



## Need of Institutional Repositories in Technical Colleges: A Study

### KEYWORDS

Institutional Repository, DSpace, Eprint, Greenstone, Books, Journals, Current Awareness Service

**B.Ravi Venkat**

Dy.Librarian, University Library, Tumkur University, Tumkur-572 102, Karnataka

**B.A Rajeev**

Librarian, HMS Institute of Technology, NH#4, Tumkur-572 104

### ABSTRACT

Recent development in information and communication and web technologies has changed the landscape of information handling activities. These technologies provide a simple, web based mechanism to deposit and access the research publications via digital repositories. In this paper we describe the genesis, objective, need, advantages, software usages, growth and development of institutional repositories in India. The role of the library is in transition as the nature of the information it provides changes. Information management will be directed towards giving access to information rather than storing it and it will be possible to provide access to it by having an IR. In many different ways Institutional repositories have the potential greatly to increase the speed, reach and effectiveness of the dissemination of research findings.

### 1. INTRODUCTION:

The term 'repository' is from the Latin word repositum, means a vessel or chamber in which things can be placed, and it can mean a place where things are collected. In information technology, a repository is a central place in which an aggregation of data is kept and maintained in an organized way, usually in computer storage. A repository may be directly accessible to users or may be a place from which specific databases, files, or documents are obtained for further relocation or distribution in a network. A repository may be just the aggregation of data itself into some accessible place of storage or it may also imply some ability to selectively extract data.

An Institutional Repository is an online locus for collecting, preserving, and disseminating the information in digital form, the intellectual output of an institution. An institutional repository is published online and is basically open to the public. While most academic journal articles are available only to subscribers and not retrievable by general search engines, such as Google, research papers in an institutional repository are fully accessible by the public free of charge and are accessible by general search engines. Popular software such as DSpace, EPrints, Greenstone and Bepress are also open sources

Institutional initiatives to promote open access to the research work carried out by them have been made possible through establishing Institutional Repositories. These are "digital archives of intellectual products created by the faculty, staff and students of an institution or group of institutions accessible to end users both within and without the institution. The IR may hold various kinds of publications, such as pre-prints and post-prints of journal articles, conference papers, research reports, theses, dissertations, seminar presentations, working papers and other scholarly items. This way, intellectual contributions of researchers are made accessible free of charge to the whole community of researchers across the world. Thus, the open access which was evolved out of the necessity of wider access to scholarly publication relies on the initiatives of individuals (self archives), institutions. It is more of a philosophy of facilitating wider communication, feedback and use.

### 2. OBJECTIVE:

The main objectives for having an institutional repository are:

- To create global visibility for an institution's scholarly research;
- To collect content in a single location;
- To provide open access to institutional research output by self-archiving it;
- To store and preserve institutional digital assets

### 3. NEED:

There is a strong need to preserve materials pertaining to the institution's history and to the activities and achievements of its officers, faculty, staff, students, and alumni.

### 4. STUDY

A study has been conducted in few technical colleges to understand the need of the IRs

The institutes selected for the study are, Akshaya Institute of Technology, Tumkur. Channabasaveshwara Institute of Technology, Gubbi, HMS Institute of Technology, Tumkur, Siddaganga Institute of Technology, Tumkur, Sri Siddhartha Institute of Technology, Tumkur, Sreedevi Institute of Engineering & Technology, Tumkur, Sri Basaveshwara Institute of Technology, Tiptur

### 5. OBSERVATIONS OF THE STUDY:

It has been observed that only few colleges are having the IR software. It shows that lack of knowledge of using the software and proper encouragement to establish the institution repositories especially in the self-financing institutions though there are freely available open source IR Softwares. The basic requirement for the set up of an Institutional Repository is, Computer System, Internet facility, Scanner, Printer etc.

Almost all the users are suggested & stressed to the need of Institutional Repositories in the libraries in view of the present technological development and availability of related vast information in the form of digital information. So, proper initiation has to be taken by the respective staff to provide 3R's (Right Information to Right Reader at the Right Time)

#### 5.1 Books:

Around 23 % of the users are not satisfied with number of text book and reference book collection in their library as books are main source of information for their academic work. The reason is that, the high cost of relevant reference books that are international publications. This problem can be sorted out by having the relevant e-books in the digital library. E-books can be referred by number of users in the institution digital library

#### 5.2 Journal:

Journal articles (IEEE, ACM, ASME, ASCE, Elsevier, Springer, EBSCO etc.) are very important source of information to the faculties and students especially for the Post Graduate students for their research activity especially in technical institutions. The finding from the study shows that, most of the libraries around 30-40% are lagging behind to have adequate number of relevant journals because of the high

cost of printed journals. This can be solved by becoming the member of consortia like AICTE-INDEST, which provides the journals at nominal cost. It is useful for the self-financing colleges as well as research institutions to procure the reputed journals for their users.

### 5.3 Research Articles:

It is found that, the participation in the research activity by the staff and students is very poor because of the proper encouragement from their institutions, work schedule, non availability of required information

The articles published in the conferences / seminars /journals by the faculty members and students can be made available in the repositories. It helps for the users to know about the research activity in their institutions and thereby encouraging others to do so.

