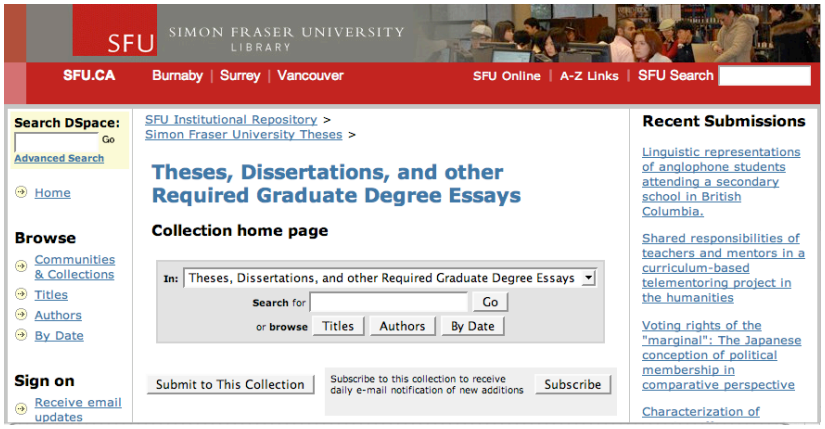
- >13.6 million records
- 896 contributors
- http://www.oaister.org/
- 42% increase from Sept. 06 to Sept. 07

OAIster is one of the search tools for materials in open access archives. Not all materials are open access; in some cases, there is open access to metadata only. To illustrate the size and growth of open access, note that OAIster includes more than 13.6 million records from 896 contributing archives, and OAIster increased 42% in size from September 2006 to September 2007.


OAIster
...find the pearls
Home
Search
Help
About
Using OAIster
News
About OAIster
OAIster currently provides access to 13,644,667 records from 896 contributors.
OAIster is a union catalog of digital resources. We provide access to these digital resources by "harvesting" their descriptive metadata (records) using OAI-PMH (the Open Archives Initiative Protocol for Metadata Harvesting).
More...
View Data Contributors
Collection Development Policy
Using OAIster
OAIster can be searched by Title, Author/Creator, Subject, Language or Entire Record. Searches can also be limited by resource type (text, image, audio, video, dataset) and sorted by title, author, date and hit frequency. Results allow further limiting by data contributor (i.e., where the record was harvested from).
More...
SEARCH
Search Help
View Data Contributors
News & Updates
2007 Sep 2
OAIster can now be searched using search plug-ins from your browser.
More...
Last update: 10 Oct 2007
Next update: 17 Oct 2007
New data contributors harvested:
Archivaria: The Journal of the Association of Canadian Archivists
Archivo Abierto Institucional de la Universidad Rey Juan Carlos (URJC)
Cairn

Simon Fraser University Institutional Repository http://ir.lib.sfu.ca/

Here is one example of an open access archive, in this case the Simon Fraser University institutional repository. The DIGRA (Digital Games Research Association) held its conference at SFU in 2005, and made use of the SFU IR for deposit of the conference presentations.

