Scholar-Librarian Collaboration in the Publication of Scholarly Materials

Craig Harkema (craig.harkema@usask.edu)
University of Saskatchewan

Brent Nelson (brent.nelson@usask.edu)
University of Saskatchewan

Abstract

Recent developments in scholarly publication and the new directions being pursued in both humanities departments and libraries in the production of digital content provide opportunity for scholars and libraries to explore new models for working together to produce and disseminate scholarly materials. We offer as a first step toward a model for publication the case of *Opuscula: Short Texts of the Middle Ages and Renaissance* (OSTMAR), a hybrid form of publication that leverages the university library infrastructure to create a platform for the publication of scholarly primary materials, an area of publication formerly reserved for the commercial press. This model is dependent on close collaboration between scholar and librarian, the nuances of which are outlined in this paper.

Keywords: Scholarly Publishing; Collaboration; Digital Humanities

Introduction

We are in the midst of a fundamental shift in academic publishing, and it is not entirely clear what the new publishing model(s) will be, or how scholar-driven, open access publication will relate to the academic publishing houses. This shift has also brought about a change in the traditional scholar-publisher-library relationship as it has developed over the past several decades. Of particular interest to the authors of this paper is the degree to which the open access model breaks-down the roles of the library, scholar, and publisher in the selection, access, and preservation of academic publications. Recent developments in scholarly publication and the new directions being pursued in both humanities departments and libraries in the production of digital content provide opportunity for scholars and libraries to explore new models for working together to produce and disseminate scholarly materials. In the context of this environment of uncertainty in scholarly publication, this paper explores the possibilities for collaboration between scholars and librarians on the widening frontier of open access publication. What we propose does not speak to the comprehensive institutional repository that seeks to treat all materials produced by a given institution, but is rather an ad hoc approach that focuses on scholarly materials that are particularly well suited to this kind of collaborative arrangement. We offer as a first step toward a new model for publication the case of *Opuscula: Short Texts of the Middle Ages and Renaissance* (OSTMAR), a hybrid form of publication that leverages the university library infrastructure of "Synergies"[1] to create a venue for the publication of scholarly primary materials, an area of publication formerly reserved for the commercial press.

Replacing Big with Big

As the digital shift in scholarly publishing continues to decenter the academic press from the publication process, scholars are increasingly recognizing the need to form collaborative partnerships in disseminating their research. Speaking of the move toward digital solutions to the challenges being faced in the production and dissemination of scholarly materials, Johanna Drucker argues that,

> [t]he design of new environments for performing scholarly work cannot be left to the technical staff and to library professionals. The library is a crucial partner in planning and envisioning the future of preserving, using, even creating scholarly resources. So are the technology professionals. But in an analogy with building construction, they are the architects and the contractors. The creation of archives, analytic tools, and statistical analyses of aggregate data in the humanities (and in some other scholarly fields) requires the combined expertise of technical, professional, and scholarly personnel.[2]

The question is how do scholars, librarians, and technical professionals partner together, and what approach makes sense for collaboration of this sort? Drucker focuses on the relationship of the technician to the scholar and librarian. Our focus is on the relationship between the librarian and the scholar.

Many of the solutions to the challenges posed to scholarly publication have sought to replace big with big: the large infrastructure of the scholarly (particularly university) press with a big digital solution such as the MPublishing, University of Michigan's scholarly publishing office.[3] Similarly, there are a number of large archives and projects for digitizing special collections based primarily in academic libraries. Programs such as the University of Toronto Libraries' partnership with the Internet Archive are indicative of the mass digitization approach taken by several institutions.[4] Most research libraries have also committed to serving as their university's repository for research outputs. Institutional repositories have emerged over the past decade and act, in essence, as another venue for disseminating scholarly content. However, there are a number of challenges associated with these large archives, and most archives are filled with content previously published in traditional scholarly journals or other publishing media.[5] Therefore, some of the advantages of disseminating content in this way (speed for one) are negated because of the persisting constraints of the formal publishing environment.

