

RUNNING HEAD: Institutional Repositories: Benefits and Challenges for Libraries

Major Paper: Institutional Repositories

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Introduction

Institutional Repositories (IR's) offer the opportunity for academic libraries to collect, preserve and disseminate the institutions scholarly output. Serving an important service to the community, institutional repositories offer many benefits to the academic institution as well as other communities around the world. Institutional repositories make it possible to collect content in one location, capture and provide open access to the intellectual output of a university, as well as preserve content that may be otherwise unavailable or out of publication. It is essential to explore the benefits, and challenges of institutional repositories to determine if an IR will be worthwhile to the library as well as the institution. It is also important that the benefits outweigh the costs of this ambitious endeavor. This paper will explore issues affecting libraries operating institutional repositories, and will explore some of the challenges and benefits to libraries operating an IR. Lastly, this paper will examine the future of IR's as it relates to issues in sustainability and viability.

Overview of Institutional Repositories

IR Content

Many academic institutions around the world have made the decision to digitize their scholarly output and research into the format of a repository in an effort to “manage their educational research more effectively and transparently than in the past” (Hayes, 2005). Different types of content are used in the creation of an IR. Published materials such as post-print, journal papers, book chapters, and conference papers make up a significant portion of the content of many IR's. Unpublished or gray materials such as pre-prints, working papers, thesis and dissertations, professor lectures, technical reports, progress/status reports, and committee reports are some examples of other types of content some IR's will contain.

IR Creation

Once the institutions administrative staff agrees to fund an IR there is a lot of work that goes into the creation and maintenance of the IR. The creation and maintenance of an IR requires the collaboration of librarians, IT specialists, faculty and administrators. Sometimes outside support services are accessed in order to maintain the functionality of the IR as well. When all is said and done the cost of starting up an IR can be quite significant. Rebecca Kemp (2005) of Yale University collected data about start-up cost of IR's from various institutions which she then organized into a spreadsheet. The data found that IR set-up costs ranged from \$6,886.62 all the way up to \$1 million. Most of the institutions included in Kemp's spreadsheet are running DSpace although Kemp notes that there are other institutions running the IR software, Eprints. Eprints software is free to use, however the costs related to staffing the project can be quite significant. A vendor hosted system, Digital Commons, which is based upon the Berkeley Electronic Press (bepress) software is another option for institutions, which is quite

popular. This vendor hosted software is not free to use however it reduces the amount of time the institutions own staff has to devote to starting up and maintaining the IR. An additional benefit to this option is the support offered by bepress.

Managing an IR costs money, especially when more complex functions and customization are used. It is important for Universities to remember that trained staff is necessary to install and maintain the IR's. This is an added cost for the University to consider. Staff training, support services, and customization costs can be considerable. Both start-up costs and on-going maintenance costs should be budgeted for before the library embarks on the endeavor to create an IR. Policy development is another important aspect of the start-up of an IR. This includes the creation of policies for the submission and approval procedure, preservation, author permission and licensing terms and rights management.

Open IR's and OAI-PMH

In order to make the institutional output in an IR harvestable by search engines the IR's must expose their data through the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH).

The Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) is a low-barrier mechanism for repository interoperability. Data Providers are repositories that expose structured metadata via OAI-PMH. Service Providers then make OAI-PMH service requests to harvest that metadata. OAI-PMH is a set of six verbs or services that are invoked within HTTP. (Open Archives Initiative)

Copyright and Creative Commons

Copyright issues and creative commons licensing options must be explained to faculty depositing their work into the repository. Creative commons licensing plays a large role in making works available to a wide audience. On the Minds@UW website, University of Wisconsin's IR's FAQ's page does an excellent job of explaining the differences between copyright and creative commons:

Creative Commons licenses allow you to give blanket permission to end-users for certain uses of your work under certain conditions, without in any way damaging your rights over the same work. They are excellent for teachers and scholars, who can allow other teachers and scholars to reuse their work without the tiresome process of seeking additional permissions. Creative Commons licensing is completely optional; simply click the "Skip Creative Commons" button at that stage to bypass the Creative Commons licensing process. Without it, your work enjoys the customary protections of copyright.
(FAQ—Minds@UW 2006)

Educating faculty about copyright and creative commons is an integral part of IR advocacy.

Challenges for Consideration

IR's are quite appealing to academic libraries for many reasons, however there is quite a bit of work and logistics involved in creating, operating, and sustaining a repository. It is important for those involved in the project to realize that the creation of an IR can be a challenging process. In order for an IR to be maintained and managed there must be administrative and faculty support. Financial support as well as staff hours must be dedicated to advocacy of the IR, content management, and the creation of OAI-PMH metadata. Additional factors such as, getting faculty to agree to share their works can sometimes create an obstacle for librarians who endeavor to create a digital repository. Dorothea Salo (2007), Digital Repository librarian for the University of Wisconsin, points out that the ideology "if you build it they will come" can fail when faculty do not show an interest or see the benefit in contributing their work to a digital repository. Therefore, it is essential for IR staff to advocate the IR to faculty and inform them of the benefit an IR can hold for them.

