

Digital Publishing: A Home for Faculty in the Library -- Exercises in Innovation from Harvard Law School

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Introduction

As libraries continue transforming through the digital age, we are faced with a familiar opportunity for renewal: the deepening of the faculty-library relationship -- this time in a digital framework. Instead of simply complementing analog disciplines with digital counterparts, a broader medium of “digital scholarship” is rapidly expanding among and across all disciplines. Like any rapid expansion, there is no one clear path. Hundreds of platforms are vying for prominence in the digital scholarship space; commercial publishers are developing, enhancing, and re-branding online portals to meet this demand. Rather than coping with that uncertainty, however, or formatting their work to fit a standard, commercial digital mold, many faculty are turning to trusted sources: librarians. Faculty are seeking guidance, support, and resources to meet their digital scholarship needs, meaning libraries are presently in a position to become the place where -- and the partner through which -- faculty create, manage, and store digital scholarship placing libraries in the position of digital publisher.

In recent years, commercial publishers have positioned themselves to transition traditional print journals and monographs to e-publishing platforms aimed at merely replicating the print experience. Ongoing management of those platforms, along with development of licensing and payment structures, have likewise attempted to replicate the print experience. Debate has surrounded library ownership of electronic resources, and the divorce of licensed content from traditional modes of print ownership has been, and continues to be, an area bereft of clarity and mired in controversy. [1]

This current opportunity is more than a mere transition, however, it is an expansion -- a broadening of our understanding of scholarship, not to simply replace print with digital, but to encourage and understand the opportunities of the digital environment as a new medium for faculty. As we face this evolution from replicating print in a digital environment, to authoring and creating within a digital framework, libraries must be assertive in taking on the challenges of developing a home for this content and become comfortable with digital publishing as a core library function.

This article highlights specific examples of desire by faculty at Harvard Law School to push legal scholarship beyond the constraints of traditional commercial publishing. Harvard Law School Library, like any other academic library, is navigating the expansion of scholarly formats to the digital realm, as well as the demand by faculty to support new, and evolving, approaches to scholarship. Analysis of these examples will focus on the unique role that the library has in stimulating, supporting, and

sustaining, faculty publishing efforts, in addition to the challenges presented by the new, and potentially uncomfortable, proposition of library as a digital publisher.

Open-Access, Online Journal

In June of 2015, a faculty member at Harvard Law School contacted his library liaison, asking her to put him in touch with someone in the library who “understands something about what is entailed in creating a new online journal.”[1] His liaison’s first instinct was to direct him instead to the Dean of Students Office, where there is a documented procedure for starting a new *student* journal, presuming that he would be satisfied with the traditional law journal model, and that his decision to make this an online-only journal would result in a savings of the associated print costs. In further conversations, however, the librarian realized that the faculty member was talking about something relatively novel in the legal world – a journal edited, not by students, but by faculty from multiple institutions that would showcase the student’s work, mostly from a policy perspective, and not limited to written articles. This was in essence a “flipped law journal.” The goal of this journal would be to promote and disseminate works by students in a variety of formats, including written articles, presentations, videos, audio, and infographics.

In meetings with library administrators, the librarian kept returning to a critical discovery: in order to maintain and enhance the library’s reputation among the faculty, the library must step into its role as a digital publisher. A new library program strategy emerged -- have faculty turn to the library when they seek to produce and disseminate their scholarship in any format, but especially in one as ripe with new opportunities and potential for growth as the digital publishing space. Library administrators agreed, deciding to move forward with development of the new journal and its first issue, with the understanding that after the first issue the faculty member would be responsible for any ongoing maintenance – presumably by using research funds to hire additional staff for content management, technical fixes, or enhancements.

Working with representatives from the Office for Scholarly Communications and the library’s Teaching, Learning, and Curriculum Solutions department, the librarian surveyed the field to determine what platform would best meet the needs of the project without presenting additional or prohibitive costs to the faculty member or the administration. Standard online journal formats, even in the open-access realm, proved insufficient to support this type of publishing, and custom web-development or engagement with a commercial publisher would have been an expensive gamble for the faculty research budget. Without in-house development support, the faculty member could not implement E-Journal for Drupal, the ePublishing Toolkit, HyperJournal, DPubS, or any other existing open source

solution. On the other hand, the faculty member's budget also could not absorb the cost of Open Journal Systems or other out-of-the-box solutions. Instead, the librarian offered to develop on Wordpress – using a theme ordinarily marketed to online magazines – allowing for multiple content formats, a familiar what-you-see-is-what-you-get (WYSIWYG) interface, and a modular approach to the site design, which would allow for a variety of content types: text/video/slides/photos/data. The faculty member understood he was working in uncharted territory from a legal publishing perspective, and was open to working on a framework that would result in a proof-of-concept model for this type of scholarship.