What we describe below moves in the opposite direction of large, complex, and resource-heavy models such as scholarly publishing programs and repository initiatives that seek to store and make available the university's research output. The move is toward a simple and nimble strategy for disseminating scholarly content that is useful for both research and pedagogical purposes. To be clear, this is no replacement for the large digital archive, but rather a complement to it, and it is not meant to apply to all forms of scholarly material. Some kinds of scholarly content, such as the scholarly journal, have already made the transition to digital dissemination, and other kinds of contents (e.g. the monograph) are beginning to establish effective ways of disseminating research output. The materials we have in mind here are primary historical and literary texts rather than secondary literature, and our focus is on carefully edited texts rather than large corpora—the kind of material that often falls through the cracks between the large academic publisher and the large digitization project.

In this model, the editorial and production process has been trimmed down to something resembling a society-run scholarly journal. Our proposed involvement of the library helps address the need for quality metadata, content management, cataloguing, and long-term preservation–all of which the library is uniquely positioned to provide. But at the same time, it places the primary responsibility of producing scholarly content back on the scholar. With the help of partners having technical expertise, this arrangement forces a rethinking of the relationship between production and dissemination of content. Simply put, the academic press model is focused on the coupling of the production and dissemination components. The scholar shares the production process with the press (the scholar produced the content, and the publisher puts that content in to a publishable form), while the librarian and the publisher share the role of dissemination (the publisher sends out the published content, and the librarian makes it findable and accessible to the researcher). In the proposed scholar-library partnership the scholar takes primary responsibility for producing publishable content and the librarian takes primary responsibility for dissemination, while at each stage sharing expertise.

The rest of this paper will first survey the current state of scholarly production and dissemination before proposing one of many attempts at developing new models for scholarly publication. It will conclude by considering the implications for the work of the librarian in this new model.

Scholarly Production

A cornerstone of the received publication model, and a critical element that must be addressed in order to proceed with alternate publishing models, is the link between promotion and tenure processes and peer review. Any proposed model for electronic, open-access publication needs to retain two fundamental elements enshrined in the infrastructure of the academic press to which tenure and promotion remain tied: 1) editorial process and 2) peer review. These elements have long been the basis on which scholars express confidence in and attribute authority to the materials they use. In the early days of Web publication, semi-scholarly sites that indiscriminately offered primary and secondary materials from any source whatsoever began to proliferate. The emphasis on these often "personal" websites was on quick and ready access to derivative materials; the real, authoritative work was still being disseminated in print. In recent years, more and more digital-born publications have bypassed print altogether, and these have typically retained, in one form or another, the standard editorial and review structures that have become standard in print publications from academic presses. The most recognizable model used by commercial presses, in which we include university presses, is that of dual-platform publication: some combination of print and an electronically delivered surrogate. Smaller ventures, such as the *New Technologies in Medieval and Renaissance Studies* book series, a collaboration between Iter: Gateway to the Middle Ages and Renaissance and ACMRS (Arizona Center for Medieval and Renaissance Studies), use this as a built-in model. Larger presses, such as Oxford University Press (OUP), are creating digital surrogates as a post-print digital solution. Access to these resources is by paid subscription or acquisition. A further distinction involves a combination of commercially licensed and open access publication. *A Companion to Digital Literary Studies*, for example, is published in print by Blackwell, who also permits a repackaged Web version of the same volume for open access (thought they themselves don't publish it).[6]

When a commercial press is not involved, editorial process and peer review become issues.[7] In this case, how does one signal the scholarly authority of materials born and/or deposited in a digital environment? This is a concern not only for the scholar, but also for the librarian who wants to select only authoritative, scholarly materials. The scholarly journal is a class of traditional scholarly publication that has developed a simple peer review model that is parallel to (though sometimes embedded in) the commercial scholarly press. These journals have commonly been managed by scholarly societies, sometimes with, but often without any involvement of a commercial press. This is a move from the traditional entity of "publisher" to "issuing body" (as in 19th-c periodical publication). Aside from struggles associated with what sort of business model to adopt, technically it has been fairly easy for the scholarly journal to adapt to a Web-delivered open access model. With the development of Web-based systems to support open access journal publication, such as Open Journal Systems (OJS), scholarly organizations now have access to a publication infrastructure that requires little funding while providing support for the same editorial processes associated with commercial academic publication.[8] It is a small step to adapt this model to the publication of scholarly primary materials.

