Scholarly Communication
Humanities Collaborations and Research Practices: Investigating New Modes of Collaborative Humanities Scholarship

Harriett Green, English and Digital Humanities Librarian, University of Illinois at Urbana-Champaign

Angela Courtney, Head of Arts & Humanities, Librarian for English & American Literature, Indiana University–Bloomington

Megan Senseney, Research Scientist, University of Illinois at Urbana-Champaign

Abstract

This paper presents preliminary findings from “Humanities Collaborations and Research Practices: Exploring Scholarship in the Global Midwest,” (HCRP), a collaborative project led by librarians at the University of Illinois at Urbana-Champaign and Indiana University that examines how collaborative and experimental research practices in the humanities affects scholarly practices, scholarly communication, and research outcomes.

The HCRP study examines a series of multi-institutional humanities research projects funded by the Humanities Without Walls (HWW) Global Midwest initiative, a Mellon Foundation-funded consortium of Midwest university humanities centers. We conducted 27 semi-structured interviews with scholars from diverse humanities disciplines who were HWW Global Midwest awardees. The interviews explore how scholars share data, build self-generated research environment infrastructures for supporting data sharing and communications, and frame their collaborations in the context of broader goals. This short paper will offer new perspectives on scholarly communications and data curation in the humanities, as it will share valuable insights into how information professionals can engage with collaborative, experimental, and multimodal research.

Introduction

With new emergent avenues for research support in digital humanities and collaborative research, and a renewed emphasis on interdisciplinary research approaches, humanities scholars today increasingly engage in rich, innovative collaborations that cross geographic, disciplinary, and methodological borders. This paper presents the preliminary findings of “Humanities Collaboration and Research Practices: Exploring Scholarship in the Global Midwest” (HCRP), a study which explores the Humanities Without Walls initiative as a case study for how collaborative and experimental research practices in the humanities affects scholarly practices, scholarly communication, and research outcomes.

The HCRP study engaged in a series of interviews with humanities and social sciences scholars who led multi-institutional research projects funded by the Humanities Without Walls (HWW) initiative (www.humanitieswithoutwalls.illinois.edu). This short paper will offer new perspectives on scholarly communications and data curation in the humanities, as it will share valuable insights into how information professionals can engage with collaborative, experimental, and multimodal research.

Background

Humanities Without Walls and the HCRP Project

Humanities Without Walls (HWW) is a consortium that links the humanities centers at 15 research universities throughout the Midwest. The consortium was awarded $3,000,000 from the Andrew W. Mellon Foundation to launch a set of innovative and experimental initiatives enabling them to advance education and research in the humanities. One of the first core HWW initiatives was a competitive research challenge focused on the theme of the “Global Midwest,” (http://www.humanitieswithoutwalls.illinois.edu/initiatives/global-midwest/index.html), and it aimed to fund multi-institutional collaborative teams to conduct projects that explore grand research challenges related to the global Midwest.

“Humanities Collaboration and Research Practices: Exploring Scholarship in the Global Midwest” (HCRP)
examines the collaborative research practices of HWW Global Midwest awardees to understand how humanities research happens at the level of practice, process, and collaboration. With its emphasis on multi-institutional, interdisciplinary collaboration and its focus on innovative, applied research, the HWW Global Midwest program presented a rich and highly refined set of research cases for the HCRP project to explore the evolving nature of humanities research. The value of such study can be seen in previous social scientific studies of scholarly information use and research practices in the humanities.

**Literature on Scholarly Practices in the Humanities**

Over the past decade, collaboration has received considerable attention within the digital humanities community (Siemens, 2009; Siemens, 2011; Nowviskie, 2011; Nowviskie, 2012; Deegan & McCarty, 2012; Given & Wilson, 2015). In a 2006 report on cyberinfrastructure, the American Council for Learned Societies highlighted collaborative research within digital scholarship as a motivating requirement for ongoing development of shared infrastructures, opening a path toward interventions that must be planned and executed at the institutional level. With increased attention to scholarly collaboration in the digital humanities, further themes emerged around credit and authorship (Nowviskie, 2011; Nowviskie, 2012), the relationship between collaboration and infrastructure (Edmond, 2015), and the role of project management for alternative academics and other scholars in the humanities (Leon, 2011). While most the social scientific studies above employ qualitative methods, quantitative methods have also been employed to study collaboration networks in terms of project membership (Quan-Haase, Suarez, & Brown, 2015) and co-authorship (Ossenblok, Verleysen, & Engels, 2014).

In the vein of these previous studies, our aim for the HCRP project is to explore the evolving nature of humanities research, and the HWW Global Midwest project awardees comprise a cohort of humanists well situated to reflect upon how collaborative and experimental research initiatives affect their research practices and requirements, scholarly communication throughout the research process, and final research outcomes.

**Methods**

The project team conducted semistructured interviews with 28 researchers who participated in projects funded by the first round of HWW Global Midwest awards. Participants were asked about the aims of their collaborative projects, the processes for developing their collaborations, the types of resources used to support collaboration and project management, the challenges, data-sharing practices, and how their research approaches and methodologies were influenced by engaging in collaborative research.

We recorded, transcribed, and coded the interviews in ATLAS.ti 7. Preliminary codes were developed inductively based on themes identified in the raw transcripts, and each transcription was coded multiple times to ensure intercoder reliability. This study applies a qualitative analysis method that expands upon prior studies by Brockman et al. (2001), Palmer and Neumann (2002), and Palmer (2005), and also draws upon a theoretical grounding in qualitative content analysis (Corbin & Strauss, 2008).

**Findings**

The interviews reveal how build self-generated research environment infrastructures for supporting data sharing and communications and frame their collaborations in the context of broader goals. In our preliminary analysis, the prominent themes emerging are:

- **Adaptive research practices**: Scholars noted challenges in project management and organizing workflows between researchers with differing methodologies and disciplinary philosophies.
- **Diverse modes of scholarly publication**: Scholars employed diverse, frequently digital modes of dissemination and publication;
- **Networks of scholarship**: The scholars frequently cited the networks of scholarship that they built through these collaborative projects, and how the research connected scholars to multiple academic and public communities.
Adaptive Research Practices

Scholars noted challenges in project management and organizing workflows between researchers with differing methodologies and disciplinary philosophies.

Project Workflows and Infrastructure. The interviewed participants identified many project challenges with this new model of activity and funding. These included personnel challenges, the difficulty of identifying collaborators eligible to participate, the challenge of coordinating review by multiple institutional review boards (IRBs), and having to coordinate financial arrangements between three institutions, which are not necessarily used to doing this together. The participants highlighted some positive models of institutional support for effective project planning and organization, specifically the workshops held at Michigan State where you could prototype your proposals, you get feedback on your proposals from peers, where you were given presentations by people from outside the university about collaborating with communities, so it’s in a sense, professional development.

In reflecting on project planning and management, one participant summed up the sentiments of many, saying “that was definitely a learning curve for all of us.” A steep learning curve for many, but one that most deemed worth undertaking. One interviewee shared that “this HWW process, which included certain professional development and information for faculty and then the opportunity to work together in teams to develop the proposal, was just priceless.” Perhaps most positively, another respondent reported among their collaborators that “we all agreed that we’d like to do this again.”

Most interviewed HWW Global Midwest research groups used popular file sharing and communications software and tools (see Table 1). A selection of teams described how they used unique platforms, including one group that made use of the digital humanities software built for the NINES and 18thConnect projects, but whether they used popular or specialized tools, the prevailing ethos in research tool choice and use is captured in one respondent’s declaration that “we’re using an existing infrastructure and we’re applying it in a quite different way.”

<table>
<thead>
<tr>
<th>Table 1. Tools for research.</th>
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<tr>
<td><strong>File Sharing and Communication</strong></td>
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Diverse Modes of Scholarly Communications and Publication

Scholars employed diverse, frequently digital modes of dissemination and publication. Respondents cited a host of different formats for expressing and sharing their project work. Performances, films, and websites were among the formats they used, as well as traditional written texts and academic presentations, and a number of respondents envisioned using a hybrid of formats to fully express their research products. One respondent described that they intended “to create some kind of interactive map [and] ideally a repository of sounds.” Another discussed their strategies for sharing interview data as a format of dissemination, noting that “we’re still processing the data [and] deciding how to feature it . . . we’re not tweeting the results or something like that.” This response also highlights the complex characteristics of humanities data, and the multiplicity of factors that must be considered as part of the processes of data sharing and archiving.

The variety of data formats utilized by the interviewed researchers suggests that scholars increasingly may break away from traditional journal articles and monographs to explore the multitude of other ways that their scholarship can be shared.

Respondents also saw avenues for making impact via their dissemination through different platforms. As
one respondent explained, “I think what we’ve contemplated is public dissemination of research using new platforms. I think we’ve contemplated scholarly output in the traditional platforms . . . journals, whether they’re online or in print, but we have contemplated getting research into the hands of stakeholders who are not scholars.” This quote also highlights the considerations involved in how scholars could share their research not only with peer academics but other key stakeholders in the public and other sectors of society. This issue was notable across several projects and highlights how the diverse dynamics and stakeholders involved in humanities research collaborations raises new issues for modes and formats for scholarly communications.

**Networks of Scholarship**

The scholars frequently cited the networks of scholarship that they built through these collaborative projects and how the research connected scholars to multiple academic and public communities.

**Credit and Authorship.** As respondents discussed collaborative initiatives, many were mindful of the importance of providing appropriate credit and recognition for project partners. One respondent noted that “for us, the notion of collaboration was built around the idea that both parties would be equally acknowledged.” Negotiating appropriate credit, however, also can reveal moments of tension within projects. Another respondent observed that “there was a little bit of misunderstanding, and some disagreements [. . .] had to do with who is being acknowledged for what.”

Respondents differed on whether they planned for their collaboration to culminate in co-authored publications. One respondent noted, “I didn’t expect a lot of co-authoring, more of a co-design of the platform.” Another viewed co-authorship as an important “end product collaboration.” This issue of co-authorship critically connects to the aforementioned issues surrounding scholarly communications and humanities collaborations, as researchers confront new modes of developing and sharing their research with multiple authors as well as stakeholders.

**Networks of Collaborations.** The collaborations formed by the Humanities Without Walls research projects created networks between the research institutions and also among various community groups and organizations connected to their research work. Participants often collaborate around shared research interests rather than shared methodologies and built networks around these commonalities. These new, often fraught research situations brought about various challenges, and researchers searched for the best investigative approaches that incorporated intersecting disciplinary concerns. As one scholar noted, “I want to say this project is peripheral for everyone involved. It’s none of their central research. It all, I think, reflects some common questions and even frustrations among the researchers about available spaces for exercise of their disciplinary work, and so it’s dealing with things we share in common on the periphery of what we do.”

A preliminary visualization (see Figure 1) created of the Humanities Without Walls Global Midwest projects and the partnering institutions highlights the collaborative research networks that have emerged most immediately from the HWW initiative. Unsurprisingly, the University of Illinois at Urbana-Champaign, University of Michigan, and Michigan State University are the most central nodes in the HWW network, due to the fact that these institutions had the largest numbers of faculty and researchers who were awarded on HWW Global Midwest grant awards.

**Discussion and Conclusion**

As a case study, Humanities Without Walls offers key insights into the benefits and challenges of collaborative humanities work.

On one hand, the initiative offered rare and rich support for humanistic inquiry, as it supported the expanded investigations into understudied topics, and researchers could engage in new methodological approaches, as HWW promoted interdisciplinary engagement across institutions, but challenges such as project management and effective communications were encountered by several projects and stand out as key issues to continue to address as these types of collaborations continue to expand.
As humanities research evolves and expands in new ways, information professionals and publishers must consider:

**What are ways that libraries, archives, and publishers can engage with humanities research collaborations?**

**How could these new modes of humanities research shape the future of library services and initiatives?**

We found in our study of HWW Global Midwest recipients that they frequently sought new ways of disseminating their research findings, as the traditional journal article and monograph could not always fully convey the inputs and gathered findings that everyone contributed. As humanities scholars begin to try new formats that are supported by openly available tools, information organizations and publishers can engage in supporting and thinking through these new models for scholarly communication and publishing.

These preliminary results of the Humanities Collaborations and Research Practices project begin to suggest new perspectives for information professionals to consider about scholarly communications in the humanities, and how we can engage with collaborative, experimental, and multimodal humanities research of the future.

**Acknowledgments**

The Humanities Collaborations and Research Practices (HCRP) study was conducted from March 2015 through November 2016 with the support of a Humanities Without Walls Global Midwest grant award. We are grateful to the Humanities Without Walls initiative for generously supporting our work. We also thank the University of Illinois at Urbana-Champaign Library, Indiana University Bloomington Libraries, the School of Information Sciences at the University of Illinois at Urbana-Champaign, the Center for Informatics Research in Science and Scholarship (CIRSS) in the School of Information Sciences, and the HathiTrust Research Center. Most of all, a huge thanks to all HCRP project team members for all of their hard work:

University of Illinois at Urbana-Champaign: Harriett Green (PI), Maria Bonn, Megan Senseney, and Justin Williams.

Indiana University - Bloomington: Angela Courtney (co-PI), Nicholae Cline, Leanne Nay, Robert McDonald, and Jaimie Murdock.

**References**


COUNTER: Consistency, Clarity, Simplification, and Continuous Maintenance

Anne Osterman, Director, Virtual Library of Virginia

Lorraine Estelle, Project Director, COUNTER

Oliver Pesch, Chief Product Strategist, EBSCO

Abstract

COUNTER provides a Code of Practice for recording and reporting the usage of electronic resources. The Code of Practice evolves as the information environment develops to meet the needs of the vendors, publishers, and libraries. COUNTER usage reports are an important tool for libraries, recording how often a given resource has been accessed and thus making a vital contribution to collection development and decision making.

COUNTER is now developing of its next release of the Code of Practice, with the objective of addressing changing needs and making the Code of Practice less complex, so that providers of content and of usage analysis tools find it easier to use.

Background

COUNTER provides a Code of Practice for recording and reporting the usage of electronic resources. The Code of Practice evolves as the information environment develops to meet the needs of the vendors, publishers, and libraries. COUNTER usage reports are an important tool for libraries, recording how often a given resource has been accessed and thus making a vital contribution to collection development and decision making.

History

COUNTER, a collaboration between publishers and libraries, released the first COUNTER Code of Practice for journals and databases in 2003. The current Code of Practice, released in 2012, encompasses books and multimedia in addition to journals and databases.

