Emerging Opportunities in Library Services: Planning for the Future of Scholarly Publishing

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Theme

Assessment & Pilot Publishing Projects
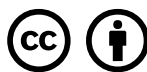
Highlighted Services

Online journal hosting, print journals, and digital projects

Software/Platforms Utilized

Open Journal Systems & WordPress

Resources

Breakdown of service types & associated workflows

In 2007, the Columbia University Libraries/Information Services (CUL/IS) established the Center for Digital Research and Scholarship (CDRS) to explore and provision new research support services for the university in all areas of scholarly communication, including online scholarly publishing[1] (Renfro and Neal, 2012). One of six organizations comprising the Digital Programs and Technology Services group within CUL/IS, CDRS assists faculty, students, staff, and university affiliates with their scholarly communication and digital research needs through a suite of services: publishing support, digital research repository, conference websites and

[1] Columbia University Libraries/Information Services Strategic Plan 2010–2013: http://library.columbia.edu/content/dam/libraryweb/general/documents/strategic_plan_2010-13.pdf.

video recording, research data management, and more.[2] Nine of its 17 full-time employees belong to a production team comprising developers, designers, and project managers from diverse academic and professional backgrounds, only one of whom holds a master's degree in library science.[3]

CDRS seeks publishing partnerships with a variety of on-campus groups and individuals (Perry, Borchert, Deliyannides, Kosavic, & Kennison, 2011) and embraces partnerships with allied organizations such as scholarly presses and societies as well (Kennison, Panourgia, & Tartar, 2010). A proponent of eliminating barriers to the progress of research, CDRS advocates for open access (OA) publishing models. This is exemplified by *Tremor and Other Hyperkinetic Movements*, the peer-reviewed, faculty-run OA journal now indexed in PubMed, which CDRS publishes. To help offset the OA journal publication costs, *Tremor* authors pay an article-processing fee, although waivers and alternative methods of funding are available[4] (Perry et al., 2011). In practice, CDRS' approach to publishing support is business model–neutral, however, and OA is not a requirement for partnership.[5]

> ## A strategy for keeping this service sustainable and scalable has been the adoption of a tiered structure based on design and customization needs to control flow.

The journals program at CDRS has been successful, providing publishing support to 16 journals using the Open Journal Systems or WordPress platforms and interactive tools such as blogs and wikis in subject areas ranging from sciences to the humanities. A strategy for keeping this service sustainable and scalable has been the adoption of a tiered structure based on design and customization needs to control flow. Projects can take anywhere from one week for a barebones installation to over 17 weeks for the Premier service (Perry et al., 2011).

Drawing on digital project management best practices, a typical project goes through several phases. Following a requirements-gathering and analysis phase, a Master Service Agreement and project plan are drawn up. Production work consisting of information architecture, design, and development ensues, followed by quality assurance testing prior to launch. Accessibility and usability principles are adhered to throughout the lifecycle of each project. CDRS provides extensive technical and administrative support throughout its publishing services: applying for International Standard Serial Numbers (ISSNs), procuring domains, hosting, reporting Web analytics, maintaining and updating websites, content archiving, and providing training.[6]

[2]   Center for Digital Research and Scholarship. http://cdrs.columbia.edu/.

[3]   Ibid.

[4]   *Tremor and Other Hyperkinetic Movements*: http://www.tremorjournal.org/index.php/tremor/about/submissions#authorFees (accessed 6 April 2013).

[5]   Ibid.

[6]   Center for Digital Research and Scholarship. http://cdrs.columbia.edu/.