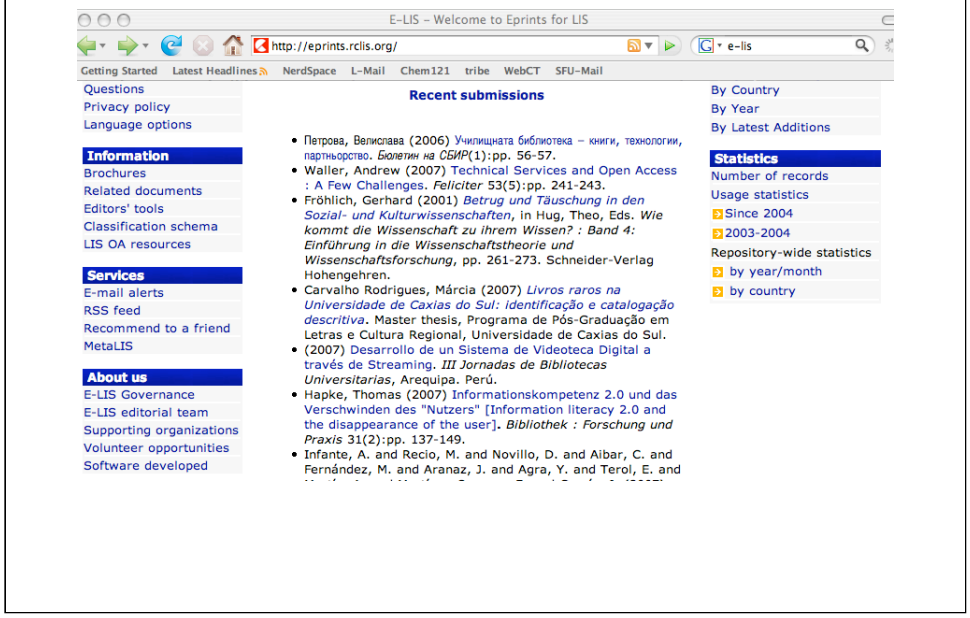


Like many university institutional repositories, SFU Library's D-Space is rapidly growing its thesis collection. No where are the benefits of open access more obvious than with theses; in the print world, there may have been no more than a couple of copies of a thesis. Libraries were often reluctant to loan or inter-loan theses for fear of loss, so there was very limited access to these often comprehensive and original works of research. With open access, theses are immediately available to anyone, anywhere, with an internet connection. In a very short time, we are going from very limited access to theses, to almost uquitious access.

Here is one example of the benefits of an institutional repository for an author; thanks to SFU's D-Space, there is one URL to access all of my works. I can place this URL on my website or wherever, for a bibliography of my works that is automatically updated whenever I add a new paper or presentation.

