The Role of Academic Libraries in Building Open Communities of Scholars

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Abstract

This paper describes three important pillars of publishing programs emerging at university libraries: providing a robust publishing platform, engaging the academic community in discussions about scholarly communication, and building a suite of production level services. The experiences of the Public Knowledge Project, the Simon Fraser University Library, and the University of Toronto Library’s journal hosting service are examined as case studies. Detailed information is provided about the development of the Public Knowledge Project, its goals and history, and the tools it offers. Campus activities at Simon Fraser University have been coordinated to support the use of PKP tools, and to raise awareness on campus about the changing landscape of scholarly publishing. The University of Toronto’s journal hosting service is profiled as another example. The role of university libraries in bringing together scholars, publishing tools and new models of scholarly publishing is considered.

Keywords: Public Knowledge Project; academic libraries; scholarly publishing.

1. Introduction

Libraries around the world are seeking to answer the fundamental question posed by Hahn in “The Changing Environment of University Publishing”: “To what extent should the institutions that support the creation of scholarship and research take responsibility for its dissemination as well?”\textsuperscript{1} Many libraries are in fact not only providing services, but actively experimenting in scholarly publishing. This paper describes three important pillars of library publishing programs: providing a robust publishing platform, engaging the academic community in discussions around scholarly communication, and building a suite of production level services. The experiences of the Public Knowledge Project, the Simon Fraser University Library, and the University of Toronto Library’s journal hosting service will serve as case studies.

2. The Public Knowledge Project

Founded in 1998 by Dr. John Willinsky of Stanford University and the University of British Columbia, the Public Knowledge Project (PKP)\textsuperscript{2} is an international research initiative promoting publishing alternatives for scholarly journals, conferences, and monographs. Through its development of innovative, open source publication management tools, the Project contributes to the growing, global community of scholars dedicated to furthering free and open access to information and research. By building in workflow efficiencies, the Project software allows publishers to significantly reduce their operating costs\textsuperscript{3} and make their content accessible.
either free or available with low subscription fees. A recent indication of the software’s impact can be found in Hahn’s 2008 report, *Research Library Publishing Services: New Options for University Publishing* [4], which discovered that the Project’s Open Journal Systems software is now the most frequently used program of its kind, whether commercial or open source, supporting academic library publishing initiatives.

Since becoming a PKP partner in 2005, the Simon Fraser University Library has taken on responsibility for managing the development of the software, providing technical support to the global community, and publicizing the Project through the PKP web site, workshops, presentations, and publications. In 2006, the Project was the sole Canadian winner of the Mellon Award for Technological Collaboration[5] and was also recognized as a Leading Edge partner with the Scholarly Publication and Academic Resources Coalition (SPARC)[6]. Currently, all five of the lead institutions in the Synergies project[7], described in the conference paper by Eberle-Sinatra, Copeland and Devakos, are using one or more elements of the PKP’s software to advance online humanities and social sciences publishing in Canada. In addition, the software products continue to develop and mature, and the global community of scholars taking advantage of the Project’s work continues to grow.

3. Open Source Software

The Public Knowledge Project’s suite of software includes a variety of separate, but inter-related applications, including the Open Journal Systems (OJS), the Open Conference Systems (OCS), the Open Monograph Press (OMP), and Lemon8-XML. All are freely available as open source software. They share similar technical requirements and underpinnings (PHP, MySQL, Apache or Microsoft IIS 6, and a Linux, BSD, Solaris, Mac OS X, or Windows operating system), operate in any standard server environment, and need only a minimal level of technical expertise to get up and running. In addition, the software is well supported with a free, online support forum and growing body of documentation.

The Open Journal Systems (OJS) software[8] provides a complete scholarly journal publication management system, offering a journal web site (see Figure 1), an online submission system, multiple rounds of peer-review, an editorial workflow that includes copyediting, layout editing, and proofreading, indexing, online publication, and full-text searching.

![Figure 1: The International Journal of Design web site using OJS](image-url)
OJS goes beyond managing and displaying content, however, and provides an interesting set of Reading Tools, helping the reader to contextualize the content, and allowing for innovative interactions between the reader, the text, and the author (see Figure 2).

