Creating Green Open Access to Institutional Scholarship using Digital Commons

Introduction

Establishing a new institutional repository (IR) is a daunting task. It requires collaboration with units across campus, knowledge regarding the standards for depositing scholarship, an understanding of the platform being used, and the ability to communicate the features and importance of the repository to the university community. In the spring semester of 2015 both Pittsburg State University (PSU) and Fort Hays State University (FHSU) purchased an open access digital repository, Berkeley Electric Press (Bepress) - Digital Commons (DC), as the platform for their institutional repositories. Both universities also hired someone specifically to manage, market, and train the university community about and how to use the repository. In December 2015, PSU and FHSU launched their Digital Commons. Prior to purchasing Digital Commons both universities used OCLC’s CONTENTdm to present their scholarship. While CONTENTdm works well for some things, it does not permit faculty and staff to submit their own work to the repository.

The purpose of purchasing DC is to have a more robust repository for scholarship produced by the institution, and an efficient way to keep track of the university units producing scholarship. Both PSU and FHSU have limited staff to manage the repository, and Bepress provides timely and unlimited technical support and storage. Furthermore, Bepress participates in the LOCKSS (Lots of Copies Keeps Stuff Safe) program for long-term preservation. In addition, the DC platform permits smaller institutions to share their scholarship easily and globally.

Both PSU and FHSU invested in Digital Commons in order to build their IRs. The decision was top down in that the graduate school at PSU, and administration at FHSU made the decision to purchase Digital Commons as a means to present and disseminate research outputs produced by the institutional community and to advance open scholarship on a global level. Previously, both institutions were using CONTENTdm as a digital repository for their electronic theses, online journals, archival materials and special collections, and other scholarly materials. Based on PSU and FHSU’s practical experience in IR initiatives, CONTENTdm, although a good product for images and smaller special collections, was not robust enough for scholarship produced by faculty, students, and staff. Furthermore, the global discoverability, unlimited
storage, efficient technical support, and extraordinary statistics reports from the digital dashboard made transitioning to DC enticing.

**Institutional Need for an IR**

The role of an institutional repository (IR) is to provide open access to a variety of scholarly materials that globally benefits institutional communities. Raym Crow, SPARC Senior Consultant in his *Case for Institutional Repositories: A SPARC Position Paper* stated: “an institutional repository is a digital archive of the intellectual product created by faculty, research staff, and students of an institution and accessible to end user both within and outside of the institution, with few if any barriers [to] access” (ARL, 2002). IRs are increasingly employed in academic institutions to manage a variety of digital content including educational, research, and archival materials. The benefits of IRs identified in the literature include knowledge sharing, control over the digital assets of the university, and digital preservation. One of the main benefits of establishing an IR is so scholars can disseminate their work quickly, broadly and cheaply and those scholarly works are more visible and discoverable. This can increase the impact of not only faculty research but also their institutions (Watson, 2011).

Established IRs provide Open Access (OA) to scholarly output produced by the institutional communities. There are two primary OA models for delivering scholarly output: Green OA and Gold OA. Green OA allows the authors to deposit their work in their institutional OA or IR which provides free public access to the material in the repository and has no deposit fee. The FAQ page in Digital Commons is one example of the benefits provided by Bepress to ease the process of self-archiving for both the repository librarian and author. On the other hand, with Gold OA, the authors or their institutions are required to pay for their works on the publisher’s website (Lovett, 2014).

**Why Digital Commons?**

Digital Commons’ community has over 400 institutions and has been growing, while providing and unlimited storage and technical support (Connolly, 2016). Digital repositories in academic institutions are growing yearly, but more toward scholarly communication, than archives. CONTENTdm and Digital Commons (DC) are the most widely used proprietary platforms (Amaral, 2008). Positive features include the presentation of various types of digital
materials, and the option for faculty to self-archive. Not all institutions using CONTENTdm are hosted by OCLC. FHSU is hosted and PSU maintains their collections on its own servers. Furthermore, CONTENTdm is a stand-alone digital asset management system and only linked globally through WorldCat Digital Collection Gateway, in which not everyone participates. CONTENTdm more effectively presents image-based materials and a granular metadata structure for easy retrieval. However, DC is marketed as a flexible, robust and open-access institutional repository solution that best showcases scholarly works produced by faculty and students.

