

What to Expect When You Are Not Expecting to be a Publisher

Sandra L De Groote

University Library, University of Illinois at Chicago

Sandra De Groote is the Scholarly Communication Librarian and an Associate Professor in the University Library at the University of Illinois at Chicago. De Groote manages the library's Journal Publishing platform and the Institutional Repository.

Corresponding author: sgroote@uic.edu

Mary M Case

University Library, University of Illinois at Chicago

Mary M Case is the University Librarian and Dean of Libraries at the University of Illinois at Chicago. Prior to UIC, Case was the Director of the Office of Scholarly Communication at the Association of Research Libraries where she helped found SPARC.

Abstract

The University of Illinois at Chicago (UIC) has been hosting Internet-based journals since the 1990s. This paper outlines the evolution of UIC's journal hosting service from the initial phase of setting up a server to host journals through to the point of offering a suite of library publishing services. Challenges and steps taken for inclusion in PubMed, archiving in PubMed Central, and developing policies and parameters of support are discussed. Venturing into the world of Library as Publisher is not decision that should be taken lightly but supporting affordable scholarly publishing, when successful, is rewarding. This paper will be of value to libraries considering offering journal hosting services.

Keywords: library as publisher, XML, DOIs, PubMed, PubMed Central, journal hosting

Article Classification: Case study

Introduction

The University of Illinois at Chicago University Library has had a long history of developing infrastructure to support content on the Internet. In the early 1990's, in addition to hosting websites for several organizations, the library began publishing the electronic *AIDS Book Review Journal*. In 1999, the library added one of the first Internet journals, *First Monday*, to its site. By 2006, the library had identified its publishing program as a strategic priority in stimulating

change in the scholarly communication system and began to explore options for expanding its scope.

After reviewing options, the library settled on the Open Journals System (OJS), an open source publishing platform developed by the Public Knowledge Project (PKP) at Simon Fraser University. Our goal was to provide editors with a system that would automate the manuscript submission and review processes, simplify editing and issue production, and do it cost-effectively. The editors would be responsible for soliciting content, managing peer review, editing, and posting final articles. We encouraged editors to use Creative Commons licenses that left ownership with the authors but gave rights to the editors and to UIC to be able to migrate and preserve the content.

The first journal launched on Journals@UIC was *Behavior and Social Issues (BSI)*. *BSI*'s editor-in-chief was a faculty member at UIC. The journal had been publishing for 13 years in print and had an online open access version when the library began investigating OJS. *BSI* was independently published on behalf of a small scholarly society and the editors shared the costs of the ISP provider not covered by print revenues. The library and editors hoped that moving to OJS would simplify manuscript management and reduce the out-of-pocket expenses of the editors. After initial start-up and conversion of back issues, little support of the editors was needed. However, it was a few years before the editors made full use of the OJS functionality and expenses were not reduced until they ultimately decided to stop producing print.

Once *BSI* was underway, the library began working on moving *First Monday (FM)* to OJS. *FM* had been publishing as an online open access journal since 1996. In 1999, with one of the editors a former UIC Library staff member, the journal moved to UIC and was published as a website. The online management of article submissions and reviews was an attractive feature of OJS to the *FM* editors. Setting up *FM* was relatively simple and straight forward. *FM* was a monthly publication, however, that had published 860 papers at the time of the conversion. Migrating the back issues took almost a year.

The library's initial experience with OJS (though not totally without bumps [1]), gave us the confidence to begin meeting with other editors on campus to discuss how OJS and the library might help them manage their journals more effectively. While we might occasionally refer to the Library as Publisher, it was clear that the library had no intention, at least at this point, in taking on the full range of responsibilities generally managed by a publisher. The library would not be creating brand new journals, soliciting faculty to serve as editors or editorial board members. It would not try to save a floundering journal, seeking replacement editors or new content. It would not market the journals. It would not seek ownership of the content. It would not be managing subscriptions or selling advertising. The library was interested in providing a cost-effective platform for existing journals that would afford the editors the option to offer their content as open access. We were a host, an electronic distributor. At least, that's what we kept telling ourselves!

