OJS and OCS: upgrading journals, conferences and scholarly communication to Open Access

Andrea Marchitelli[*]

Open-access (OA) literature is digital, online, free of charge, and mostly free of copyright and licensing restrictions.[i]

The first major international statement on open access was the Budapest Open Access Initiative[ii] (BOAI), in February 2002. This Initiative provided a definition of open access:

"There are many degrees and kinds of wider and easier access to this literature. 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. 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."

BOAI has an increasing list of signatories[iii] (4423 individuals and 395 organizations on the 1st of October 2007).

Two other important statements followed: the *Bethesda Statement on Open Access Publishin*g (June 2003)[iv] and the *Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities* (October 2003).[v]

Two main principles headed the open access community:

- OA self-archiving (also known as the "green" road to OA)[vi]: authors publish in a subscription journal, but also make their articles freely accessible online, depositing them in either an institutional or disciplinary repository.

- OA publishing (also known as the "gold" road to OA): authors publish in open access journals, that give to their articles a free access online immediately after publication. Free, full text, and quality controlled scientific and scholarly journals are listed in DOAJ.

Besides the need of publishing e-journals on the World-Wide Web to achieve more impact and visibility effects, the editorial workflow needs to be managed through some automation. OJS (Open Journal Systems)[vii] is the most used tool for the creation of e-journals.

OJS is a web-based, open source software application for journal management and publishing. It improves visibility and accessibility on the WWW, by search engines and OAI-PMH service providers. OJS was designed and developed by the Public Knowledge Project (PKP) in order to improve the editorial and publishing process, reducing the time and energy spent on these tasks. OJS enables the creation and management of e-journals. It allows to define different access roles, e.g. user, subscriber, author, reviewer, editor or publisher, to published items, the editing workflow, and the site's back-office
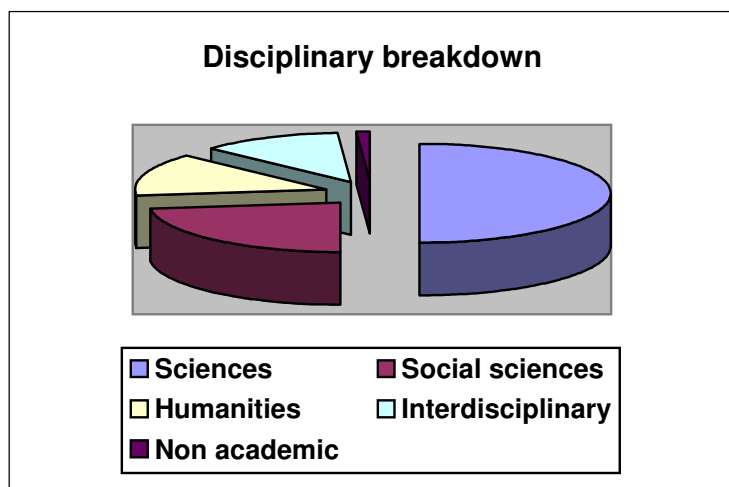
[*] Andrea Marchitelli <marchitelli@cilea.it>. CILEA - Sezione Servizi per le Biblioteche e l'Editoria elettronica. <http://www.cilea.it> - Piazza G. Marconi, 10, I-00144 ROMA

The most relevant feature is that the software is compliant with the open access protocol (OAI-PMH[viii]) and the LOCKSS[ix] initiative, assuring the largest diffusion and easiest preservation of digital copies.

Besides, OJS manages descriptive journal pages, like organization, scientific committee, editorial board, editors, policies, sections, with a multi-lingual interface.

Authors can submit their proposals using an automatized peer-review process. The system allows handling of full-texts in various file formats, managing of subscriptions and reporting of usage statistics.

As of July 2007, 1000 journals are using OJS around the world. John Willinsky has announced this at the first International PKP Scholarly Publishing Conference (Vancouver, July 11 - 13, 2007).[x]

Disciplinary breakdown

- Sciences
- Social sciences
- Humanities
- Interdisciplinary
- Non academic

The typological distribution of OJS is interesting:[xi]

- Academic journals 99%, of which:

- fully open access 49%

- delayed open access 40%

- waiting for the first issue 11%

None journal using OJS was found to be entirely subscription-bound.