The Role of the Library Today in the Production and Dissemination of Content

In the old model of dissemination, the function of selection began with the scholar and ended with the library. The scholar decided which document(s) she would like to edit. The publisher decided whether he would like to publish the edition. The library would then decide whether to acquire the resulting book. Finally, of course, the library patron decides which book to pull off the shelf. In the new model of independent, open access publication, selection generally begins and ends with the scholar, who chooses which document(s) to edit and then arranges for

its production and dissemination, often with some sort of institutional support or informal infrastructure, but not always. Perhaps the most significant development, however, is the changing role of the librarian, who previously managed the final stage in the selection and dissemination process. In the open access environment, the librarian is now increasingly taking on the role of initial selector, deciding which materials should be promoted to scholars, and then in many cases, as with digitized content, publishing directly via content or asset management systems. Most university libraries currently manage digitization initiatives of some significance and many have large scale, internationally recognized digitization and scholarly publishing programs. At the same time, we have seen the growth of the so-called digital humanities and a resulting proliferation not only of scholar-produced materials in new forms, but also of new methods and expectations regarding what affordances these new scholar- and library-produced materials enable or support. In the opinion of Vandegrift and Varner,

> The roles and responsibilities of research librarians are shifting to encompass the broadening scope of scholarship, especially involving digital archival and special collections, digital tools and progressive service models. The research community, which has moved toward technology over the past 10-15 years, is coalescing around the ideas of open access to scholarship and the benefits to the public, the library and the scholar. Pairing with the digital push in the humanities, the library can reinvent its place in the cycle and production of scholarship.[9]

With the continuing growth of open access, library collections will increasingly become a collaborative process. Librarians will not simply decide which materials to make available to scholars, but they will increasingly be required to work together with scholars to form new collections for a broad range of research needs.[10]

The print-to-electronic transition has provided libraries with new models to use and new roles to assume. The manner in which librarians assume these roles in creating and publishing content and the ways in which they relate to the work of scholars need to be examined. Library digitization programs have become, in essence, digital publishing programs. However, there are a couple of important differences in the editorial/publishing processes incorporated by libraries. First, the selection of the content—the first step in the digitization life cycle—supplants the editorial process that is so central in traditional scholarly publishing. Commonly, there is no peer review of the content selected to be digitized. The process most often begins with the identification of a need—a collection strength, at-risk material in need of preservation, an external force such as research or public interest—and the content then moves directly into the digitization and metadata phase. The actual digitization (the scanning, photography, audio recording, etc.) is mostly technical and requires the establishment of work-flows, standards, and best practices, but involves very little intellectual scrutiny. The creation of metadata, however, is a more complex intellectual process that can form the basis for librarians and scholars working together. As librarians move beyond the provision of metadata to the production of content, they begin to approach activities formerly associated with scholarly interpretation. Moreover, the metadata that accompanies a set of images published in a content management system overlaps considerably with the kind of material that constitutes the paratext of an authoritative scholarly edition of a primary text. Such introductory material usually contains in some form the descriptive information that goes into a MARC, Dublin Core, or MODS record, including, in the case of pre-modern materials, a full physical description. Moreover, most digital surrogates published in a content management system include, in addition to structured metadata, a short introduction. Websites built within or separate from the Digital Asset Management System (DAMS) in which the digitized content is stored and made available via search functionality are often created to provide context and designed to exhibit the materials. In many cases, these digital surrogates look very much like a traditional scholarly edition, with introductions and even, in some cases, annotations. And yet this work is often done without the assistance of a specialist in the field. The digital publication process, however, can pro-

vide the opportunity for librarians to collaborate with scholars.

At the same time that the library is getting more involved in producing scholarly content, the scholar who produces an individual digital publication is taking over some of the activities that were formerly the province of the publisher and the librarian. Take, for example, the function of selection. In the print era, even for heavily subsidized presses, selection was to varying degrees constrained by commercial and economic considerations; i.e., how many copies are likely to be sold and how much revenue generated. Libraries with limited resources would have to make similar decisions based on similar constraints of budget weighed against anticipated use. One of the great appeals of the Web has been the opportunity for a motivated scholar to make widely accessible certain content that might never find its way into print. The selection of materials for digital remediation is based on the scholar's knowledge of the field and his or her assessment of the need for that material to be made widely available for research or classroom use, weighed against the scholars own motivation and career needs. The possibilities for producing accessible, high quality materials for classroom use are especially promising. Increasingly in the field of literary studies, these materials include authors and works that have fallen out-of-print and no longer attract publishers, leaving teachers to look online for freely available materials, in often outdated or unedited forms.

