# **Open Access Webliography**

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# Introduction

This webliography presents a wide range of electronic resources related to the open access movement that are freely available on the Internet as of April 2005. It is available as a website and a website PDF with live links (17 pages).

In basic terms, the goal of the open access movement is to make scholarly articles freely available in digital form worldwide with minimal restrictions on their use (e.g., proper attribution of authorship). In reality, it's more complex than this because of differences of opinion about what open access should or shouldn't try to achieve. Some advocates say free access to scholarly articles is enough, minimal restrictions are not needed. Others say that the basic goal is correct, but permanent archiving is also required. Still others say why stop at scholarly articles, make all types of scholarly literature freely available in digital form. Such doctrinal differences are normal and healthy in such an important and dynamic movement.

This very brief discussion will focus strictly on digital versions of scholarly articles; however, the reader should understand that digital archives and repositories may contain other types of digital materials.

As outlined "Budapest Open Access Initiative"

(http://www.soros.org/openaccess/read.shtml), there are two basic strategies used to achieve open access: (1) self-archiving (making electronic preprints and postprints available on author home pages or depositing them in digital archives and repositories), and (2) open access journals. Metadata about electronic versions of articles can be retrieved by use of the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) so that it can be used in search systems or for other purposes.

Minimal use restrictions can be realized by use of the Creative Commons Attribution License (or similar licenses). (See http://creativecommons.org/licenses/by/2.0/.) This license is used by several major open access journal publishers and others. Scholars may also use it for their e-prints, but this is not currently typical.

For a more detailed explanation, see Peter Suber's "Open Access Overview: Focusing on Open Access to Peer-Reviewed Research Articles and Their Preprints," which is in the "Starting Points" section of this document or Charles W. Bailey, Jr.'s "Key Open Access Concepts" section of his Open Access Bibliography: Liberating Scholarly Literature with E-Prints and Open Access Journals, which is in the "Bibliographies" section of this document.

# Methodology

The electronic resources included in this webliography were identified during the course of one of the authors writing the Open Access Bibliography: Liberating Scholarly Literature with E-Prints and Open Access Journals. The methodology used to construct that bibliography is described in the below quote from its "Preface."

The author has employed a variety of search strategies to identify works for inclusion in the bibliography. Searches were conducted in major index and abstract databases, Internet search engines, OAI-PMH search services (e.g., Arc, Citebase, and OAIster), open access journals (e.g., BioMed Central journals), open access archives (e.g., PubMed Central), Weblogs, freely

available e-serials, mailing lists, author and project Web sites, and licensed e-serials and indexes. Of particular note are Peter Suber's excellent e-publications (*Open Access News* and the *SPARC Open Access Newsletter* among others), which were rich, extremely useful sources of information. A "pearl growing" approach was used: when relevant articles were identified, their reference lists were checked for new sources, and, in turn, the reference lists of these new sources were checked in an iterative fashion. In electronic resources with "articles by," "related articles," and "articles that cite this work" search features (e.g., *BMJ*), these powerful capabilities were also used.

This open access webliography complements the bibliography on the same topic. By consulting both, the reader has access to the literature about the open access movement as well as the primary electronic resources on the Web that relate to it.

Given the extraordinary profusion of information about open access, this webliography is, by necessity, selective. The authors have attempted to identify key finding tools (e.g. directories and search engines), information sources, mailing lists, organizations, publishers, and e-publications that will allow the reader to easily explore the topic further. They have also tried to give the reader a sense of open access in action by including examples of representative disciplinary archives, software tools, projects, and statements (which might also be viewed as manifestos). These examples are just that; these webliography sections are not as comprehensive as other sections.

Three sections of the webliography warrant special notes. The authors have chosen to include directories of free journals in the "Directories—Open Access and Free Journals" section in order to increase the reader's chances of identifying all possible open access journals. The "Special Programs for Developing Counties" section, while not dealing strictly with a pure open access topic (it is about free or low-cost access arrangements for specific countries, not free global access), covers a closely related topic.

# Resources

# Starting Points

Framing the Issue: Open Access

http://www.arl.org/scomm/open access/framing.html

This resource guide from the Association of Research Libraries looks at open access from a library point of view, examining the economics of scholarly publishing and US copyright law trends in addition to providing a general open access overview. It includes links to key open access resources.

#### (Mis)Leading Open Access Myths

http://www.biomedcentral.com/openaccess/inquiry/myths/?myth=all

BioMed Central counters the arguments used by conventional publishers to oppose open access. The sources of the arguments are noted and the responses provide links to relevant documents

# Open Access Overview: Focusing on Open Access to Peer-Reviewed Research Articles and Their Preprints

http://www.earlham.edu/~peters/fos/overview.htm

If you want an overview of open access concepts, there is no better guide than this one by Peter Suber, a noted open access expert. Clearly and carefully written, it boils down an enormous amount of information about a very complex topic, and it is rich with links to more in-depth information. Even more impressive is his "A Very Brief Introduction to Open Access" (http://www.earlham.edu/~peters/fos/brief.htm), which provides the most concise summary imaginable.

# Open-Access Publication of Medical and Scientific Research: A Public Library of Science Background Paper http://www.plos.org/downloads/oa\_background.pdf

This document introduces the reader to the concept and practice of open access journal publishing. It touches on various aspects such as the significance of open access, its operational mechanism, and its relationship with scholarly societies' constituents.

## Self-Archiving FAQ

http://www.eprints.org/self-faq/

This FAQ from the Budapest Open Access Initiative provides detailed information about "self-archiving," the inclusion of e-prints on scholars home pages or their deposit in digital archives and repositories. It includes a lengthy rebuttal of common objections to the concept of self-archiving.