![Postcolonial Text’s Reading Tools](image)

**Figure 2: Postcolonial Text’s Reading Tools**

The Reading Tools allow readers to communicate privately with the author or to place comments directly on the web site, providing an interesting model of post-publication, open review. OJS is currently in version 2.2, with version 2.3 expected for release in late 2008, with upcoming features to include online reader annotation tools and enhanced statistics and reporting. Today, over 1,500 journals worldwide are using the Project’s OJS software to manage their scholarly publication process, with 50% coming from the Sciences, 38% from the Humanities and Social Sciences, and 12% being interdisciplinary. As well, a growing number of translations have been contributed by community members, with Chinese, Croatian, English, French, German, Greek, Hindi, Italian, Japanese, Portuguese, Russian, Spanish, Turkish, and Vietnamese versions of OJS completed, and several others in production.

The Open Conference Systems (OCS) software[9] provides a fully-featured conference management and publication system, including not only a conference web site, online submissions, peer review, editorial workflow, online publication, and full-text searching, but also a conference schedule, accommodation and travel information pages, and an online registration and payment system. The Reading Tools, similar to those provided with OJS are also available. OCS is currently in version 2.1, with version 2.2 expected later in 2008. At least 300 scholarly conferences have used OCS to manage their events, including the 2008 International Conference on Electronic Publishing[10]. OCS has now been translated into English, French, German, Italian, Portuguese, and Spanish.

The Open Monograph Press (OMP)[11] is a new open source project that is still in a very early stage of development. Essentially, OMP will provide a similar management system for the production of scholarly monographs, with a built-in correspondence system for participants, marketing and cataloguing tools, and XML conversion (see Lemon8-XML below). It will allow editors to invite contributors to participate in the creation in a new work and provide authors with an online studio to assist with the research and writing process, including bibliographic management tools, a document annotation system, blogs, wikis, and more. The PKP has received significant interest internationally for this project, and the OMP will benefit from the wide-ranging community expertise that will be provided throughout the development process.

Lemon8-XML[12] is another innovation which is still in development. It is a document conversion system, which will allow users of OJS, OCS, OMP, or any other publication system to automatically transform text files submitted by authors (such as Microsoft Word or Open Office Writer) into XML files to assist with
online publication and compliance with indexing service requirements (e.g., PubMed Central). This will
build in a significant new level of efficiency, saving layout editors the time-consuming task of producing
PDF, XHTML, or XML documents manually. Although developed specifically for use with the other
Project software tools, it will be a standalone open source product, allowing for uses independent of OJS,
OCS, or OMP. Lemon8-XML will be released in mid-2008 and a beta version is available from the Project
web site.

4. Community

In addition to the hundreds of users of the Public Knowledge Project software products, the community
also extends to the many people who volunteer their time and efforts in a variety of important ways. One
critical contribution has been the translations mentioned earlier. Without this contribution, the PKP software
tools would not have the international reach that they have today. It would have simply been impossible for
the Project to create translations without the community volunteers. Other forms of community participation
include the recurring need to thoroughly test every new software release. This is a very time-consuming
and somewhat repetitive task for the volunteers, but ensures that crucial bugs have not been overlooked,
which could cause very serious problems if they were introduced into production systems. Without
community testers the Project would not be able to continue with its regular enhancement process and
increase the functionality of the software, nor ensure its continued security and robust nature.

Community members also contribute important new software features, including the subscription module,
which allows OJS journal publishers to continue to charge subscriptions or other fees as they consider the
move to open access. Another important example of the health of the PKP community is the fact that the
online support forum now has over 1100 members, many of whom not only post their questions, but are
increasingly sharing their experiences and assisting other users by answering questions. The PKP community
is made up of a wide variety of participants, including scholars (e.g., The International Journal of
Communication[13]), university information technology divisions (e.g., The University of Saskatchewan
College of Arts and Science[14]), government departments (e.g., Sistema Eletrônico de Editoração de
Revistas[15]), publishers (e.g., Co-Action Publishing[16]), and, of course, libraries. As the Project grows,
this form of community-based support will become increasingly important.

5. The Simon Fraser University Library

In 2007, the Simon Fraser University Library began a formal program of scholarly communication activities
on campus. Scholarly communication was included as a theme and a clear priority in the Library’s 3-year
plan for 2007-2010. This theme included a cluster of issues arising out of the current system of academic
publishing and a desire reform that system. We identified the usual array of issues concerning libraries: the
high and steeply rising cost of commercially published scholarly journals, widely recognized as unsustainable;
a desire to support alternative publishing models, including Open Access; an opportunity to use library
buying power to support alternative models that are sustainable and provide benefit for the Simon Fraser
community; a desire to minimize limitations on the use of faculty-authored publications; and a desire to
provide infrastructure and support for authors who wish to self-archive research outputs. As a result, we
asked what the Library could do to contribute to the efforts to “create change”[17]. We asked what would
best build on existing activities and strengths of the SFU Library. We were willing to take on new roles as
needed in the changing landscape of scholarly communication.

