

## CHALLENGES OF PLANNING AND MANAGING AN INSTITUTIONAL REPOSITORY

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### ABSTRACT

*Published knowledge is often considered as a strategic resource of any Institution. It is essential that we create, store, share and transfer information and knowledge in a continuous flow among knowledge seekers for the advancement of society. For more than a decade, academic institutions have struggled with how to manage the collective digital intellectual output they produce. It is easy to create and access digital material owing to technological advancement. However, many published work remain confined due to constraints of discoverability, deliverability and commercial interests and are not usually made accessible to many users. Institutional Repository is the solution for the above. Planning of an Institutional Repository and its management is a challenging task and involves several factors to be dealt carefully. This paper presents an analytical review of the challenges faced in planning and management of Institutional Repositories after interviewing managers of unsuccessful and successful institutional repositories.*

**Keywords:** Institutional Repository, Digital Document, Electronic Theses and Dissertation

### INTRODUCTION

Institutional Repository (IRs) is a Digital Library belonging to an Institution meant, with abilities to receive submissions, store, and provide searching and retrieval of the knowledge documents, in digital form, belonging to the Institution or the members of the Institution. These knowledge documents are to be identified, collected, stored, preserved and disseminated in digital form by the academic institutions in an ongoing manner with the help of a Institutional Library, mostly created with the help of a digital library software running on machine connected to Internet.

There are several benefits of Institutional Repositories. Some prominent benefits and uses are as follows: (i) collection, processing, and preserving intellectual output of concerned institutions in digital format; (ii) providing open access to research output to the worldwide community; (iii) collecting and preserving content in a single location; and (iv) creating global visibility for an institution's scholarly output.

Institutional Repository (IR) is defined diversely by different authors. One of the most frequently cited IR definition is from Lynch (2003), who defined an IR as a set of services that a university offers to the members of its community for the management and dissemination of digital

materials created by the institution and its community members. It is most essentially an organisational commitment to the stewardship of these digital materials, including long-term preservation where appropriate, as well as organisation and access or distribution.

The common sources of scholarly outputs include journals articles (whether in pre-published or post-published form), conference papers, books, theses, research reports, case studies, surveys and raw data itself. IR may be varied from institution to institution. However, the major types of contents that may be included in IRs are: peer-reviewed journal articles; preprints; theses and dissertations; working papers; research reports; monographs; technical reports; conference proceedings; newsletters; news-clippings; bulletins; memorandums; technical documentation; statistical reports; bibliographic references; patents; book chapters; audio/video; and so on.

## IDENTIFYING ADVANTAGES OF USING INSTITUTIONAL REPOSITORIES (IRS)

There are several benefits of using IRs in institutions, e.g., improved visibility, status and public value, research knowledge management. For individual researchers, the establishment of a priority for research findings, improved visibility and impact of research are some of the benefits. Multiple interoperating IRs, while harvesting each other's metadata, have the potential to accelerate reforms in scholarly communication and enabling open access to a larger body of scholarly material through cross-archive archiving.

For an academic institution an IR can be considered as a means of increasing visibility and prestige. It may be used to support promotion activities to attract high-quality staff, students and funding and a venue for the centralisation, storage and long-term curation of all types of institutional output, including unpublished literature. It is a supporting tool for learning, teaching and research

to attract a global audience and breaks down publishers' costs and permissions barriers. IR is a way of maximising availability, accessibility, discoverability and functionality of scholarly research outputs at no cost to the user (Pickton and Barwick, 2006; Lyte et al., 2009).

For an individual author, an IR can offer increased dissemination and impact of scholarship with enhanced professional visibility. It offers storage and access to a wide range of material and greater security and longer term accessibility of material compared to a personal web site along with feedback and commentary. They are also able to assert priority and receive commentary on pre-publication "pre-prints" with added value services such as hit counts on papers, personalised publication lists. It serves as a central archive of a researcher's work, provides service to scholarship, to the university and to the research community through self-archiving and a more effective and personalised search and discovery facility, addressing the problem of information oversight and opening possibility of large-scale collaborations (Bankier and Perciali, 2008; Lyte et al., 2009).

For a Library, IRs help libraries reinvent themselves. The benefits to the libraries and universities are great because they are positioning themselves as major digital publishers in the scholarly world (Walters, 2007). An IR provides libraries with opportunities for increased visibility and institutional presence. The chance to increase visibility among senior administration and the on-campus research community and the opportunity to work hand in hand with academia is an attractive option for academic libraries (Daly and Organ, 2009). By virtue of being subject specialists, librarians are ideal to work more closely with faculty to promote the repository (Bankier et al., 2009). Thus, IRs offer librarians opportunities to work hand-in-hand with academia. Libraries can benefit by leading the way and providing the skills required, to develop and run an effective IR. As IRs become more valuable, the status and standing of librarians, and other information specialists, will become better recognised and appreciated (Read, 2008).