# **Bibliographies**

# Effect of Open Access and Downloads ("Hits") on Citation Impact: A Bibliography of Studies

http://opcit.eprints.org/oacitation-biblio.html

This bibliography by Steve Hitchcock chronicles research studies about the relationship between citation impact and the free availability of scholarly articles. It also identifies Web tools for measuring citation impact. As the author indicates, it is "a focused bibliography, on the relationship between impact and access." The bibliography "does not attempt to cover citation impact, or other related topics such as open access, more generally, although some key papers in these areas are listed as jump-off points for wider study." Although it needs further confirmation, it appears from the included studies that "open access increases impact."

# **Online Research Communication and Open Access**

http://www.ecs.soton.ac.uk/~harnad/intpub.html

Dr. Stevan Harnard is a trailblazer in advancing open access. This Web site is a bibliography of his open access writings over the years. Most of the articles are freely available as e-prints. The site also links to the preliminary results of a survey of users and non-users of two e-print archives (arXiv.org, and Cogprints).

# Open Access Bibliography: Liberating Scholarly Literature with E-Prints and Open Access Journals

http://www.digital-scholarship.com/oab/oab.pdf

This bibliography by Charles W. Bailey, Jr. "presents over 1,300 selected English-language books, conference papers (including some digital video presentations), debates, editorials, e-prints, journal and magazine articles, news articles, technical reports, and other printed and electronic sources that are useful in understanding the open access movement's efforts to provide free access to and unfettered use of scholarly literature." The major sections of the bibliography are: "General Works," "Open Access Statements," "Copyright Arrangements for Self-Archiving and Use," "Open Access Journals," "E-Prints," "Disciplinary Archives," "Institutional Archives and Repositories," "Open Archives Initiative and OAI-PMH," "Conventional Publisher Perspectives," "Government Inquiries and Legislation," and "Open Access Arrangements for Developing Countries." It also includes an overview of key open access concepts. It is available as a printed book from the Association of Research Libraries. Both the PDF and the printed book are licensed under the Creative Commons Attribution-NonCommercial License.

# **Scholarly Electronic Publishing Bibliography**

http://info.lib.uh.edu/sepb/sepb.html

This bibliography by Charles W. Bailey, Jr., which is currently at version 57, "presents over 2,325 articles, books, and other printed and electronic sources that are useful in

understanding scholarly electronic publishing efforts on the Internet." Two sections of this regularly updated bibliography ("New Publishing Models" and "Repositories, E-Prints, and OAI") provide detailed coverage of open access issues, and other sections also include significant relevant material. The bibliography includes Scholarly Electronic Publishing Resources (a directory of over 270 related Web sites) and the Scholarly Electronic Publishing Weblog (biweekly list of new resources; also available by mailing list and Atom/RSS feeds). It is licensed under the Creative Commons Attribution-NonCommercial License.

## **Debates**

Nature Web Debates on Future E-Access to Primary Literature

http://www.nature.com/nature/debates/e-access/index.html

Nature Web Focus on Access to the Literature: The Debate Continues

http://www.nature.com/nature/focus/accessdebate/index.html

Nature, a major scientific journal, hosted these online forums in order to gather collective wisdom about the issue of disseminating and accessing scientific information via the Internet. In "Nature Web Debates on Future E-Access to Primary Literature," relevant articles published by Nature are posted as sources of background information. What follows are over 35 articles presenting opinions and arguments from a diversity of stakeholders, including the Public Library of Science, librarians, not-for-profit publishers, for-profit publishers, administrators of databases and repositories, technology developers, scientists, and observers from other sectors. "Nature Web Focus on Access to the Literature: The Debate Continues" has over 30 articles and links to analysis as well as institutions' position papers. These debates are remarkable resources for finding out opinions about open access from diverse perspectives.

# Directories—E-Prints, Institutional Repositories, and Technical Reports

## **Core Metalist of Open Access Eprint Archives**

http://opcit.eprints.org/explorearchives.shtml

This directory from the Open Citation project (http://opcit.eprints.org/), which is also called OpCit, categorizes, briefly annotates, and links to the open access e-print archives that were available as of June 30, 2003. It is divided into seven sections: (1) lists of open access e-print archives, (2) Open Archives Initiative (OAI) archives, (3) institutional archives, (4) Eprints.org archives, (5) gateways, (6) open access journal archives, and (7) disciplinary archives. The Web site also provides an overview of the development of open access e-print archives, which is followed by a list of relevant articles for reference. Since the Web site is no longer maintained, its information is not up-to-date and a small number of the links are invalid. Nevertheless, it is still an outstanding resource for identifying English-language open access e-print archives.

## **Directory of Mathematics Preprint and e-Print Servers**

http://www.ams.org/global-preprints/index.html

This directory from the American Mathematical Society covers e-print servers in the United States as well as in countries such as Austria, Canada, France, Germany, and Russia. The servers are listed in four categories: (1) umbrella servers, which cover all areas of Mathematics; (2) special subject servers; (3) Mathematics department and institute servers; and (4) "retired" servers that are no longer active. As noted on its front page, the directory provides "mathematicians with a tool to find any of these servers in order to browse the articles posted on them and, in many cases, to post an article to the server itself." The servers from non-English-speaking countries usually offer English interfaces.

# **Directory of Open Access Repositories**

http://www.opendoar.org/

A project of the University of Nottingham and the University of Lund, this directory is currently being developed. When completed, it will "provide a comprehensive and authoritative list of institutional and subject-based repositories, as well as archives set up by funding agencies. . . . Users of the service will be able to analyse repositories by location, type, the material they hold and other measures."

# E-print Network, U.S. Department of Energy (DOE)

http://www.osti.gov/eprints/

This directory provides access to over 16,000 e-print archives (it also includes some preprints submitted directly to the DOE). It covers subject areas ranging from chemistry, biology, engineering, information technologies, materials science, physics, and other disciplines relevant to the DOE. A sophisticated search engine allows users to search multiple e-print repositories simultaneously. E-Print repositories and e-prints can also be browsed by discipline. Other features of the Web site include a concise description of the significance of e-prints, an international directory of relevant scientific societies, and the provision of a subject-specific alert service.