One of the major challenges, however, was attempting to keep a toe in the traditional publishing space with features that users would expect from an online journal – dynamic footnotes, tables of contents, and robust citation tools. Those features were more commonly found in Wordpress plugins aimed at a traditional online journal format, such as Annotum, but the site required a different set of plugins to allow for other media types. The third-party nature of plugin development on Wordpress presents exciting opportunities for development, but also a risk that the site performance may suffer as a result of too many added features. Pulling together these plugins and getting them to play nicely with one another resulted in a Frankenstein's monster of a site – one that has all the features users want to see, but is lacking in coordination and elegance.

Much of the initial material for the first issue had already been created in a print format. This made it difficult to think creatively about the presentation of the information as the faculty member would want it to be in this proof-of-concept. In the future, authors would be creating within the digital framework, not migrating content. Therefore, this flipped journal straddled both the print and digital in what was sometimes an uncomfortable position. The faculty member understood the vision and the capability of this type of digital publishing, and was at the same time satisfied by a proof-of-concept that, in its first iteration, replicated a traditional print format.

While the development of the site itself was underway, the librarian also engaged the faculty member in conversations about access and discovery. The faculty member would need to apply for an International Standard Serial Number (ISSN) in order to integrate with library discovery systems. Beyond its role of identifying titles, the ISSN is an essential tool for all serial/journal publications. Functions such as electronic archiving, cataloguing, distribution, access, and subscription management all rely on the ISSN. In the digital world the ISSN is used to update files, establish links between different files, and search for and exchange data.

Before the journal could apply for an ISSN, however, it had to have the permanent URL in place. This resulted in a back and forth between the library, the IT department, the communications office, and

the office of academic affairs. Since this was a relatively new venture for both the library and the school, no single department was in a clear ownership position. This inevitably led to a delay launching the journal. In many ways digital scholarship exists with no clear publication timeline or checklist. There is a chicken-and-egg feel to these projects where, for example, certain elements must be finalized in order to set up cataloging and indexing - yet other elements of the site cannot be completed without those legitimizing features in hand. No one entity is to blame for the delay in successfully launching the journal, but it is clear that the library is innovating in new ways that challenge our administrative approach. Rather than waiting for a specific faculty request and then bringing together solutions using the tools at hand (which may or may not fit the need), libraries should invest in developing and implementing open source solutions on behalf of faculty and publicizing their availability, driving faculty interest and adoption.

Hacked/Flipped Casebook

One example of such development comes from the Library Innovation Lab at Harvard Law School, which has developed H₂O, a digital textbook model that allows authors to access public domain judicial opinions and then “remix” and/or annotate those materials, providing the necessary editorial context as seen in traditional legal casebooks.

It is no secret that textbook prices have skyrocketed over the last two decades. Science and humanities textbooks, filled with new and creative text, photo, charts, data, are particularly expensive because of their creative content. The legal discipline, however, features textbooks (or “casebooks”) generally made up of public domain materials, namely, the judicial opinions of U.S. courts. Yet law is no stranger to the exponential textbook pricing. Print casebooks cost hundreds of dollars per semester for law students, despite the fact that the majority of the content is made up of freely available public domain case law. H₂O allows faculty an opportunity to provide materials to their students for free, enhancing and expanding on public domain material with original content.

As a platform, H₂O presumes a level of interaction and collaboration that traditional print methods lack. Users can take a syllabus “playlist” (the cases and editorial content added by one faculty member) and “remix” it by adding their own annotations and content. This allows faculty to build on one another’s work and, further, allows students to interact with course material in new and dynamic ways. While faculty can assume that students will highlight, underline, or otherwise annotate a print text, they can offer their students new methods of engagement in H₂O – viewing or hiding sections of text, linking out to additional source material, remixing a playlist with their own notes and annotations, and collaborating with their fellow students. Knowing, accepting, and encouraging a “reader” to view and

remix content is an inherent element in presenting material digitally, and H₂O presents a unique yet malleable form of digital teaching material.

