Expanding the conversation around the world

The Public Knowledge Project's Open Journals System is helping the make knowledge more accessible

Kevin Stranack, 2010

The global nature of the internet has had a significant effect on how information and ideas are shared, including the potential for greater equality and inclusiveness. This case study looks at the one of the ways the Open Access movement influences information sharing and exchange, focusing on the Public Knowledge Project's Open Journal System (OJS), a key component in the INASP's Journals Online (JOL) projects.

The sharing of ideas has always been at the heart of scholarship. New concepts, innovations, and inventions grow directly from the work previously carried out by others. If scholarly work is never communicated or otherwise shared, it is without value. As a result, the system of scholarly communication is essential to research, discovery, and knowledge creation. In the not so distant past, scholarly communication was facilitated primarily through the use of handwritten letters, conference proceedings and other printed publications, including the academic journal. Those without the resources to purchase these publications, or without access to a well-funded academic library, were essentially cut off from the critical research discussions of the day, and this was a common situation for many in the developing world.

Fig. 1 The Africa Journals Online website

Today, the global expansion of the internet has had a significant effect on how this sharing is evolving, with the potential for much greater equity and inclusiveness. The open access movement is at the forefront of ensuring that this process continues, by researching and demonstrating alternatives to the traditional subscription-based publishing model, and by advocating for a place for all scholars, from all countries, at the table.

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The Public Knowledge Project (PKP)[1] is one of many organisations helping to move these changes forward. PKP is a research and software development project of the University of British Columbia (Canada), Simon Fraser University (Canada), Stanford University (USA), and Arizona State University (USA). Founded in 1998 by Dr. John Willinsky, its mission is to improve the scholarly and public quality of research. By emphasizing the importance of making knowledge increasingly 'public', PKP has recognised the critical need to ensure that all researchers are able to participate in the scholarly conversation.

One of the most significant contributions made by PKP has been the development of its free, open source 'Open

Journal Systems' (OJS) software[2]. OJS allows anyone with a minimum level of technical expertise and access to a basic web server to setup and run their own professional, peer-reviewed, online scholarly journal.

OJS provides a journal with a web site, an online submission system for authors (see Fig. 1), a double-blind peer-review process, and a full editorial and publishing workflow. Once a submission has been reviewed, accepted, and published, it is immediately available for a global audience (see Fig. 2). Using OJS, scholars have access to professional publishing tools at no cost that allow them to make their voices heard in the scholarly conversation.

Fig. 2 Online Submission

By building a number of efficiencies into the workflow, such as automated email replies to all submissions, OJS can help a journal publish with minimal operating costs, and as a result, make its content available without any required subscription fees. The software also facilitates the collection of online donations, as well as various author fees, if required. As open access journals experiment with different methods for financially sustaining themselves, OJS continues to grow and evolve to help meet their needs.

OJS provides a number of additional features, such as enhanced search engine optimisation for better placement in Google Scholar and other important indexes, as well as the ability to export article metadata (i.e., article titles, author names, keywords, abstracts, etc.) to third-party indexing services such as PubMed[3], CrossRef[4], the Directory of Open Access Journals[5], or other institutional or OAI-compliant repositories. This provides editors with an easy and efficient way to participate in some of the most important visibility tools in the online environment, which is critical to developing an ongoing readership and community.

Fig. 3 Published content

The software also provides the editor with detailed reports and statistics of online activity. This can help to make the case for support to funders, in the absence of subscription numbers or other traditional means of evaluating readership. In addition, OJS also includes a subscription module, allowing for delayed open access (i.e., free back issues) or even paid access (ideally, in the spirit of PKP, at affordable prices).

In terms of the technology, OJS requires only the most basic of web server hardware, and can be run completely with free, open source components, including Linux, Apache, MySQL, and PHP (although it can also run on the Windows operating system). PKP is committed to making sure that OJS can be used by journals with minimal resources, including many in developing countries without access to the latest and most powerful hardware or software.

Another important aspect of OJS technology is its 'plugin' architecture. As open source software, anyone is free to make modifications to the software, develop new features or enhancements, and then contribute them back to the community as plugins or options that do not affect the core of the system. Journals using OJS may then choose which of these new features to enable or ignore. In this way, the software continues to evolve and grow beyond the capacity of the Public Knowledge Project itself, and is closely connected to a global community of expertise.

A final, important element of OJS is the contribution of our community of volunteer translators. At this point, OJS has been translated into 16 languages, with another 18 in development. Current languages include Chinese, French, German, Hindi, Portuguese, Spanish, Vietnamese, and others[6]. This has helped OJS to expand to over 7000 installations around the world, with many of them located in the developing world, including significant communities in South America, Africa, and Asia. Important examples of these are the African Journals Online[7] (see Fig. 3) and Asia Journals Online[8] projects, providing support for over 500 journals.

The development and continued success of journals in the developing world is a key factor in expanding the international scholarly conversation. While the lack of print journals from the developed world was certainly one factor in limiting the participation of researchers from the South, of equal importance was the challenge for their voices to be heard in the North. With the continued advances of the open access movement, and with ever more sophisticated publishing tools (such as OJS) being created, this conversation can now become richer than ever before, and begin to create knowledge in new and exciting ways.

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FOOTNOTES

[1] http://pkp.sfu.ca/

[2] http://pkp.sfu.ca/ojs

[3] http://www.ncbi.nlm.nih.gov/pubmed

[4] http://www.crossref.org/

[5] http://www.doaj.org/

[6] http://pkp.sfu.ca/ojs-languages

[7] http://ajol.info/

[8] http://www.asiajol.info/