A scholar-librarian collaboration has some distinct advantages over the solo efforts of either. First, and perhaps most importantly, the collaboration with the scholar provides extra rigor to the selection process. Whether the content is a primary source, something resembling the traditional scholarly journal, or a kind of hybrid such as in our example below, the scholar and librarian together are better able to identify the relevance, importance, and suitability of the content while providing more targeted ways of access to it. The involvement of the library also ensures that the material has a preservation plan and that it will be findable to those who might seek it.

This leads us to the principal advantage of scholar/librarian collaboration–improved metadata creation. The librarian's expertise in metadata and cataloguing combined with the subject knowledge of a specialist in a given subject area provides opportunities to generate superior metadata. Rich metadata tied to scholarly interests, including much that is standard in library-generated records, are now structurally incorporated into the editing process through the TEI (Text Encoding Initiative) guidelines that include an extensive set of XML tags for document description in the header. While source description has always been elemental to scholarly editing, especially of pre-modern materials, it is now undertaken in a highly structured way analogous to that of the library catalog. This is an area where scholarly/librarian collaboration makes a good deal of sense in producing a coherent and comprehensive record rather than two discrete and awkwardly overlapping sets of metadata. This sort of record would, in turn, improve access to the material via more refined and specialized subject searching, keyword searching in description/scope note fields, and more accurate interpretation of the primary research focus of the content. In other cases, where the scholar lacks bibliographic training, such a collaboration would allow the scholar to draw on metadata expertise that he or she may not have or have the time to acquire. Why not maximize the expertise, as one might with IT personnel, to create a more effective and efficient process?

The New Model

In the model we present here, we hope to illustrate the potential benefits of this sort of scholar-library partnership. It is a simple and nimble model of production that could be adapted for certain kinds of texts: for example, scholarly editions of primary materials for classroom use. Our prototype example, *Opuscula: Short Texts of the Middle Ages and Renaissance* (OSTMAR), is a hybrid publication built on the structure of a scholarly journal, but really appears as a serial publication of primary materials. It provides one model of a simple, non-commercialized means for scholars to produce peer-reviewed scholarly content. Sponsored by Classical, Medieval and Renaissance Studies at the University

of Saskatchewan, OSTMAR publishes single-witness editions of short pre-modern texts in manuscript (or, in rare cases, print publications that are obscure and difficult to access). These texts can be in any genre and on any subject. The first issue of OSTMAR, for example, includes court poems, a magic ritual to "spoil witches," and a fragment of a fencing manual, to name a few. These are simple editions, comprising four elements: a general introduction, a manuscript description, a statement of editorial conventions, and the edited text that is usually lightly annotated. The format, likewise, is simple—a text produced in MS Word and transformed into a PDF file. The editorial structure and process looks much like that of a book series or journal. There is an editorial team that manages the submissions, an advisory board, and an editorial board. Each submission is subjected to double-blind vetting by at least two readers who assess the accuracy of the edition and the appropriateness of its annotation. The readers also assess the introduction, ensuring that it provides a reasonable and up-to-date introduction to the text that will guide a non-specialist in reading and interpreting. We take OSTMAR as a starting point for imagining how scholars might take more responsibility not only for the creation of the primary materials that are essential to their disciplines, but also their production and dissemination. The kind of documents at issue here does not have the same ontological status of, say, a monograph, or even a critical edition, and for this reason a simple edition–a student edition–might be the right place to start in taking the next step toward a model of scholar-library collaboration in the creation and dissemination of scholarly materials.

For our purposes, the important factor here is the potential role for the library. The library's role in open access journal publication is much as it has been in the print domain, but with one exception. The library still disseminates and provides access to the metadata through search mechanisms, but instead of physically holding the content, it points to it on a server. This is a key reason why the academic journal has been the most nimble of scholarly genres in adapting to the digital environment. The content itself is simple and easy to host. Indeed the most demanding element of hosting concerns the provision of metadata, something libraries do very well. This is nicely illustrated in the Canadian context, where Synergies operates through a network of university libraries to host and provide access to electronic content in Canadian academic journal. Though some libraries are experimenting with publication of electronic monographs, perhaps a more natural move from journal publication is into the realm of primary materials. As noted above, libraries have been quick to get involved in digitization of their primary materials (chiefly manuscripts and rare printed material) in the form of digital images and metadata. Full-text materials, and especially digital editions, have remained fully in the domain of scholars. And yet there is less and less room for these kinds of editions in the current flux of publishing models. This seems an ideal space for scholar-librarian collaboration.