## **Experimental OAI Registry at UIUC**

http://gita.grainger.uiuc.edu/registry/

Although the user interface of this directory from the Grainger Engineering Library Information Center at University of Illinois at Urbana-Champaign is spare and somewhat cryptic, it's a useful tool for investigating over 700 OAI-PMH-compliant archives and repositories, and it includes a handy list of links to similar lists elsewhere.

## **Institutional Archives Registry**

http://archives.eprints.org/

This directory from Eprints.org provides access to over 400 academic department (or other academic unit) archives, disciplinary archives, institutional repositories, and other digital archives around the globe. Each entry provides some description of an archive, including what software was used to create it, its country of origin, the nature of publications archived, and the percentage of the publications that are freely accessible. There is also a chart that shows the change in deposited publications in the archive over time. At the right end of the entry is a thumbnail image of the archive's front page. Archives that were built with GNU Eprints are highlighted in pale blue. All entries are searchable by keyword and browseable by archive name, country of origin, archive type, and software. Suggestions can be made to the editor for an archive to be listed on the Registry. This directory is an especially handy tool for identifying institutional repositories and for monitoring the growth of individual archives and repositories.

# Virtual Technical Reports Center: Eprints, Preprints, & Technical Reports on the Web http://www.lib.umd.edu/ENGIN/TechReports/Virtual-TechReports.html

This directory is a massive alphabetical list of links to digital archives of dissertations, preprints, postprints, theses, research reports, and technical reports, which is maintained by Gloria Lyles Chawla (Technical Reports Librarian at the University of Maryland Libraries). It is especially useful for finding departmental archives.

# **Directories—Open Access and Free Journals**

# Directory of Open Access Journals (DOAJ)

http://www.doaj.org/

The *Directory of Open Access Journals*, which is maintained by Lund University Libraries, is the most important directory of open access journals, and it currently contains over 1,500 journals. The aim of the *DOAJ* is to "increase the visibility and ease of use of open access scientific and scholarly journals thereby promoting their increased usage and impact." It "aims to be comprehensive and cover all open access scientific and scholarly journals that use a quality control system to guarantee the content." It has detailed selection criteria

(http://www.doaj.org/articles/questions#selectioncriteria). It should be noted that these criteria do not require the journals to be under a Creative Commons Attribution (or similar) license, which would ensure that they meet the criteria set forth by the major definitions of open access. The journals in *DOAJ* are grouped and browseable by discipline. The contents of some journals are searchable and accessible via this Web site.

#### Free Full Text

http://www.freefulltext.com/

This directory "provides direct links to over 7,000 scholarly periodicals which allow some or all of their online content to be viewed by ANYONE with Internet access for free (though some may require free registration)." Although the only access to the included journals is by browsing an A-Z title list, the depth of coverage of this directory is hard to beat, and users of the Google toolbar (or similar search engine toolbars) can use it to search this site for desired journals.

#### **Free Medical Journals**

http://www.freemedicaljournals.com/

This directory was "created to promote the free availability of full text medical journals on the Internet." The journals indexed are sorted by specialty and language (English, French, German, Portuguese, Spanish, and others). In addition, the site provides information about some free medical journals' impact factor. An e-mail alert service to new free medical journals is also available.

# **HighWire Press: Free Online Full-text Articles**

http://www.highwire.org/lists/freeart.dtl

Pioneering e-publisher HighWire Press, which is a division of the Stanford University Libraries, offers this alphabetical directory of scientific and medical journals that it publishes that offer full or partial free access to their contents. Over 840,000 freely available articles are included in this directory.

# Directories and Guides—Copyright and Licensing

### **Guide to Open Content Licenses**

http://pzwart.wdka.hro.nl/mdr/research/lliang/open content quide

This guide by Lawrence Liang is an introduction to open content licensing, which is "a paradigm that is rapidly emerging as an important alternative to the existing model of copyright." It defines and characterizes the open content license, and presents a comparative analysis of different open content licenses. At the end of the guide are a bibliography and a glossary.

# Publisher Copyright Policies & Self-Archiving

http://www.sherpa.ac.uk/romeo.php

This directory from SHERPA provides access to publishers' policies about self-archiving of preprints and postprints. Its contents are searchable and browseable. There are also links to publishers' copyright policies if they are posted on the Internet. Publisher policies are color coded according to what type of archiving is allowed (e.g., green means the author can archive both the preprint and postprint). Since publisher policies vary considerably and it can be difficult to determine what they are, this Web site is an invaluable resource for scholars and institutional repository managers; however, it does have a disclaimer that: "All information is correct to the best of our knowledge but should not be relied upon for legal advice." A related Web site by Stevan Harnad, Self-Archiving Policy by Journal (http://romeo.eprints.org/stats.php) which is based on the SHERPA data, provides further details, including summary statistics.

# **Directories and Guides—Open Access Publishing**

## **Gaining Independence**

http://www.arl.org/sparc/GI/

With a view to help "transform the scholarly communications marketplace and process," the Scholarly Publishing and Academic Resources Coalition (SPARC) has prepared this manual "to help universities, libraries, societies, and others implement alternatives to commercially-published scholarly and scientific information." The manual explains the purposes and significance of drawing up a business plan, and it provides a step-by-step guide to writing one. The appendices include a glossary and a list of useful Internet resources.

## **Open Access Journal Business Guides**

http://www.soros.org/openaccess/oajguides/

The Open Society Institute (OSI) has created three guides to help existing or potential open access journal publishers with business planning issues. The first one is the Model Business Plan: A Supplemental Guide for Open Access Journal Developers & Publishers, the second a Guide to Business Planning for Launching a New Open Access Journal, and the third a Guide to Business Planning for Converting a Subscription-based Journal to Open Access. These guides provide very useful, detailed advice for potential open access journal publishers by experts from the SPARC Consulting Group.