To address the effort involved in downloading COUNTER reports and loading them into electronic resource management (ERM) systems, the National Information Standards Organization (NISO) standard known as Standardized Usage Statistics Harvesting Initiative (SUSHI) was created. SUSHI describes a method that enables machine-to-machine harvesting of COUNTER reports, saving librarians considerable time and effort. SUSHI was released as American National Standards Institute (ANSI) standard Z39.93 in 2006; it is now on its third release and is managed by NISO’s SUSHI Standing Committee.

The NISO SUSHI Standing Committee is investigating the possibility of creating an updated version of SUSHI, one that uses a RESTful2 interface to deliver COUNTER statistics in JavaScript Object Notation (JSON)² format. This initiative, currently referred to as SUSHI-Lite, will be published as a technical report in the near future. It will be much easier to apply and will help the mainstream web-development community to implement both SUSHI and COUNTER. Since it allows for the retrieval of snippets of usage (e.g., usage for a single journal), it also opens up new opportunities for integrating usage data into more areas of the information workflow.

In 2015, COUNTER supported the setting up of the community website Usus, usus.org.uk, which helps resolve issues with SUSHI and COUNTER reports.

Release 5 of the COUNTER Code of Practice

COUNTER is now developing of its next release of the Code of Practice, with the objective of addressing changing needs and making the Code of Practice less complex so that providers of content and usage analysis tools find it easier to use. The themes of the development are:
• Consistency: In report layouts, between formats, and in vocabulary.

• Simplicity: Fewer standard reports and fewer metric types (metric types measure and report on user intentions, for example the intention to investigate an item of content, or to request one).

• Flexibility: Through filters and reporting options that address specialized reporting needs without creating one-off “optional” COUNTER reports.

• Clarity: Through clearly defined metric types and qualifying actions, processing rules, and formatting expectations.

The Reports

COUNTER will discuss with its stakeholders the implementation of 11 standard reports and four expanded reports. This will reduce the number of possible reports from the 36 currently in Release 4 to 15 in Release 5. The proposed reports are:

The intention of the expanded reports is to allow librarians a way to apply filters and limiters to customize the output to better suit their specific analysis requirement. Release 5 also introduces additional attributes that will be useful in limiting and filtering the reports.

Metric Types and Related Attributes

Release 5 introduces new metric types that better describe a user’s action (or action taken on behalf of a user). These are:

- **items_investigated** and **unique_items_investigated**: Provides a means of quantifying users’ interest in a book, journal, or other content item even if full text wasn’t available or requested. Activities in this category would include viewing an abstract of an article, clicking on an OpenURL link, and viewing the full text. “Items_investigated” is the total count of such actions. “Unique_items_investigated” is the count of content items investigated in user sessions. For example, if a user clicks to see the abstract for an article, clicks again to view its citations, and finally clicks to download the article, the result would be three items_investigated but only one unique_items_investigated. These new metrics replace result_clicks, record_views and various other specialized metrics.

- **items_requested** and **unique_items_requested**: Quantifies the access to the full text or actual content item and reduces the effect of the user interface on counts. In the past, the number of full-text downloads has sometimes been inflated when, for example, a publisher requires a user to view an HTML version of a piece of content before accessing a PDF version. This has made accurate cross-publisher comparisons difficult, and these important new metrics are designed to address this effect. “Items_requested” is the count of the download requests regardless of format, while “unique_items_requested” is the count of unique content items (articles and books) accessed in a user session. They replace format-specific metrics such as “ft_html” and “ft_pdf.”

- **searches_regular**: Records searches conducted by users where the user has selected the database. This metric is applied only at the database/collection level.

- **searches_federated**: Counts searches conducted by a federated search engine where the user is interacting with a user interface operating on a different host. Typically, each search is conducted against multiple databases.

- **searches_automated**: Quantifies searches conducted by a discovery service or other automated search agent where multiple databases are searched, and the user hasn’t chosen them.

- **searches_platform**: Records searches conducted by a user on the host platform. In cases where a search was conducted against multiple databases, that search is only counted once for the “searches_platform” metric. The metric only applies at the platform level.

- **no_license**: Records when access is denied because the user’s institution does not have a license for the content.
- **user_limit_exceeded**: Counts the number of times when access is denied because the user’s institution has a concurrent-user license for the content, and the limit has been exceeded.

The proposal represents a reduction from 25 metric types in Release 4 to 10 in Release 5.

To support more flexible reporting and simplify the preparation and use of the resulting COUNTER statistics, new attributes have been introduced, and some existing attributes have been enhanced. These are:

- **Data_Type** Describes the level of reporting and/or nature of the material, for example, whether it is a book, journal, multimedia, database, or platform. Contributes to assessment of books versus journals versus multimedia.

- **Access_Type** Indicates if the item the activity applies to was free-to-read or access controlled by a license. Options: Controlled; OA_Gold; OA_Green, OA_Delayed and Other_Free-to-Read. Contributes to assessment of current subscriptions.

- **Is_Archive** Indicates if the item the activity applies to is included in a separately licensed archive (e.g., a backfile). Contributes to assessment of archives and current subscriptions.

- **YOP** Year of publication. Contributes to assessment of archives and current subscriptions.

<table>
<thead>
<tr>
<th>Platform Report 1</th>
<th>Usage by Month and Platform</th>
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<tr>
<td>Database Report 1</td>
<td>Usage by Month and Database/Collection</td>
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<tr>
<td>Database Report 2</td>
<td>Access Denied by Month and Database/Collection</td>
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<tr>
<td>Journal Title Report 1</td>
<td>Usage by Month and Journal Title</td>
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<tr>
<td>Journal Title Report 2</td>
<td>Access Denied by Month and Journal Title</td>
</tr>
<tr>
<td>Book Title Report 1</td>
<td>Usage by Month and Book Title</td>
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<tr>
<td>Book Title Report 2</td>
<td>Access Denied by Month and Book Title</td>
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<tr>
<td>Article Report 1</td>
<td>Usage by Month and Article</td>
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<tr>
<td>Multimedia Item Report 1</td>
<td>Usage by Month and Multimedia Item</td>
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<tr>
<td>Item Report 1</td>
<td>Usage by Month and Item</td>
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<tr>
<td>Item Component Report 1</td>
<td>Usage by Month and Item with Components</td>
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*(in this context, components are downloadable elements within an item; for example, an image or table within an article).*

**Figure 1. Standard report summary.**

The proposed expanded reports are:

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<tr>
<th>Expanded Platform Report</th>
<th>Activity by Month and Platform</th>
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<tbody>
<tr>
<td>Expanded Database Report</td>
<td>Activity by Month and Database/Collection</td>
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<tr>
<td>Expanded Title Report</td>
<td>Activity by Month and Title</td>
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<tr>
<td>Expanded Item Report</td>
<td>Activity by Month and Item</td>
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</tbody>
</table>

**Figure 2. Expanded report summary.**
Report Formats

Release 5 aims to provide standard report formats for all data types. In Release 4, report formats vary from one report to the next. For example, the database reports break out usage by metric type, but journal and book reports do not.

The proposed layout would be the same for all reports, with a consistent header, consistent detail, and a consistent vocabulary. Release 5 aims to provide flexibility through expanded reports that will enable libraries to filter by usage date, data types, section types, and metric types. Additionally, libraries will be able to filter by access types (for example, to eliminate gold open-access content), to filter out archival content (paid for through a separate license to the current content), and to filter by year of publication (YOP).

Sample Use Cases

The flexibility of the “expanded” reports is envisioned to support a number of use cases. For example, if a librarian wants to calculate the cost-per-use analysis for the library’s current subscription and wants to exclude usage of content that was in a licensed archive or available as open access, this can be accomplished by selecting Journal Title Report 1 and filtering the report to include only:

- Data_Type = Journal
- Access_Type = Controlled
- Is_Archive = N
- Metric Type = “unique_items_requested”

This will limit the usage to content available through current, paid subscriptions and exclude content that is otherwise accessible as free-to-read, allowing librarians to calculate cost per use more accurately. Another example would be a librarian wanting to see a list of journals that are not subscribed to but in which users have expressed an interest. This could be done using the Expanded Title Report filtering to include YOP and all title-level metrics. In such a report, titles with high counts of “no_license” and “unique_items_investigated” represent the titles a library’s patrons are viewing. The inclusion of YOP will enable librarians to see if current materials are of more interest than older content, and the Access_Type will inform them if the content concerned requires a license or is free-to-read.

Next Steps for COUNTER Release 5

Developing and maintaining the COUNTER Code of Practice is an ongoing effort. Release 5 is being drafted by an international collaboration of vendors, publishers, and librarians. Their draft work will be published in the first quarter of 2017 for community consultation. The feedback from the consultation will inform the final draft, which will be published in the summer of 2017. Publishers and vendors will then have 18 months in which to comply with the new Code of Practice.

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Is Small Beautiful? The Position of Independent Scholarly Publishers in an Environment of Rapid Industry Consolidation

Charlie Remy (Moderator), Electronic Resources and Serials Librarian, Assistant Professor, University of Tennessee at Chattanooga

Steve Cohn, Director, Duke University Press

Richard Gallagher, President & Editor-in-Chief, Annual Reviews

George Leaman, Director, Philosophy Documentation Center

Abstract

The publishing industry continues to consolidate, with large multinational publishers acquiring journals and other content from academic societies and independent publishers. This panel provided candid insights into the challenges facing smaller publishers, including how/why they continue to exist in a business environment increasingly dominated by large companies. The discussion examined the advantages that smaller, independent publishers enjoy and addressed their adaptation strategies, business planning (including open versus paid access models), strategic partnerships, technical infrastructure, production procedures, relationships with libraries, and the work needed to meet the evolving needs of library end users. The impact of industry consolidation on libraries, including that of the intermediaries between publishers and libraries, was also discussed. The panel included speakers from humanities, social science, and science publishers who provided a range of perspectives from across the disciplines.

Background From the Moderator (Charlie Remy)

Media consolidation is ubiquitous these days. It seems like every few months a large media company is announcing a merger with another company—television, radio, newspapers, cable operators, and, of course, publishers and other kinds of library vendors. When I learn about these mergers and acquisitions, I think about the long-term impact they will have on individual consumers, libraries, scholarly communication, journalism, competition in the marketplace, concentration of power, our cultural heritage, and more.

Diversity of ownership is important in the media industry because it facilitates a robust exchange of ideas, innovation, and competition. I worry that having a few large companies control the media and publishing industries may result in a loss of critical voices and scholarship, especially when it comes to certain populations (the economically disadvantaged, ethnic minorities, lesbian, gay, bisexual, and transgender (LGBT) community, and people with disabilities).

The idea for this panel came to me when I read the 2015 article “The Oligopoly of Academic Publishers in the Digital Era” published in PLOS One (http://tinyurl.com/o3cs2oy). The authors analyzed citations from 1973 through 2013 in Web of Science indexes (admittedly a subset consisting of the most cited and visible journals in scholarly communication). According to the study, in 1973 five large publishers were responsible for approximately 20% of all articles published in natural and medical sciences. By 2013, it had jumped to 53% (likely higher now due to further industry consolidation). From 1973 to 1990, five large publishers were responsible for less than 10% of published articles in social sciences and humanities. By 2013, it had increased to over 51% (again, likely higher now). George has reminded me that just because a title is published by a large publisher doesn’t mean it actually owns the journal. It could still belong to the society, which outsources production to the large publisher for various reasons.

I wanted to learn about what it’s like to be in this environment first-hand from leaders of small, independent publishers. I chose these three
particular publishers because they represent humanities/social sciences/science, technology, engineering, and mathematics (STEM), I am familiar with them having been their customer for several years/had previous discussions with them about the topic, and believe it’s important to limit it to small nonprofits. In my experience, it can be hard to distinguish some very large nonprofits from shareholder-owned for-profits at times, especially when it comes to pricing and a lack of flexibility to work within libraries’ budgetary limitations.

Media consolidation is happening at an aggressive pace behind the scenes, yet it seldom receives the news coverage or discussion it deserves, perhaps because it goes against the large media companies’ interests to make the public aware of it. I hope this discussion will leave the audience with an understanding of the unique role that small, independent presses have in the scholarly communications environment, the challenges they face, and their hopes for the future.

**Background on Each Panelist’s Organization**

**Steve Cohn, Duke University Press**

Duke University Press (DUP) is a medium-sized publisher, rather than a small one, with about $15 million of annual revenues and about 120 staff members, which is about three times the size we were when I became the Press’s director in 1993.

When we go to the annual meeting of the Association of American Universities Presses, we feel like we’re pretty large—I think our staff size might be the second-largest of the American presses, behind Chicago, but when we go to the Society for Scholarly Publishing, or come to Charleston, we do feel small, and when we compete with Oxford, Cambridge, or a commercial publisher for a project, we sometimes feel very small.

I think I should make it clear that, for us, the giant publishers we go up against most regularly, when it comes to journals acquisition or retention in particular, are Oxford and Cambridge, not the commercial giants—though we do recognize that they are not the publishers who suck the most juice out of the library budgets for which we compete for a part.

Because we cannot win head-to-head battles against the large publishers, we don’t even try anymore in almost all such cases. We made a rule for ourselves a few years ago that we will never respond to a publishing request for proposals (RFP). We have stuck to that in almost every case, and when we have not stuck to it, we have regretted it in the end. No matter what they say in the RFP language about other factors being just as important as money, it always does come down to money, we have found—so we always lose out. Even in the few cases where we’ve come out first on money initially, we’ve then been clobbered by a huge offer of extra dollars that seals the deal and seals us out.

This last happened to us in a competition with Oxford over a strong social science journal that would have been a great fit for us, and that we made the top proposal for. Several other bidders were eliminated, we were pretty clearly informed that we had the inside track, and then we and OUP were called in to explain our bids further. We explained our proposal, and I think we did a great job of it. Then OUP walked in after us and offered a bundle of extra cash up front, beyond anything they could hope to recoup any time soon. That move did work, I must say. Not long after that, we decided not to respond to any more RFPs.

Now we work on possible acquisitions only with journals that have a particular affinity for us and know they want to join our publishing program if they can, because in the arena of RFPs, we just cannot compete with the big guys.

How does a publisher like us survive and thrive in the land of the giants? I think the main thing is that we need to know ourselves very well. That means using repeatedly the classic strategic planning set of looking at our strengths, weaknesses, threats, and opportunities:

- What we can do as well as or better than anybody else?
- What will enhance those strengths, and what threatens to diminish them?
- Where the opportunities for growth lie, building our lists in some always tense combination that pushes us further without overstretching us or taking a significant risk of us getting hammered by some
• Where the threats to our current strengths lie, and we need to protect ourselves against them insofar as we can—again with the realization that if one of the giants wants to steamroller us in that particular area, they almost certainly can do that.