OJS management systems are structured around the traditional journal workflow required to move a submission through reviewing, and if accepted, editing and publishing, with records maintained of who is doing what and when. It uses roles to organize activities and spaces within the journal's management and publishing website. The users of the software can have more than one role at the same time (e.g. Journal Manager and Editor), while different users can share the same roles (e.g., a team of 6 Editors).

Roles in the publishing workflow are:

- **Journal manager,** who sets up journal by filling in templates and checking options; manages users, assigns roles; manages reading tools, indexing, prepared emails templates.

- **Editors** can assign one or more editors or a section editors to submissions; oversee editorial process and decisions; assemble and publishe issues.

- **Section editor:** he manages peer review process and makes editorial decision for submissions, in consultation with Editor.

- **Subscription manager**, who sets up different types of subscriptions and manages subscription processes.

OJS allows to establish additional roles, based on traditional journal editing processes, with Layout Editor, for example, laying out PDF and/or HTML of published version of articles.[xii]

Conference papers and presentations which often disappear without any form of publishing can also increase their visibility. Open Conference Systems (OCS) developed by the PKP[xiii] is an open source Web publishing tool that creates a complete Web presence for a scholarly conference. The conference organizers can compose and send a call for papers, electronically accept paper and abstract submissions, register participants and manage the whole conference using OCS.

The version 2.0, recently released, allows to simply manage conferences that occur more than once (e.g. yearly) and credit card payment for registrations. Moreover, the code was fully re-engineered to make it more customizable, scalable and secure.

OCS was also designed for building multi-lingual sites and enhancing the impact of conference proceedings in a searchable format by the use of OAI-PMH.

Since 2003, CILEA (a non-profit consortium of Italian universities) manages the AePIC service, providing innovative solutions for electronic publishing and digital libraries, employing open-source and OAI-PMH-compliant software. AePIC[xiv] is involved in both OCS and OJS communities, developing significant parts of code, translating user and administrative interfaces in Italian and fixing software bugs.

[i]   Peter Suber. 2004. *Open access overview: Focusing on open access to peer-reviewed research articles and their preprints*. Available on line, http://www.earlham.edu/~peters/fos/overview.htm

[ii]   Budapest Open Access Initiative , http://www.soros.org/openaccess/index.shtml

[iii]   BOAI signatories list: http://www.soros.org/openaccess/view.cfm

[iv]   Bethesda Statement on Open Access Publishing, http://www.earlham.edu/~peters/fos/bethesda.htm

[v]   *Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities*, http://oa.mpg.de/openaccess-berlin/berlindeclaration.html

[vi]   For the green and gold road to open access, see Harnad, S., Brody, T., Vallieres, F., Carr, L., Hitchcock, S., Gingras, Y., Oppenheim, C., Stamerjohanns, H. and Hilf, E. (2004) *The Access/Impact Problem and the Green and Gold Roads to Open Access*. "Serials review" 30(4). Available on line, http://eprints.ecs.soton.ac.uk/10209/

[vii]   Project home page: http://pkp.sfu.ca/ojs/

[viii]   The Open Archives Initiative Protocol for Metadata Harvesting. Version 2.0. 2002. Available on line at http://www.openarchives.org/OAI/openarchivesprotocol.html.

[ix]   "LOCKSS (Lots of Copies Keep Stuff Safe) is an international non-profit community initiative that provides tools and support so libraries can easily and cost-effectively preserve today's web-published materials for tomorrow's readers." More info at http://www.lockss.org/lockss/Home

[x]   PKP Scholarly Publishing Conference 2007, http://ocs.sfu.ca/pkp2007/

[xi]   Heather Morrison. 2007. 1,000 journals using Open Journal Systems. "The Imaginary Journal of Poetic Economics". Blog post, available at http://poeticeconomics.blogspot.com/2007/07/1000-journals-using-open-journal.html

[xii]   For a wide overview of OJS roles management, see Willinsky, J. (2005). *Open Journal Systems: An example of Open Source Software for journal management and publishing*. Library Hi-Tech 23 (4), 504-519. *OJS in an Hour*, an introductory guide to the various features and roles in OJS, including many illustrative screenshots, is also available as PDF booklet at http://pkp.sfu.ca/files/OJSinanHour.pdf

[xiii]   Project home page: http://pkp.sfu.ca/?q=ocs

[xiv]   AePIC, http://www.aepic.it