Driving Factors

A major issue affecting academic institutions is the rising cost of proprietary database and journal subscriptions. These rising costs are causing librarians to look for alternative means of developing their collections. "Prices of subscription-based journals increased nine to ten percent in 2008, driven by an extremely weak dollar" (Van Orsdel & Born, 2008). The average price for a single chemistry journal title is \$3,490. "Non-U.S. titles in the humanities and social sciences increased even more (11 percent), because publishers in these disciplines tend to price in native currencies, driving U.S. prices up when those currencies are converted to dollars" (Van Orsdel & Born, 2008). Given that the value of the dollar is likely to continue sliding, the costs of subscription based journals are likely to continue to increase in the coming year(s). This is likely to encourage more Universities to consider OA IR's as money saving alternative.

Benefits of Institutional Repositories

There are many benefits for Institutions who utilize an open archival system such as an institutional repository. Repositories allow for the storage and easy retrieval of many types of institutional information. Repositories offer the opportunity to organize and maintain all of the institutions scholarly documents in one location which is accessible to everyone in the University community as well as the global community.

In addition to the practical benefits, digital repositories also offer an opportunity to bring visibility to the University and individual faculty members. Neil Godfrey writes, "The purpose of this repository collection is principally to showcase to the world the intellectual output of the institution" (2007). With a digital repository, user's throughout the world have access to a universities output which can be found in a number of ways. If it is a known work and author, the user can Google the author name and topic to be taken right to the repositories file.

The fact that scholars around the world can have access to other's research and scholarly writings means that IR's "enable the free sharing of information, encouraging collaboration and the widespread communication of institutional education and research activity" (Hayes 2005). This creates a community of scholars who would otherwise never communicate with one another. Not to mention the fact that this information is available e to any interested individual free of charge, thus promoting the philosophy of the open movement; free and open access to information.

There are many significant benefits for faculty who self-archive their scholarly works, which includes the rapid sharing of unpublished resources and ideas, long term preservation of research papers, and the promotion of collaboration. Works that are available through a repository will have increased visibility and therefore citation rates of that work will increase. The publishing of research to an IR may also attract future research funding as well as facilitate knowledge sharing and reuse. It is crucial that resources go into promoting these benefits to faculty, who may not feel they have the time or interest necessary to contribute to an IR project. Without proper promotion and advocacy, it is unlikely that the IR will continue to grow and thrive.

Challenges of Digital Institutional Repositories

There are many challenges facing library and other staff who manage an Institutional Repository. One of the main challenges is faculty participation. Without the willingness of the faculty to contribute their works to the repositories, the collection will not be able to be sustained and grow. There are many reasons why faculty may be reluctant to participate in a Repository. Some of these reasons include, fear of backlash from a publisher, a belief that depositing their work is too time consuming or holds little value. Dorothea Salo reiterates this notion in her interview with Ellyssa Kroski (n.d.) stating:

We predicated their (IR's) planning and development on the idea that faculty were going to come in and deposit all of their work in the repositories that we open and then we would be able to manage it and make it available to the world. This is a matter of demanding free labor from faculty who quite reasonably inquire 'what's in it for us' (4:19 minutes)

Additionally, some faculty members are weary of providing content to a system that contains grey literature that has not gone through the process of being peer-reviewed. There is the concern that the existence of student created content will in some way detract from efficacy their own professional research or writings. To combat a lackluster faculty community requires a lot of advocacy and education as well as the building of strong library-faculty relationships. The faculty must learn to trust the library staff in order to feel confident in making contributions to the IR.

Combating the Challenges of IR's to Create Sustainability

Advocacy

Shirley Yearwood Jackman (2007), Institutional Repository Librarian for the University of Liverpool believes that the biggest challenge effecting IR development is a lack of faculty interest and involvement. She writes, “Central to the challenge—is our role in advocating and, indeed, convincing researchers that the new service might have tangible benefits to them which they cannot afford to ignore. (Yearwood Jackman 2007, p.35). The librarian goes on to state that “developing sustainable channels for advocating the IR to academics, in order to secure the deposit of their work whilst tailoring the service to satisfy their different scholarly communication practices” must be at the core of any strategy to create an IR. Advocacy may be challenging in the beginning as some researchers in the community may be resistant to change or to hearing new ideas.