Steps in Development

For OSTMAR, the key step in publication is not the production of the formatted document itself but rather the dissemination of metadata. As part of Synergies, OSTMAR is already plugged into a network that shares and pushed metadata through several Canadian academic channels. Now it must be ensured that the metadata record finds its way into the primary domain-specific databases such as the MLA bibliography, Historical Abstracts, the Iter bibliography, or ingested by the major electronic collections, most notably Open Library and Google Books, and linked through the Directory of Online Journals and Scholars Portal. Parallel to this flow of metadata, OSTMAR offers another possibility for making new open access electronic resources findable to those who might want them. Some libraries are already integrating WorldCat records within their own catalog, but even in those cases, a freely-accessible edited eBook can easily get lost in the mountain of data that WorldCat provides any given work of literature. We need a way to make newly edited primary texts much more conspicuous so students, professional scholars, and teachers will find them.

One way to do this is to provide metadata to acquisitions librarians in a form that can easily be imported into their own catalog. This is how

it would work. The completed document, in this case a PDF file, is deposited on a library server where its other electronic resources are kept, and given a URI. The metadata librarian produces a MARC record for the host library's catalog and then sends that record to acquisitions librarians at university libraries around the world. Ideally, an RSS feed would be created for interested libraries in order to feed this metadata back and forth. In this way, a library can acquire a new work of scholarship by simply uploading the metadata that points to the digital object at another library.

We have begun experimenting with a collaboratively-produced metadata record that will become part of our library's catalog and, we hope, other library catalogs as well. We began with a working record provided by a metadata librarian containing more fields than were typically required based on what she saw in the published OSTMAR document. We consulted with our author and the editors of OSTMAR, asking them if there was anything missing in the MARC record that they would like to see represented there. First, they wanted a complete representation of the keywords supplied in the published article: funeral elegies; Duke of Richmond and Lenox; 1624 Parliament; Duke of Buckingham; King James. As historians and literary scholars who work closely with primary historical documents, genre (in this case "funeral elegies") is very important. They also wanted key historical subjects and events represented: the 1624 Parliament, the Duke of Richmond and Lenox, Duke of Buckingham, and King James. But in considering this question of what to include, they also were forced to recognize deficiencies in the metadata of the OSTMAR publication, in particular, that keywords with respect to historical figures were imprecise and incomplete. They lacked personal names and ordinals for the regnal names, so we suggested new elements for the MARC record and revisions of the OSTMAR keywords, these being: Stewart, Ludovick, Duke of Richmond and Lennox, 1574-1624; James I, King of England, 1566-1625; Villiers, George, Duke of Buckingham, 1592-1628. The author we were working with, on second thought, also suggested another historical subject: "The Spanish Match."

Also important for OSTMAR's manuscript documents is full identification of the source documents, in this case British Library Sloane MS 542 and Folger Shakespeare Library V.a.345. Local cataloging practices vary, but in theory these manuscript identifiers belong in the MARC field 544 Location of Other Archival Materials Note. The 5xx fields are used for notes, as librarians learn early in their required introductory cataloging course, but the richness of MARC capabilities with its 56 different 5xx fields is sometimes lost in the limitations of an Integrated Library Systems (ILS) using MARC. While something like the 544 field may be used to relate the material in question to the sources documents, it may prove to be moot given the way the system is set up. One would need to check with those responsible for cataloging at their institution to ensure the effort to add information in these fields is beneficial. This simple collaboration is not groundbreaking, but it does illustrate how scholars and librarians can work together to improve the accessibility of open access content.

Implications for the Library Acquisitions Process

Collections acquisition is a large part of the academic library's mandate. Liaison librarians are responsible for assessing the needs of their community of scholars and students and providing them with the best, most relevant resources available. Increasingly, these include a variety of resources from archival content to new media and from a variety of vendors and publishers. The transition from print to electronic as the dominant medium has complicated the acquisition process considerably. In a subject area where print monographs and scholarly editions are still the dominant formats (History, Native Studies, English Literature) the process typically involves a lengthy communication, accounting, and workflow process. This process can be streamlined by the implementation of approval plans, but these tend to miss out on the smaller, more niche publications such as those discussed in this paper. The need to acquire titles beyond predefined categories will persist and the aforementioned process will undoubtedly carry on with varying approaches and local practices.