# Publishing Open-Access Journals: A Brief Overview from The Public Library of Science

http://www.plos.org/downloads/oa\_whitepaper.pdf

This is a white paper that concerns the production of an open access journal. It discusses various components of the production process as well as costing and staffing issues. At the end is information about relevant mailing lists and journal management systems. It is a good introductory document to read before reading the more detailed OSI guides.

# **SPARC Publishing Resources**

http://www.arl.org/sparc/resources/pubres.html

SPARC has compiled this excellent Web page for those who wish to publish and manage open access journals and archives. The first section, "Planning Resources," offers business guides and information about getting a journal indexed. The second section, "Products & Services," covers conference management software, data fabrication services, journal linking services, and journal management systems. It also lists articles with reviews of the products mentioned.

## **Directories and Guides—Software**

# Free Open Source OAI-PMH 2.0 compliant Software

http://www.library.uq.edu.au/escholarship/software.pdf

Although it has not been updated since November 2004, this chart from eScholarship@UQ at the University of Queensland is a very handy way to quickly compare OAI-PMH compliant software options.

#### A Guide to Institutional Repository Software, v 3.0

http://www.soros.org/openaccess/software/

This useful guide from the Open Society Institute provides descriptions of major institutional repository software options and gives an in-depth comparison of them.

#### **OAI Tools**

http://www.openarchives.org/tools/tools.html

This list from the Open Archives Initiative describes software that incorporates or provides OAI-PMH functionality.

# **Disciplinary Archives**

### arXiv

http://arxiv.org/

Established in 1991 by Paul Ginsparg, arXiv is one of the oldest and most influential disciplinary archives. It contains e-prints in the fields of computer science, physics, mathematics, non-linear science, and quantitative biology. Partially supported by the National Science Foundation, arXiv is now at Cornell University after many years at the Los Alamos National Laboratory. The e-prints are categorized by subfield. The reader can view new and recent e-prints in the subfields and also search the contents of the whole archive.

#### Cogprints

http://cogprints.org/

Supported by the Department of Electronics and Computer Science at the University of Southampton and edited by Stevan Harnad, Cogprints provides access to e-prints in fields that deal with cognitive psychology, such as biology, computer science, linguistics, philosophy, psychology, and related disciplines.

#### **DLIST**

http://dlist.sir.arizona.edu/

Run by the School of Information Resources and Library Science and the Arizona Health Sciences Library (both at the University of Arizona), DLIST (Digital Library of Information Science and Technology) provides access to e-prints in the areas of library and information science and information technology.

# E-LIS: E-prints in Library and Information Science

http://eprints.rclis.org/

Administered by Research in Computing, Library and Information Science (which also offers Documents in Information Science), E-LIS provides access to over 2,300 library and information science e-prints. The e-prints are browseable and searchable. Authors can register and then deposit articles. They can also choose to receive alerts for new items via e-mail or an RSS feed.

#### **NASA Astrophysics Data System**

http://adswww.harvard.edu/

Established in 1993, ADS "maintains four bibliographic databases containing more than 4.2 million records: Astronomy and Astrophysics, Instrumentation, Physics and Geophysics, and preprints in Astronomy. . . . ADS consists of bibliographic records . . . and full-text scans of much of the astronomical literature which can be browsed though our Browse interface." It is funded by NASA and operated by the Harvard-Smithsonian Center for Astrophysics. The Web site also provides links to other NASA research centers and relevant professional associations.

#### RePEc

http://repec.org/

RePEc (Research Papers in Economics) is a database, supported by volunteers in 44 countries, that provides access to bibliographic information about economics articles, books and book chapters, working papers, and software as well as other types of information. It covers over 300,000 items, over 200,000 of which are available on the Internet.

# **E-Serials about Open Access**

## **Open Access Now**

http://www.biomedcentral.com/openaccess/

This useful e-serial provides brief news reports, commentary, interviews with key open access figures, term definitions, and other information. It includes links to related Web sites, and even offers promotional posters.

## SPARC Open Access Newsletter (SOAN)

http://www.earlham.edu/~peters/fos/

Written by Peter Suber, SOAN is an invaluable source of information about the open access movement. Suber's analysis of open access issues is done with exceptional clarity and precision. If your time to follow the dynamic open access movement is limited, chose to read SOAN above all else. Information about the free subscription of SOAN is provided on the Web site.

# Free E-Serials That Frequently Publish Open Access Articles

#### Ariadne

http://www.ariadne.ac.uk/

For a variety of reasons, there is very strong interest in open access in the UK and some of the most interesting developments in the field are happening there. Ariadne, published by UKOLN, is mandatory reading for those interested in tracking open access topics in the UK.

# ARL: A Bimonthly Report on Research Library Issues and Actions from ARL, CNI, and SPARC

http://www.arl.org/newsltr/index.html

This newsletter from the Association of Research Libraries often has library-oriented articles on open access topics by noted experts. See the "Scholarly Communication" index to quickly access these articles: http://www.arl.org/newsltr/osc.html.

### Cites & Insights: Crawford at Large

http://cites.boisestate.edu/

For critical analysis, it's hard to beat Walt Crawford's incisive commentary is this e-journal. Coverage waxes and wanes depending on his current interests.

#### **D-Lib Magazine**

http://www.dlib.org/dlib.html

The quintessential digital library journal, *D-Lib Magazine* publishes papers a variety of technical open access topics, such OAI-PMH, as well as more general articles.

# **High Energy Physics Libraries Webzine**

http://library.cern.ch/HEPLW/

This e-journal, which is based at CERN, is somewhat similar to *D-Lib Magazine*, but its articles are generally less technical. Its coverage is international.

#### **Information World Review**

http://www.iwr.co.uk/Home

This UK information industry newspaper is similar to Information Today (which would definitely be on this list if more of its content was free) and it often has interesting news items about open access topics.

#### Learned Publishing

http://www.alpsp.org/volcont.htm

This UK journal from the Association of Learned and Professional Society Publishers is an essential source of information about open access from a library or publisher perspective. Although it is not completely free (access to the current year's issues is for subscribers only), patient readers have free access to back issues.