Service Evolution

The scholarly publishing program at CDRS, informed by the broader discussion around publishing in libraries with and without the partnership of a scholarly press, therefore began with an initial development and rollout of publishing services and campus partnership projects. Throughout the short history of the program, however, partners have presented projects to the Center staff with requirements and contexts that fall outside of the expectations of its explicit offerings. As a service of the libraries to the Columbia campus community, CDRS' approach to such project proposals is to be adaptive and modify specifications through amendments to the Master Service Agreements, so long as the resultant project still falls with the CDRS mission statement and scope.[7] This open approach to project partnerships has enabled the staff of the Center to identify some emergent Web publishing project types through the application of some broad categories to be explored in this chapter: support for projects with significant or near-total external development contributions; projects with pronounced Web-first orientations; and projects that supplement existing publications.

Emergent Service Type 1: Hosting With Help

Description: A hosting service for publishing projects with varying technical requirements. Service is provisioned ad hoc, as parameters are determined through initial partner meeting rounds.
Value to Partners: Institutional support and badging. Platform and succession stability. Access to vendor services.
Value to CDRS & Importance to Library-Based Publishing: Increased support for a new class of publishing partners. The convergence of ease of tools and prevalence of technical aptitude calls for services that accommodate sophistication of users and a variety of project types.

There exists a tension among providers of scholarly publishing service in libraries: are providers of a hosting service to campus publications providing publishing services?[8] The appetite for a hosting service remains healthy among CDRS' publishing partners, and the most basic levels of the tiered journal service offering are frequent gateways to deeper publishing commitments and complex digital projects.

There has been a marked uptick in recent months, however, in project proposals that lead with a CDRS-hosting solution beyond the "setup and self-administer" paradigm. Whether the manifestation of a more technically adept disposition toward online publishing, the result of large online help communities, or the proliferation of viable open source publishing platforms, both new and returning publishing partners have entered requests for hosting arrangements that support active publication development on the partner side.

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[7]   http://cdrs.columbia.edu/cdrsmain/about/.

[8]   See Charles Watkinson's write-up of this discussion at the 2011 Library Publishing Services: Strategies for Success workshop series: http://www.webcitation.org/6FkgAfkJn.

Some examples:

- A political science journal, the editor of which would like to build a custom content management system (CMS) on Rails for closer integration with the CDRS-managed Academic Commons digital repository and to streamline the process of the journal production for his fellow editors. In the proposed workflow, CDRS would become a partner in the maintenance and ongoing development of the journal once the student developer (now a sophomore) graduates and leaves the journal staff.

- *Columbia Business Law Review*: The CBLR editors were afforded a development sandbox to prepare some changes to the journal site that didn't otherwise fit into the CDRS production schedule on an acceptable timetable. Changes to the application code were later quality checked and merged back with the main code repository.

- *Baraza Online*: The publication staff constructed an online publication on Joomla using an external developer to begin the work of community building and to demonstrate proof of concept to acquire institutional support. The project has now become a partner-managed Joomla-to-WordPress migration with hosting and infrastructure support mediated by CDRS.

Institutional context is significant; lack of access to adequate computing resources drives entrepreneurial power-users to seek unconventional opportunities. The problem is especially pronounced at Columbia, where access to LAMP infrastructure[9] is brokered by cost-recovery central IT gatekeepers, barring the majority of savvy users from self-installing common applications, let alone those that run on popular alternative frameworks such as Ruby on Rails.

Emergent Service Type 2: Native Digital Publication

Description: Scholarly publications developed in ways that exploit the online digital format rather than replicate print processes and workflows.
Value to Partners: Combination of Web development, social media, and open access scholarly publishing expertise. Flexible publishing models and full hosting support. Consultation and regular meetings to enhance the project as needs and library publishing landscape shift.
Value to CDRS & Importance to Library-Based Publishing: One-off projects become case studies for testing the limits of available Web publishing platforms, and research for the evolving needs of scholars. CDRS and partners together explore a native digital approach to scholarly publishing that is enhanced by the online format.