While H₂O remains primarily a teaching tool offering an alternative to print casebooks, as an open source platform it could be expanded to allow faculty, students, and others an opportunity to build on that framework – sharing content in new and interesting ways and integrating with different types of digital material. As innovation continues in this space, academic publishing will most certainly reach a critical mass of platform types, and users will begin to look for consistent elements across platforms. Faculty will become more discerning about what types of platforms meet their needs and will want to migrate content between platforms where possible. As metadata specialists, librarians have an opportunity to view blocks of content as pieces of data and work to develop, store, migrate, and index those data points. Librarians are trained to see those pieces as source material to be preserved, cataloged, and discovered, like any other. The database feeding H₂O is made up of public domain case law and user-authored content blocks, and the librarian's commitment to supporting digital scholarship does not stop with platform development. Librarians must also be committed to treating the content as part of the library collection - libraries can be the developers of platforms, the hosts of online content, the curators of digital material, and the portals for discovery. By approaching the process holistically, and dedicating resources to support every stage in the process, libraries as digital publishers can provide a unique home for digital scholarship - one that cannot be replicated or usurped by commercial publishers.

In fields such as law, where a significant portion of scholarship refers to and is drawn from public domain sources, the library has a unique opportunity to play the role of digital content supplier. The recently completed Case Law Access Project at Harvard Law School Library has provided access to over 42,000 volumes of case law – approximately 40 million pages of text – through digitization on a massive scale. Unlike standard digitization projects, where the resulting cache of digital images is cataloged in an archival format, the library built a relationship with a commercial publisher to parse the cases in real time, resulting in content that can be used by Harvard in populating H₂O and generating additional tools and platforms for digital scholarship in the legal field. This project was more than traditional library digitization, it solidified the possibility that the library could and should serve as a digital publisher – both in content generation and platform development. Libraries have been involved in digitization as a preservation technique for years, and have enhanced those preservation goals to include broader access to materials for patrons. Expanding even further, access to digital content can again be more than a mere surrogate for print access. The creation and curation of digital content can enhance the

opportunities for faculty to engage in digital scholarship, elevating what may have in the past been limited to “digital humanities” to include all types of scholarly disciplines.

Reference/Bibliographic Work

Another traditional role for librarians has been in the development of bibliographies on behalf of faculty members - whether one-off reviews of the field for faculty compiling a course syllabus, or ongoing current awareness to follow work in a field of study, librarians regularly conduct research for faculty and use bibliographic management tools to share their findings. One Harvard Law School Faculty member uses monthly bibliographies generated by his library liaison to feed a larger project. The faculty member not only maintains a comprehensive, living bibliography of articles in his field, he reviews and comments on those articles with the goal of producing a major reference work, which would live online, and be continuously updated by a collaborative network of scholars. The faculty member would serve as an author, but also an editor of the collaborative work. When the faculty member first approached his liaison about supporting such a project, the librarian again tried to identify an existing digital publishing platform that would meet the faculty member’s needs – without success. Similar to the open-access, online journal previously described, the liaison believed this to be a space for library innovation, a place to demonstrate the value of multiple library work groups: research services, the liaison program, academic technology support, and others. The library again committed to developing a proof-of concept website, allowing the faculty member to experiment with digital publishing tools, and to train faculty support staff who would ultimately populate the content and maintain the website.

For this reference/bibliography project, the list of “must-haves” was longer than in the open-access online journal. The project required a platform where multiple authors could submit content or make changes, but the faculty member had final approval of those edits. The content was on the one hand a reference material for a general audience, but on the other contained original analysis that was complex in nature. The faculty member wanted the content display to be dynamic such that a reader could expand or collapse sections of text based on level of sophistication or interest. Most importantly, the project required integrated citations that would include clickable footnotes, as well as an automatically generated and updated complete bibliography, which, at the time we began the project, already contained 6,000 entries. The faculty member had been using Microsoft Word as the source of this bibliography and had not yet committed to any citation management software.