For scholarly book publishing in the humanities and interpretive social sciences, we do not face the same competition from the behemoths, and we have built a list in these areas that lets us compete successfully with any other publisher. This is an area where we can thrive and grow if we wish to. Duke University certainly does care about the publishing of books in these areas, so by doing great book publishing, we can get credit for doing what Duke wants us to do, for following our mission. But scholarly book publishing in the humanities and social sciences, even with some crossover books included, is definitely not an easy money-making area, which is why the commercial giants mostly stay away from it. In fact, the way we do it, in order to serve our mission as we understand it and to fit our selling practices to the kind of book list we want to have, that program does not cover its costs in full.

Just about every book we publish is available immediately in a low-priced paperback edition, so younger faculty, grad students, and students in college courses can afford it. That makes our book publishing program much less dependent on library purchases and on more-and-more-stretched library budgets than our journals program, but it could not pay for itself without the support of our surplus-generating journals program, because while the Duke Administration loves having a great press, it also expects that press to fully cover its own costs.

We need to cover our losses in book publishing through journals publishing. We do accomplish that in a way that is relatively well protected because DUP owns a substantial set of core journals that can make money for us without being taken away from us by a competitor. We own about half of our journals list, including almost all of our strongest journals. That core set of journals covers the bottom-line losses in our book publishing. It lets us publish those journals we don’t own in ways that keep the journals’ owners, sponsors, and editors very happy and thus likely to stay with us for the long-term, and it covers the costs of adding new journals, which these days always requires a long period of investment before they come to cover their own costs and begin contributing, though I know that’s different for us than it is for a giant publisher who can throw that new journal into its gigantic package and start making money from it right away.

Strategic planning is very serious business for us at DUP. Every fifth year, we have a planning year in which the whole Press looks at these questions, as well as questions such as how we can best keep our staff happy, developing, and productive. Our latest such planning year was in 2015, and we now have a plan in place—a set of 12 next steps we feel that we need to take in order to survive and thrive—for implementation in the period from 2016 through 2020.

We plan to bring together our book and journal content onto what we call “one big site,” so that all our humanities and social sciences content can be searched, displayed, and bought together. We have been careful to ensure that most of that content fits together into a coherent body of work, so that anybody who likes some parts of our content is also likely to be interested in other parts. We do that by expecting our authors to integrate theoretical and methodological thinking into their work on a particular topic, and we do it by publishing and marketing our books and journals in a very interdisciplinary fashion. We expect to be selling combined book and journal products—in collections of various shapes and sizes—by 2018.

We will focus our expansion efforts, both in terms of the content we attract and where we put our main sales efforts, internationally. For us, the domestic market is flat at best, but our lists are increasingly international. We have seen considerable growth in our international sales, and we see more potential for that. This puts us in the odd position of appearing at an international library meeting where the only other vendors who have booths might be JSTOR, Oxford, Cambridge, and Wiley. One of my staff likes to say we need to “punch above our weight” to make our internationalization efforts work. So far, we have been able to pull this off, but it is an expensive effort in terms of both money and time, so we really hope to see steadily increasing payoffs on it over the coming years.
What we see happening in the library world is, on the one end, more and more of the funds being sucked up by the huge publishers who are very good at sucking up library funds, as they should be because that’s at the core of their businesses. On the other end, more and more of the library funding is being devoted to open-access efforts of various sorts. That leaves an ever-thinning middle, as the funds stretch further at both ends, over which publishers like us compete.

If that means libraries will not be supplying everything their faculty and students want or need, then maybe there will be growing room for publishers like us to sell to consumers, perhaps in new ways. Once we bring all our book and journal content together, we want to experiment with many of those ways. Perhaps people would be willing to buy access to our entire humanities and social sciences collection—about 3,000 books and 40-some journals outside of math—for a small monthly fee, somewhere between $5 and $10 per month, we imagine.

To thrive as a math publisher and distinguish more clearly our publishing in mathematics and related fields from our other publications, since this is the one set of our content that does not fit closely with everything else we publish, we feel that we will need to establish and grow a separate math imprint.

While we have not yet made much noise about it in the way that some other university presses have, we do want to do a better job of letting the world know about our open-access publishing and then make efforts to attract more of that. We publish the Letters of Thomas and Jane Carlyle that are available totally free online. In a joint venture with the Cornell Library, we publish Project Euclid, a math and statistics site hosting both journals and books, which has over 70% of its content open. We have a number of our books—probably more than any other publisher, if the current pilot set of books unlatches successfully—in Knowledge Unlatched. We have also made many of our older books openly available in HathiTrust, ones that are not selling strongly enough to justify putting into digital form for e-book sales, and we will continue to do more of that.

In addition, and perhaps most especially, we are proud to be the publisher of *Environmental Humanities*, a really great online open access (OA) journal, under a model where it is funded with modest annual amounts by five centers around the world that focus on the growing area of environmental humanities scholarship. This is an OA model we would love to publish other journals under, since in the humanities and social sciences (and in mathematics, too) gold OA just does not work the way it does in areas that are heavily grant-funded, and it never will.

Finally, I want to say that, while Charlie focused his remarks on the consolidation among publishers, for us—and I think for libraries too—there may be an even larger threat in the drastic consolidation that has occurred among the intermediaries between libraries and publishers. EBSCO almost totally dominates the space of intermediary for journals transactions and now also owns in Yankee Book Peddler (YBP), the primary intermediary for print books transactions between publishers and academic libraries, and ProQuest increasingly dominates the space of intermediary on e-books transactions.

We have experienced the ability of a near-monopoly intermediary to put on nearly irresistible pressure for better terms, so they can extract even more money out of the scholarly communication system. I’m betting at some point, unless something can be done to reverse the trend toward monopoly or oligopoly power in these areas, many other publishers and many libraries too will have similar experiences. This is an area where library and publisher interests could be well-aligned. We both have an interest in fostering some good and viable alternatives to the huge commercial intermediaries.

*Richard Gallagher, Annual Reviews*

The reason for *Annual Reviews*’ (AR) existence is summarized in this quote: “Most of us find ourselves buried amidst piles of unread papers. To keep abreast of the literature has become a Herculean task.” This contemporary point of view was written in 1932 in the introduction to Volume 1 of *The Annual Review of Biochemistry* by Murray Luck, and it summarizes the 80-plus-year task of my organization.

Our goal is to publish compelling review articles that impact knowledge production and transfer in four ways:
• Capturing current understanding of a topic, including what is well supported and what is controversial;
• Setting the work in historical context, to reveal where it sits within the wider corpus of knowledge;
• Highlighting the major questions that remain to be addressed and the likely course of research in upcoming years; and
• Outlining the practical applications and general significance of research to society.

I like to compare the contribution of AR with another publisher, an outstanding publisher, Springer Nature. They have a staff of 13,000, while we have 77. Their turnover is $1.5 billion, and ours is $15 million. They publish 2,900 journals, while we publish 46. Springer Nature has 14 journals ranked #1 in their field. AR has 15. This shows that small, independent nonprofit publishers can have a big impact.

AR’s 46 titles cover the biomedical and life sciences, the physical sciences, and the social sciences. In each area, an expert editorial committee identifies topics and authors. The whole process is done by researchers, for researchers; our job as publishers is to ensure that the process is as effective and efficient as possible.

The top of my list of challenges is maximizing the impact of AR. This is a storehouse of knowledge from the world’s leading researchers accumulated over eight decades. Much of it is relevant beyond the academic community, to professionals, educators, legislators, patients, and amateur enthusiasts. Want to know about the environmental costs and benefits of fracking, the role of habit and compulsion in drug addiction, or any of thousands of other topics of wide interest and importance? We have published the best overview.

To make AR’s content known and accessible, we will launch an online magazine with videos, podcasts, journalist-written articles, and even graphic novels that cover some of these topics. The site will be free, and the content can be re-purposed. Every item will link to full reviews that will be open for a period of two months. This ambitious project is supported by grants from the Alfred P. Sloan Foundation and the Gordon and Betty Moore Foundation. We are excited to get it underway.

The second challenge is rather more prosaic but is even more crucial: to ensure the long-term financial sustainability of AR. In 2018, we will introduce tiered pricing for our products, with two goals in mind. The first is fairness. We believe that larger institutions, which use our products more, should make a greater contribution than smaller institutions that have less usage. The second task is to increase overall revenue. AR’s expenditures exceed income and have done so for the last four years. To rectify this situation, we shall introduce a one-off price realignment in association with tiered pricing. I commit to being as transparent about our finances and our plans, and we look forward to working with the library community in challenging times for all of us.

The third challenge is exploring open access options for AR. Personally, I am a supporter of the OA movement, but I am frustrated by its exclusive focus on primary research and data. Review articles could play a hugely important role in opening up research progress to everyone, and we are actively exploring options. Article publishing charges are not a natural fit for us, as we can’t invite contributions with one hand and present a bill with the other hand. We are, therefore, looking to develop collective models, and this is another area where we are keen to tap into the expertise of librarians.

Five years from now I hope that we will be in a period of financial stability. I expect that we will have moved two or three of our journals to be fully open access and that these will be enjoying greatly increased usage, providing a blueprint to take many more of our titles open access. I believe that the digital magazine will be providing condensed knowledge to cancer physicians, schoolteachers, amateur astronomers, politicians in this and other countries and many, many other groups as well as to researchers and students. AR has a role to play in creating the science-literate society that we need to ensure equity and opportunity for all and protect the future of our planet. These are challenging times, but more importantly, they are exciting times.

George Leaman, Philosophy Documentation Center

The Philosophy Documentation Center (PDC) is a specialized academic press focused on philosophy, religious studies, and applied ethics, with some
projects in area studies. The organization was established in 1966 as a home for a philosophy indexing service, and in its early years, it published a range of reference publications. Our publishing operation grew from this work, as we helped independent publications and learned societies solve production and distribution problems. In 1995, the indexing service became a separate business operated by the editor. Our other projects continued and grew, and PDC focused on full-text publishing in print and electronic formats. Today we are an independent, nonprofit publisher, not affiliated with any university or other institution. We generate all our income each year ourselves and do not rely on an annual appropriation, grant income, or subsidies.

With eight employees, we are the smallest of the publishers represented today. Our work is focused on specific areas of humanities publishing where margins are thin and library budgets are limited. We don’t expect the budget realities to change, but we will maintain our focus on these areas. While we share many of the same challenges faced by all publishers, our publications cost a fraction of what libraries pay for science, technology, and medicine (STM) publications. The annual cost of everything we provide, about 200 publications with complete back issue archives, is less than the annual cost of some science journal subscriptions.

Our business model is based on subscription publications, membership management, and print and online publishing services. We specialize in the production of journals, book series, conference proceedings, and other serial publications, and we host over 150 of them on our own publishing platform. We also manage memberships for two dozen professional associations and online access to publications as benefits of membership. We have approximately 15,000 customers worldwide, and our customers include research libraries, members of learned societies, and individuals. Our primary institutional customers are libraries at universities in many countries that have degree granting philosophy departments.

With such a focused niche, we have to be very careful about costs. We’re not primarily a technology business, so we continually make decisions about what technical work should be done in-house and what should be farmed out. After much trial and error, we’ve concluded that having our own online platform is more cost-effective than paying a third party. This may seem odd, but we successfully manage the platform with support from a programming team in Germany. We can control updates and planning for new functionality and don’t have to pay for bells and whistles we don’t need. We also do all our digitization of print archives in-house to control the pace and quality of the output. All of this helps us keep our costs predictable. Our experience has been that libraries prefer more content and stable pricing over platform functionality, so control of the cost of adding new content is essential for us.

While our discipline specific focus limits the scope of our work, it is an advantage overall. Commercial publishers are not interested in the modest returns of most philosophy projects, and we maintain our income by building new collections of relevant materials and bringing more content online. We have an incentive to meet specialized needs as quickly as possible, and this also helps us generate new projects and new income.

The top challenges we face are all related to costs and income, and I’m sure some of these are shared by my colleagues. First, we must continue to manage the costs of changing technology. This includes development and expansion of our online publishing platform, as well as the investments required to meet changing user expectations. Each new operating system or browser brings new challenges for us all, and we have to manage these costs as effectively as possible.

Second, we must manage changing needs and expectations in our market. Some publications we work with rely on every penny generated from subscriptions and sales to sustain their operations. Others need income to support the work of a society or provide research stipends for graduate students. Still others want to make as much material freely accessible as possible. We do the planning to help them meet their needs. This is a continual challenge because libraries want more content at the same rate or less, and users want everything for free. Meeting the increasing expectation of free access in the humanities is difficult because open access funding options are limited. For example, unlike STM or the social sciences, it’s not possible to charge author fees in the humanities. We’re open to all sustainable models, and this is an evolving challenge.
Third, we must manage the complexity and the time required for permissions negotiations. Acquiring rights or permission to host materials that aren’t yet online can take years. In many cases, the publications themselves don’t know who is authorized to sign agreements, a committee has to make a decision at an annual meeting, and committee members change from year to year. These discussions can start from the beginning, again and again. The longest permissions discussion that we successfully concluded with a university-based publication took 18 years. This is one of the drawbacks of the discipline-specific focus that is otherwise a source of strength for us.

For the next three to five years, we project slow but continuing growth from increased usage of our publications among researchers, students, and faculty, as well as a wider range of publications on our site. In addition to more serial publications, we expect to offer online access to archival collections, multivolume book collections, and more international (i.e., multilingual) content. We already host relevant publications in other languages and expect to build on this. The expanded range of publications should help us diversify our income and prepare for whatever shocks may be coming from Google in the future. We’re also expanding the scope of our publishing and membership service work with the same goals in mind.

What do smaller, independent publishers provide (to researchers, libraries, etc.) that’s unique to the scholarly communications environment?

Cohn: I don’t think we provide anything unique. It’s a matter of degree, not a matter of being entirely different, and the dimensions that matter most here are attention to quality and willingness to allow idiosyncrasies.

Every publisher claims quality, of course, but small, independent publishers that focus on particular areas know their authors and their fields much more intimately. We can do better and more serious peer review of our books, for example, because our editors know just whom to send a manuscript to in order to get a serious and challenging review, and peer review should be much more than thumbs-up or thumbs-down. Authors come to us because they know our review processes will make their books significantly better—if they don’t want that, just want a book in a hurry, they go elsewhere. It’s the same for journals. If their sponsors want efficiency and money, they go to a large publisher. If they want close attention and understanding of their audiences, they come to us. We can pay more attention to things such as design and copy-editing because we don’t have an assembly-line process that focuses primarily on cost-efficiencies—outsourcing, offshoring, etc.