To provide a bit of context, Simon Fraser University is a mid-sized, publicly funded Canadian university. It
offers programs in a full range of subject areas up to the doctoral level, but includes no professional
schools, such as law or medicine, and serves just under 20,000 FTE students. The Library recognized that
while we were well positioned to take a leadership role on campus, we would be successful only to the extent that we could engage the interest of faculty members. As with other faculty endeavours, our team of liaison librarians would be key to this success, building on their knowledge of departments and well-established individual relationships. For this reason, after sketching out a modest set of events, we began by working with SFU librarians. We partnered with colleagues from neighbouring institutions, the University of British Columbia and University of Victoria, to offer joint training for librarians which provided background on many of the issues listed above, and ran participants through a variety of interactive activities. The goal was to orient librarians to the subject in order to make them comfortable integrating discussions of scholarly communication into their liaison work. In short order, the participating librarians felt grounded and ready to incorporate scholarly publishing into their instruction and other interactions with faculty in the way that we had hoped. A few of the events put on for the campus community are described below.

In thinking about how we would build on existing strengths of the Library, it was clear that we had an “ace in the hole” for a scholarly communications program in the form of our participation in the PKP Project. Here was a set of tools we could put directly into the hands of those wanting to reclaim academic publishing, one journal or one conference at a time. In July 2007 the Library worked with the PKP project to host the first International PKP Conference[18] bringing together users of the tools and others interested in its goals from around the world. With over 200 participants and generous sponsorship from the Open Society Institute to cover costs for delegates from developing countries, the conference provided an astonishing picture of the development and operation of alternative publishing projects around the world. The conference featured papers from five continents, exploring both the practical and theoretical aspects of the Project.[19]

After the conference we repeated “OJS in a Day” workshops offered that were quickly filled, to continue putting the skills needed to use OJS into the hands of interested researchers and editors. As our librarians work on campus to discuss scholarly publishing they are regularly turning up requests for more information about OJS, or requests for software support. The federally funded Synergies project is providing one-time funding to assist many Canadian journals in the Social Sciences and Humanities to move content online for the first time using OJS, and also provides further support for SFU scholars moving their publications in this direction.

Another place where the Library saw itself functioning as a hub was with respect to journal editors. Staff in the Collections Management office noticed they were often fielding inquiries from faculty members in their roles as editors, and that these inquiries began to form a pattern. When editorial boards were considering offers to license their journal content to third party aggregators, to change publishers, to digitize their backfiles, or to move from a for-fee to an Open Access business model, they were coming to the Library for guidance. We brought together a group of editors for a forum where they were able to find each other across disciplines, and share common experiences. As many of the editors were active users of OJS, they were able to impart firsthand experience of using the software, and of running Open Access journals, or transitioning society publications to Open Access.

In addition, the Library has continued to host campus events highlighting Open Access publishing more generally. These have included speakers from BioMedCentral, Public Library of Science, Open Medicine, and others. Typically they attract a mix of graduate students, faculty members and librarians, and a mix of advocates, skeptics and curious newcomers. Here the Library acts as a facilitator, putting the issues on the table, encouraging lively discussion and debate, highlighting positive stories from successful Open Access journals, and SFU authors willing to share their experiences and motivations for supporting Open Access. As appropriate, the Library can also provide information about the often invisible costs of the traditional system of academic publishing, providing members of the SFU community with a local perspective on our part in this $16 billion a year industry.
Finally, the Library has launched an Institutional Repository that offers trusted infrastructure and support for interested community members who wish to self-archive.[20]

As this initiative grows, the Library plays an increasingly active role at earlier stages of the research process, ideally in a few cases as a co-applicant on funding applications where archiving is built into the project from its inception.

As we build this program on our campus, we recognize that the current system of scholarly communication is embedded in larger institutional and industry-wide contexts. These include the tenure and promotion system generally, and its specific expression at SFU; trends in the academic, trade and commercial publishing sectors; and the requirements and regulations of granting agencies. We have launched a blog to help the campus community stay abreast of news, and to offer an online space for continued discussion.[21] Future plans include applied research into faculty attitudes and behaviors around scholarly communication to further inform our work in this area.