This second service type demonstrates CDRS' increasingly prevalent role in support of new, digitally native publications. In this role CDRS is both publisher and Web development team; both advisor on best practices for open access scholarly publishing and guide for utilizing the tools the online medium offers to enhance the content's readability, reuse/share-ability, and reach. These scholars come to the Center with the desire to publish original online scholarly content that is readily available for public consumption, with the need for a system that conforms

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9   Linux, Apache, MySQL, and PHP.

to both their content and their editorial process, and with a good amount of knowledge of the Web's inherent ability to propagate ideas rapidly among a global community of users.

One example of such a group is a team of scholars in the fields of cultural studies and education, who approached CDRS with initial plans for a new Web-based journal known as *Cultural Formations (Cf.)*. For the *Cf.* team, whose first issue is introduced with the editorial statement, "Education is no longer concentrated in its institutions (was it ever?), but now circulates via popular culture and the media. Tracing its course, we find ourselves, and in our institutions, we see its inverted image..."[10], the act of pushing the boundaries of academic learning, thought, and publication is in itself part of the journal's central message.

A principal need of the *Cf.* editors in coming to CDRS was to find a platform that would enable them to take a collaborative approach to editing submissions to the journal, and then to publish them in an open access online journal. Having explored what was offered by the Public Knowledge Project's (PKP) Online Journal Systems (OJS) software, the editors knew they needed some added flexibility in the editorial workflow beyond what is offered through OJS alone.[11] After trying on several initial solutions, including a combination OJS/WikiScholars[12] site, as well as an Alfresco[13] account for editorial collaboration combined with a WordPress site for journal publication, CDRS and the *Cf.* editors together landed on the system that would work to publish the first issue. The decided-upon CMS was WordPress: a custom CDRS theme based on Carrington Blueprint [14], with the EditFlow[15] plugin installed to provide a flexible editorial workflow.

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[10]   From http://culturalformations.org/.

[11]   OJS Workflow Chart: http://pkp.sfu.ca/files/OJSinanHour.pdf, p. 12.

[12]   http://www.wikischolars.columbia.edu/.

[13]   Alfresco is a collaborative content management platform used by Columbia University Libraries/Information Services; see http://www.alfresco.com/.

[14]   Carrington Blueprint (http://gastongarcia.com/carringtonbp/category/carrington-blueprint/) is a Carrington Text WordPress Theme (http://carringtontheme.com/) with the Blueprint CSS (http://www.blueprintcss.org/)framework applied. CDRS created a custom theme from this flexible base to meet the design aspirations and content formatting choices of the journal.