Gallagher: The focus on mission should mean high-quality products and outstanding customer service, the same as a small independent baker or a butcher compared to a big box store. Small publishers have a commitment to traditional publishing standards and a long-term undertaking to serve the needs of the community. Take the example of our first publication, the Annual Review of Biochemistry. Today it has an editorial committee of 10 members, all of whom are actively engaged, and three of whom are Nobel laureates. It’s a deeply personal type of publishing that can only be done by a small company. This closeness to the research community is replicated in interactions with library customers. We aim to be responsive to needs and opportunities that they bring to us. One example is a new project in which AR is working with librarians to create and collate Creative Commons materials to support information literacy among early career researchers.

Leaman: Focus. We bring discipline-specific knowledge to our work, and this helps us succeed. For example, significant portions of the secondary literature in philosophy are not yet available in electronic format because there is very little commercial interest in doing so. We have an interest in tracking this literature and are expanding our coverage of this material because it fits our profile. We will also take on relevant projects by request. We negotiate the permissions, do the work, and provide access quickly. Our focus on philosophy and related fields has its drawbacks, but, overall, it is a competitive advantage.

How do you believe you can meet the evolving needs of libraries and end users with reasonable prospects for success? What are some of your organizations’ important adaptation strategies?

Cohn: First, I think we can meet those evolving needs by understanding them. It helps that we’re located in a university, since faculty and students are our primary
end users, but still we need to make efforts to talk to them and learn from them about how they use and want to use the materials we publish. We have a library relations team whose job it is both to represent us to libraries and also to represent library views to us, meaning, in part, that they advocate for library needs and wishes within the Press. We have staff right here in Charleston this week who have been asking librarians about what they want and need.

Second, because we’re not large enough to create all our own technological solutions, as a huge publisher can do if they wish, we need to be excellent partners with the suppliers of our technology solutions, treating them like partners, not like vendors. We make adaptations to fit with their capabilities as well as expecting them to adapt in cases where they are not fully meeting our needs.

**Gallagher:** Firstly, we must have closer links to librarians to better understand their needs. This is a priority for me. Second, while it is essential, it is not sufficient to simply continue to publish products that are valuable to the research community. We must maximize access and the usefulness of the products for other audiences, starting with students. We maximize access to our products by keeping our prices as low as possible, which means constantly looking for efficiencies without compromising on quality. We are also exploring routes to open access and see librarians as partners in achieving that as well as in educating early career researchers in information literacy.

**Leaman:** We will add more content and functionality to our site to meet evolving needs. We’re currently adding about 30 to 40 titles per year, including both serial publications and archives. We’re also working to increase access options for everything that we offer. In some cases, increasing access requires approval from the owner or sponsor, so our pace can depend on third parties. This is a continuing challenge. The functionality needed by most of our authors and editors is less involved than that required of most STM publications, and this gives us time to plan what is truly needed without having to pay for what we don’t need.

**What could the library community do to better support smaller, independent publishers?**

**Cohn:** First, give us useful feedback. Charlie Remy is a great example of a librarian who is willing to spend the time to tell us what he thinks about our publications, our ideas, our prices, and library needs and desires. That’s very valuable to us.

Second, *put your money where your mouth is! You say you love small publishers who have reasonable prices and library-friendly practices, but then, all too often, you leave us until the last, when you give out your budget dollars and when you give out your attention. If you want us to survive, you can’t just give us the crumbs. Sometimes you need to put those you love first, not last.*

**Gallagher:** The combination of library budget pressure and ongoing commitments to the “big deal” journal packages makes it feel like we small publishers are fighting among ourselves for the crumbs off your table. Having paid tens or even hundreds of thousands of dollars for journals, many of which librarians do not want as part of their collections, they are obliged to haggle with us over increases of a few hundred dollars on products that are incredibly reasonably priced and of immense value. This is an outcome of the publishing oligopoly that extracts hundreds of millions of dollars from the research system for private gain.

What would help us, and librarians, is transparency in these big deals. What do you pay and why? What is your overall cost per download, and what other criteria do you use in decision-making? Are you getting what you want?

With regard to AR, I’d like librarians to better understand the value of our products and what goes into creating them. We would also like you assess price increases in dollars rather than the percentage increase. Failing to do so penalizes the very publications that have kept their prices as low as possible over many years and rewards those who have high prices to make fat profits.

**Leaman:** I think librarians should more clearly distinguish between the market for STM publications and the market for humanities publications. Our pricing and terms are generally more generous than the STM equivalents, and this has always been the case. For example, a library can purchase access to everything that we host, over 200 publications, with complete back files, for less than the cost of one high-end STM journal. With this in mind, and in agreement with Richard, I’d ask librarians to focus on the total amount of money involved in an
arrangement with us and not on percentage reduction or increases.

**How does nonprofit status affect your focus, business, and operations?**

*Cohn:* We are mission-driven, meaning the success of the scholarly communication system in the areas we publish in is always what comes first for us. That’s why Duke University bothers to support a publishing operation. We are very aware of that. My boss, Duke’s provost, is also the boss of the Duke Library and the Duke faculty.

Of course, Duke also expects us to cover our own costs, so that means we’re always walking a tightrope between mission and the need for money. When we set a price, we need to think both about what will be affordable for a wide audience and what will bring us enough money to hold up a share of covering our costs, a majority of which are costs for staff salaries and benefits, since we are a very labor-intensive operation. The question is not simply what price will make us the most money, as it would be for a commercial publisher. It’s what will make the money we need while still allowing those who want the product to be able to get access to it.

The attention to mission allows us—even requires us, as I see it—in all our operations and all our practices to focus on quality, on author and editor needs and desires, and on the needs of our audiences.

*Gallagher:* It affects us profoundly and mostly positively. In selecting fields for coverage, we are driven by the ongoing significance of the topic and the contribution that an AR volume makes to it, rather than by the return on investment. In setting prices, we have aimed at maximizing readership rather than profit. As a company, we aim to provide a nurturing and satisfying workplace where staff members feel appreciated and can develop. On the other side of the coin, I believe that the small nonprofits are somewhat risk-averse and inward-looking. We should embrace partnerships, including with for-profit organizations where appropriate, and develop research and development (R&D) programs to bring innovation to the market.

*Leaman:* Nonprofit status is essential for us. We are recognized as colleagues on a special mission, not a vendor providing a payout to investors. We are, therefore, more easily trusted, and this contributes to our success in all kinds of ways. Also, since we don’t have to worry about a payout to investors, it is easy for us to make decisions about specialized projects that are important in the field but that don’t have an immediate sales potential.

**What kinds of strategic partnerships exist among smaller publishers, and how are they beneficial?**

*Cohn:* There’s a lot of cooperation among university presses. Our community is very collegial and candid. We share information, and the larger and stronger of us often provide services to the others. Project MUSE is an example you all know. Chicago provides distribution services to many university presses. UNC provides services to other press through its Longleaf operation.

Sometimes the partnerships are between publishers and others who might be thought of as semi-publishers. Many university presses distribute books for museums, for example. At DUP, we partner, oddly but wonderfully, with the Cornell Library on Project Euclid, an electronic hosting and distribution system for journals in math and statistics, many of which are run out of math departments or small societies.

*Gallagher:* This is an area where I think we could learn a lot from commercial publishers. At AR at least, we tend to isolate ourselves too much from collaborations. Why? One is that we are not driven by a profit motive, which provides a powerful incentive to innovate. Another is that we don’t make the upfront resources of time and money available. I am very much in favor of exploring mutually beneficial partnerships with other small publishers. For instance, I think that AR could collaborate with an educational publisher on teaching materials. Larger cooperatives of nonprofit publishers are also something that we would consider being a part of, and these are beginning to be discussed.

*Leaman:* In the philosophy world, ownership of the literature is fragmented among many companies, learned societies, university philosophy departments, and other entities. We are, therefore, required to have strategic relationships with many different organizations to make it possible to bring
new publications online. Our nonprofit status makes this somewhat easier, as do the modest acquisition budgets for philosophy publications. The more money there is in any field, the harder it is to get different organizations to cooperate. The competitive pressures are greater because the potential benefits are more obvious. The situation is reversed when there is less money. Also, the consequences of making mistakes are smaller, and this always makes it easier to get other organizations to agree to something new.

**For smaller publishers, what’s the role of paid versus open access? Print versus electronic? How beneficial to your organizations has the continued transition from print to electronic been?**

**Cohn:** Though we have not trumpeted it as much as some university presses, at Duke we are very open to open access, as long as there is some way to cover the costs. We publish the Carlyle Letters as an open database because the National Endowment for the Humanities covers most of the costs. I discussed earlier our journal *Environmental Humanities*, which has its costs covered by a small set of international environmental humanities centers. We have a lot of books—as many as any other publisher and maybe more if the 2016 collection unlatches successfully, in Knowledge Unlatched, and we have opened up a number of our books at HathiTrust in cases where they are not selling enough to justify the cost of digitizing them ourselves.

But in the fields we publish in—math as well as the humanities and interpretive social sciences—author-pays open access just plain does not work because these fields are not primarily grant funded.

We don’t see it as print versus electronic. Almost everything we publish is available both in print and in electronic form. We think both are valuable, especially in the case of books, and we have set up our e-books collection model so that print books can be acquired along with the electronic versions for only a small increment: just $750 for more than 100 printed books per year. Where else will you find a price like that? We think for scholarly books electronic versions are great for finding and for reading small bits but not great at all for reading the whole thing, so libraries really need to give their users access to both.

**Gallagher:** I believe in open access, but I am not a big fan of it being driven by article processing charges. It takes away a crucial role for librarians in building collections, and it entrenches the status quo of domination by large, commercial publishing houses. We are exploring alternatives, including working with librarians and library consortia to develop collaborative models. We also wish to identify direct funders. For instance, a philanthropist who is passionate about criminal justice might be interested in funding the upcoming *Annual Review of Criminology*.

A huge benefit for us, and I believe for librarians, would be transparency in all aspects of academic publishing, especially on the financial side but also on usage. Then there could be collective decision making taken in the interests of knowledge curation.

The transition from print to electronic has been hugely beneficial to fulfilling the mission of AR. We still have demand for print for many of our titles, but it is slowly eroding, and we will at some point move to print on demand. The only downside I see is the perception of the volume as an entity. Readers seeking a particular article in a print volume are much more likely to browse through a volume and come across something that intrigues them than they are to browse an electronic volume. We need to find a way to capture that serendipitous moment of stumbling over a captivating article.

**Leaman:** Like all publishers, we must balance the evolving expectation of free access to everything, at least among younger scholars, with the need to generate the income needed to cover costs. We support several open access experiments and provide free access to a number of journals and book collections.

But we are limited in our ability to experiment by the fact that we cannot charge author fees in the humanities. There is virtually no institutional money to support this, unlike STM and some social science publications, and research funds generally don’t include a publication budget. In this context, it’s wrong to ask authors to cover publishing costs. We’re watching this closely and may yet adopt this if it becomes generally accepted.

Most of our income comes from online access to publications, so this is essential for us, but we continue to have a strong print publishing program.
and expect this to continue for the foreseeable future. It is slowly declining, but membership organizations and many libraries outside North America still prefer print. As long as they do, we’ll continue to produce in print format. The general transition from print to electronic format has helped us attract membership organizations, on whose behalf we provide online access for their members. This has helped us grow, even though it has increased the complexity of our accounting work.

**Concluding Thoughts From Moderator (Charlie Remy)**

I appreciate the panelists’ insightful and candid remarks about their organizations in an era of industry consolidation. All three publishers focus on important areas where they’re successful and are unlikely to face much direct pressure from large for-profit publishers since the revenue potential is rather limited. Their goals of serving their disciplines via nonprofit missions can perhaps make them more nimble and responsive to industry changes.

Increasing the impact and expanding the audiences of their content is a top priority for these publishers. It’s both a financial and mission-driven imperative. They produce high-quality scholarship that can be useful to those beyond higher education in the United States. Expanding audiences to include intellectually curious consumers and scholars abroad could diversify their revenue streams and help them continue to fulfill their missions. Given all the misinformation present on the Internet, carefully vetted scholarship is perhaps more valuable than ever.

It’s clear that the author-funded open access model is not a viable one for these publishers. Humanities, interpretive social sciences, and review scholarship are often not grant-funded like the science, technology, engineering, and mathematics (STEM) disciplines, and authors don’t have the budgets to pay publication fees. In the case of invitation-only review articles, it would be awkward to ask an author to write one while at the same time demanding they bear the cost to publish it. This OA challenge poses an opportunity for these kinds of publishers to collaborate more closely with libraries and explore alternative funding models. All stakeholders should be encouraged to actively experiment with the goal of achieving long-term financial sustainability. Some financial support may be available from foundations, nongovernmental organizations, and individual philanthropists committed to advancing scholarly communication, but it will likely require a multipronged approach. The current system of academic publishing was created by publishers, libraries, and authors, and any alternatives will require their partnership.

I hope this panel has provided attendees and readers with insight on the current realities at these organizations. Small, nonprofit publishers continue to play a pivotal role in scholarly communications, particularly in non-STEM disciplines. They will likely face more challenges in the future but will hopefully strategically adapt to a constantly changing marketplace and thrive.
Social Scholarship? Academic Communications in the Digital Age

Steven Weiland, Professor, Michigan State University

Introduction

Those who write articles and books, and those who organize and manage their use, know that the technological transformation of scholarship can be experienced in personal ways, marking recognition of new professional possibilities. Thus, composition scholar James Porter (2002) tells the story of his progress in becoming a cyberwriter with the evolution of personal computers, and historian David Bell (2005) recorded his initial experience with access to newly digitized online resources.

We are mastering our machines in the production of texts as refinements continue (e.g., in enhanced e-books [Wright, 2014]), and we are increasingly adept online searchers with high expectations (Nicholas & Clark, 2015). Inevitably, for some observers, scholarly identity itself must now be organized around technology, particularly the digital transformation of professional communications.

Scholarship Reconsidered, Once More

According to Martin Weller (2011) of the British Open University, we are well on our way to becoming digital scholars. He found a platform for the change in influential work late in the last century by Ernest Boyer (1990), at the time president of the Carnegie Endowment for the Advancement of Teaching and thus an important voice in higher education. Uneasy about the priority given to research at American universities (and to a degree at leading liberal arts colleges), Boyer reasserted from inside faculty work the significance of teaching. That is, it wasn’t institutional reforms that would stay growing preoccupation with research but a new description of scholarship itself, presumably the animating force in academic lives, featuring its role in all that professors do.

Thus, Boyer named traditional research as the “scholarship of discovery.” It was complemented by the “scholarship of integration,” representing the new trend of interdisciplinary work. The scholarship of application recognized what has always been called service, or expanding the reach and uses of research, and the scholarship of teaching, which became the best-known innovation in Boyer’s scheme, generated a new field of inquiry, now with its own organization and publications (issotl.com).