PSU and FHSU used CONTENTdm as their primary digital repository but chose to move to DC as a new IR implementation. This selection is due to the manpower and technical issues that need to be ironed out in order for an IR to be successful. PSU and FHSU invested into DC to encourage faculty, research staff, and students to deposit their own work into the repository making it freely available to a global audience, green open access.

PSU and FHSU were attracted to DC in order to more easily showcase scholarship produced by faculty and students. PSU has focused more heavily on student (undergraduate and graduate) scholarship than faculty. In FHSU’s case, they first populate their IR with faculty papers, while outreaching and building the relationships across the campus departments. However, as more faculty, at PSU, are noticing the enthusiasm and positive feedback from students, they are also inquiring about how they can deposit their work. Other areas of focus have been university archives, such as yearbooks, finding aids from special collections, professional journals, and student theses. Currently, PSU is moving to DC for thesis submission and review process. Both PSU and FHSU recognized the importance of making their scholarship visible and available for global dissemination.

**What can Digital Commons do?**

Digital Commons aggregates global scholarship in one searchable location on its platform. The platform provides digital preservation and open access to a variety of scholarship and fosters research communication across disciplines globally. Currently, PSU and FHSU are implementing DC, while realizing the benefits of supporting open access to research and showcasing scholarly works via the IR. In order to do this DC provides six different structures to showcase scholarship: Series, ETD Series, Book Galleries, Image Galleries, Event Communities,
and Journals. Those structures are containers for submissions, such as articles, papers, books, datasets, and images. The structure chosen depends on the kind of content that will be published. Each structure is created with a static URL and is linked to a scholarly work which is good for students and faculty to share on their CV’s or resumes.

SelectedWorks is an add-on to DC that allows faculty, students or research staff to create and manage their own personal research pages. For example, the author can customize his/her site with a personal introduction, a photograph, post the full text, link to their full text on another site, post all of their materials, or create their own subject categories to represent their scholarly works. SelectedWorks is useful to enhance faculty enthusiasm by enticing them to take ownership of how their work is deposited and displayed. Faculty can still submit their work into the DC without SelectedWorks, but without the customized pages.

Digital Commons’ primary appeal is global discoverability, but content cannot be searched and discovered without complete metadata. Bepress features global searching across all DC repositories and Google. Additionally, DC utilizes DublinCore metadata, but it is more purposeful and less cumbersome to input than CONTENTdm due to only two levels of metadata. One is the “Descriptive Page Title” and “Search Description” for the series, and two is the item level metadata. The item level metadata typically includes title, creator, date, abstract, publisher, keywords, document type, and discipline; the more descriptive the content equals greater discoverability.

Statistics is one aspect of DC that encourages students and faculty to deposit their work into the repository. There are two sets of statistics gathered by DC. One is through Google Analytics, and the other is within their dashboard. Google Analytics statistics have the capability of tracking searches from Google and other search engines for keywords that take the users to the website. Google Analytics is useful because it provides information about where the visitors are geographically located, what they are viewing, and how long they spend on the site. Real time statistics are also available in Google Analytics to see how many visitors are currently on the site. Dashboard statistics, on the other hand, are detailed regarding visitors, their institution with when and what they downloaded. Also statistics are available by the series or item to see how many downloads there were for a single item or a series. Downloads are sorted by the greatest to the least viewed.
Digital Commons also provides a variety of Usage Reports: Reports for IR Administrators, Reports for Editors, Reports for Authors, and Reports for Institutional Stakeholders. For example, Hit Reports is one of the Reports for IR Administrators. The Hit Reports provides information about “how often visitors browsed to the items published on the repository.” These reports can be used to better understand the visibility of the repository on the web. Download Reports, which are also called Readership Reports, is one of the Reports for Authors. The authors receive Readership Reports monthly to indicate how many items they have in the repository and the total number of all-time downloads with monthly downloads for each item. Readership reports assist with encouraging faculty participation, but advertising and marketing Digital Commons to faculty is always a challenge. As stated above some faculty have gained enthusiasm to participate at PSU after interacting with students. Students like seeing that their work is accessed all over the world. Those reports are also used to demonstrate the value of IR content.