The ostensibly simple task of obtaining a resource is in fact not simple at all—it requires a significant amount of human resources and can take a substantial amount of time. The eBook acquisition process is not much more efficient. There are often problems with obtaining MARC records from vendors for large batches of eBooks and there are similar delays and demands on human resources in moving the item into the catalog and making it available to the targeted patron. The trimmed down model we describe above poses streamlined acquisitions workflow and more efficiently puts content into the hands of the users. Our model generates catalog records in partnership with the scholar at the point of creation and disseminates them directly from point-of-origin into the acquisition librarian's workflow. This cataloging process enables the material to move efficiently into places where researchers can readily gain access. It bears repeating that what we describe is not a generalizable solution. Not all kinds of publications can be created, disseminated and cataloged in this way. What is generalizable, though, is the principal idea that there are opportunities for libraries to take a more direct role in the distribution of scholarly materials through sharing and disseminating metadata.

Implications for Access, Preservation and the Role of Content Management Systems

As we have outlined above, scholarly editions of this sort by their very nature produce particular preservation and access needs. Separating these needs based on preservation and access is useful not only for purposes of analysis presented in this paper, but also to help guide developers, scholars, and librarians through the metadata phase of this model. The logical continuation of access-focused metadata is the implementation of light-weight preservation metadata strategies.

Libraries rely on existing digital asset management systems (DAMS) or build their own to help address most aspects of the access and preservation of digitized materials. In order to make our model applicable across a wide range of academic libraries, we will attempt to focus on aspects of these systems that are shared, or at least possible, with most DAMS currently used today. Although working with proprietary tools (e.g. CONTENTdm, DigiTool) can be limiting in terms of customizing the interface and workflows, they can take advantage of built-in cataloging capabilities and decrease programmer and developer time. These systems, despite their constraints and complexities, are often seen as solutions to issues of sustainability. And while this is not always the case, they can help support a range of digital libraries activities. Even open source systems, such as Fedora, Greenstone, and DSpace that can leverage the strength of large systems and communities of developers, can carry with them a number of challenges in terms of resource allocation and development time.

A significant drawback to traditional publishing and of lone-scholar, independent eResource production centers on problems associated with providing access to those who might use the information. Our model allows creators of digital editions to take advantage of the library's ability to provide a sustainable, stable, and scalable approach to resource discovery. It is crucial to the success and legacy of a project that the initial metadata and eventual content created by a scholar does not stay on his or her hard drive. Scholars need to take an active role in making the metadata derived from their research publically available.

In cases where the scholarly product, together with its metadata, does make its way into a Web, issues of search engine optimization, hosting, preservation, harvesting, and the use of metadata standards may not be fully understood and exploited by every scholar entering into the realm of digital initiatives. This is where the expertise of the librarian can be applied in aiding the effective distribution of scholarly content. Often more than one location is required to properly distribute content and make it accessible: Integrated Library Systems, discovery layers (for example, Primo and Summon), union catalogs, Google Scholar, Directory of Open Access Journals (DOAJ)[11] and Scholars Portal are all good examples of locations where libraries can easily direct/publish content created in collaboration with scholars. Another consideration is the possibility of making publications accessible in library catalogs of other institutions. Discovery layers and federated searches featured in next generation catalogs can help expose some-

times hidden collections. For example, OCLC's WorldCat Local pushes records into WorldCat where records become visible to users around the world. Google and other search engines also harvest many of these records. These are relatively new developments in the library world. Libraries have harvested select content in topical areas in the past (the "portal" approach), but not on the scale we see today. And while this might improve the visibility and accessibility of the resource, we still most often depend on libraries linking to content rather than ingesting it.