#### SciDev.Net

http://www.scidev.net/

SciDev.Net is not exactly an e-serial, but it has enough e-serial features that it's not exactly just a Web site either. Its goal is "is to enhance the provision of reliable and authoritative information on science- and technology-related issues that impact on the economic and social development of developing countries." The "News" section (http://www.scidev.net/news/) often has the most relevant new material; however, there is an archival section on open access and scientific publishing (http://www.scidev.net/ms/open access/) as well.

## **General Information**

## **Guide to the Open Access Movement**

http://www.earlham.edu/~peters/fos/guide.htm

This Web page by Peter Suber provides a lengthy "guide to the terminology, acronyms, initiatives, standards, technologies, and players in the open-access or free online scholarship (FOS) movement." Although its final revision was in the summer of 2004, it remains a very useful and unique reference tool.

#### **Timeline of the Open Access Movement**

http://www.earlham.edu/~peters/fos/timeline.htm

In this fascinating Web page, Peter Suber traces the roots of open access back to the 1960s.

#### What You Can Do to Promote Open Access

http://www.earlham.edu/~peters/fos/do.htm

In this Web page, Peter Suber provides detailed suggestions for what citizens, foundations, governments, journals and publishers, learned societies, and universities (including the different types of members of the academic community, such as faculty) can do to promote and foster open access.

# **Mailing Lists**

#### **American Scientist Open Access Forum**

http://american-scientist-open-access-forum.amsci.org/archives/American-Scientist-Open-Access-Forum.html

Moderated by Stevan Harnad, this very active mailing list provides subscribers with a forum to discuss and keep informed about issues pertaining to open access. Harnad frequently analyzes postings, and lively exchanges of views on issues are common. The subscription information is noted on the Web page. The mailing list's archive is open to non-subscribers.

## **Budapest Open Access Initiative (BOAI) Forum**

http://www.soros.org/openaccess/forum.shtml

Stemming from the Budapest Open Access Initiative, this mailing list, moderated by Peter Suber, is used to announce new BOAI funding programs and publications as well as to provide news. It is also a means to collecting "the open-access wisdom of the worldwide network of BOAI supporters." The mailing list's archive is open to non-subscribers.

#### LIBLICENSE-L

http://www.library.yale.edu/~llicense/mailing-list.shtml

This mailing list from the Yale University Library, the Commission on Preservation and Access, and the Council on Library Resources is not about open access per se (it's about licensing electronic resources), but it's a topic that is often on the minds of participants. The mailing list's archive is open to non-subscribers.

#### **SCHOLCOMM**

https://bit.ly/3n6Tw2N

This low-volume ACRL mailing list about scholarly communication often has interesting messages about open access issues. Be prepared to register to gain access to the archive.

## **SPARC Open Access Forum (SOAF)**

http://www.arl.org/sparc/soa/index.html#forum

Moderated by Peter Suber, the SPARC Open Access Forum is an active mailing list where the moderator will "often post email from readers, relevant postings from other lists, press releases, calls for papers, announcements, and other documents too large for the blog and worthy of full quotation rather than mere summary in the newsletter." Messages in the archive are browseable and searchable by subscribers and non-subscribers alike. SOAF provides an expeditious means to staying abreast of the latest developments in open access. The mailing list's archive is open to non-subscribers.

# **Organizations**

## Alliance for Taxpayer Access

http://www.taxpayeraccess.org/

The Alliance for Taxpayer Access is "a diverse and growing alliance of organizations representing taxpayers, patients, physicians, researchers, and institutions that support open public access to taxpayer-funded research." The initial focus of ATA is on ensuring that scholarly articles resulting from NIH-funded research are freely available.

#### **Creative Commons**

http://creativecommons.org/

The Creative Commons is a nonprofit organization that works "to build a layer of reasonable, flexible copyright in the face of increasingly restrictive default rules." It helps people publish their works (e.g., audio, images, videos, texts, and learning objects) with Creative Commons licenses so that "you keep your copyright but allow people to copy and distribute your work provided they give you credit—and only on the conditions you specify here." At the same time, the site offers a directory that "helps you find photos, music, text, and other works whose authors want you to re-use it for some uses—without having to pay or ask permission." In addition, the site carries articles on copyright issues, links to a Weblog, and provides information about related mailing lists.

#### **Internet Archive**

http://www.archive.org/

The Internet Archive is becoming an increasingly important open access player. Peter Suber has announced that it will establish an "OAI-compliant 'universal repository' that will accept e-prints from any scholar in any discipline" and "it will offer to preserve all the other OAI-compliant repositories in the world" (see:

http://www.earlham.edu/~peters/fos/newsletter/04-02-05.htm#100). Also, a massive multi-institutional digitization project will result in over one million e-books being deposited in the Internet Archive's Open-Access Text Archive (see: http://www.archive.org/iathreads/post-view.php?id=25361).

## **Open Access Working Group**

http://www.arl.org/sparc/oa/oawg.html

Started by SPARC in 2003, the Open Access Working Group "seeks to build broad-based recognition that the economic and societal benefits of scientific and scholarly research investments are maximized through open access to the results of that research," and it "aims to bring about changes within stakeholder institutions enabling viable open access models to be widely and successfully implemented and accepted." Members include the Creative Commons, the Open Society Institute, Public Knowledge, the Public Library of Science, SPARC, and several major library associations.

## **Open Archives Initiative (OAI)**

http://www.openarchives.org/

The Open Archives Initiative "develops and promotes interoperability standards that aim to facilitate the efficient dissemination of content." Its Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) is extremely important. In addition to detailed information about OAI-PMH, the Web site offers an OAI-PMH validation tool, links to related software, mailing lists, current news, and other resources.