Weller found in Boyer’s proposals another possibility, far from the analog roots of Scholarship Reconsidered, in what faculty work reflects of the digital transformation of higher education. Thus, he applies it to each of the four categories, or what is changing with ubiquitous electronic connectivity. Indeed, for Weller and for others following the evolution of the academic professions, what scholars make of new digital opportunities in the social dimension of their work will determine its future (Lupton, 2015; Daniels & Thistlewaite, 2016).

“Digital Dispositions” and the Social Scholar

In another adaptation of Boyer’s formulation, also reflecting Weller’s adaptation of it, Cristina Costa (2013) found new “digital dispositions” among the faculty. They represent loosening of the hold of tradition on how digital scholars, or those who fully embrace technology, see their professional worlds. Thus, control of knowledge production and dissemination is starting to shift from the institution to the individual and from official to more informal sources and platforms.

Three new conditions of scholarship, as Weller identified them, reflect the priority of the participatory Web: Digital media for presenting content, social networks for interaction among peers and others, and the values of openness as in the open access movement in publishing. Costa favors calling the digital academic habitus, or new patterns of thought and behavior, a “system of dispositions,” terms she borrows from the sociological theorist Pierre Bourdieu. Scholars are reinventing themselves, abandoning conventions of practice for configurations of academic work featuring their online social components.

A social scholar uses Web 2.0 tools to communicate about scholarly work, at all stages of it, and develops and sustains networked identities (Veletsianos,
Thus, “An Introduction to Social Media for Scientists” appearing in an open access journal from the influential Public Library of Science (PLoS) focuses on the benefits of “public visibility and constructive conversation” (Bik & Goldstein, 2013), but scientists are hardly alone in turning to social media. Thus, the prestigious London School of Economics offers its faculty a detailed guide to using Twitter, part of its ambitious social impact blog (les.ac.uk/impactofsocialsciences). The authors claim that social media can meet a scholar’s “full range of academic interests” (Mollett, Moran, & Dunleavy, 2011).

“Academia Goes Facebook?” is the way an account of the place of social networking in scholarship expressed what some observers hope for in academic communications (Nentwich & König, 2014). Plainly, the faculty is adopting social media for professional communications and, after a period of indifference, also using pan-disciplinary global repositories such as ResearchGate and academia.edu for dissemination of research and communications about it (Rowlands et al., 2011; Jordan, 2014; Borrego, 2016; Veletsianos, 2016).

Scholarly participation in social media may be in an early stage, but Michael Nentwich and Rene König (2014, p. 113) say there is enough to classify “activity levels and usage intensities.” In other words, scientists and scholars are online or express their digital dispositions, in a practical hierarchy of identities:

- **Me-Too Presence**, or a low level of activity limited to occasional appearances.
- **Digital Calling Card**, or beyond the rudimentary, perhaps like a modest personal website.
- **Passive Networking**, or sporadic searching and responding to automated suggestions to contact others.
- **Active Networking**, or regular online activity such as participation in group forums and searching for potential networking partners.
- **Cyberentrepreneurship**, or particularly active participation including organizing others’ participation in the network.

These may be seen as products of Costa’s digital dispositions applied to making scholarship social or, as others name the trend, adopting an electronic persona for self-representation as a feature of academic work (Barbour & Marshall, 2012; Veletsianos, 2013; McDonald, 2015).

We can ask if we are approaching the point when the scale of participation in social media means that scholars and scientists wishing to keep pace with their field and with colleagues can’t afford not to use digital networking to advance their work (Van Noorden, 2014). As Nentwich and König (2014, p. 115) put it, “Networks are only attractive with users, but users only come when they are attractive.” They assert as well that if universities begin to acknowledge what can be learned about research impact from altmetrics (as discussed later), that too will prompt scholars and scientists to use social media.

### The Arrival of Altmetrics

How far can the interactive or social world of scholarship extend? According to Nentwich and König (2014, p. 121), if “academia goes Facebook,” it will produce a world “characterized by massive, ubiquitous, micro communications.” They see appealing features of a future of this kind, in what they named “Cyberscience 2.0.” Thus, “Other researchers from various fields and positions, even students and laypeople, might participate in these interactions. This tendency of lowering status-based communication hurdles might be regarded as the democratization of science.” Moreover, inventive scholarship “may be checked by more peers in an ongoing process that is much faster than the regular circles of peer reviewing.”

Systematic acknowledgment of the quickening pace of recognition of scholarly work outside the routines of journal citation is what lies behind the movement for altmetrics, or how digital and social scholars, and increasingly institutions as well, follow and demonstrate their impact. There are a host of new practices, some specified in the San Francisco Declaration on Research Assessment (Bladek, 2013), a sign of hopes for revising current systems for measuring the impact of scholarship and displaying achievement along a career.

Altmetrics (or alternative metrics) represents the most effective challenge to date to the slow pace of traditional bibliometrics, which are also seen to favor experienced authors and scientists. The new
system identifies recognition beyond academic journals, or what is made visible in varieties of social networking (an authoritative library-oriented guide to altmetrics is Roemer & Borchardt, 2015). According to its widely cited “Manifesto,” altmetrics is “the creation and study of new metrics based on the Social Web for analyzing and informing scholarship” (Priem et al., 2010). The new data, derived from practices of social scholarship, would complement or even, in the view of many advocates, replace conventional metrics like a journal’s impact factor and presumably what it conveys about the reach and thus the value of a scholarly or scientific article. The goal is uncovering scholarly impact or utility that would otherwise go unrecorded.

Thus, recognition of published work is changing to reflect the new digital and social conditions of research dissemination, or how scholars make their work known to others and, in turn, how it is circulated. Inevitably altmetrics has brought fresh attention to the uses of data (via metrics) for evaluation or judgment (Crotty, 2014; Hicks et al., 2015). Skeptics insist on stricter standards for defining metrics, data quality, indicator reliability, and representation of social media contexts before altmetrics can be fully accepted in research assessment and faculty evaluation (Liu & Adie, 2013), but altmetrics’ chief theorist and advocate says that the traditional system based on citations is too remote from the realities of science, “where ideas are born, nursed, and raised in messy, fast moving informal invisible colleges” (Priem, 2014, p. 264; see also Lapinski, Piwowar, & Priem, 2013).

Nentwich and König (2014) acknowledge that despite growing use of social networks for communications, e-teaching, self-marketing, and job searching, regular interaction of this kind is “not yet part of the academic mainstream.” Mindful of the power of social media in the culture at large (Perrin, 2015) and the ways that digital routines are now part of all scholarly and scientific work, they ask this question: “Will future communication among scholars take place predominantly on social networking sites?”

Of course, to the degree that any particular platform succeeds (such as Facebook), it can consume lots of time for users. In registering how academic use of social media is a many sided phenomenon, scientist and editor David Crotty (2010) wonders if more academic digital conversation is really useful, at least for scientists. “Communication is an important part of being a scientist. It is not, however, the top priority for most.” Social media only add to the workload: “Even without new online technologies, scientists already spend a substantial portion of their time communicating. They share results with peers, plan future experiments with collaborators, give talks, write papers, teach, etc. New social media endeavors ask scientists to devote even more time to communication, but it’s unclear where participants are supposed to find the time.”

Mark Carrigan’s (2016, pp. 131–148, 165) candid account of making time for social media features first having sound reasons for the practice and then cultivating the habits of mind that can sustain what is still a novel professional activity (see also Neal, 2012 and Veletsianos, 2016), but the payoff, in a “new collegiality,” is a sign of how faculty work can “exhibit the characteristics of a networked public.” That certainly sounds optimistic, but Nentwich and König suggest that assumptions such as these are “farfetched given the current state of affairs.” What may change things in the future is demography. Younger scholars and scientists, having grown up with social media, will ultimately bring their habits of everyday communication into their professional lives.

A Social Scholar at Work or Impact Activism

The vocabulary of Silicon Valley—in entrepreneurship—may suggest more than what most scholars are seeking. Or, does “The Start-Up of You,” as LinkedIn founder Reid Hoffman (2012) put it in his popular book of career development advice, now describe the keenest of academic social media users, or those at work on what is recommended as reputation management” for scholars (Greenhow & Gleason, 2014)?

What happens when a scholar sets out to gain recognition according to the new methods of social scholarship? A recent case offers a view of how the open access movement, an institutional repository, social media, and the reconfiguration of academic careers can come together in what might be called “impact activism.”

Melissa Terras (2012) had been a faculty member at highly regarded University College London (UCL), a pioneer in the field of digital humanities, when she
conducted an experiment in probing what a digital presence can mean for a scholar. She capitalized on the repository launched by UCL and its mandate that all faculty contribute copies of their work. Once she had a way to make her articles easily accessible online, it took only a steady effort using social media (mainly Twitter) to boost significantly the number of times they were downloaded. The figures are impressive, as is Terras’ belief that what she did is possible for anyone else, provided they have a digital presence or are inclined to build one (via a blog or Twitter) and a repository (institutional, disciplinary, or commercial) to house their work.

Gaining an audience can come from the deliberate effort to do so, even if the goal is something short of a “Klout Score,” the online service (klout.com) that declares itself “The Standard for Influence” with its software measuring the extent and activity of a user’s social media networks. In fact, Terras had academic ideals in mind. Her tale, built from her blog posts, is appealing in its modesty, and the surprise is she found in the success of her experiment. In her view, the lesson for scholarly communications is simple: If you let enough people know about your work, you will have more readers than you might otherwise expect. As she says, “If you tell people about your research, they look at it. Your research will get looked at more than papers which are not promoted via social media.”

The Library as Guide and Gadfly

The digital scholar and social scholarship are features of the academic share in the impact of technology on our culture, and they appear now to be built into the services of campus libraries. Most now offer guidance to the faculty in entering social scholarship, particularly in the context of mastering altmetrics (Suiter & Moulaison, 2015), but there is a complementary role for libraries, where the stance of the gadfly can complement that of the guide. It is why there is the question mark after “social scholarship” in my title. A gadfly is someone who provokes others, often with unwelcome criticism. A gadfly librarian, being still collegial in spirit, would invite the faculty to consider what it means to be a digital scholar and claims for social scholarship:

- What must be recognized as durable about the traditional scholarly workflow? While the digital tide is strong, a multyear study of seven disciplines showed considerable indifference and even resistance to the electronic transformation of scholarly communications (Harley et al., 2010; Harley, 2013). Limits to faculty enthusiasm for the style of the digital scholar, particularly what it demands in screen time, are also visible in recent ethnographic accounts of academic work, which is still often analog and solitary (Hillesund, 2010; Bussert et al., 2011; Antonijevic & Cahoy, 2014).

- To what degree does uncritical attention to altmetrics contribute to what has been named the “audit culture” in postsecondary education? Quantitative approaches to academic performance and productivity reflect data-driven methods of evaluation, often favored by institutions instead of qualitative peer-based evaluation. Is the newest manifestation of bibliometrics “alternative” mainly in the sense that what it counts is different from conventional systems? Questions remain about the relation of visibility to quality (Shore, 2008; Burrows, 2012; Gingras, 2016).

- Can valorization of the digital scholar, social scholarship, and altmetrics obscure the debate about the impact of technology more broadly on postsecondary education and what it represents in matters of digital information behavior (e.g., in relations of print and screens for students and faculty), communications in knowledge production, and the organization of institutions around technological innovation (Carr, 2011; Turkle, 2011: Selwyn, 2016; Poritz & Rees, 2016)?

In effect, by recognizing the complementary roles of guide and gadfly, I’ve proposed a format for the library’s role in technological change in higher education. Postsecondary institutions already contribute to learning about how to use technology, as in the new ACRL “Framework for Information Literacy,” faculty-oriented events on applications of data and citation management, and more. Today’s digital scholars look back to Ernest Boyer. An allied effort might reflect the late 20th century work of education gadfly Neil Postman (1995). He acknowledged the suitability of institutional attention to how to use educational technology, but
he insisted on the allied project of education about technology. It would be worldly (or mindful of its benefits) and skeptical of trends that make digital tools into culture with insufficient attention to what is lost as well as what is gained with innovation.

**Conclusion: “Intellectual energy”**

When he retired in 2015 as Harvard librarian, the historian Robert Darnton said that he was more convinced than ever that the library was the heart and soul of the research university. It is a pervasive force that needs to be understood by anyone with a stake in postsecondary education: “The library still pumps intellectual energy into every corner of campus” (Ireland, 2015). Darnton himself offers an image of the digital scholar in the post retirement online project that extends his lifelong study of the French and European book trade (robertdarnton.org). Still, intellectual energy has always featured the critical disposition, or what might now be applied, with recognition of their benefits to what is new in scholarly communications (e.g., Burbules, 2016). It is a task well suited to research libraries as they determine their roles in the digital age.

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The Sky’s the Limit: Scholarly Communication, Digital Initiatives, Institutional Repositories, and Subject Librarians

Sarah A. Norris, Scholarly Communication Librarian, University of Central Florida Libraries

Lee Dotson, Digital Initiatives Librarian, University of Central Florida Libraries

Barbara Tierney, Head of Research and Information Services, University of Central Florida Libraries

Richard H. Harrison II, Humanities Subject Librarian, University of Central Florida Libraries

Abstract

The University of Central Florida’s institutional repository, Showcase of Text, Archives, Research, and Scholarship (STARS), has presented new opportunities for collaboration among the Libraries’ Office of Scholarly Communication, Digital Initiatives, Research Services, and subject librarians. Building on efforts to proactively promote scholarly communication initiatives to the university community, these four units have used the institutional repository as a foundation for collaboration, outreach, marketing, and educational efforts. This article will give an overview of a panel presentation given by members of these four units on STARS and highlight the role the institutional repository has in increasing the collaborative efforts of these four units. Additionally, it will highlight four different perspectives and discuss strategies designed to generate institutional repository interest from the university community. Successful ventures and lessons learned will provide insight into creating a productive interdepartmental framework that is geared toward supporting students and faculty institutional repository projects.

Overview

The University of Central Florida’s institutional repository, Showcase of Text, Archives, Research and Scholarship (STARS), was launched in the summer of 2015. The introduction of STARS as a university-wide institutional repository (IR) has brought new opportunities for collaboration to the fore among librarians and library units at the University of Central Florida (UCF) Libraries. While not comprehensive, this includes increased collaboration among the Libraries’ Office of Scholarly Communication, Digital Initiatives, Research Services, and subject librarians.

Even prior to the research and development processes of the IR, librarians and library units at UCF recognized the need for collaboration in such endeavors. The IR itself and the research associated with developing an IR ultimately led to the formation of UCF Libraries’ Office of Scholarly Communication and the hiring its first scholarly communication librarian in August 2015. As the IR and the Office of Scholarly Communication have formally developed, collaboration has been at the heart of every effort.