Challenges

While there are significant benefits and advantages of IRs discussed in this paper, many institutions point to the challenges or barriers they face, for example: the submission of electronic materials including multiple formats; varying publisher copyright policies; difficulties in obtaining postable publisher version PDFs; and technical limitations including batch loading and streaming video and audio materials. PSU and FHSU each hired a librarian to successfully build and expand their repositories. With expertise in metadata creation, and database management, a knowledge of copyright, preservation, and file formats; and marketing and communication skills, those librarians’ roles include supporting the cycle of knowledge discovery, use, creation, and dissemination, and integrating the IR into faculty and student research and scholarship activities. The IR services provided by those librarians promote collaborative, productive relationships with faculty, students, and librarians.

Another method for growing and promoting an IR is through faculty participation due to their desire for wide dissemination of their scholarship (Duranceau, 2013). Successful options for strong outreach or communication to faculty include providing workshops to introduce the IR and the benefits for including their scholarship in the IR, then looking for formal and informal ways to build strong relationships with faculty, such as through casual conversations.
The other aspect of promoting an IR is expanded collaboration with liaison librarians. The changing library and information environment has increased the speed of dissemination for information, including research output produced by faculty. Traditional and current roles of liaison librarians are mainly reference services and collection development, but the integral roles of librarians in promoting scholarly communication is a growing trend in the digital age (Brantley, 2015). Collaborative communication among the repository and liaison librarians needs to be proactive to support the digital scholarship needs of faculty and their research enterprise. Since PSU and FHSU are small institutions, the communication system is simpler than larger institutions because it is easy to track outreach activities for faculty or campus departments.

Finally, rights management is another challenge. Copyright permissions are dealt with during the content ingesting process. Working with a large number of publishers regarding intellectual property rights, managing copyright, permissions, and keeping rights records is part of the challenge. Institutions need to determine different copyright policies, rights permissions and conditions of publishers, which may be laid out with unclear or overly aggressive terms of licensing. Not all publishers respond to author rights questions, and if they do, their response time is very slow. Fortunately, Digital Commons provides a detailed FAQ page with a link to SERPA/RoMEO to assist authors with researching the permissions for the journals in which their original work was submitted.

Promotion and communication of Digital Commons at PSU has been through special events, such as Professional Development day held before the beginning of fall semester for faculty, workshops through the Center for Teaching and Learning, conversations with faculty about Open Educational Resources, and the Graduate Research Colloquium, held in the spring for student research. Focusing on student research has generated excitement from the students when they see the statistics for their work and that has carried over to some faculty. Faculty that have deposited their work into the repository are encouraging others in their departments to do the same. It is a slow process, but word and excitement is moving its way across campus.

Conclusion

Green Open Access repositories or Institutional Repositories have dramatically changed the way that academic institutions, around the world disseminate a variety of intellectual research. Digital Repository selection is tied to the successful IR initiative depending upon size
and type of institution. It is important to evaluate the institutional purpose for purchasing an IR, technological capabilities and systems environment at the institution, and staffing. Implementing a successful IR initiatives requires across-campus collaboration and inter-library collaboration which are essential to build a robust scholarly communication system and focus further dialog regarding the needs of faculty, publishers, and librarians in the future. Establishing strong partnerships among faculty, campus professionals, and librarians can shape future directions for the library’s missions thereby identifying the changing needs and practices of scholarly communication. Due to the easy flow of communication across the campus departments and faculty, small institutions can more easily take advantages of the efforts to develop and establish strategies guiding depositing of scholarly works into an IR which would cause greater appreciation of the impact of institutional research output. The establishment of workflows to promote an IR and collaborations across campus can enhance the distribution of digital content.
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