In holding events like these on the SFU campus, one of the common refrains is that faculty members and researchers are grateful for the opportunity to hear about what’s going on in other disciplines. Even those who are keen on the topic are generally not able to keep up with developments in areas outside their own. For example, biologists are pleased to come to events hosted by the library to learn about discussions going on in the American Anthropological Association[22]; anthropologists are interested in learning about SCOAP3[23], and social scientists are interested to hear what is happening in the life sciences where OA journals have been making significant inroads.

Taken alone, none of these activities have marked a departure for the SFU Library, but as a program, together they are certainly contributing to a changed role for libraries in building open communities of scholars. We have learned that faculty on our campus bring a varied level of understanding of the issues, and that our programs must be multivalent enough to address these multiple levels of need. We’ve also seen that integrating scholarly communication into our liaison program is a comfortable fit that has re-invigorated several of our long-serving librarians, and provided us with a renewed definition of liaison work in an academic library. Similar programs have been offered by many university libraries, and reports and lessons learned elsewhere have also been useful for us (e.g., The University of California Berkeley’s Scholarly Communication News and Events[24], Scholarly Communications at the University of Washington Libraries[25], and the University of Guelph’s Scholarly Communication Initiatives[26], to name a few).

Awareness on the SFU campus continues to build about the changing scholarly communication landscape. And the Simon Fraser University Library continues to explore new roles for itself in bringing together and building open communities of scholars. Like most other university libraries, we are operating in an environment where we have largely eliminated print journals in favour of online, and just a few years ago were contending with feedback from members of our community lamenting the fact that their once weekly trips to the library’s periodical reading room was a chance to get out of their academic silos and mix with colleagues from elsewhere on campus. We are pleased to see the Library continuing to occupy this role of campus hub, albeit in a new way.

6. The University of Toronto’s Journal Hosting Service

Like many academic libraries, the University of Toronto is offering a range of journal publishing services. Indeed, U of T services parallel many of the trends found by Hahn[27]:

1. The Open Journal System is used.
2. Services provided include:
   · hosting
3. Service was initially advertised through word of mouth

4. The university has leveraged past investments in digital library services. The Scholarly Communication Initiatives unit also offers repository services using the DSpace platform and conference hosting services, using the Open Conference System.

5. Electronic only publication services are offered, though a few journals publish in print also.

6. Services are funded through multiple sources; though initially funded by the libraries operating budget, this has now luckily been supplemented by a federal government grant, Synergies. Libraries in Australia, Germany and Denmark received similar government funding.

7. As with the National Library of Australia’s Open Publish service[28], quality control and copyright clearance rests with the journal.

8. Analogous to the California Digital Library (CDL)29, interdisciplinary journals are prominent, as are student journals.

9. Like Newfound Press[30], the Library is interested in enhancing access to peer reviewed scholarship and specialized works with a potentially limited audience.

The service is staffed by a librarian, technical staff and student assistants. An online application form, modeled after the CDL’s, asks for Canadian university affiliation, journal’s aim and purpose, editorial board, peer review process, copyright and authors’ rights[31]. In addition student led journals are asked for a letter of support from a faculty sponsor.

Eight journals are currently hosted and we are in discussions with another ten. We expect the number of journals hosted to continue to grow. Here are a few illustrative examples:

**Women in Judaism** was founded 11 years ago, and is devoted to scholarly debate on gender-related issues in Judaism. The ultimate aim of the journal is to promote the reconceptualization of the study of Judaism, by acknowledging and incorporating the roles played by women, and by encouraging the development of alternative research paradigms. Articles undergo blind review. The international editorial board numbers 60. The journal publishes two issues a year. In addition to scholarly articles, works of fiction, biographical essays, book and film reviews are also published. The journal is indexed by ATLAS, RAMBI- the Index of Articles on Jewish Studies by the Jewish National and University Library, Jewish Periodical Index, MLA International Bibliography and others. The journal website states: We do not have subscription fees, nor do we intend to have them in the future.