### 5.4 Current Awareness Service:

Around 60% of the users are not happy with the Current Awareness Service as well as reference service. This is due to because of not having the library software and institutional repository software for preserving and dissemination of information. The important information required by the students is the university / institution related news, paper clippings, question paper archiving etc. So, there is need to have repository softwares which will full fill the goal of 'Information Centre'

### 6. IR SOFTWARES:

The following softwares are freely available and widely used Institutional Repository Softwares. They are;

#### 6.1 Dspace

DSpace is an open source software package that provides the tools for management of digital assets, and is also commonly used as the basis for an institutional repository. It supports a wide variety of data, including books, theses, 3D digital scans of objects, photographs, film, video, research data sets, and other forms of content.

DSpace is also intended as a platform for digital preservation activities. Since its release in 2002, as a product of the HP-MIT alliance, it has been installed in most institutions around the globe from large universities to small higher education colleges, cultural organizations, and research centers. (<http://www.dspace.org/>),

#### 6.2 Eprints

EPrints is an open source software package for building open access repositories that are compliant with the Open Archives Initiative Protocol for Metadata Harvesting. It shares many of the features commonly seen in Document Management systems, but is primarily used for institutional repositories and scientific journals. EPrints has been developed at the University of Southampton School of Electronics and Computer Science and released under a GPL license (General Public License)(<http://www.eprints.org/>),

#### 6.3 Greenstone

Greenstone is a suite of software for building and distributing digital library collections. It provides a new way of organizing information and publishing it on the Internet or on CD-ROM. Greenstone is produced by the New Zealand Digital Library Project at the University of Waikato, and developed and distributed in cooperation with UNESCO and the Human Info NGO. It is open-source, multilingual software, issued under the terms of the GNU General Public License.(<http://www.greenstone.org>)

#### 6.4 Bepress

Bepress is another major hosted repository platform. This hosted service is licensed by the Berkeley Electronic Press (Bepress is taken as its abbreviation). It is used by associations, consortia, universities and colleges to preserve and showcase their scholarly output.

6.5 Working Papers & Pre-prints. Hundreds of institutes, departments, and research units utilize the Berkeley Electronic Press working papers platform. All working paper sites may

be customized with logos, colors, contact information, and links specific to their organization. The integration with Google and other search engines translates into dramatic readership levels. 'Digital Commons' is one of their IR product. (<http://www.bepress.com>)

### 7. IR's in INDIA:

In India, some institutions, like Indian Institute of Science; Indian Institute Management, Kozhikode; Indian Statistical Institute, Bangalore; Indian Institute of Technology, Delhi; National Institute of Technology Rourkela; National Aerospace Laboratories (NAL); National Chemical Laboratory; Information and Library Network (INFLIBNET); National Institute of Oceanography; Raman Research Institute; etc. have set up open access institutional repositories (IRs) that archive and disseminate research outputs of respective institutions. While self-archiving by authors is slowly picking up, mostly it is IR staff that collects and archives the documents to respective IRs on behalf of authors. There are some subject specific IRs as well, Librarian's Digital Library (LDL) of Documentation Research and Training Center (DRTC), Bangalore and OpenMed@NIC of National Informatics Centre, New Delhi are examples giving access to LIS and biomedical literature respectively. Vidyanidhi of University of Mysore is an example of document type specific collection that archives and provides access to theses and dissertations of Indian Universities. Some archives like OpenMed@NIC offer RSS (Really Simple Syndication or Rich Site Summary) feeds to the registered users, who also get notification on addition of new items in regular intervals. Search engines and metadata harvesters index most of the Indian operational repositories.

### 8. ADVANTAGES

No physical boundary.

The user need not to go to the library physically, people from all over the world can gain access to the same information, as long as an Internet connection is available.

#### Round the clock availability

A major advantage is that people from all over the world can gain access to the information at any time

#### Multiple accesses

The same resources can be used at the same time by a number of users.

#### Structured approach

It provides access to much richer content in a more structured manner, i.e. users can easily move from the catalog to the particular book then to a particular chapter and so on.

#### Information retrieval

The user is able to use any search term bellowing to the word or phrase of the entire collection. It can provide very user friendly interfaces, giving click able access to its resources.

#### Preservation and conservation

An exact copy of the original can be made any number of times without any degradation in quality.

#### Space

Traditional libraries are limited by storage space, whereas IRs has the potential to store much more information, simply because digital information requires very little physical space to contain them. When the library had no space for extension digitization it is the only solution.

### 9. CONCLUSION:

The role of the library is in transition as the nature of the information it provides changes. Information management will be directed towards giving access to information rather than storing it and it will be possible to provide access to it by having an IR. In many different ways

Institutional repositories have the potential greatly to increase the speed, reach and effectiveness of the dissemination of research findings

Institutions need an incentive / support to set up repositories. We recommend that the requirement for institutions / universities to disseminate their research as widely as possible be written into their charters

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