Concerned for the integrity and stability of his existing data, the liaison pulled together a group of library staff to help migrate his citations to Zotero, the only citation management tool at the time that would allow for multiple users to contribute to the same library. Zotero was also desirable as an

open-source platform, allowing for integration with the larger project site. The liaison divided the citations among the members of the team and successfully migrated the entire bibliography. This migration in and of itself was an exercise in managing staff resources. The liaison had to train library staff, many of whom were unfamiliar with Zotero, and to perform quality control to ensure that the citations migrated properly. Engaging library staff in this way not only furthered the value-add for the faculty member, but served the professional development mission of the library and is an example of the new ways teams can come together to support digital scholarship. Rather than focusing on subject-area or expertise, this team came together around a willingness to learn a new tool and to enhance library service offerings. Engaging in digital scholarship changes the traditional relationships between library staff and faculty - shifting the focus of the workflow away from subject expertise and toward the development of new tools and skills. Successful execution of digital scholarship projects is also “catching” with faculty become repeat customers and attributing the success of their work not only to the content, but to the work of the library in keeping that content alive online.

This project currently exists on a Wordpress platform with a limited set of chapters in its proof-of-concept phase. One of the driving forces in turning to Wordpress for development for this site was the availability of ZotPress, a plugin designed to integrate with Zotero and allow the author to pull citations directly from the shared Zotero library while entering content. The library has committed to training faculty support staff to get all of the existing chapters online, and in the future to help add users who will suggest edits and generate new content, which the faculty member will review.

Relying on Zotero had the added benefit of allowing the liaison to share new citations on a monthly basis by adding them to the group library and allowing the faculty member to tag the ones he was interested in reviewing. The faculty member expressed interest in using this feature to further organize his bibliography by tagging individual citations with tags assigned to particular “chapters” in the text or with particular concepts and keywords that may serve the “reader” in interacting with the digital content. This presents one of the most unique and exciting features of digital scholarship – that is, the way in which the reader interacts with the digital material may change the way in which it exists online, or the way future readers will view it. One of the faculty member’s goals is that a reader who is interacting with the material will click through a citation to find the original source online. Linking properly to source material that represents the actual reference that the author has made has become increasingly difficult in the digital era - again it is an example of the library’s opportunity to support both the digital content and the digital platform for creating that content.

In 2013, the Library Innovation Lab at Harvard Law School launched Perma.cc, a project aimed ending link rot or “reference rot”, with a focus on legal citations. Link rot is the direct result of the new information and internet revolution. More and more traditional print source citations were becoming URL citations. This was especially true of cases that were examining webpages as the source of the litigation such as trademark case litigation surrounding website registration or cases where the information found for the proper citation was a URL. These URLs, however, were never intended to be permanent, especially following Internet company collapse of the early 2000’s. Three legal journals (the Harvard Law Review (HLR), the Harvard Journal of Law and Technology (JOLT) and the Harvard Human Rights Journal (HRJ) discovered that links in all published United States Supreme Court opinions suffered a 50% link rot rate for the cited URLs. The journals themselves found more than 70% within their own journal articles. [3]

While the concept behind the site initially felt very service-based – you put in a URL, you get a URL to an archived version of the page – the site itself has become an example of balancing needs for both platform development and digital scholarship. A faculty member can organize and share her archived URLs in ways that move beyond a simple list of links. Generating and maintaining bibliographies of archived web content in a particular scholarly realm has become increasingly important as sources are more commonly born-digital. Curating and presenting links to archived material provides both a companion set of digital materials to traditional written articles and allow users to interact with and build digital scholarship initiatives around sources that change over time.

The idea that authors have a vested interest in maintaining the integrity of their citations is not particularly novel, but the possibility that they could do that with online sources lends legitimacy to materials that were, in the past, overlooked in favor of their print counterparts. In law, citation format is dominated by the Bluebook, a publication of the Harvard Law Review that until its 20th edition required the citation to print sources with near exclusivity. On the one hand, discouraging citation to online sources leant additional legitimacy to the cited material - if a reader was forced to track down the source in print it was assumed that the underlying material was of sufficient weight and authority to be cited. On the other hand, in the digital age, especially with law journals published online, readers expect to be able to click through a citation and see the underlying source material in a digital format. The problem is that URLs are not persistent - and however legitimate a source may be, there was no guarantee that the link would not rot (or change) over time. In its 20th edition, the Bluebook included a major shift to its rule on internet citations, allowing not only for the citation to sources online, but encouraging the author to archive the site and include the archived URL in the citation. Perma.cc is

utilized in the Bluebook as an example of an appropriate archival source, and this shift was monumental for legal authors and editors alike.