**The Canadian Online Journal of Queer Studies in Education** was created in 2004 to provide a forum for scholars, professionals, and activists to discuss queer topics in education and the social sciences in the Canadian context. The term ‘education’ is understood broadly to include all levels of education in every discipline. This journal is devoted to supporting and disseminating research and theory that promotes social justice for all queer people, including lesbian, gay, bisexual, queer, intersex, two-spirited and trans-identified people. The forum encourages critical examination of queer discourse across disciplines and dialogue on multiple and intersecting forms of oppression based on gender, race, class, ability, religion, etc. This refereed journal is affiliated with the Ontario Institute for Studies in Education at the University of Toronto.

**Clinical & Investigative Medicine** is the official journal of the Canadian Society for Clinical Investigation.
The journal’s focus is on original research and information of importance to clinician-scientists. Founded in 1978, the journal moved totally online in 2007 due partially to the cost of print production. Most subscribers are also society members. Immediate open access is offered to all Canadian universities; total open access is provided after six months. In the past, CIM had relationships with a variety of aggregators.

**The University of Toronto Journal of Undergraduate Life Sciences (JULS)** showcases the research achievements of undergraduate life science students at the U of T and encourages intellectual exploration across the various life sciences disciplines. Established in 2006 by a small group of students, JULS quickly gained support from various departments and faculty members. The journal publishes research articles and mini-reviews. All articles undergo a two-stage double blind peer-review process conducted by students and faculty. Issues are published annually, in both print and electronic format.

Currently, all but one hosted journals are open access, but this is not a strict requirement. Like the Copenhagen Business School Library’s Ejournals@cbs[32], we seek to provide a “low risk environment for small journals.” For journals concerned about losing subscription income we work to identify ways to “open” access while protecting revenues, such as delayed open access, providing free access to some articles, ip ranges or issues. We expect use of this mixed model to increase.

Like Ejournals@cbs, our journals fall into two categories: those born digitally versus print. However we have found that whether a journal is born in print or digitally, has not affected comfort with the platform. Our born-digital journals include those born on our service, and those born on their own home grown system or another OJS service provider. Established journals with established workflows are prone to only utilize OJS’ dissemination features. As Feleczak, Lorimer and Smith describe, journals often find the task of changing their production methods a “non trivial challenge.”[33]

Launching an electronic journal, whether new or established, is a time consuming project. The OJS platform and the new medium prompt the editorial team to consider or reconsider policies such as copyright. The mixture of practical “click here” and policy questions to be addressed is often daunting. Editors ask what others have done, how long it takes to do x etc. The most common question is the cost of electronic journal production. It is not a question we can answer easily. In a review on journal publishing costs, King laments:

>a wide range of figures for publishing costs and average costs per subscription and per article. Many cost estimates are presented in the literature in support of a specific agenda: to explain high prices, to demonstrate the savings to be expected from electronic publishing, or to show why author-side payment should be adopted. Unfortunately, the way in which many publishing costs are presented in the literature is somewhat misleading, because the costs are not qualified by the various cost parameters or other factors that contribute to their value, large or small.[34]

Indeed our initial meetings with existing journals are sometimes difficult. In relating the transition of the Canadian Journal of Sociology to electronic open access publication, Haggerty describes their first meeting with the U of Alberta Libraries:

>**Laura and I, however, did not give our colleagues an easy time during our meeting, asking them a procession of difficult questions about the implication of such a move. Looking back, it is evident that Pam and Denise could not have answered most of those questions to my satisfaction as the answers were contingent upon their having detailed knowledge about the specifics of the journal’s finances and assorted institutional arrangements. I also suspect that what I really wanted from them was an impossible guarantee that the journal could accrue all the benefits of going open access without also bearing the risks of such a move.[35]**
Libraries are well positioned, not only to acknowledge the unknown, but also to assist journals as they explore uncharted waters. In so doing we have forged strong working relationships and gained unique insight into the scholarly communication process.

7. Conclusions

From the case studies presented in this paper, it is clear that libraries are becoming increasingly involved in scholarly publishing, either through providing powerful software platforms to increase operational efficiency and technological innovations as at the Public Knowledge Project, or the development of new forms of scholar-librarian collaboration at the Simon Fraser University Library, or offering a complete set of production services at the University of Toronto Library. And these libraries are by no means alone in these endeavours. Internationally, libraries are becoming increasingly involved in scholarly publishing activities, and this represents an important shift in the services libraries offer and the perception of their organizations, both externally and internally. As Case and John[36] point out, however, the “next major step is to integrate the digital publishing operations into the library organization.... The role of library as publisher must be embedded in the culture of our organization.”

8. Notes