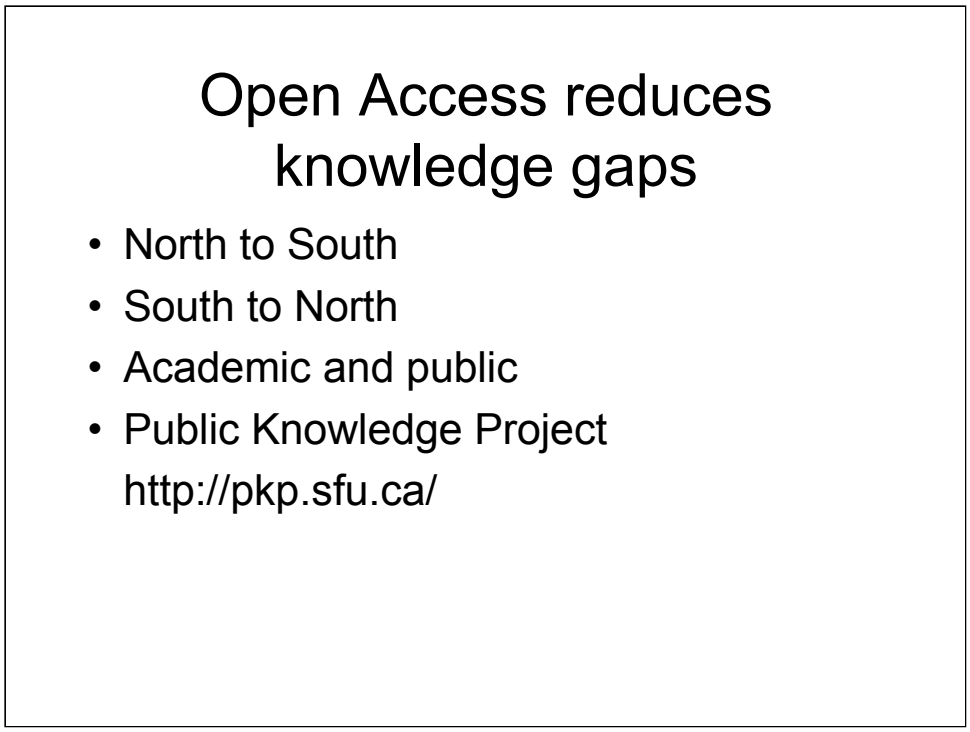
E-LIS http://eprints.rclis.org/

E-LIS, the open archives for library and information studies, is just one example of a disciplinary open access archive. E-LIS is not one of the world's largest open access archives; the largest is PubMedCentral, with over a million open access documents in the area of medicine. arXiv, the physics preprints service, is the world's oldest open access archive, and RePEC, Research Papers in Economics, recently exceed half a million bibliographic records (but only about 400,000 fulltext documents). E-LIS is highlighted today, not because of its size, but because the presenter is part of the governance team, as an example of the transformative nature of this particular open access initiative.



Here is a brief view of E-LIS recent submissions October 15, 2007: documents are in Bulgarian, English, German (2), Portuguese, and Spanish. This is not necessarily typical, as overall, about 50% of the documents are in English. What a contrast, though, with the kinds of search services we are used to in western countries, with virtually all documents in English! A search of E-LIS often brings back a set of results that reflects a wide variety of languages and cultures. English abstracts and using automated translation services can enhance our understanding of articles in different languages. It may be of interest that about half the documents in E-LIS are peer-reviewed articles; much of the rest of E-LIS material is highly scholarly in nature, for example theses and academic conference proceedings.

It is not just the contents of E-LIS that is global in scope; here is a list of the countries with E-LIS Editors. This broad-based team of volunteer editors forms an international community of its own, united in efforts to develop E-LIS, and support open access along the way. E-LIS is hosted by CILEA in Italy, which contributed the server and some technical support. All of the rest of the work of E-LIS is done by volunteers.



Open Access reduces knowledge gaps. OA means that people in developing countries have access to the latest scholarship; perhaps more importantly, OA provides a means for people in developing countries to have an equitable means of making their own work accessible, so that their researchers, too, can have an impact. OA means that the public has access to scholarly research, facilitating public knowledge, a topic covered in depth by closing keynote speaker John Willinsky, blogged by Alex Bruns on Snurblog at http://snurb.info/node/738 (thanks to Peter Suber on Open Access News, at http://www.earlham.edu/~peters/fos/2007/10/notes-on-willinsky-keynote-at-aoir.html

The transformative potential of open access for a global society is one of the themes that I like to explore in my scholarly blog, The Imaginary Journal of Poetic Economics (IJPE). One of the themes of IJPE is creative globalization. Here is one example of a blogpost under this theme: Necessity is the Mother of Invention: Open Access, the Developing World, and the Cost-Efficient Solution. This was inspired by reading a medical article in an journal published by India, featuring a low-cost intervention (playing music) to facilitate outcomes in surgery. On reading this article, it occurred to me that in the West, a great deal of medical research is conducted by commercial companies (such as pharmaceutical companies) that are basically in business to earn profits. One does not earn a lot of profit on a low-cost solution! This suggests, to me, that in the West there are incentives for research to develop high-cost solutions, and disincentives to find low-cost solutions. In a developing country, there may be no option (or even market) for high-cost solutions. Meanwhile, those who pay for medical interventions in the developed world have much incentive to seek cost-efficient solutions. We should, therefore, be reading and promoting medical research of developing countries! This is highly speculative, and research is needed before forming any conclusions, of course. The full blogpost is available at http://poeticeconomics.blogspot.com/2006/05/necessity-is-mother-of-invention-open.html

Open Data

- Open sharing of experimental information made it possible to map the human genome in just a few years
- Would this work to find solutions to global warming?

While the focus of the open access movement has been on the peer-reviewed journal article, much, much more can be made openly accessible! It is now possible to publish full research data as well as articles, and it just makes sense to share this openly. It was open sharing of information that made it possible to map the human genome in a very short period of time, about 13 years. Shouldn't we be using this approach to find solutions to global warming?

Conclusions

- The internet makes it possible to openly share our knowledge
- Open sharing facilitates collaboration
- Open access reduces knowledge gaps
- Open sharing can accelerate advances in understanding

Questions?

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