Developing Parameters for Support

Because the initial journals that joined Journals@UIC were well established and open access, there was little training needed; aside from a few technical problems from time to time, the editors required little support. The journals were essentially self managed by editors who already invested much of their own time in their journals, managing submissions, editing manuscripts, and formatting the final versions of the articles. In addition, the journals were already indexed in several abstracting and indexing services and were being preserved through LOCKSS. As a result, there was not pressure to define expectations, policies, or library support services, aside from keeping the server running.

However, as the library decided to expand the journals hosted by Journals@UIC and build a reputable journal hosting service, we recognized that we needed to develop policies that would outline the services that the library would provide along with responsibilities that would be expected of the editors. Some of the general principles we had in mind for our journal hosting service were:

- The University of Illinois at Chicago Library would provide the storage, software, application expertise, and training required for scholars at UIC to host their journal online. The day-to-day management and most of the set up of the journal would be the responsibility of the editor and his/her editorial team.
- At least for the foreseeable future, there would be no costs involved in using the Journals@UIC server. It was intended that those publishing a journal through the service would develop a model to become self-supporting.
- The library would provide some fee-based services to support the editors, such as scanning and uploading back issues, if warranted. This work would be done using a cost-recovery model.
- If journal editors wanted to charge author fees or subscription fees they could do so, but it was up to the editors to see that the funds were managed appropriately.

We also decided to examine existing policies and memoranda of understanding (MOU) from other university libraries [2] offering journal hosting services, to identify other potential elements for our own MOU. The MOUs we located did not consider the library as the publisher, but the host. The editors/journals were referred to as the "Publisher" and outlined expectations that the "publisher" be self-sufficient in the management and promotion of their journal. The MOUs were ideal instruments and suggested other libraries were also not going to develop a full suite of publishing services, but focus primarily on hosting journals.

In the MOUs examined, the "host" services typically included:

- promising to maintain the publishing server and installing upgrades in a timely fashion;
- providing training to those who will be responsible for the journal;
- providing those responsible with adequate access rights to perform their duties within the journal publishing software;
- requiring the "publisher" be notified in advance if there was ever a decision to discontinue the hosting services;
- noting the host was not responsible for the content or for moderating or managing the journal.

The “publisher” expectations in the MOUs typically included:

- not holding the host liable for damages or costs in the event of technical difficulties and server failure;
- expectations related to copyright;
- granting the host non-exclusive rights to distribute / archive the journal’s content;
- noting the host would not be responsible for losses, damages or legal actions as a result of the journal content;
- stating expectations regarding the development of editorial policies and forming a reputable editorial board;
- expectations related to the frequency/ regularity in which the journal would publish;
- requiring the "host" be notified in advance in the event the publisher wished to discontinue use of the publishing platform.

Similar elements to those listed above were incorporated into a draft MOU created by the library.

Although the library would not be involved in the day-to-day management of the journals, we did want to provide information to guide the editors with developing their own journal policies and to promote the contents of their journal, such as by inclusion in indexing and abstracting services. Table 1 outlines a list of FAQs developed that would link editors to sources with useful information. For example, a list of various indexing and abstracting databases was created linking to information on how a journal could pursue inclusion in specific databases. If editors were interested in information on developing journal policies, a link was provided to a “Guide on Developing Open Access Policies” [3]. Editors wanting to know more about charging subscription fees were linked to a SPARC OA Journal Publishing Resource Index that included information on Setting Up a Nonprofit Tax-Exempt Corporation[4].

[insert table 1]

Prepare for the Unexpected

During the time the library was developing policies, the FAQ, and the MOU, a request came in from a faculty member that both greatly shifted the services the library would provide and challenged our thinking on whether the library was hosting journals or publishing journals. An editor came to the library and asked if we would host a journal currently hosted in BioMedCentral (BMC) because he felt authors were unable to afford the BMC publishing fee, limiting the manuscript submissions the journal was receiving. The prospect of having a journal previously published by a well-known open access publisher, such as BMC, was an exciting opportunity for the library. However, the editor wanted the library not only to host the journal, but also to provide assistance with: changing the name of the journal, getting it indexed in PubMed, and archiving its content in PubMed Central (PMC).