Central to the approach at the University of Liverpool was the notion that there is no one size fits all approach to how the decision will be made to print only post-prints or pre-prints as well. Therefore, they decided to leave this up to each field. “A core feature we included to support our approach was that the IR will define content to include all the research outputs that a specific discipline would accept as representative of its field” (Year wood Jackman 2007). Next, the Liverpool IR staff developed a marketing strategy to advocate the IR. Garnering the support of the heads of academic units was seen as, “important since our approach to creating the IR was based on developing partnerships with academic units so that a sustainable dialogue could be maintained in order to develop a service based on the needs of the research community. This unique approach” (Yearwood Jackman 2007). This approach was developed and used to launch the Universities pilot program. The development of this faculty centered advocacy and partnership was developed in response to the many currently operating IR’s who have reported low faculty participation. This approach may be useful to other institutions who are embarking on the creation of an IR, or who are experiencing low faculty involved in their IR. Yearwood Jackman positively reported that their approach of “active engagement with academic units has built a good partnership with many of them and has laid the foundation for sustainable advocacy in the academic units.

Institutional Mandates

Another approach that has recently been adopted by Harvard University Faculty of Arts and Sciences (FAS) is the institution of a Open Access (OA) mandate which “compels Harvard researchers to deposit their ‘scholarly articles’ in an open access (OA) repository to be managed within the library and to be made freely available to anyone via the Internet” (Harvard Passes OA Mandate 2008). Computer science professor, Stuart Sheiber put forth the motion and believes that its passage should send a “very powerful message to the academic community that we want and should have more control over how our work is used and disseminated” (Harvard Passes OA Mandate 2008). It is hoped that the policy will encourage faculty to contribute their work to the IR, however faculty are ultimately able to opt-out of compliance if the faculty member requests a waiver of the license for a particular article. OA Pioneer Steven Harnard has openly criticized the mandates opt-out clause. He questions whether “‘potential author resistance to perceived or actual constraints on their choice of which journal to publish in,’ could hamper the policy—in other words, if the most prestigious journal in a researchers' field requires exclusivity, will that be enough to motivate a researcher to opt-out?” (Harvard Passes OA Mandate 2008).

It is important for faculty to realize that many publishers already permit self-archiving. “More than two thirds of academic journals now permit self-archiving on author web sites or in institutional repositories” (Harvard Passes OA Mandate 2008). Harvard’s OA mandate may have an effect on the remaining one third of academic journals, perhaps causing them to consider revising their policy on self-archiving. Additional impacts may be seen by the Harvard’s passage of the OA mandate, in the form of other institutions deciding follow suit and institute their own policies regarding OA. Matthew Cokerill, president of open access publisher BioMed Central reacted to the Harvard decision on his blog stating:

What is clear is that the need for open access, and the failure of the traditional model of scientific publishing to make full use of the internet's potential in this respect, are no longer issues of interest only to librarians or to activists. These issues are now recognized to be important ones that all serious research institutions need to consider. (Cokerill 2008)

Cokerill went on to comment on the changes he believes will begin to be seen in the OA movement and research community:

Open access is no longer just a nice idea, but is a concrete objective and over the course of 2008, the key focus will be not on rhetoric, but on the practical issues necessary to make wide-scale open access a reality. (Cokerill 2008).

Institutional Repositories: Into the Future

The Institutional Repository model is still evolving. There is a lot of information to be gained from the mistakes or challenges facing today’s IR’s. Academic institutions can be of great assistance to the IR community by conducting research and documenting their successes and challenges. Learning from another IR’s mistakes and triumphs will assist those who are currently operating IR’s as well as those who are just embarking on the endeavor. More and more research is emerging; such Palmer’s (2008) report “Identifying Factors of Success in CIC Institutional Repository Development - Final Report” from UIC’s IR staff. The IR community will be coming together this Winter as the American Library Association (ALA) and Association for Library Collections and Technical Services (ALCTS) come together to host a symposium in Colorado this January, called “Implementing an Institutional Repository: Benefits and Challenges.” In order for IR’s to be sustainable, collaboration is a necessary key to success.

The 4th International Conference on Open Repositories which will be hosted by Georgia Tech and will take place next May in Atlanta, Georgia will provide another opportunity for discussion on IR related topics, issues and challenges. By coming together to discuss some of the issues in IR, individuals can create partnerships as well as exchange and build upon new ideas for improving IR’s.

Conclusion

There are many benefits IR's hold for academic institutions and their libraries. IR's provide institutions with the opportunity to collect, store and disseminate institutional output, while bringing visibility to the University as well as individual faculty. However it is important to remember that the IR movement is still evolving. There are still many challenges affecting those creating and operating IR's today. The main challenge for IR's is staff participation. It is not just enough to create the IR and expect that staff will willingly offer up their time and work to the self-archival process. Advocacy and collaboration efforts are central to creating a successful relationship between library/IR staff and faculty. After all, without advocacy, the IR will not expand, therefore defeating its purpose. Collaboration is an important key to both the success of meeting the IR's goal of creating Open Access to information as well as to combating some of the challenges staff members are facing in operating an IR.

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