To enhance accessibility to such resources, our model (as described above) advocates simple, targeted promotion and distribution to academic libraries. Similar to the way in which eBook providers and vendors provide access to MARC records, we push already created records (MARCxml, MODS, and MARC) to libraries through liaison and collections librarians in related subject areas. The keys to making this approach work is to catch their attention, leverage the authority and reputation of the project, appeal to open access sensibilities, contact the right people, and make it as easy as possible for them to load the records into their catalog. Similarly, steps can be taken to ensure successful harvesting to AMICUS (the Canadian National Catalogue), Canadiana.org, or The Internet Archive. Rather than depending solely on the user to find the content, or on the library's metadata management structure to push it through the appropriate channels, this model places metadata in targeted locations, those places scholars, instructors, and students regularly go to search for scholarly materials.

All of this can be done in an efficient manner because the tools and workflows are already in place within the academic library's acquisition system. This is not to say the academic library is perfect as is. It must increasingly engage with scholars and other libraries in a networked fashion in order to fulfill the information needs of the 21st century researcher. The academic library must develop systems that combine the functions of the library with information technology and scholarly publishing in ways that build on the library's traditional strengths.[12] New working models, such as the one we propose, can help provide the means to build relationships and produce digital content that support access and preservation needs of the whole scholarly community. No matter the specific methods chosen, the library is providing a unique service. It is simply not possible for publishers and vendors to ensure the level of resource integration into local catalogs and databases that can be found in projects based on direct library partnerships.

Implications for Preservation

Traditionally, resource preservation depended on the durability of a well-produced book diligently maintained and controlled by a holding library. Currently, issues pertaining to digital preservation are exceedingly complex,[13] and the level of resources available and the degree to which preservation is a priority in an organization will determine how successful a library will be in this area. Systems developed by archivists and librarians, such as Archivematica and Rosetta, and metadata standards initiatives, such as PREservation Metadata: Implementation Strategies (PREMIS) are great examples of information professionals taking leadership in this area. In addition, academic libraries have the server infrastructure to store content created on their campuses. Most libraries work in cooperation with campus IT to ensure their content is stored in a responsible manner that includes scheduled backups. Again, priorities will vary from institution to institution, but simply providing server space can be a great way to form partnerships across campus.

Libraries and archives traditionally have focused much of their attention on the conservation and preservation of the materials housed within their walls, but libraries now have been trying to shed this gatekeeping reputation for quite some time. "Access, not security" has been the message most preached in the later part of the 20th century. That said, however, it seems imperative for libraries and archives to maintain a commitment to preservation despite the unique challenges of digital formats. These formats are undeniably some of the most fragile mediums we have used to date, fundamentally unstable and dependent upon complex systems, controls, and checks.

Preservation continues to be a problem for scholar-produced digital resources. The model we propose of scholar-librarian collaboration ensures measures are taken to maintain a high level of digital preservation standards mainly through the coordination of efforts with the academic library. In the past, many scholarly digital projects created "stand-alone" products, most commonly a website similar to the many independent scholarly sites on the Web today. These products face an endemic problem of long-term preservation in that appropriate resources and knowledge may not be available in the future, where administrative support may disappear and when metadata was poor or non-existent from the start. If one seeks to preserve data in whatever form, it seems wise to collaborate with an organization that sees preservation as a primary function and that draws on a tradition dating back thousands of years. Recent networked or collaborative efforts such as LOCKSS (Lots of Copies Keeps Stuff Safe), a library-led distributed preservation program based at Stanford University, illustrate how this tradition has continued in the digital age.[14] But LOCKSS has not been quick to pick up digital archives in CONTENTdm and DSpace, though they have had great success covering electronic journals such as those produced through OJS. The archiving feature in the OJS platform itself allows for journals to enable LOCKSS to store and distribute journal content to participating libraries. Many academic libraries are taking seriously the preservation of digital content, adopting and developing metadata standards (such as PREMIS) and working toward developing Trusted Digital Repositories (TDRs). New models for the production and dissemination of scholarly material will do well to include the university library as part of a long-term plan for not only access, dissemination, and above all, preservation.[15]

Conclusion

Scholars are increasingly recognizing the critical importance of involving libraries in major digital humanities projects.[16] Such collaboration is important for smaller initiatives as well. What is proposed in the OSTMAR model may not be a generalizable replacement for traditional publication models and other models that are slowly evolving, but it does suggest the possibility of thinking differently about what it means not only to publish but also to acquire and maintain a published book. Scholars who are now more attuned to the importance and nature of metadata, mostly as a result of their involvement in metadata standards such as the TEI and in digital humanities practices in general, are thus now inclined more than ever to see the library as an essential partner in the workflow of producing scholarly material. The model we propose builds on the library's traditional role of content management, including preservation and the production of metadata, and affirms its new role as publisher of primary materials.