The decision to take on this title was not one to be taken lightly. Doing so would change the level of support the library had planned to provide for journals. In addition, there was risk for

the journal in changing publishers. Despite the fact that the journal was currently being indexed in PubMed and archived in PMC, for it to remain in both databases, the library would need to provide proof it could meet the [National Library of Medicine's \(NLM\)](#) standards by submitting sample XML ([Extensible Markup Language](#)) renderings to NLM. If the library could not meet the NLM standards, the journal would be removed. However, this was a journal that did not publish more than 10 articles in a year so the demands on the time of the library would be limited. Moreover, if this editor's interests were similar to the interests of other faculty that may want to use Journals@UIC, then we needed to experiment and expand our services beyond our comfort zone. After the editor confirmed that he owned his journal, he sent an email to BMC notifying them that he was moving the journal elsewhere, and the process to set the journal up in Journals@UIC began.

Indexing in PubMed

As mentioned above, fundamental to the success of the journal was ensuring continued indexing in PubMed. After some initial emails with NLM explaining that there would be a switch in host for the journal, NLM provided a login for submitting the sample XML files. Using the OJS PubMed XML Export Plugin, NLM's documentation on XML expectations for PubMed [5], and the PubMed validation tool to test the XML against the PubMed DTD ([Document Type Definition](#)) [6], the submission met the necessary standards and the journal was approved for continued indexing. It was necessary for BMC to become involved at one point to confirm to the NLM that BMC was no longer publishing the journal. It was also necessary to dabble in graphic design, as an icon was needed for the PubMed LinkOut [7], so searchers could be linked from the PubMed record to the article's full-text. One last bit of information NLM required was the name of the publisher that would be submitting the citation deposits to the PubMed database. We still did not consider ourselves a publisher, but we obliged, and the publisher, University of Illinois at Chicago Library, would soon be born.

Tip for Submitting Citations to PubMed

- Examine closely NLM's XML expectations for PubMed and the process for inclusion. [5]
- Use PubMed's XML Export Plugin to validate the XML before submitting it to PubMed. [6]
- You cannot rely 100% on the XML that is exported from your journal publishing tool. Additional clean-up and re-organization may be required.
- You will need to have a unique Article Identifier for each article. If [Digital Object Identifiers \(DOIs\)](#) are not assigned to your articles, you will need to determine a way to assign unique identifiers.
- Submitting the LinkOut information is separate from depositing the citation information.
- You will have to provide a publisher name.

Archiving in PubMed Central

Submitting the articles for inclusion in PubMed Central presented a much larger challenge. First and foremost was the need for software that would convert Word documents into PMC

compliant XML. A software program called eXtyles was identified and tested. Although it was impressive with what seemed like magical capabilities, it was out of our price range given that the journal was publishing only 5 to 8 articles a year. In addition, the library had heard that a program called Lemon8 XML was being developed by the PKP [8]. It seemed logical to want to use and support the software coming from the same developer as the OJS journal hosting platform. Although a test server had been set up by the PKP, finding someone that had successfully installed the Lemon8 XML software to use for parsing articles for an actual journal proved to be elusive. Eventually, the library was put in contact with a medical resident at a Canadian University, who had installed and was using Lemon8 XML to convert articles for the journal Open Medicine. Out of the generosity of the medical resident, access was granted to his Lemon8 installation, and the work began to learn how to convert Word documents into XML. The medical resident also pointed to several useful online tools provided by the NLM to validate the XML against the PMC DTD before submission to PMC. NLM also provided ample documentation on the process for inclusion in PMC and information on their criteria [9]. This was extremely important because failure to demonstrate that a publisher could meet the XML quality standards expected during the evaluation stage of inclusion in PMC could lead to rejection of the application and it would be a while before the journal would be permitted to resubmit for consideration [10]. So although the journal was already being archived in PMC, the new “publisher” also needed to prove it could submit XML meeting PMC’s specific standards. The agreement with the NLM for PMC inclusion also requested the name of the publisher for the journal.