Building on efforts to proactively promote scholarly communication initiatives to the university community, the Office of Scholarly Communication, Digital Initiatives, Research Services, and subject librarians have used the institutional repository as a foundation for continued and increased collaboration, outreach, marketing, and educational efforts.

These conference proceedings will explore such collaborative efforts, while providing perspectives from each of these four distinct areas at UCF Libraries. Overall, these conference proceedings will explore ventures and lessons learned will provide insight into creating a productive interdepartmental framework that is geared toward supporting students and faculty institutional repository projects.

STARS: Institutional Repository at UCF

Starting with the Scholarly Communication Task Force in 2011, collaboration has been a key component of the UCF Libraries’ scholarly communication and institutional repository efforts. The task force, consisting of members from at least
six departments, produced a detailed report on the state of scholarly communication and opportunities for UCF. The report was the impetus for the Research Lifecycle at UCF, a mental model of institution-wide support services and unmet needs. The Research Lifecycle sheds light on the level of cooperation and collaboration needed for authors and researchers to move from an initial idea to worldwide dissemination and impact of their scholarship.

The lack of an institutional repository was identified early on as a crucial unmet need. In 2014, the libraries applied for and received technology fee funding to support a three-year license for Digital Commons (Jaskowski, 2014). By the summer of 2015, it was up and running. Faculty were invited to begin adding materials that fall.

Digital initiatives is responsible for the overall management of the repository as well as digitizing collections and creating automated processes for uploading and updates. However, the success of STARS depends on services and expertise from throughout the library. Subject librarians are indispensable for providing outreach services to faculty, students, and administrators; connecting faculty, students, administrators with STARS resources; and acting as examples by self-archiving publications, presentations, and other creative works. The scholarly communication librarian provides outreach, workshops, and consultations to the campus community about authors’ rights, publishing options, open access, and other related issues; partners with Digital Initiatives and subject librarians to promote and populate the institutional repository; and supports the scholarly publishing process and builds services in support of the scholarly publishing lifecycle. Cataloging and metadata librarians create metadata templates for collections based on publication type and/or subject content; batch edit and revise user submitted metadata; create concise, easy to understand on-the-spot metadata help files; and advise on metadata and authority control issues.

Supporting interdepartmental STARS efforts is a priority for Digital Initiatives. A focus on access to internal training and resources includes presenting at departmental meetings, hosting brown bag sessions, holding open office hours, and creating a private guide of internal resources, which includes many materials from the Digital Commons Repository Manager Certification Course. An open-access collection in STARS provides ready access to a growing assortment of help files, how-to documents, and handouts. A project proposal form helps clarify individual project needs to help identify the appropriate staff and resources necessary to support each project. After submitting information such as basic contact, sponsoring unit, project description, and purpose statement, the project lead is contacted to discuss a more detailed project plan and timeline. A basic workflow has been established to support this process, but the STARS team readily acknowledges that many projects do not follow a linear process. The willingness to adapt to a variety of workflows and keep lines of communication open are the basis of many STARS achievements and remain vital for continued success.

The Office of Scholarly Communication

UCF Libraries’ Scholarly Communication Task Force, formed in 2011, ultimately led to the development of the Office of Scholarly Communication (OSC). At the core of the Office of Scholarly Communication is the scholarly communication advisory working group, consisting of over 20 librarians and library staff from various departments in the Library. This working advisory group participates in scholarly communication outreach, marketing, and educational efforts and leads projects such as open access week events. The working advisory group, along with the scholarly communication librarian, provides information and assistance on all aspects of scholarly publishing. Scholarly communication efforts and outreach, including the promotion of STARS, are all tied to the unit’s overarching mission and goals.

Scholarly Communication and STARS

The OSC focuses on several efforts when promoting STARS to students and faculty on campus, as noted in the previous section on STARS. Chief among these efforts include graduate, undergraduate, and faculty workshops focusing on where to publish, open access, and author rights, all of which promote STARS as a viable option for green open access and self-archiving. Each workshop is tailored to the specific audience, with particular emphasis on copyright as it relates to the IR.

The scholarly communication librarian also works closely with the digital initiatives librarian on outreach efforts on presentations and workshops to faculty senate, colleges, departments, and other
units on campus to promote STARS. In addition, presentations, brief talks, promotional materials, and other outreach efforts are coordinated with subject librarians, when requested.

In addition to workshops, individual consultations, and other outreach efforts, the OSC also utilizes the scholarly communication faculty advisory board, a group composed of 10 teaching faculty members who meet twice a year with the Office of Scholarly Communication, Digital Initiatives, Research Services, and subject librarians all in attendance to discuss pertinent and timely scholarly communication topics of interest. One of the board’s primary goals is to help promote and populate the IR.

Copyright and Author Rights

Perhaps the most prevalent area in which the OSC and the scholarly communication librarian collaborate with the digital initiatives and subject librarians is the area of copyright. When STARS inquiries arise, the scholarly communication librarian meets with the digital initiatives librarian, subject librarians, and faculty to discuss copyright, author rights, and other intellectual property concerns, as needed.

Depending on the copyright inquiry and scenarios, the scholarly communication librarian often proactively researches select copyright needs prior to such meetings and uses tools such as SHERPA/RoMEO, publisher websites, and publishing agreements to ascertain copyright information. This is particularly helpful in aiding efficiency when meeting with faculty concerning the IR. As needed, the scholarly communication librarian also assists faculty utilizing STARS with specific copyright and author rights needs, including determining the legal versions allowed for self-archiving in STARS, discussing author agreements, and answering questions related to open access, article processing charges, and other scholarly communication related matters. In all cases, the scholarly communication librarian refers copyright and intellectual property queries that require legal intervention to UCF’s Office of General Counsel.

Research and Information Services (RIS)

Subject librarians are visible, accessible, mobile, and reaching out to their assigned academic programs, faculty, and students.

In the spring of 2013, the Research and Information Services (RIS) Department initiated a new subject librarian service model to increase positive impacts on student learning, faculty teaching and research, and scholarly communication outreach. This model emphasized subject librarian visibility, accessibility, mobility, and outreach to academic programs, faculty, and students.

Subject librarian photos and contact information were displayed on a customized subject librarian web page (http://library.ucf.edu/subject/All/) (UCF Libraries, 2016), as well as on relevant databases and LibGuides. Individual portraits of subject librarians, along with their personal messages to the university community, were featured within the John C. Hitt Library’s digital signage system.

In addition, subject librarians were encouraged to engage in proactive outreach, get out of the library, and interact with their academic programs, faculty, and students. To support subject librarian mobility, the RIS department changed its research desk service model by hiring, training, and scheduling more part-time adjunct librarians at the desk and scheduling fewer desk hours for the full-time subject librarians. This change in the desk service model helped to further encourage subject librarians to refocus their primary efforts toward subject specific and scholarly communication outreach (Arthur & Tierney, 2013).

Motivating subject librarians to get involved in scholarly communication and institutional repository outreach.

Each RIS subject librarian meets with the head of RIS to create an updated annual assignment and position description (AAPD) and goals each year. The AAPD serves as the template for a monthly activity report and an annual self-evaluation that each subject librarian submits to the head of RIS, as well as for the annual evaluation that the head of RIS completes for each subject librarian (Tierney & Kuyper-Rushing, 2016).

Outreach is a major component (35 to 40%) of each subject librarian’s formal AAPD, and a significant portion of this outreach focuses on scholarly communication and IR marketing. In addition to face-to-face interactions, subject librarians are asked to create customized e-newsletters, e-mails, and web-based LibGuides to market scholarly...
communication and IR resources and services to faculty and students (Profera, 2014).

**RIS collaborates with scholarly communication and the IR to train subject librarians.**

UCF Libraries’ Office of Scholarly Communication, the IR, and the RIS department work closely together to provide highly focused training to support the subject librarians in their scholarly communication and IR roles. Each monthly reference meeting and annual reference retreat includes the scholarly communication and digital initiatives librarians in the agenda.

The Office of Scholarly Communication also provides workshops on topics such as *What is Scholarly Communication*, *Setting Up Online Faculty Profiles*, *Author Rights, General Copyright, and Open Access*, and the digital initiatives librarian provides workshops on creating faculty and student research profiles within the SelectedWorks IR component, as well as encouraging subject librarians to conduct environmental scans to identify departmental collections appropriate for the IR.

Also, the head of RIS maintains an online subject librarian toolkit (http://guides.ucf.edu/subject-librarian-toolkit), which provides a home for subject librarian training topics such as academic department profiling, faculty profiling, curriculum mapping, curriculum integrated instruction, retreat agendas, and other training documents (Tierney, 2016).

**Subject librarians market UCF’s institutional repository to academic faculty and students.**

Subject librarians use their e-newsletters to market scholarly resources such as the IR to their faculty. For example, the lead article of humanities librarian Richard Harrison’s fall 2015 e-newsletter announced, “UCF Libraries is celebrating the launch of its new digital open access IR (STARS)” and the featured article of psychology subject librarian Carrie Moran’s fall 2016 e-newsletter began with the query, “Looking to create a faculty profile that highlights your scholarly and creative works? Selected Works is the ideal platform for individual faculty pages.”

Subject librarians work diligently to help populate STARS by completing environmental scans of their academic department web pages to help identify important department resources or collections that might be likely candidates for housing in STARS. Cases in point, partly due to humanities librarian Richard Harrison’s efforts, history professor Dr. Robert Cassanello began adding his “History of Central Florida” podcast collection to STARS, Dr. Cassanello’s substantive IR contributions resulted in the bepress Digital Commons selecting UCF Libraries as one of the most popular institutions in the arts and humanities section of their Digital Commons in March 2016. In addition, due to the efforts of UCF patents librarians Hal Mendelsohn and Missy Murphey, 800+ UCF patents were added to the IR. Further, in 2016, subject librarians participated in a successful UCF tech fee proposal that targeted students and their research as candidates for the Selected Works profiles component of the IR.

**Subject Librarian’s Perspective**

How does a subject librarian persuade faculty to contribute to an institutional repository? The answer is simple: Ask them!

A little over a year ago, I invited a senior member of UCF’s history department faculty for coffee. This faculty member had just had his latest monograph, a history of the National Football League, published by the University of Illinois Press. During the course of the conversation about the book, I asked him if he might be interested in contributing to STARS the book’s research notes. The faculty member was obviously flattered by the question but also puzzled, as he stated, “I cannot possibly imagine who would be remotely interested in those notes,” and he demurred. Okay, I thought—at least I asked.

A few weeks later, I received unexpectedly an e-mail from this historian asking if it might be possible to upload into the repository a 25-year series of essays, “On Sport and Society,” that he had written for the North American Society for Sport History. Frank Deford’s weekly sports commentary on NPR’s “Morning Edition,” only more acerbic. Within days of that e-mail, my colleagues from scholarly communications, digital initiatives, and I met with the faculty member to discuss author rights, copyright, formatting, and technical issues (essays from the early 1990s were saved only on floppy discs and had never been transcribed).

And then—voila!—it was perhaps two months later that STARS had an extensive and rich collection of

The point is, faculty typically love talking about their research. As subject librarians, ask them about it—then pop the next question: “Have you considered placing your scholarship in the institutional repository?”

Closing

The development of a positive, trusted relationship amongst the Office of Scholarly Communication, Digital Initiatives, the Research and Information Services Department, and subject librarians serves as an essential foundation for the marketing of the IR and scholarly communication initiatives to the UCF community. One way of measuring the success of this relationship is by evaluating the current participation and utilization of STARS by UCF faculty, students, and staff. Since the summer of 2015 when UCF Libraries initiated its IR, UCF Libraries has loaded a total of 20,943 items into STARS and UCF faculty, students, and staff are beginning to utilize the SelectedWorks component of the IR, with more documents and profiles being added every day.

In the future, these units plan to continue working together to augment and fine-tune scholarly communication and IR outreach through improved communication, staff training, and programming. These units are planning to create additional IR assessment metrics, such as user feedback mechanisms, surveys, and focus groups, that would assist in measuring how successful UCF Libraries’ marketing efforts have been in populating IR content in STARS.

As we move forward, it is clear that not only has the institutional repository sparked collaboration amongst these four units in the form of joint efforts to market and populate the IR, but the IR also has served as a catalyst for encouraging additional collaboration with regard to other important scholarly communication initiatives such as promulgating open access (OA) issues and initiatives to faculty and students and encouraging faculty to utilize open educational resources (OERs) as alternatives to traditional and often costly textbooks.

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Wrangling Services Contracts in Libraries

Michael Rodriguez, Electronic Resources Librarian, University of Connecticut

Abstract

As more and more academic libraries outsource information technology services and enter into cooperative consortial schemes with other organizations, librarians push into a minefield of contractual negotiations, obligations, and liabilities more complicated and consequential than the typical e-resource licenses is. A poorly wordsmithed license may result in loss of access to journals, whereas becoming entangled in troubled consortia, watching an essential technology go offline during finals week, or getting audited by a vendor without contractual safeguards or recourse can produce much greater financial and administrative burdens. This concurrent session was a crash course in negotiating service contracts favorable to libraries, focusing on legal language and ramifications rather than traditional interlibrary loan or course reserve clauses. Coverage included contract terms to incorporate or avoid, guidance on wordsmithing vendor contracts, and excerpts from real-world contracts that participants could visualize and workshop during the presentation. Attendees gained a clearer understanding of how to maximize value on investment and limit jeopardy on contracted services for their libraries.

Introduction

As licensed electronic resources comprise the majority of library collections, e-resources and acquisitions librarians tend to be familiar with typical license principles and terms for e-resources, even if they are not directly involved in negotiating those agreements. Librarians are used to negotiating licenses to allow for interlibrary loan, course reserves, post-cancellation rights, and other library-specific terms, but as more and more libraries outsource information technology services, enter into cooperative consortial schemes, and engage in other high-stakes activities newer to their realm, librarians venture into a minefield of contractual negotiations, obligations, and liabilities more complicated and consequential than the average content license. A poorly wordsmithed content license may lead to loss of access to e-journals without recourse, whereas becoming entangled in troubled consortia, watching an essential technology go offline during finals week, or getting audited by a vendor can produce vaster financial and administrative burdens. The risk of such outcomes is elevated because librarians commonly lack expertise with software-as-a-service contracts, sales agreements, title transfers, warranties, end-user license agreements, and other contract types and provisions not specific to libraries. This presentation presents 15 common problematic contract clauses and excerpts real-world contracts, lightly edited for brevity and anonymity and not subject to any nondisclosure agreements, to illustrate risks and how to ameliorate those risks.