# Scholarly Publishing and Academic Resources Coalition (SPARC) http://www.arl.org/sparc/

Established in 1997, SPARC "is an alliance of universities, research libraries, and organizations" that is intended to be "a constructive response to market dysfunctions in the scholarly communication system. . . . SPARC serves as a catalyst for action, helping to create systems that expand information dissemination and use in a networked digital environment while responding to the needs of academe." SPARC is an important advocate of open access. Its Web site offers a wealth of information in the form of SPARC publications (e.g., SPARC E-News), a wide range of resource directories (e.g., copyright, open access, repository, and publishing), and other useful information.

# **Projects**

### **ARROW**

http://arrow.edu.au/

The ARROW (Australian Research Repositories Online To The World) project will "identify and test a software solution or solutions to support best-practice institutional digital repositories comprising e-prints, digital theses and electronic publishing," and it will develop and test "national resource discovery services. . . using metadata harvested from the institutional repositories, and the exposing of metadata to provide services via protocols and toolkits."

#### **DAEDALUS**

http://www.lib.gla.ac.uk/daedalus/index.html

The DAEDALUS (Data-providers for Academic E-content and the Disclosure of Assets for Learning, Understanding and Scholarship) project establishes "a range of Open Digital Collections which will enable members of the University of Glasgow (and beyond) to deposit and access [their] scholarly output such as published and peer reviewed academic papers, pre-prints and e-theses." The resultant repository is located at <a href="http://eprints.gla.ac.uk/">http://eprints.gla.ac.uk/</a>. Its contents can be searched by keyword and are browseable by subject, year, and faculty.

#### ePrints UK Project

http://www.rdn.ac.uk/projects/eprints-uk/

With the planned use of automatic subject classification, citation analysis, and other advanced techniques, the ePrints UK project is "developing a series of national, discipline-focused services through which the higher and further education community can access

the collective output of e-print papers available from compliant Open Archive repositories, particularly those provided by UK universities and colleges." While ePrints UK is still in development, a demonstration system is available that allows users to search over 30 UK institutional repositories: http://eprints-uk.rdn.ac.uk/search/.

## **Project RoMEO**

http://www.lboro.ac.uk/departments/ls/disresearch/romeo/index.html

Project RoMEO (Rights Metadata for Open archiving) was a 2003 project, funded by the U.K. Joint Information Systems Committee, that analyzed the process of self-archiving of academic research and examined the copyrights issues involved. It resulted in six important reports and different advocacy materials, which are freely available from the Web site. There are also links to relevant Internet resources.

#### **SHERPA**

http://www.sherpa.ac.uk/

The SHERPA (Securing a Hybrid Environment for Research Preservation and Access) project, based at the University of Nottingham, aims to establish institutional open access e-print repositories in partner UK institutions and investigates issues pertinent to the development and use of those repositories. The Web site offers advice on self-archiving, helps the viewer find open access archives, and provides links to relevant initiatives and organizations.

#### **TARDIS**

http://tardis.eprints.org/

The TARDIS (Targetting Academic Research for Deposit and Disclosure) project at the University of Southampton is building a multidisciplinary institutional repository (e-Prints Soton), which is available at http://eprints.soton.ac.uk. Its contents can be searched by keyword and are browseable by subject, faculty/school, and year.

#### Thesis Alive!

http://www.thesesalive.ac.uk/

The Thesis Alive project's goals were to "i) Develop a digital thesis submission system for use by interested universities, ii) Develop an international standards compliant digital infrastructure which enables e-theses to be published online, iii) Develop and support a generic metadata format capable of delivering metadata to a number of relevant metadata repositories for UK thesis information, iv) Test the value of a national support service for etheses creation and management in the UK, v) Work with other e-theses developments internationally, and in particular to assist the research aims of other e-theses projects funded within the JISC FAIR Programme, and vi) Produce a 'checklist approach' for universities to use as they develop e-theses capability." A key outcome of the project was the development of the Tapir plug-in for DSpace (http://sourceforge.net/projects/tapir-eul), which enhances DSpace's ability to provide ETD support.

#### **Publishers and Distributors**

#### **BioMed Central**

http://www.biomedcentral.com/home/

BioMed Central is "an independent publishing house committed to providing immediate free access to peer-reviewed biomedical research." It is "committed to ensuring efficient and effective quality control through full and stringent peer review." It currently publishes over 100 open access journals, which are also archived in PubMed Central. BioMed Central has article-processing charges, which may be paid by authors, by funding agencies, or by institutions (by institutional memberships). They may also be waived under some circumstances. It uses a license that is identical to the Creative Commons Attribution License. BMC's search engine allows users to search both its journals and journals in PubMed Central.

## **Public Library of Science (PLoS)**

http://www.publiclibraryofscience.org/

PLoS is "a nonprofit organization of scientists and physicians committed to making the world's scientific and medical literature a public resource." Its goals are to "open the doors to the world's library of scientific knowledge," to "facilitate research, informed medical practice, and education," and to "enable scientists, librarians, publishers, and entrepreneurs to develop innovative ways to explore and use the world's treasury of scientific ideas and discoveries." PLoS currently publishes two highly regarded journals—PLoS Biology (October 2003)and PLoS Medicine (October 2004)—with three more planned for release in 2005. PLoS has publication charges similar to BioMed Central's, and its journals are deposited in PubMed Central. It uses the Creative Commons Attribution License. In spite of publishing a small number of journals, PLoS is a very influential organization, and its founders are major figures in the open access movement.

## PubMed Central (PMC)

http://www.pubmedcentral.org/

Launched in 2000 after roughly a year of controversy over its establishment, PMC "is a digital archive of life sciences journal literature at the U.S. National Institutes of Health (NIH), developed and managed by NIH's National Center for Biotechnology Information (NCBI) in the National Library of Medicine (NLM)." With a preservation-oriented mission, PMC feels "that giving all users free and unrestricted access to the material in PubMed Central is the best way to ensure the durability and utility of the archive as technology changes over time." PMC provides field-based Boolean searching and other advanced search features. The Web site provides information about journal selection criteria and how publishers can voluntarily deposit journals in PMC (individual articles can be deposited by publishers who do not fully meet the selection criteria under some circumstances). Since open access is a significant issue for biomedical journal editors, biomedical journals (e.g., BMJ, CMAJ, and *PLoS Biology*) often carry opinion or analysis pieces about open access, and, consequently, PubMed Central is an excellent search tool for finding open access articles with a biomedical slant.