Tips for Archiving in PubMed Central

- Pay close attention to the application and quality standards that NLM provides for inclusion in PMC. [9]
- Choose a good XML parser. This is going to be the tool that makes or breaks you. Pay attention to how it parses references - particularly if articles in the journals often have long reference lists. It can be time consuming to correct incorrectly parsed references or text.
- Insist that editors require authors to submit manuscripts that conform to specific formats. The more creative and liberal authors are with (mis)using features in Word to beautify their papers, the more difficult it will be to parse the articles.
 - Provide a template that the authors should be required to follow that defines elements such as how headers should appear in the text, how tables and images should appear, and the general format references should follow.
- Have an XML editor handy and have some basic knowledge of XML.
- Once you have validated the XML against NLM's DTD, there are a couple of other online tools you can use to test your XML that validating with your XML editor may not have found.
 - Use the PMC Style Checker - this will find missing elements and other errors. [11]
 - Load document and images into PMC XML previewer to see if all looks well. [12]

- You will have to provide a publisher name.

Lemon8 for the most part was an effective software program to convert a small number of articles a year from Word to PMC, but it also had its challenges. It would often miss large portions of text if the Word document was not formatted properly before the article was parsed by Lemon8. This meant quickly learning some basic XML in order to insert missing text and obtaining an XML editor to help determine why the XML did not validate without errors. Using Lemon8 XML to check references was a laborious process because it could only process one citation at a time. The more references in an article, the longer the conversion to XML took. In one instance, one of the articles published in the journal was written in LaTeX, was only provided in PDF format, and had math symbols throughout the manuscript. The math symbols were not something that Lemon8 could handle, and the Internet was searched for the XML version of math symbols included in the paper. Eventually, the PKP stopped developing Lemon8 XML as a stand-alone application and started to implement some of its features into OJS itself [13].

What's in a Name?

During the process of changing the journal from BMC as the publisher to UIC, the editor had mentioned several times wanting to change the name of the journal. He believed that more articles would be submitted if the title for the journal was not specific to the biomedical sciences. Changing the name, however, had implications and challenges. One implication of a title change is the need to request a new ISSN for the journal. A more complicated issue is that NLM would need to be informed of the change, risking the journal's status in PubMed. While the request was seemingly simple, the potential consequences were greater than the library was willing to take on. The library did not want to be responsible if the name change resulted in the journal's exclusion from PubMed. If the editor really wanted the title changed, he would need to pursue that on his own. Not willing to risk being dropped from PubMed, he chose not to proceed.

Admitting You're a Publisher

As the needs of the journals evolved, the library took further steps to provide services and resources that publishers typically provide for their journals. The editors of several journals were requesting the ability to assign DOIs (Digital Object Identifiers) to their articles. As a result, the library contracted with CrossRef for DOI registration. Not surprisingly, the agreement required that the name of the publisher be provided.

Registering DOIs using exported XML from OJS is a simple process, but our experience highlighted the need to keep the OJS software up-to-date. At the time the library began registering DOIs, it had not upgraded the OJS software in several years. The CrossRef XML schema exported with each issue turned out not to be compatible with the current CrossRef schema, meaning that library staff had to fill out an online form each time a new issue was published. One of the journals had 18 years of back issues that needed DOIs; it would have been unreasonably time consuming to manually register each article. Because the older

version of OJS did not publicly display the DOIs, registration of the back issues was delayed until the upgrade, when DOIs could be exported by the issue and uploaded to CrossRef.

Tips for Contracting to Register DOIs

- If you upgrade your journal publishing software making your DOIs visible, you need to quickly register the back issue DOIs. Users will attempt to use the DOIs and report when the DOI fails to link to the article. Your DOI provider will begin to send multiple reports of failed DOIs.
- Registering the DOI for an article also means that the references listed at the end of the article also require DOIs. Retrospectively adding DOIs to 18 years of journal articles is time-consuming.
- Going forward you will need to insist that the editors supply the DOIs in the references (when available) of the articles being published.
- You cannot rely 100% on the XML that is exported from your journal publishing tool. Additional clean-up and re-organization may be required.
- You will have to provide a publisher name.