[15]   The EditFlow plugin (http://editflow.org/) allows editors to accept submissions, engage in a collaborative peer-review process, communicate with authors through e-mail or in-page comments, and publish the accepted papers to the website, all within the WordPress dashboard.
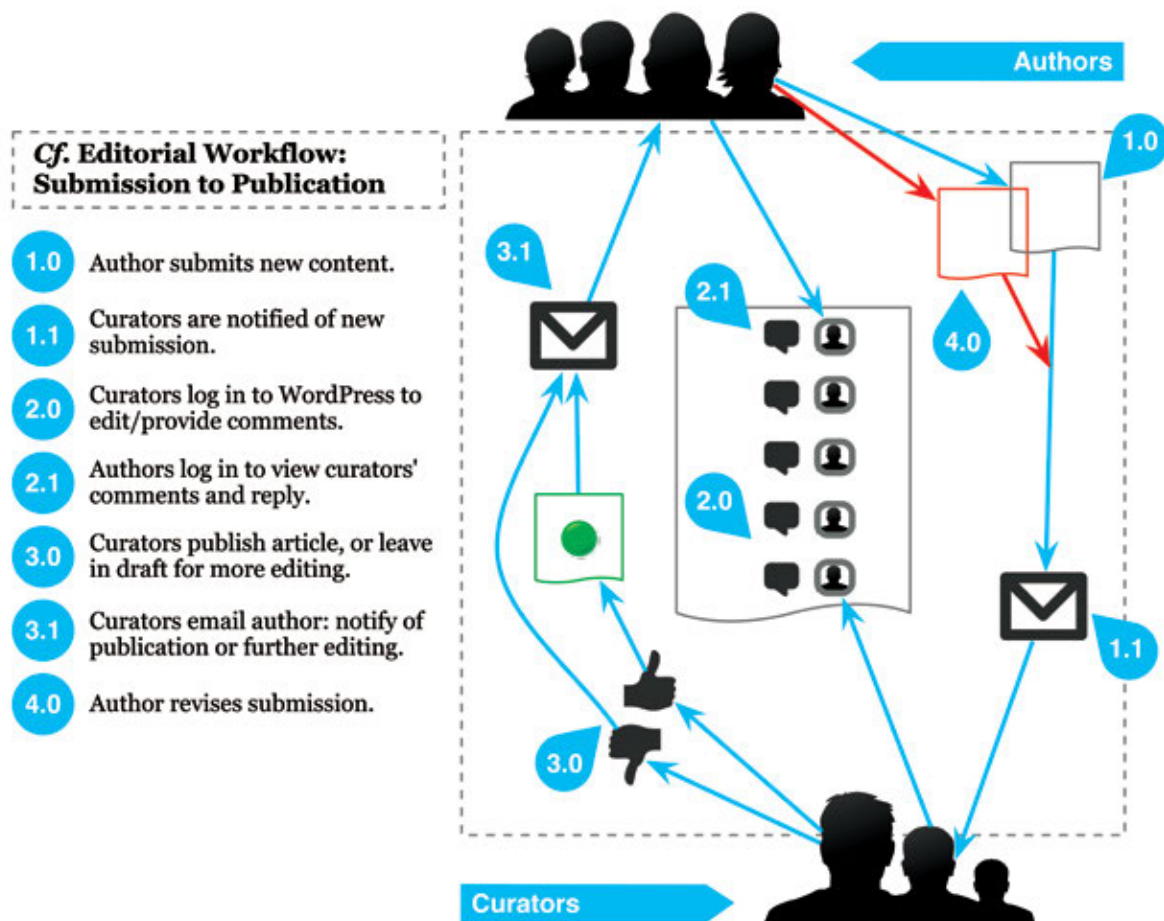
Figure 1: Custom Editing Workflow Diagram Arrived at for Cf., Enabled Through Customization Options Within the Editflow Wordpress Plugin.

CDRS will continue to work with *Cf.* on a second phase of the project, in pursuit of the following goals:

- Modify the website design and architecture with a focus on responsiveness to enhance readability of content across mobile platforms.

- Structure the content metadata with custom taxonomies to enhance searching.

- Provide tools for descriptive content modeling to improve the representation of various content types within article text (e.g., images, captions, block quotes).

Publishing partners such as the *Cf.* editors represent the emergence of a demand for a flexible, Web-first model for scholarly publishing in libraries. The CDRS staff accordingly expands its approach to and way of thinking about publication of scholarly materials to be innovators in exploring tools for Web publishing that take advantage of the online medium to enhance the story and bend to meet the needs of new publishing models.

Emergent Service Type 3: Companion Site to Print Publication

Description: CDRS develops, hosts, and maintains a website which acts as a complementary online presence for an existing publication.
Value to Partners: Journal managers maintain existing connections and agreements with established publishers while increasing online presence, especially when such visibility is limited by subscription access. The CDRS partnership enables publication of content that may fall outside of the scope, mandate, and publishing schedule of print formats.
Value to CDRS & Importance to Library-Based Publishing: Ability to accommodate partners in a transitional stage between print and online publication. Opportunity to share ideas in promotion of open access to scholarly research, while providing a mechanism for experimentation with different subscription-based models. Opens the door for partnership with established, institutionally affiliated publications.