#### SciELO

http://www.scielo.org/index.php?lang=en

With a focus on developing countries (especially in Latin America and the Caribbean), SciELO (Scientific Electronic Library Online) is "a model for cooperative electronic publishing of scientific journals on the Internet." The Web site provides access to a variety of journals published in English, Spanish, and Portuguese. The journal collections can be browsed by discipline and by country of origin. There are also links to scientific communication initiatives.

# **Search Engines**

# Blogdigger

http://www.blogdigger.com/

If you are looking for information about open access topics in Weblogs, try this specialized search engine, which "searches thousands of RSS and Atom feeds" and "makes all search results available in RSS or Atom, so users can subscribe to keyword searches and automatically be notified, via the News Aggregator of their choice, of new content pertaining to their interests."

#### Citebase

http://citebase.eprints.org/cgi-bin/search

This experimental citation analysis search engine from OpCit is like the Web of Science for e-prints, covering works in arXiv (UK), BioMed Central, and Cogprints. CiteBase was developed by the OpCit project.

## **Google Scholar**

http://scholar.google.com/

This beta version of Google's new search engine allows you to "search specifically for scholarly literature, including peer-reviewed papers, theses, books, preprints, abstracts and technical reports from all broad areas of research." Other major search engines (e.g., Google, MSN Search, and Yahoo), while less specialized than Google Scholar and more prone to false drops, are also very useful tools for finding many e-prints and open access journal articles.

#### **OAIster**

http://oaister.umdl.umich.edu/o/oaister/

This OAI-PMH search service from the University of Michigan Digital Library Production Service, provides access to over 5.2 million metadata records from over 450 institutions. It offers one-stop-shopping for users in search of e-prints and other electronic documents in archives and repositories worldwide.

## **Perspectives in Electronic Publishing**

http://aims.ecs.soton.ac.uk/pep.nsf

PEP is described by its creator, Steve Hitchcock, as a "journal-centered database." It's a unique, experimental system, and one that's quite useful for those interested in scholarly communication. It's a good finding tool for unearthing open access articles that are freely available on the Internet.

#### **Scirus**

http://www.scirus.com/srsapp/

Billed by Elsevier as the "most comprehensive science-specific search engine on the Internet," Scirus indexes e-prints, open access journal articles, technical reports, and other freely available electronic documents from selected archives, open access journal publishers, and repositories as well as science-oriented Web pages and ScienceDirect articles.

### **Software**

#### **DSpace**

http://dspace.org/

Freely available as an open-source software, DSpace is an institutional repository system "that captures, stores, indexes, preserves, and redistributes an organization's research data." It was developed by MIT and Hewlett-Packard Labs. DSpace is often utilized by research libraries as their institutional repository software. It is designed to support a wide variety of digital objects and to allow distributed repository management (e.g., by academic departments). A variety of different types of organizations participate in the informal DSpace Federation, which "coordinates the planning, research, development, and distribution of DSpace." DSpace developers, managers, and users have formed a virtual community where they share their expertise though various mailing lists and a Wiki. "DSpace Committers" lead the ongoing software development effort. The Web site includes advice on how to design and build an institutional repository with DSpace.

#### **Fedora**

http://www.fedora.info/

Sponsored by the University of Virginia Library and Cornell University (with support from the Andrew W. Mellon Foundation), the Fedora project is "devoted to the goal of providing open-source repository software that can serve as the foundation for many types of information management systems." The project Web site provides a software download form, software documentation, information about the project, and presentations and publications about Fedora.

#### **GNU EPrints**

http://software.eprints.org/

Developed by the Christopher Gutteridge et al. of the OpCit project, the free EPrints software is widely used to support different types of e-print archives in diverse settings, from departmental e-print archives to disciplinary archives. For detailed information about EPrints, see the EPrints Handbook (http://software.eprints.org/handbook/).

## **Open Journal Systems**

http://www.pkp.ubc.ca/ojs/

The University of British Columbia's Public Knowledge Project, which is headed by John Willinsky, has developed the Open Journal Systems (OJS) software "for the purpose of making open access publishing a viable option for more journals." This free, open source, OAI-PMH-compliant software is used to manage peer-review and other editorial functions and to publish and index e-journals. It also has an e-mail notification function that sends new table of contents to readers, and additional capabilities that allow users "to post comments to articles, join in discussions or establish a personal portfolio of selected works." The Web site also provides access to PKP Support (support forums for the Project) and links to other open source journal systems.

# **Special Programs for Developing Countries**

#### **AGORA**

http://www.aginternetwork.org/en/

Led by the Food and Agriculture Organization (FAO) of the United Nations, AGORA (Access to Global Online Research in Agriculture) is "an initiative to provide free or low-cost access to major scientific journals in agriculture and related biological, environmental and social sciences to public institutions in developing countries" via the Internet. The eligibility for access is limited to academic, government, and research institutions in the countries listed at http://www.aginternetwork.org/en/el.php. To participate, an institution has to register first with FAO via the Web site and obtain its login password. A list of accessible journals is posted at http://www.aginternetwork.org/en/journalList.php. Users can search for journal titles or browse the journals by title, by subject, and by publisher. The Web site is also available in Arabic, French, and Spanish.