## CHALLENGES OF PLANNING AND MANAGING AN IR

According to Swan (2008), the reasons for having a repository are so compelling, the advantages so obvious, the payoff so potentially large, that no institution seriously intent upon its mission, and upon enhancing its profile and internal functioning, will want to disadvantage itself badly by not having one (or more). Several case studies were done among successful and unsuccessful IRs to find out the reasons of success and challenges they face. It is found that following are the prominent challenges for creation of an institutional repository:

**Cost:** Initial costs involve mainly server and connectivity cost. There are several open source digital library software, using them we can avoid software cost greatly. The initial financial cost for IR open source software opted for by most institutions is not high but the ongoing maintenance costs may be significant and may prohibit an IR project getting beyond the proposal stage (Pickton and Barwick, 2006). The initial costs may be considered prohibitive for a poorly resourced organisation.

**Difficulties in generating content:** Most faculties do not respond to the invitation to “add stuff to the IR” (Bankier and Perciali, 2008, p. 21; Harnad, 2009). Often low deposit rates are attributed to a lack of institutional policies and mandatory requirements, in addition to the lack of motivation and low priority for faculty members and researchers (Chan, 2009). Some universities and institutes have implemented mandatory research depository systems. It would be better to create attractive propositions for depositing the intellectual content and educating the targeted depositors.

**Lack of sustainable support and commitment:** Often, it is difficult to sustain continuous support and commitment from the management and academic staff (Pickton and Barwick, 2006). Lynch (2003) has succinctly described this obstacle: “Stewardship is easy and inexpensive to claim; it is expensive and difficult to honour, and perhaps, it

will prove to be all too easy to later abdicate”. Efforts should be made at initial stages to amend institutional policies in favor of a sustainable IR.

**Copyright issues:** Several issues and objections regarding copyright may arise regarding the scholarly holdings of the IR. It is imperative upon the institution to frame a submission and holding policy compliant to relevant copyright and IPR laws. Publishers see IRs as potential obstacles and threats to their business and often have policies at least tending towards obfuscation if not antagonism towards IRs. Authors may, therefore, be dubious making their pre-published work (preprints) available online before, or even after it is published by a traditional publisher (Pickton and Barwick, 2006; Doctor and Ramachandran, 2007; Davis and Connolly, 2007).

**Work culture and policy issues:** Policies regarding IR should be developed at initial phase of developing an IR. It has been observed that most of the IR doesn't succeed and IR managers wonder about the apathy of scholar community. They also find it difficult to manage quality in contributions. Policies developed to monitor quality of submissions constrain IR success but quality assurance is important to some administrators (Pickton and Barwick, 2006; Harnad, 2009).

**Lack of incentives:** For scholars, IR is like a publisher and they won't like to contribute unless they see value in it in terms of visibility and citations. In the absence of any specific or financial incentive, academics can feel little motivation to provide even bibliographic details of their academic work especially when they see incentives are available at other institutions. Faculty behaviour and incentives are aligned with the core mission rather than the secondary one. Shouldn't the repository be too?” (Bankier and Perciali, 2008, p. 22; Davis and Connolly, 2007). Literature also notes that by publishing in IRs, it is sometimes difficult to achieve the type of recognition that the material merits (Davis and Connolly, 2007; Royster, 2008). Time consuming and labour intensive In-house development of IRs is time consuming, labour

intensive and requires long-term sustained efforts (Robinson, 2009; Chan, 2009). This time-consuming factor encumbers the success of an independent IR.

**Literature** notes that IRs benefits are not properly marketed and, therefore, they are not well appreciated by all academic institutions and academic staff (Chan, 2009).

**Technical challenge:** Technical issues in an IR may range from adaptation of an open source systems to formatting documents in an appropriate selected format as well as provision of adequate training to authors and other stakeholders, etc. As an IR has to function with other IRs in interoperable manner, it needs to adapt to technological changes adopted by other IRs.

**Promotional challenge:** An IR can be successful only when it is promoted well. It will not receive submissions unless it has proper visibility and without submissions it will not have it. According to Westell (2006), the concept of archiving the scholarly output of the university and making it available in the context of the institution is one that scholars and administrators are still coming to terms with. Equally then, the real challenge is not the technical implementation of the IR but rather the cultural change necessary for it to become embedded and commonplace in the activities and normal behavioural pattern of researchers (Chan et al., 2005).

## CONCLUSION

IRs, by preserving research outputs, demonstrating research results, and reinforcing academic influences, is hailed as most popular means to showcase the scholarly worth of the Institution. In addition, interconnection among various IR systems in the world under a virtual umbrella will create global platform for open access, reduce the costs in access of research resources, and speed up the dissemination of scholarly information. Many investigations have concluded that freely available online papers to the public will increase their citation. The most prominent cause for success of an

IR was found to be diligent planning and framing of comprehensive policies before starting the IR.

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