A large proportion of CDRS' existing and new publishing partners represent existing print-based publications looking to expand their reach to online audiences. In many cases these are undergraduate- or graduate-level student journals and law reviews that rely on subscription fees to cover publication costs, and typically manage the journal's peer-review process through e-mail or through in-person meetings. While they occasionally express frustration with their editorial workflow, as well as some desire to provide greater access to their journal's content, they are not ready to upend their editorial workflow or to move away from a subscription-based model of financial support. They come to CDRS instead with the intention of building or improving their Web presence: placing some new or teaser content online and establishing a connection to online readership.

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By strengthening connections with established scholarly publications, CDRS is better positioned to identify areas of support that may be needed as more journals respond to the larger shifts in scholarly communication: 1) print to online media as a central format for publication; and 2) paid to free access to scholarly content.

Some examples:

- The editors of *Social Text* and *Comparative Studies of South Asia, Africa and the Middle East* (CSSAAME), both published through Duke University Press, are working with CDRS to prepare companion sites for their journals that comply with the expectations

of their publishing agreements (namely that 90% of the published content needs to remain behind the subscription paywall managed by the publisher).

- *CSSAAME* editors seek to provide a space for short-form articles and discussion pieces as well as multimedia galleries related to the original content that would not translate effectively in the print format.

- *Social Text* has partnered with CDRS to create a sidebar to the main journal, called Is This What Democracy Looks Like?,[16] loaded with timely free-to-access, Creative Commons–licensed essays related to the Occupy Wall Street movement.

- *Current Musicology* journal, in publication since 1965 and with much of its backlist material accessible to the journal editors only in print form,[17] has approached CDRS for assistance in making a transition to both an online submissions and workflow system and open access to journal issue contents. CDRS has initiated efforts in digitization of backlist print journal archives. Further discussion around the provision of editorial workflow management software and new issues publication, as well as consultation around options for flexible open access models in conjunction with support for any impact on subscription revenue, have been a part of the partner support package.

Through partnership with journals in transition between print and online publication models, CDRS has identified a space for library-based publishing services as a bridge between long-standing historical models that no longer suffice and future aspirations for the success and longitude of the publication.

Conclusion, Questions, and Next Steps

The aforementioned emergent service types break some of the expectations built into the current service offerings and will need to be formalized if they are to become more than ad hoc reactions to shifting descriptions of publishing support needs. As noted at the outset, CDRS is situated among a tight cadre of library-based digital service centers at Columbia. Immediate next steps to examine the supportability of these emergent service types therefore include collaboration and discussion among CDRS' internal peers, and this work is already underway.

- The approach at CDRS has been to make every effort to accommodate new partner relationships, especially where providing scholarly publishing support services out of the libraries is challenged beyond its current definitions. Not only do the Master Service Agreement templates need to be updated and amended to accommodate

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16   http://what-democracy-looks-like.com/
17   http://www.music.columbia.edu/~curmus/

new opportunities, but a fresh slate of service support questions arise, and answers are yet in short supply:

- How can the technical support be supplied when a partner-developed project breaks after the original developers are no longer with Columbia?

- What kind of upgrade path exists for partner-developed projects?

- How can we best ensure a model of security with the libraries' IT group for a new class of users with direct server access during development?

- What measures should CDRS have in place to encourage responsible code check-in, deployment, and maintenance practices for partners who share development responsibilities?

In responding to these challenges, the goal will be to initiate new service agreement templates and new messaging to the campus community (both directly and through the network of librarians at Columbia). Some of the support requests CDRS receives fall outside the boundaries of available project resources or supported infrastructure or both. Not all service types identified here will mature, but the exercise of categorizing and assessing them provides the Center with the means to anticipate, grow, and advocate for change in effective ways. On the whole, consumers of library-based publishing services are becoming more technologically adept and increasingly accepting of the library as a capable partner in the production of scholarship. Publishing programs in libraries may likewise grow in capacity with their partners, graduating ad hoc solutions into the service suite over time.

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