Liability

Liability and indemnification are potentially the most consequential contract provisions. “You shall indemnify us against any claims or losses, including reasonable attorneys’ fees, arising in whole or in part from any violation by you,” states one contract. Another asseverates that the library “assumes full responsibility for all use of the Products by its Authorized Users.” Such language is unacceptable because libraries cannot guarantee to ensure compliance with the contract by each and every end user. Taking responsibility for any potential future violations essentially gives vendors license to sue. Agreeing to indemnify vendors affirms the library’s fiscal liability in case of breach. Instead, libraries should agree to “make reasonable efforts to ensure that Authorized Users will use the Products according to the terms of this Agreement.” Such “reasonable” or “good-faith” efforts are useful phrases. Add that “Authorized Users are not party to this Agreement” to ensure that violations committed by end users are not the library’s responsibility. Specifying that “the Provider acknowledges that Customer cannot monitor, control, or proactively enforce the behavior of Authorized Users” also reduces the library’s risk.

Related concerns include jurisdiction and governing law. Connecticut requires that any court cases or disputes take place in Connecticut and be governed by Connecticut law, as opposed to the laws of Texas or Delaware, which are more business-friendly and are too geographically distant for the state’s lawyers to prosecute a cost-effective case.
Nondisclosure

Deceptively phrased by many vendor contracts as "confidentiality," a nondisclosure agreement (NDA) requires library customers to keep secret "information regarding the other Party that is confidential or proprietary in nature, including but not limited to information concerning its business, processes, donors or funders, administration and related offices, software, marketing, pricing, formulas, customers, suppliers, vendors, operations, and finances," so an open-ended nondisclosure clause is unacceptably broad. First and at least, write into the contract “except as required by law or court order,” as public institutions must comply with any public records mandates. Second, ensure that the confidentiality clause governs both parties, so that vendors are not allowed to sell or disclose information on the library’s procurement or other processes to third parties. Third, ensure that the NDA expires after a specified period of time or when the contract ends. Fourth, require vendors to specify exactly what information should be kept secret. Limit nondisclosure to only the contract, the pricing, or specified sections in the contract (except as required by law). Finally, strike any mention of financial penalties should the library violate any such NDAs. Push back against the very notion of nondisclosure.

Exclusivity

Exclusivity clauses require the library to transact business only with that one vendor in a particular area. For example, a library might agree to “sell surplus equipment exclusively to us during the term of this agreement.” Exclusivity provisions might generously allow libraries to “offer such equipment for sale to other parties”—but only “in the event that we elect not to purchase [specified surplus equipment] from you.” Exclusivity clauses are unacceptable. Strike them and insert the pocket phrase “intentionally omitted.”

Warranties

Notably, the warranties section in most vendor contracts affirms the absence of most warranties. “The software is provided ‘as is’,” most contracts note, “and is exclusive of any warranty, whether express or implied, including without limitation, any warranties of merchantability, fitness for a particular purpose, or noninfringement.” This language is ubiquitous—similar clauses exist even in open-source licenses—so libraries may not be able to convince vendors to strike such clauses. What libraries can do is to obligate vendors to provide written service level agreements and documentation, add those documents to contracts in the form of appendices, and incorporate them by reference into contracts. Oblige vendors to be specific and hold them to their specificity. Always require vendors to warranty noninfringement and to indemnify the library if any software components infringe on a third-party’s copyright.

Accountability

The goal of warranties is to hold vendors accountable for the promises they have made. A vendor might promise to “use reasonable efforts to ensure the systems are available during 98% of the term of this agreement,” but one year is 8,760 hours, so 2% downtime totals 175 hours—and no promises that this downtime would not fall during finals week. Instead, require vendors to “use commercially reasonable efforts to ensure the systems are up 99.9% of the time.” Specifying commercially reasonable strengthens the uptime requirements because this phrase benchmarks the vendor’s efforts with those of other companies with similar products or services, for example, EBSCO versus ProQuest. Vendors may calculate downtimes to “exclude outages due to scheduled or emergency maintenance.” Again, this means that if a system goes down unexpectedly, all the time spent bringing the system back online is, contractually, not considered downtime. Finally, most vendor contracts omit financial incentives for vendors to comply with the terms therein, leaving customers with little recourse but to “suck it up” or “walk away.” To avoid this scenario, libraries should negotiate accountability clauses similar to the following: “In the event that [Vendor] fails to meet the Uptime Commitment for any rolling three-month period, [Library] shall receive a refund of the Fees for the impacted Systems paid during those three months.” The refund can be prorated as a percentage of the fees paid per year.
Memberships

Librarians bandy terms such as “consortium” and “membership” in ways that ignore the general legal understanding of what those terms truly mean. Outside the library world, members of consortia go into business together and create shared liabilities (debts) and other obligations, but in the library world, consortial members do not generally take on each other’s obligations—consortia are understood to be informal alliances of libraries. Courts might disagree. To minimize liability, libraries should avoid becoming “members” of any “consortium” and instead rewrite contracts to replace “membership agreement” with “participation agreement.” Consider adding the following clause to such contracts: “The [Library] reserves the right to terminate its participation in the Program at any time and for any reason by providing written notice of such termination to the Program Sponsor. Effective immediately upon such termination, the [Library] shall cease to have any obligation or liability to the Program or any of its member institutions. Under no circumstances shall the University be held liable or responsible for any obligation of the Program, the Program Sponsor, or any of their respective member institutions.”

Terms of Use

Terms of use, clickwrap agreements, and end-user license agreements are distinct from contracts insofar as they are not formally negotiated and signed documents but rather are online forms that one clicks “accept” or that one accepts by mere use of the service. Typically, the vendor “reserves the right to change, modify, add, or remove portions of these Terms of Use of this Software at any time,” with or without a notice or comment period for customers. What’s more, “Licensee’s continued use of the Software following the posting of any changes will mean that Licensee has accepted the changes.” If the library does not have the option of walking away, being presented with institutionally binding clickwraps or terms of use should lead it to negotiate a formal signed license that explicitly supersedes any terms of use for both the library and end users.

Enforceability

Contracts are not always formal signed documents. Parties can enter into legally binding and enforceable agreements verbally or through e-mail. Even when a memorandum of understanding (MOU) is stated to be nonbinding, if intended to be binding or if phrased in such a way as to be interpreted to be contractual, the parties can make a legal case that the terms are in fact binding, so a nuanced way may need to be found to terminate the library’s obligations under the memorandum. A typical MOU states that “the parties agree to hold the designated items for 15 years from the year of commitment. Retention commitments survive membership.” Rewrite such memoranda to make clear that they form operating guidelines rather than binding commitments. If a total rewrite is not feasible, add strong, specific language to the effect that “this memorandum is not a contract or an agreement to enter into a contract. This memorandum is nonbinding to all parties and no liability may arise from this memorandum to any parties thereto.”

Right to Audit

Do not give vendors a right to audit—to inspect the library’s security arrangements or to demand complete documentation and proof of compliance. “During the Term of this Agreement and for one year thereafter,” a typical audit clause reads, “You shall keep and maintain clear, accurate, and complete books and records. In the event that such audit identifies underpayment of 5% or more, you shall reimburse us for the cost of such audit.” Any such clause should be “intentionally omitted.” Let the vendor get a court order if they want to audit the library’s compliance with the contract.

Data Rights

Retain copyright (ownership) over any data loaded or entered into a system or software. “Data” in this context is not only personally identifiable information such as names and Social Security numbers but also usage patterns, search inputs, IP addresses, original metadata, and more. Contracts may contain a clause granting the vendor “a perpetual, worldwide, royalty-free license to use the Data for any business purpose, including but not limited to developing system enhancements and new products.” The unacceptable phrases in that clause are “perpetual” (no customer opt-out or withdrawal option) and “any business purpose” (no limitations on reusage). Rather than accept such permissive language, state exactly in which ways
vendors are allowed to use the library’s and users’ data. Vendors may not “sell or disclose any of the Data to third parties or use the Data for any purpose, without [Library’s] express written permission or as required by law.”

**Data Retention and Security**

Institutional and user data must be contractually secure from capture or loss. Require vendors to disclose their data security measures in place—not only standard measures such as front-facing HTTPS and hashed and salted passwords but also checks in place at data storage facilities to prevent unauthorized persons from walking up to the servers and exporting confidential data into a portable device. Mandate that the vendor hold any of its subsidiaries or contractors to the same contractual standards. Ask to know exactly how frequently, and exactly how, the vendor backs up customer data. Require that local copies of these backups be provided on request or when the contract ends, if applicable. Do not accept generic statements from vendors such as “we are committed to keeping your data safe and secure.” Insist on specific commitments within a period of time: “We will send you all your Data in an agreed-upon format at no additional fees on termination of this Agreement. All copies, including backup copies, of your Data that are hosted by us will be backed up on a continual basis and stored in secure facilities per industry standards. Backups of your Data will be provided to you in industry-standard formats on a quarterly basis (every third month). All of your Data hosted by us or our subsidiaries or agents will be destroyed within 30 days of the termination of this Agreement and the successful transfer of all your Data to you.” That should do it.

**User Privacy**

Ensure that library contracts address the privacy of end users and staff. Contracts should require vendors not to “sell or disclose patron information to third parties without your express permission or as required by law.” Vendors should provide thorough privacy policies that libraries should incorporate into contracts, by reference or preferably as an appendix not to be modified without the library’s written permission. Libraries should negotiate changes to the policy as appropriate. Regarding Family Educational Rights and Privacy Act (FERPA) and Health Insurance Portability and Accountability Act (HIPAA) privacy laws, “we comply with applicable FERPA guidelines” or similar language is too vague to pass muster. Most schools and universities have mandatory language that must be incorporated into any contracts involving FERPA or HIPAA compliance. Speak with the university’s compliance department to learn those rules. Abide by them.

**Transfer of Title**

The point at which ownership transfers from seller to customer is particularly important for shipments of physical supplies, such as books, computers, and furniture. Suppliers’ contracts commonly stipulate that “title to Products shall pass to Customer on payment in full.” This provision makes sense at first glance, but its effect is to waive or obfuscate vendor responsibility for supplies lost, damaged, or delayed in shipment or delivered in poor working condition. If the library has already paid the invoice, then it already owns the product and hence is the entity that must seek redress from U.S. Postal Service (USPS) or other agency responsible for shipping problems. Put that onerous duty on the vendor by stipulating that “the title to Products shall pass to Customer on receipt and acceptance by Customer of the Products in agreed-upon condition and working order.”

**Nondisparagement**

Contractual prohibitions on slighting or censuring other parties threaten intellectual freedom. Nondisparagement clauses show up mostly in end-user license agreements (EULAs) but also sometimes in institutional contracts. For example, the treaty organization behind a well-known open access repository affirms that it “retains all rights to prosecute, to the fullest extent of the law, any use of its Works in a manner that falsifies, misrepresents, disparages or fraudulently uses the Works, or disparages or harms the reputation of the [Publisher].” Another nonprofit publisher’s contract threatens to terminate access to its publications should “we believe in good faith that the conduct of Authorized Users is harmful to our interests, the publications on this site, other subscribers, or other users.” The optimal responses to such provisions is to strike the nondisparagement clause or walk away.
force majeure

Most contracts include a force majeure clause, and rightfully so, because force majeure exempts the parties from their contractual obligations in the event of natural disasters, wars, and other acts of God not within the reasonable control of the parties. However, even this boilerplate clause carries risks for customers. Here is a typical example: “We shall not be responsible for failures of our obligations under this Agreement to the extent that such failure is due to causes beyond our control, including but not limited to acts of God, war, acts of any government or agency, fire, explosions, epidemics, strikes, delivery services, lockouts, severe weather conditions, transportation delays, or delay of suppliers or subcontractors.” Contrary to this statement, any subcontractor delays and lockouts are, in fact, under the vendor’s control—no one forces a company to lock out its unionized employees or hire unreliable subcontractors. Be careful not to enable the vendor to duck out of its contractual obligations by claiming force majeure.

resources

Excellent general resources for understanding and wordsmithing contracts include The Librarian’s Legal Companion for Licensing Information Resources and Services by Tomas Lipinski (Chicago: American Library Association, 2013), The Tech Contracts Handbook: Software Licenses and Technology Services Agreements for Lawyers and Businesspeople by David W. Tollen (Chicago: American Bar Association, 2011), and Contracts: The Essential Business Desk Reference by Richard Stim (Berkeley, CA: NOLO, 2016). Also, the LIBLICENSE Model License Agreement (http://liblicense.crl.edu/) is a useful template. All these readings ground practitioners in both library and private sector practices.
Supporting Research Information Management in the Research University: Partnerships, Challenges, and Possibilities

Rebecca Bryant, Senior Program Officer, OCLC Research
Beth Sandore Namachchivaya, Associate University Librarian for Research and Associate Dean of Libraries, University of Illinois at Urbana-Champaign
Julie Speer, Associate Dean for Research and Informatics, Virginia Tech

Introduction

North American universities and research institutes are increasingly engaging in complex efforts to collect and synthesize information about an institution’s research footprint. Broadly defined, research information management (RIM) is the integrated collection of the scholarly outputs of its researchers by a research institution. RIM as defined here is analogous to current research information system (CRIS), a concept widely used in Europe but largely unfamiliar in the United States. RIM is also inclusive of other terms sometimes used within this emerging landscape, such as research networking system (RNS) and research profiling system (RPS).

RIM systems aggregate research metadata from both internal and external data sources. Internally, institutions may pull together information such as job titles and organizational affiliations, courses taught, grants awarded, patents, honors, publications and datasets, and campus committees and service. These data are usually sourced from many different systems that vary broadly by institution but may include the enterprise data warehouse, student information system, campus awards management system, institutional repository, and many others. In addition to system-delivered information, which can be refreshed regularly, manual entry may be needed to provide information that is otherwise unavailable. Many institutions also source data from external services such as Scopus, Web of Science, PubMed, and others, particularly for the collection of publications metadata.

In the United States, research information management implementations can demonstrate at least five specific use cases:

- Public researcher expertise profiles
- Faculty activity reporting (FAR) workflows
- Open access support and integration with campus institutional repositories
- Reporting and benchmarking
- Reuse and interoperability

The adoption of public research expertise profiles such as the Experts system at the University of Minnesota (experts.umn.edu) is one of the most common use cases in the United States. In these systems, the institution aggregates the research outputs of affiliated researchers into a public, searchable portal to increase institutional and researcher visibility and discoverability. In a second, less widely adopted use case, institutions such as the University of Arizona (uavitae.arizona.edu) have implemented campus-level workflows to support faculty review and activity reporting. Within these systems, faculty are incentivized to maintain information about their research outputs within the single integrated system of record. In a third case use, institutions may also use their RIM systems to support both local and federal open access (OA) policies. In these cases, such as https://scholarworks.duke.edu/elements/ at Duke University, the RIM may be used for enhanced identification and tracking of OA-eligible publications. It may also support notifications to researchers to encourage self-archiving of eligible works through integrated workflows that support deposit into the local institutional repository.