#### HINARI

http://www.healthinternetwork.org/

Led by the World Health Organization, HINARI (Health InterNetwork Access to Research Initiative) "provides free or very low cost online access to the major journals in biomedical and related social sciences to local, non-profit institutions in developing countries" via the Internet. The eligibility for access is limited to academic/research institutions, teaching hospitals, government offices, and medical libraries in the countries listed at <a href="http://www.who.int/library/reference/temp/Eligible\_countries.pdf">http://www.who.int/library/reference/temp/Eligible\_countries.pdf</a>. Eligible institutions are required to register first via the Web site to obtain its login password. A list of accessible journals is provided at <a href="http://www.healthinternetwork.org/src/j\_list.php">http://www.healthinternetwork.org/src/j\_list.php</a>. Users can search for articles or browse the journals by title, by subject, by language, and by publisher. The Web site is also available in French and Spanish.

#### **Statements**

Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities http://www.zim.mpg.de/openaccess-berlin/berlindeclaration.html

This declaration was signed by key German and European research institutions after their leaders had met at a conference on open access in Berlin in October 2003. Available in English, French, German, Italian, Portuguese, and Spanish, the declaration defines "open access contributions" and pinpoints intended actions for supporting an "electronic open

access paradigm." The Web site also includes a list of similar declarations/statements and relevant Internet resources. Also included are links to related subsequent conferences. A very important related conference occurred in February and March of 2005, which resulted in "Berlin 3 Open Access: Progress in Implementing the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities"

(http://www.eprints.org/berlin3/outcomes.html). This later statement indicates that "to implement the Berlin Declaration institutions should: 1. implement a policy to require their researchers to deposit a copy of all their published articles in an open access repository and 2. encourage their researchers to publish their research articles in open access journals where a suitable journal exists and provide the support to enable that to happen."

## **Bethesda Statement on Open Access**

http://www.earlham.edu/~peters/fos/bethesda.htm

This Web site documents the outcomes of a meeting on open access publishing, which was held in April 2003 in Chevy Chase, Maryland. Its purpose "is to stimulate discussion within the biomedical research community on how to proceed, as rapidly as possible, to the widely held goal of providing open access to the primary scientific literature." The Bethesda Statement is notable for requiring that: "A complete version of the work and all supplemental materials, including a copy of the permission as stated above, in a suitable standard electronic format is deposited immediately upon initial publication in at least one online repository that is supported by an academic institution, scholarly society, government agency, or other well-established organization that seeks to enable open access, unrestricted distribution, interoperability, and long-term archiving (for the biomedical sciences, PubMed Central is such a repository)."

#### **Budapest Open Access Initiative**

http://www.soros.org/openaccess/index.shtml

In December 2001, a meeting was held in Budapest to discuss issues about making research articles freely available on the Internet. It resulted in the Budapest Open Access Initiative, which highlighted the benefits of and the strategies for achieving open access to peer-reviewed journal literature. It is often viewed as the defining statement of the open access movement. Available in English, French, German, and Russian, this Web site provides the text of the BOAI statement, lists the organizations that signed on to the Initiative, reports grants and resources in support of open access, and provides information about a related mailing list.

# OECD Committee for Scientific and Technological Policy: Declaration on Access to Research Data from Public Funding

https://bit.ly/3peDLtm

The Organisation for Economic Co-operation and Development (OECD) is an international organization that focuses on fostering good governance in the public service and in corporate activity. Its Committee for Scientific and Technological Policy met in January 2004 and issued a final communique to show their support for broader, open access to and wide use of research data. The Committee "adopted a Declaration on Access to Research Data from Public Funding, asking the OECD to take further steps towards proposing Principles and Guidelines on Access to Research Data from Public Funding, taking into account possible restrictions related to security, property rights and privacy." The Declaration is available on this Web page as Annex 1.

# Washington DC Principles for Free Access to Science

http://www.dcprinciples.org/statement.pdf

This is a statement issued by a group of not-for-profit publishers of scientific and medical journals. It highlights the publishers' "commitment to innovative and independent publishing practices and to promoting the wide dissemination of information in [their] journals." While supporting the general concept of free access, the DC Principles permit publishers to limit what materials are free (e.g., embargo-period free access and selected content free

access) and do not require minimal use restrictions through Creative Commons or similar licenses.

# Wellcome Trust Position Statement in Support of Open Access Publishing http://www.wellcome.ac.uk/doc WTD002766.html

Based in the United Kingdom, the Wellcome Trust is a major "independent charity funding research to improve human and animal health." In this statement, the Wellcome Trust "supports open and unrestricted access to the published output of research, including the open access model . . . as a fundamental part of its charitable mission and a public benefit to be encouraged wherever possible." The Wellcome Trust has also published important reports on scientific publishing that support the open access model (see: http://www.wellcome.ac.uk/doc WTD006106.html).

World Summit on the Information Society: Declaration of Principles http://www.itu.int/dms\_pub/itu-s/md/03/wsis/doc/S03-WSIS-DOC-0004!!PDF-E.pdf World Summit on the Information Society: Plan of Action http://www.itu.int/dms\_pub/itu-s/md/03/wsis/doc/S03-WSIS-DOC-0005!!PDF-E.pdf

The World Summit on the Information Society adopted a Declaration of Principles and a Plan of Action in December 2003 to state its commitment to building an information society by widely utilizing information and communication technologies. The Declaration and the Plan emphasize the significance of "universal access with equal opportunities for all to scientific knowledge and the creation and dissemination of scientific and technical information, including open access initiatives for scientific publishing." Both documents are available in the United Nations' six official languages at <a href="http://www.itu.int/wsis/documents/doc\_multi.asp?lang=en&id=11611160">http://www.itu.int/wsis/documents/doc\_multi.asp?lang=en&id=11611160</a>.

# Weblogs

# Open Access News (OAN)

http://www.earlham.edu/~peters/fos/fosblog.html

Edited by Peter Suber, this extremely active Weblog chronicles the open access movement in detail. It is comprehensive and articulate, interweaving insightful, succinct commentary with summaries of articles, press releases, and other documents. If you want to know everything that happening with open access, this is the Weblog to read. Available on the Web and via e-mail and RSS.

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