In more recent years, a brand new health informatics journal joined Journals@UIC and also wanted to be included in PubMed and PMC. To be considered for indexing and abstracting, PubMed requires that electronic-only journals be deposited in PubMed Central for long term archiving, and so our first step was to pursue inclusion in PMC. As this was a new journal, it was necessary to wait until several volumes were published, so that NLM would be able to examine the content to determine if it was appropriate for inclusion in PMC. In addition, the library would need to demonstrate it could once again meet the PMC XML requirements. At this point, however, the library needed to revisit its method for converting articles into PMC compliant XML. The Lemon8 XML server had stopped functioning, and the rate of publication of the new journal was much greater than that of the previous UIC PMC journal.

As the library waited to hear if the journal would pass PMC's Scientific Quality Review, it examined its option for converting the Word documents into XML. Being short on staff and without having adequate software to do the conversion of several issues of journals in timely fashion, the library contracted with a service to outsource the XML conversion. Ultimately, the journal passed the quality review and the technical evaluation. Outsourcing proved ideal for converting the back issues of the journal into PMC XML. However, both the editor and the library wanted to streamline the process so that the articles were not published first on OJS, and then provided to the library or an outsourced service for conversion. Ideally, formatting the article and converting it to XML would occur as simultaneously as possible. In order to do this, work began with Inera [14] (the vendor of the eXtyles software that had been tested a few years before) to create a customized eXtyles plugin that could be used in Word, to convert Word articles into XML compliant PMC. In addition, eXtyles checks the references both within and at the end of the paper, testing for conformity and accuracy, and adding the DOIs, when available. Working on the journal's pre-publication version of the articles at the same time XML conversion was occurring meant that anomalies (such as missing references) detected by the XML conversion software could be corrected in the Word documents before they were published and before the final XML was rendered, keeping the two versions in sync. Taking this

step meant that the library, rather than converting articles to XML after an issue had been published, would be directly involved in the layout editing of the articles that would be published in the journal itself --- taking on yet one more role of a publisher.

Redefining our Parameters for Support

Because of the quality control required in submitting content to the various services the library uses to promote and disseminate its journals, it developed a policy requiring the final submissions to PubMed, PubMed Central, and CrossRef be done by the library. This means the library no longer just provides the training for using OJS, but is an integral part of the publishing process for our journals. Standard fees for the publishing services that we provide, such as charging for the XML conversion, and registering the DOIs, were needed. Eventually, the library asked university counsel to review the MOU resulting in a new document called “Terms of Agreement for Online Publication.” This new MOU laid out the terms of agreement between the University and the Journal Title. No one in the agreement is identified as the publisher or the host, but a list of obligations of the University and the Editor are provided. The following elements were included in our agreement (Table 2):

[insert table 2]

Final Thoughts

Venturing into the world of Library as Publisher is not decision that should be taken lightly. It is important to have a vision of the services you will offer if you decide to offer a journal hosting service. It is also important to think about your primary audience and the services that will attract them to publish their journal through your library. While it’s challenging, it is also rewarding to think beyond your initial vision and expand outside of your comfort zone. It all requires patience and perseverance, and a little luck. As you venture deeper into publishing support for the journals that you host, allow extra time for each new step in the process and be prepared to put financial support towards the infrastructure, such as purchasing XML parsing software. While our library publishing service still requires the editors manage their journal as much as possible on their own, their focus is on the day-to-day management and publication of the journal. The library provides, sometimes on a cost recovery basis, the elements to help with the journal outside of what the editor may be capable of doing with OJS itself, such as registering the assigned DOIs, submitting the journals to various indexes for consideration, and converting manuscripts into XML for archiving in PubMed Central.

¹ Details of bringing up our first two journals on OJS (*Behavior and Social Issues* and *First Monday*) can be found in Mary M. Case and Nancy R. John, "Opening Up Scholarly Information at the University of Illinois at Chicago," *First Monday* 12, no. 10 (2007), <http://firstmonday.org/ojs/index.php/fm/rt/printerFriendly/1956/1833>
Accessed January 17, 2014

² MOUs were examined from University of Michigan, Brigham Young University, University of Guelph, York University, University of British Columbia, University of Calgary, and University of Tennessee.