As an institution aggregates information about its research footprint, it can also use this information for a fourth use case: Improved reports, dashboards, and benchmarks. Institutions may use RIM...
information for customized decision support outputs at the department, college, and campus level, and as institutions increasingly think of RIM as a primary “system of record” or “data warehouse,” institutions can save time by entering once and reusing often. RIM information can be reused in many ways, making up a fifth use example. For instance, RIM information can be reused to provide automatic updates to Web pages across the institution. Researchers can extract information to create biosketches and curriculum vitae (CVs). Departments and institutional reporting professionals can extract information to support academic program review and accreditation activities.

Because RIM implementations support numerous campus goals, including open access compliance and enhanced discoverability, faculty reviews, and internal campus reporting, there are many campus stakeholders. Libraries are usually active participants, but not always, and other prominent stakeholders include the vice president for research and research office, provost, chief information officer, as well as data warehouse and institutional reporting professionals. Depending upon campus goals and organization, other stakeholders may include the graduate school, academic colleges and departments, technology transfer office, campus advancement and corporate relations, and campus news bureau.

Case Study: The University of Illinois’ Experts RIM System

The University of Illinois at Urbana-Champaign is one of the original 37 public land-grant institutions established after President Abraham Lincoln signed the Morrill Act in 1862. It is a comprehensive and major public land-grant university (doctoral/research) that is ranked among the best internationally. Illinois’ decision to implement a campus-wide RIM system is a natural outgrowth of its strong international reputation as a research-intensive institution, and its interest in making research and educational output accessible to a broad audience of scholars. Institutional context—in this case observing what is important to academic success at an institution and developing services and programs to help drive that success—is a critical element in the development of RIM services. It requires engagement across campus and on many levels—with undergraduates, graduate students and postdocs, faculty, staff, and administrators.

Beginning with the library ROI study that Paula Kaufman and Judy Luther performed at Illinois to determine the value of e-journal access to researchers’ grant funding success, the University of Illinois Library began to identify strategic actions that supported the growing research environment at Illinois. Following swiftly on the heels of the ROI study, the libraries at Illinois and the University of Wisconsin collaborated to develop and make available through GitHub an open source “campus research gateway and experts finder” named BibApp.

After a pilot implementation of BibApp in 2011 that was led by the Library, the Office of the Vice Chancellor for Research (OVCR) charged a campus task force that recommended implementing a campus-wide implementation of a RIM system. The Elsevier Pure RIM system was selected in late 2014, led by the OVCR and implemented in late 2015 as a beta service by the library, working in partnership with the campus. Initially named Illinois Research Connections (IRC) and later dubbed “Illinois Experts,” the campus articulated several objectives for the Illinois Pure implementation, which is directly focused on making accessible the scholarly accomplishments and expertise of Illinois researchers:

- Showcase Illinois research expertise to external stakeholders.
- Connect researchers with potential collaborators, and encourage interdisciplinary research.
- Automate publication data collection from reliable source(s).
- Enable units and individuals to make timely updates to profiles.

The initial beta launch in late December 2015 made public over 1,800 profiles for tenure-stream faculty primarily in science, technology, engineering, and mathematics (STEM) fields. Approximately 300 profiles for faculty in humanities, arts, and qualitative social sciences disciplines (HASS) were initially not made visible, pending enhancement with citations and references to publications and works that were not indexed in the Scopus database. Illinois aims to add the profiles for several hundred specialized faculty and other professional scholars on campus by mid-2017. The full implementation
will include profiles for up to 2,500 researchers on campus, aggregating scholarly accomplishment information for tenure-stream faculty, specialized faculty, as well as other scholars who are substantially engaged in research. The database encompasses all disciplines, academic colleges, and units, across the campus—over 150 units in all.

**Experts Database Use Cases at Illinois**

In addition to the several core uses we identified that involved showcasing research within the University and the general public, connecting interdisciplinary collaborators, the Illinois community has started to identify additional productive uses of the Experts database. The database has been used to identify potential reviewers with needed expertise for books and articles, grants, fellowship competitions, and promotion and tenure cases. Students and prospective students at all levels of their studies have begun to use the database to identify faculty advisers, mentors, and dissertation committee members who are doing research in the students' area of interest. The campus' corporate relations unit as well as the campus office of proposal development uses the database to identify scholars whose area of expertise match a funder's research interest. Internal and external media outlets use the database to identify expertise they can interview on current events or research topics. Further, the general public, legislators, alumni, potential corporate partners, the board of trustees—literally anyone can view the breadth, depth, and significance of the institution's scholarship at both the individual and collective levels.

**Shaping Content and Policy Through Governance**

At the outset of the Experts project, the vice chancellor for research and the university librarian appointed a faculty governance committee to provide feedback on the content and related policies and practice for the database. This initiative was highlighted in the campus strategic plan, with the goal of making scholarship representing all disciplines on campus accessible and searchable from one portal. The governance committee provides invaluable advice and perspective on core issues in the implementation. A topic the committee addressed early in the implementation was how exhaustive the coverage of each profile would be. The Pure system derives citations for scholarly works from the Scopus database, which provides excellent and exhaustive coverage for STEM scholarship, but it does a less satisfactory job of coverage for the humanities, arts, and social sciences (HASS) disciplines. Consequently, following the initial loading of 1,900 faculty profiles into Pure, we found that approximately 300 profiles for HASS scholars required remediation. We initially set these HASS profiles so that they do not display publicly until we add citation information to each profile that represents the body of work for each scholar. Since the campus focus is on access to Illinois scholarship rather than activity reporting, the project committed to developing a profile for each scholar that includes sufficient citations to accurately represent his or her current research focus. The notion of “representative” vs. “exhaustive” has enabled the project to identify reasonable goals for remediating profiles for HASS scholars that were not representative of their research with the initial loading of data derived from the Scopus database. The governance committee provided additional thoughtful perspective on research metrics that prompted us to initially remove the display of H-index and Altmetric donut information from individual profiles.

**Profile Remediation**

With approximately 300 HASS profiles requiring remediation, we performed some initial analysis of our options for efficient and bulk upload of citation data. The Pure system supports three methods of data import: Manual entry, import using a bibliography in RIS or BibTeX format, or automatic import using Pure’s import module or the bulk import feature. Manual creation of citations using “cut-and-paste” of citations from an existing curriculum vitae is time consuming but accurate in most cases. The project team would need to obtain curriculum vitae from each of the 300 scholars. In the second case, importing an existing bibliography is a viable and time-saving option if a scholar maintains a Google Scholar or Mendeley profile. However, each scholar would have to provide this file to us, and we have found that few arts and humanities scholars appear to use either Google Scholar or Mendeley. The Pure import module allows an individual researcher to search external data sources such as Online Computer Library Center (OCLC) Worldcat, CrossRef, and several other sources in a rudimentary way and add citations one
Researchers can also turn on automatic searches from Web of Science and Mendeley, but so far, this has not shown many benefits. Preliminary analysis suggested that we focus on importing citations to books, monographs, and book chapters for HASS scholars. For this reason, we targeted the OCLC Worldcat database as a rich source of data for these types of publications. We developed a set of scripts that first allowed us to verify an author’s name form using the virtual international authority file (VIAF) prior to searching the OCLC Worldcat database using the Worldcat Discovery API for publications for which there was an exact match with the VIAF-verified author name form.

The combination of scripts we used to search the VIAF and the OCLC Worldcat database retrieved 3,216 publication records for 497 individual researchers in the Illinois Experts database. Of those 497 individuals, we were specifically focused on retrieving publications for the humanities, arts, and qualitative social scientists, and those researchers comprised about 340 of the 497 people for whom we imported records. In that HASS subgroup, we were able to import 681 records for 340 people—that is roughly two records per person. While these results were useful, producing accurate citations to works that were not previously imported in the Scopus data, they did not generate the expected volume of citations for HASS scholars that would have resulted in significant increases in profile content. An analysis of the scripts we used to search the VIAF registry suggests that the scripts were too restrictive, focusing on exact matches in the VIAF. We are currently revising the scripts to incorporate “near match” heuristics that can identify results for human review and validation prior to loading this information into the Pure database.

The task of populating each scholar’s profile with accurate and complete information is one that ought to be addressable today using automated methods, re-purposing existing publication metadata as far as possible. We intend to continue focusing effort on developing automated methods to identify and import citations and advocating with the Pure development team to enhance the utility of the Pure import module. A reasonable goal for libraries and publishers should be to work collectively (not at the individual institution level) to address the challenges inherent in using existing vetted metadata to build and sustain accurate and representative profiles of scholarly works.

Work in Progress

Illinois continues to augment the content of the Experts database, with plans to add patents and grants in the near future. In late fall 2016, Pure anticipates adding news and media information. Further, the library has initiated marketing as well as training workshops for library subject liaisons, communications staff in academic units that support research, and individual faculty to enhance the content of researcher profiles. A campus implementation of ORCID in 2017–2018 will improve our ability to disambiguate author name information. The library has identified several early adopter academic units on campus that are eager to ingest researcher information from the Pure database into their local data sources and Web pages, thereby eliminating the need for individual units to duplicate this information locally.

Translational Uses

Even at this early stage of implementation, we can identify translational uses of the database as a discovery entry point, as well as use of the database itself to replace previous services and systems. One research institute on campus recently decided to use the Pure database to aggregate its researchers’ scholarly output on an annual basis, replacing an arduous manual publication tracking process supported by the institute librarians. Another translational use is bearing out in the area of discovery. Libraries and users are accustomed to discovery that keys primarily on publication data; however, RIM systems enable research discovery that keys on thematic areas, individual researchers, research centers, and academic units. In other words, RIM systems support discovery that is not driven primarily by publication. The flexibility of RIM systems also supports the integration of data about the scholarly activities of researchers as analytics within the system, enabling creation of on-the-fly visualizations of collaboration networks. These and other enhancements likely to be introduced point to the rise of content discovery layers that flexibly re-purpose underlying bibliographic and other data for viewing through the lens of a particular group of users.
Case Study: Virginia Tech’s Faculty Activity Reporting-Based RIM System

Faculty activity reporting (FAR) is the primary use case for Virginia Tech’s (VT’s) research information management implementation. However, this discussion will describe how VT’s FAR-based RIM implementation demonstrates all five RIM use cases: Researcher profiles, faculty activity reporting, open access (OA) support and repository integration, reporting, and reuse and interoperability.

Virginia Tech, a comprehensive public land-grant university with over $500 million in research expenditures, offers approximately 250 degree programs to over 33,000 undergraduate and graduate students. Virginia Tech Libraries support the teaching, research, and outreach missions of the university through service and innovation in learning spaces, teaching, learning, and literacies, collections access, and research and curation. Research and curation initiatives are largely offered through the Libraries’ Research and Informatics division, which is comprised of units responsible for the management and delivery of new digital research and scholarship services (including repositories and OA support) as well as with effecting strategies for mapping and integrating the libraries’ resources, services, and expertise to the university’s research enterprise.

In 2012, with faculty input on scenarios for reducing barriers to open access (OA) and based on informal surveying of the research information landscape, the libraries initiated a partnership with the Provost’s Office and the Office of the Vice President for Research and Innovation (OVPRI) to explore, in concert with other university data management initiatives, strategies for embedding the libraries’ VTechWorks open repository service in existing faculty workflows. The partnership led to the libraries’ involvement in selection of a new platform for the electronic faculty activity reporting system (EFARS), a process that involved stakeholders from across the university: The Provost’s Office (as leaders of the EFARS initiative), Office of the Vice President for Research and Innovation (OVPRI), Information Technology, and University Libraries. Symplectic Elements was selected as the new EFARS platform in 2013, and implementation began in early 2014. Launch of the new Elements-based EFARS began in the fall of 2016.

Faculty are encouraged to curate their own data within EFARS, which can be used to generate several kinds of faculty activity reports, as well as to populate other external university websites and public facing profile systems. Much like other RIM implementations, a large portion of the EFARS faculty activity data are harvested into the system automatically via external publisher data sources to avoid unnecessary manual data entry; data sources include, but are not limited to Web of Science, SSRN, DBLP, PubMed Central, arXiv, ORCID, and Altmetrics. Campus data sources also offer job title, grants, teaching, and some legacy publications and professional activity data. Custom reports developed by the Office of Institutional Research and Effectiveness are based on university guidelines and offer faculty the ability to use EFARS to generate annual activity reports and promotion and tenure dossiers, in addition to the platform’s default curriculum vitae and funding agency biosketch reports.

Repository integration, a key feature of the new EFARS platform, provides faculty users responsible for curating their profile data with a way to quickly and easily deposit works to VTechWorks without introducing separate external submission workflows. The platform displays publisher self-archiving copyright policy information provided by SHERPA/RoMEO, as well as VTechWorks service information provided by the libraries’ repository team, to assist faculty in understanding which version of a work can be shared publicly in an institutional repository. Files and metadata are then deposited to a single collection in the repository, and uniform resource identifiers (URIs) are sent back to EFARS to be included in faculty members’ publication records. Repository team members then map publications to appropriate college, institute, or department level collections in VTechWorks’ DSpace-based repository system.

One of many positive outcomes of the repository integration is the ability to automatically include links to VTechWorks OA publications in any reports generated using EFARS and in any public-facing researcher profile systems that consume EFARS data. CollabVT, the library-managed VIVO implementation, is one example of such a system. CollabVT is a public-facing researcher profile application based on EFARS curated data. Links to
VTechWorks records will be accessible in CollabVT profiles. While still a work in progress, CollabVT will offer well-structured and faculty-curated grants and publication data in an openly accessible platform that can be used to identify collaborators and showcase research expertise.

Implementation of EFARS, VT’s primary RIM use case, is supported by the libraries in a variety of ways. The libraries manage local data feeds, provide general application administration, help troubleshoot external publication data feed issues, manage repository and VIVO integrations, provide user support for publication and ORCID issues, create educational content in the form of instructional videos and LibGuides, and offer workshops on related scholarly communication topics such as researcher profile systems, open repositories, altmetrics, and open access. Engaging with the university’s RIM initiative has not only provided the libraries with an opportunity to strengthen the university’s overall research infrastructure, but to deepen our engagement with faculty in scholarly communication issues and accomplish our goal to effectively map and integrate the libraries’ digital research and scholarship services, expertise, and resources to new university research environments.