Endnotes

[1] Synergies is a not-for-profit platform for the publication and the dissemination of research results in social sciences and humanities published in Canada. See: http://www.synergiescanada.org/

[2] Johanna Drucker, "Blind Spots: Humanists Must Plan Their Digital Future," *The Chronicle Review*. 55.30 (3 Apr 2009): B6, http://chronicle.com/article/Blind-Spots/9348

[3] William A. Kretzschmar Jr. and William Gary Potter, "Library Collaboration with Large Digital Humanities Projects," *Literary and Linguistic Computing* 25 (2010): 439–445.

[4] Jonathan Bengtson and Robert Miller, "Canadian Mass Digitization: the University of Toronto Libraries Partnership with the Internet Archive–Historical Overview, Recent Issues, and Future Implications," World Library and Information Congress: 74th IFLA General Conference and Council, 10-14 August 2008, Québec, Canada: http://archive.ifla.org/iv/ifla74/papers/139-bengtson_miller-en.pdf

[5] Kathleen Shearer, "The CARL institutional repositories project: A collaborative approach to addressing the challenges of IRs in Canada," *Library Hi Tech* 24 (2006): 165-172. DOI: 10.1108/07378830610669547; Mary Westell, "Institutional repositories: proposed indica-

tors of success," *Library Hi Tech 24* (2006): 211-226.

[6] Ray Siemens and Susan Schriebman, eds., *A Companion to Digital Literary Studies,* (Oxford: Blackwell, 2008), http://www.digitalhumanities.org/companionDLS/ (accessed June, 2013).

[7] As a consequence of these challenges, scholarly societies such as the Modern Languages Association (http://www.mla.org/guidelines_evaluation_digital), and many departments, such as that of one of the authors of this paper (Nelson), have begun drafting guidelines for assessing digital publications for tenure and promotion.

[8] Open Journal Systems (OJS), http://pkp.sfu.ca/?q=ojs

[9] Micah Vandegrift and Stewart Varner, "Evolving in Common: Creating Mutually Supportive Relationships Between Libraries and the Digital Humanities," *Journal of Library Administration*, Volume 53, Number 1, (2013): http://pid.emory.edu/ark:/25593/cwzbf

[10] Heather Morrison, "Rethinking Collections -- Libraries and librarians in the open age: A theoretical view," *First Monday*: http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1965/1841

[11] The Directory of Open Access Journals (DOAJ) is a librarian–vetted list of currently published, fully open access journals. As of 27 March 2013, there are 8, 826 journals listed in the DOAJ, and 1,053,405 articles from 121 countries.

[12] Abby Smith, "PART II: The Research Library in the 21st Century: Collecting, Preserving, and Making Accessible Resources for Scholarship," *No Brief Candle: Reconceiving Research Libraries for the 21st century,* Council on Library and Information Resources (2008): http://www.clir.org/pubs/reports/pub142/contents.html/smith.html

[13] Nick del Pozo, Andrew Stawowczyk Long, David Pearson, "'Land of the lost': a discussion of what can be preserved through digital preservation," *Library Hi Tech* 28.2 (2010): 290-300.

[14] Vicky Reich and David S. H. Rosenthal, "LOCKSS: A Permanent Web Publishing and Access System," *D-Lib Magazine* 7.6 (2001): http://www.dlib.org/dlib/june01/reich/06reich.html

[15] Angela Dappert and Markus Enders, "Digital Preservation Metadata Standards," *Information Standards Quarterly*. Special Issue: Digital Preservation. 22.2 (Spring 2010): 5-13.

[16] John Unsworth, "Digital Humanities Centers as Cyberinfrastructure," Digital Humanities Centers Summit, Washington, DC, (2007): http://people.lis.illinois.edu/~unsworth/dhcs.html. ; Lynne Siemens, Richard Cunningham, Wendy Duff, and Claire Warwick, "A Tale of Two Cities: Implications of the Similarities and Differences in Collaborative Approaches within the Digital Libraries and Digital Humanities Communities," *Literary and Linguistic Computing* 26 (2011): 335-48.