Perma.cc relies on its network of library partners to further the robustness of its archival mission. Treating the archived copies of webpages as individual items in a library collection, and making sure that there are multiple copies of each to be served up when called upon by the user, Perma.cc not only provides a helpful URL for archived webpages, it makes sure that online sources are preserved in the same way we would traditionally preserve and provide access to print resources. Ending link rot in legal citations was a discrete enough project, but even while the Perma.cc team was launching the first version of the tool, users were eager to extend the applications of the service. The team has broadened the tool to include an API generator so that developers could access and present the archived links in new and interesting ways. The API allows for the site to become interoperable and to work with other platforms, such as Wordpress. In this way the platform can extend beyond the resources the library is able to provide and feeds the expansion of digital scholarship initiatives, which leverage connections between publishing tools. By sharing the code for the site on GitHub as well as providing the API generator, the Perma.cc team can encourage other libraries to build on their innovative efforts.

Funding and Payment Structure

The initiatives discussed here have several key elements in common: 1) they are types of digital scholarship supported by libraries, 2) they attempt to broaden the ways in which faculty present their scholarship online, 3) they seek to deepen interaction with the material by “readers” (users), and 4) they aim to do so without assessing a cost on the user to access the information. This presents a very difficult financial position for the library, and one that may not be scalable. One reason commercial publishers may not be keen to innovate in the digital scholarship space is that they do not see a way to monetize what they falsely think are essentially websites. These online platforms, as designed by the library, are encouraging free and open access to faculty work product - scholarship they could otherwise be charged for, even in an e-book or online journal format, by commercial publishers. Libraries, however, have consistently advocated for open access, and by innovating in the digital publishing space, they may be tying themselves to an unsustainable financial investment. On the one hand libraries want to demonstrate the value to faculty (and by extension the administration) by meeting their demand, and on the other hand there is an expectation that, in digital scholarship at least, academic authors write to be read, rather than for commercial profit. If libraries are going to take on the role of digital publisher, however, they must find a way to provide long-term infrastructure.

One model to follow may be the digital institutional repository. Digital Access to Scholarship at Harvard (DASH) has been publishing online every day since 2008. By streamlining the method of submission and the collection of metadata for individual objects, repositories have been able to reduce the burden of submitting and hosting scholarly works online. Expanding on that model to include hosting for more complex digital publishing would allow libraries to build on models of success rather than trying to innovate in an unsupported environment. The path ahead may not be clear, it may not be immediately profitable, but it is vital that libraries put a first foot down the path of digital publishing lest they be left behind and ultimately excluded by the commercial publishers, left to continue fighting the battles of licensing and ownership we have experienced with e-books and online journal subscriptions. This is an opportunity to learn the lessons – to commit resources to turning our innovations into the platforms of the future and to become the home for digital scholarship.

Conclusion

Many digital scholarship projects call on the library to innovate in an ill-defined space with limited resources for initial development, with little to no commitment to ongoing maintenance, but it is a space libraries are uniquely suited to occupy, and the current climate makes it imperative that they do so. If libraries do not or cannot build these types of solutions for faculty interested in digital scholarship, they will be forced to respond to and implement the solutions that commercial publishers will ultimately create or contend with new entities competing for resources in this space. It is difficult to determine when initiatives for creating and supporting digital scholarship can and should move on from the beta phase and become stable, long-term library service offerings. Harvard Law School Library has recognized the need for library innovation and committed to encouraging and supporting the development of new library services, but it has not been without growing pains. The nature of innovating in the digital scholarship realm is that, as is often said, “[W]e are building the plane while we are flying it.”[4] Once the need for a solution has been established, libraries must move forward with crafting it in a way that leverages the development community in and beyond our library walls. If we wait for the solution to come along, it will likely be in the form of an unwanted commercial enterprise, and certainly will not meet the needs as our faculty have communicated them. Faculty are making the call - it is time for libraries to meet it by fully embracing their role as digital publishers.

[1] See e.g. Courtney, K. “Think You ‘Own’ What you ‘Buy’ on the Internet?” Politico. (Jan 11, 2015).

[2] Email on file with author.

[3] “Perma: Scoping and Addressing the Problem of Link and Reference Rot in Legal Citations,” 127 Harv. L. Rev. F. 176 (2014) available at <https://perma.cc/YXP8-WRVS>.

[4] Kyle Courtney talking about HarvardX in 2011.