³ Developing Open Access Journals: A Practical Guide: http://www.developing-oa-journals.org/Guide_to_developing_oa_journals.pdf

⁴ OA Journal Publishing Resource Index 3: Governance Issues: <http://www.sparc.arl.org/resources/publishing/journal-publishing-RI/governance-issues>

⁵ XML Help for PubMed Data Providers: http://www.ncbi.nlm.nih.gov/books/NBK3828/#publisherhelp.Data_Provider_Quick

⁶ PubMed Citation File Validator: <http://www.ncbi.nlm.nih.gov/pubmed/citcheck/>

⁷ PubMed LinkOut Information for Full-Text Providers: <http://www.ncbi.nlm.nih.gov/projects/linkout/doc/publinkout.html>

⁸ Lemon8-XML Community Documentation: http://pkp.sfu.ca/wiki/index.php/Lemon8-XML_Community_Documentation

⁹ Add a Journal to PMC: <http://www.ncbi.nlm.nih.gov/pmc/pub/pubinfo/>

¹⁰ Add a Journal to PMC Technical Evaluation: <http://www.ncbi.nlm.nih.gov/pmc/pub/pubinfo/#tech-eval>

¹¹ PMC Style Checker: <http://www.ncbi.nlm.nih.gov/pmc/tools/stylechecker>

¹² PMC Article Previewer: <http://www.pubmedcentral.nih.gov/utills/pv/>

¹³ Lemon8-XML Roadmap: http://pkp.sfu.ca/wiki/index.php/Lemon8-XML_Roadmap

¹⁴ Inera eXtyles: <http://www.inera.com/>

Table 1: Frequency Asked Questions

Frequently Asked Questions

- I would like to create a new journal using Journals@UIC. How do I get started?
- How do I use Journals@UIC?
- I would like to move my journal from an existing publisher or platform to Journals@UIC. Can this be done?
- I manage a journal but it is published elsewhere. Can I use Journals@UIC to manage the journal peer review process only?
- What should I include in my Instructions to Authors?
- What should I include in my policies? What are other issues I need to think about?
- How do I configure a unique look for my journal?
- How do I register with Ulrich's Periodicals Directory?
- How can I get my journal indexed in commercial vendor databases?
- How is it possible to get the journal archived/ backed-up in LOCKSS?
- In what formats can articles be published in OJS?
- Are statistics captured by Journals@UIC?
- What are the costs involved?
- Can subscription fees or author fees be charged?

Table 2: Terms of Agreement

| Terms of Agreement for Online Publication of [Insert Journal Title] |
|--|
| 1. Term and termination |
| 2. Assignment of Rights |
| 3. Ownership |
| 4. Editor Control |
| 5. Grant of Rights to University |
| 6. Frequency, Format, Length |
| 7. University Obligations |
| a. Provide server and software |
| b. Provide training and sufficient control to the editor |
| c. Assist with indexing of journal (within reason) |
| d. Provide DOIs as long as editor agrees to reimburse for cost incurred |
| e. Provide other fee-based services with a separate Statement of Work (i.e. Word conversion to PMC compliant XML for PubMed Central) |
| f. Provide upgrades and ensure system running 24/7, with the exception of unforeseen technical difficulties |
| 8. Editor Obligations |
| a. Acknowledge UIC University Library on Journal website |
| b. Be responsible for the content |
| c. Be responsible for the proofreading |
| d. Be responsible for creating and maintaining a journal |
| e. Maintain an active journal |
| f. Be responsible for selecting appropriate editors and revisers and demonstrate rigor in review process |
| g. Ensure appropriate licenses are used and copyright laws and regulations followed |
| h. Be responsible for management of funds if the journal collects fees to maintain the journal |
| i. Reimburse library for fee based services provided |
| j. Reimburse for issuance of DOIs |
| 9. Limitation of Liability |
| 10. Indemnification |
| 11. University Reservation of Rights |
| 12. Fees |
| 13. Jurisdiction; Governing Law |
| 14. Breach |
| 15. Relationship of Parties |