Secrets of Success: Identifying Success Factors in Institutional Repositories

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Introduction

While researchers identify different success factors as key for institutional repositories (IRs), there is no agreement concerning whether any are fundamental for all IRs or if success is entirely a local phenomena. Researchers primarily cite content recruitment and services as key factors; however, there has been some discussion of measuring success against the goals of the library, how well the chosen technology fulfills the purpose of the IR, and success as a process that changes as the IR matures. This paper examines the topic of IRs and success. Our findings are based on a comparative case study of five IRs in colleges and universities. We argue that success should be measured by both internal (e.g., content, services) as well as external factors – how well the IR fulfills or brings the library closer to achieving its long-term goals in terms of service to the academic community.

Literature Review

There is little agreement surrounding what constitutes a successful IR. Shearer (2003), Bell, Foster, and Gibbons (2005), and Ferreira, Rodrigues, Baptista, and Saraiva (2008) identify content recruitment as a critical success factor. This is summarized by Blythe and Chachra (2005): "They will be successful only when they achieve broad and voluntary participation by individuals in the communities they serve". On the other hand, Chavez, Crane, Sauer, Babeu, Packel, and Weaver (2007) argue that it is the services that make an IR successful, particularly those that add value to the content. Adding to the complexity, Hank (2006) notes that success in one dimension is not a guarantee of overall success of the IR. For example, an IR can perform well on a trusted digital repository audit, such as TRAC, but this may not automatically lead to repository success.

In response to these contradictions, several frameworks for success have been developed. Thibodeau (2007) proposes that "a framework for organizing information needed to evaluate the success of digital repositories can be articulated along five dimensions: service, orientation, coverage, collaboration, and state". Service means functionalities for members of the community, orientation refers to the place in the continuum between preservation and access where the repository operates, coverage concerns content, collaboration signifies whether the IR works alone or might best collaborate in some IR functions, and state is maturity in the development of the IR. Within each of these factors Thibodeau poses metrics to judge the success. Westell's (2006) framework to evaluate IRs diverges from Thibodeau's. Westell identifies "eight input indicators: mandate, integration into institutional planning, funding model,

relationship to digitisation centres, interoperability, measurement, promotion, and preservation strategy" as key dimensions of success. She further notes that user acceptance is also an important element of success.

All of these success factors are internally-driven, looking for attributes within the IR that lead to success. However, there is another strain in the literature that is focused externally and measures IR success in terms of institutional or at least overall library goals. For example in discussing IRs, Blythe and Chachra (2005) notes that success, or as he terms it – "value" – differs from the institutional and individual perspectives, and that true success requires both of these to align. Even for institutional repositories, success may very well hinge not only on how the repository exercises its own functions, but also on how it contributes to other activities within the institution: "The 'growth industry' for IRs may very well depend upon identifying and implementing creative ways for researchers, students, and other campus professionals to use the scholarly information these repositories contain" (Walters, 2006). Finally, the authors primarily discuss success factors as input rather than impact measures.

Our case studies build on these existing frameworks and we demonstrate that success should be more broadly defined and measured in terms of the library's and university's larger goals. By looking externally, we point to some areas where the impact of IRs may be seen.

Methodology

We employed a comparative case study method, visiting 5 different IRs in the summer of 2008. The IRs are: University of Illinois – IDEALS, University of Massachusetts – ScholarWorks, the University of Michigan – Deep Blue, University of Minnesota – Digital Conservancy, and Ohio State University – Knowledge Bank. In this paper, we will not identify these IRs by name or connect activities with individual repositories. We have assigned each of these sites an identifier ranging between IR1 and IR5. The IRs were selected because they had varying foci, had selected different IR technologies, and were in different stages in their maturity. All of the IRs were in research universities. In preparation for each visit, we received policies, planning documentation, and other materials concerning the IR. The actual visits lasted approximately 3 days each. During that time, the 1 or 2 researcher team members visited the sites and interviewed pre-selected individuals involved with the IR on campus. Typical interviewees included: director of the IR, the University Librarian, Associate University Librarians, the IT staff involved with the IR, the directors of other IRs or major content management systems on campus, the university archivist, metadata librarian, preservation officer, and content contributors. All of the interviews were recorded and portions were transcribed. Our results are based on an analysis of the tapes and transcripts, as well as a content analysis of the written materials about the IR.

Findings

As previously noted, findings from the case studies indicate that internal input and performance as well as larger external impact measures are signifiers of success. Internal indicators such as

content recruitment and IR services are seen as key, yet the real payoff for the university libraries in the case studies is impact through some new type of interaction with scholarly life on campus.

Content recruitment is key because it literally is the core of the IR. A critical mass of material is necessary to generate both additional content recruitment and end-user activity. Successful strategies to accomplish this include the development of faculty homepages which are quite popular (IR4), negotiating with publishers to include faculty content (IR2), and convincing key faculty to contribute as a means of bringing along others (IR5).

Although Westell (2006) separates use from her main evaluation framework, value-added services in the IR are seen as an important part of success. These include everything from full-text retrieval to preservation. At IR5, this investigator was repeatedly told a story about one professor's articles whose Google page rank indicators increased after placement in the. In IR4, the addition of an e-journal critical in a discipline as an early win. Use also has network effects, "The more we can do and the more success stories we can offer, the bigger this becomes, the more data then gets populated into Google Scholar and OAISTER, and the more it gets used, and ultimately it returns good things… back to the people who wrote them. That to me is very important" (IR2). Content and use are also viewed as important "because it's getting to the point that the more successful our institutional repositories become – success defined as both breadth, more people, and more content – the more it becomes impossible … to not maintain it" (IR2).

In terms of external impact indicators of success, the case studies revealed two major themes. First, IR staff look for a change in the perception of the library and its role in scholarly communication on campus and second, they wanted to insert themselves into the scholarly workflow. Participants in three of the five case studies cited the IR's impact on raising the profile of the library on campus. Representatives from IR1 and IR4 noted that the IR has changed the role of the library and how it is perceived on campus. Still this was seen as an evolutionary process at IR3, "I don't think we've hit the right note on campus...We are further along, though, than we were 5 to 6 years ago".

Inserting the library into the scholarly workflow has taken on several different forms, ranging from becoming a network hub (IR4) to challenging the traditional scholarly publishing paradigm (IR2). Regarding the latter, a staff member at IR2 described the strongest impact measure for her IR as "changing the way that people think about publication and changing the way they think about how they can present their work". At IR4, the role of the library is evolving, "I see it as a work in progress. In those terms, it has been successful – it's developing. Time will tell whether the model ultimately will prove to be the answer to the problems that have been besetting the scholarly communication system".

Conclusion

In terms of these case studies, functional attributes of the IR such as a critical mass of materials, value-added features in those materials, and preservation-worthiness, are necessary but not

sufficient for success. In one way or another, all of the libraries in our study aspire to having a greater impact in their communities through their IRs as publisher, scholarly workflow facilitator, and/or networking hub.

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