

# Institutional Repositories: Assessing their Values to the Academic Community in the College Libraries in Coimbatore District, Tamil Nadu

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**Abstract** - Institutional repositories can provide an immediate and valuable complement to the existing scholarly publishing model, while stimulating innovation in a new disaggregated publishing structure that will evolve and improve over time. This paper describes about the study on the Institutional repositories and assessing their values to the academic community in the College Libraries in Coimbatore District, Tamil Nadu.

**Key words:** Institutional Repositories, Digital Repositories

## I. INTRODUCTION

An Institutional repository is a digital archive where a university community's intellectual work is made accessible and preserved for posterity. The concept of Institutional repositories suggests the tantalizing possibility of greater library influence over the full cycle of scholarly communication on campus, from research through publication, collection, and preservation. Libraries are performing lead role in shaping institutional digital repositories all over the world. A university-based institutional repository is 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 organizational commitment to the stewardship of these digital materials, including long-term preservation where appropriate, as well as organization and access or distribution."

Depending on the goals established by each institution, an institutional repository could contain any work product generated by the institution's students, faculty, non-faculty researchers, and staff. This material might include student electronic portfolios, classroom teaching materials, the institution's annual reports, video recordings, computer programs, data sets, photographs, and art works virtually any digital material that the institution wishes to preserve. Scholarly communication and on changing the structure of the scholarly publishing model, will define institutional repositories and might contain as collecting, preserving, and

disseminating scholarly content. This content may include pre-prints and other works-in-progress, peer-reviewed articles, monographs, enduring teaching materials, data sets and other ancillary research material, conference papers, electronic theses and dissertations, and gray literature.

## II. REVIEW OF LITERATURE

Newton, *et al* (2011) The collection development role of the academic librarian in the research university library is increasingly subject to significant change as opportunities to build new types of library collections proliferate, particularly with respect to research data. Kamraninia, and Abrizah, (2010) The primary reason for establishing an institutional repository is to increase the visibility of the institution's research output by making it Open Access. Academic libraries are becoming very involved in managing electronic scholarly products and participating in the evolving scholarly communication process through institutional repositories.

Abrizah, *et al* (2010) The current state of open access repositories of Asian universities. It describes their characteristics in terms of types, contents, disciplines, language, technical and operational issues, and policy. The web performance of Asian institutional repositories as reflected through global visibility and impact of the repositories in Open Directory of Open Access Repository, is also examined; as well as the performance of Asian top-ranked universities in the archiving and sharing their research output through institutional repositories, based on the Ranking Web of World Repositories.

Zainab, (2010) describes the growth of Open Access repositories and journals as reported by monitoring initiatives such as Registry of Open Access Repositories. The performance of Malaysian open access repositories and journals is highlighted. The strength of open access channels in increasing visibility and citations are evidenced by research findings. Koutsomitropoulos, *et al* (2009)

Digital repositories and digital libraries are today among the most common tools for managing and disseminating digital object collections of cultural, educational, and other kinds of content over the Web. Chen, and Hsiang, (2009) presents the practical and unique approach to construct an institutional repository at the National Taiwan University. In general, institutional repositories systems are used to preserve the research outputs of academic organizations.

**III. NEED FOR THE STUDY**

Institutional repository practice has been developed with the range of aims and purposes in mind, sharing of the research findings and academic innovations among peers at faster rate, recording of the institutional information for future use, transparency in the research and academic process etc., are some of the important needs of the institutional repositories. Institutional repositories enable sharing information at free of cost and encourage collaboration and wider communication of institutional education and research activities. Due to the global access initiatives and right to information concepts are making awareness of educational institutions to go for institutional repositories

**IV. OBJECTIVES OF THE STUDY**

The following are the objectives of the study.

1. To identify the software used and Architecture design methods for Institutional Repositories;
2. To identify the Bibliography/Metadata format and Indexing /searching facilities used in Institutional Repositories;
3. To identify the archival format and open access linked with Institutional Repositories.

**V. METHODOLOGY**

The investigator has chosen the case study method in identifying the establishment, maintenance and use of institutional repositories through normative survey using interview, questionnaire and field visit observations. The study covers the faculties, researchers, librarians of the selected Higher Educational institutions situated in Coimbatore. The study use simple random sampling method to collect data. The data were analyzed and the findings were used in the research tools and variables. The researcher has studied 485 samples in 28 institutions of higher learning. A separate questionnaire has been distributed to the users of the libraries.

**VI. ANALYSIS AND INTERPRETATION**

TABLE I SOFTWARE USED TO ORGANIZE THE INSTITUTIONAL REPOSITORIES

Software	Number of Colleges	Percentage
Dspace	18	64.2
E Prints	6	21.4
Greenstone	11	39.2

The above table explains the different types of open source software used for digital collections. It is found that the maximum of 64.2% of colleges (18) surveyed are using Dspace software. Next to this, 39.2% of these institutions are using Greenstone. Only few institutions (9.09%) are using Greenstone software.

TABLE II ACCESS OF DIGITAL REPOSITORIES

Digital Repository	Number of Colleges	Percentage
Stand alone system	20	71
Network of computers within the library	24	85
Campus wide network	26	92
Internet	8	28

The above table explains the details about the method of serving the digital repository to its users with computers and networks. It is observed that 92% of the colleges (26) are providing the digital repository through network of computer within the library. Next to this 85% of the colleges are providing its services through campus wide network systems. Next to this 71% of the colleges (20) are providing through stand alone systems. Only few institutions (8) uploaded its digital resources to the local users through the internet.

TABLE III ARCHITECTURE AND DESIGNING METHOD FOR INSTITUTIONAL REPOSITORIES

Architecture and Designing	Number of College	Percentage
Digitalization by scanner	10	35.7
Digitalization through camera	5	17.8
Digitalization through sound records	2	7.1
Digitalization through video recording	3	10.7
Archiving from Internet	7	25.0
Archiving from Database	3	10.7
Receiving softcopy from faculty	5	17.8
Receiving softcopy from students	2	7.1

It is found from the above table that all the surveyed institutions are using different types of architecture and method for designing the digital collections. The maximum

of ten colleges (35.71%) are digitizing its resources with scanners. Next to this 25.0 % of the surveyed institutions (7) are archiving its resources from internet. Five colleges each are (17.8 %) are doing the digitization work by camera and receiving the soft copy from its faculty members for its digital collection development.

TABLE IV BIBLIOGRAPHIC/META DATA FORMAT USED

Bibliographic/Meta data format	Number of Colleges	Percentage
Dublin Core	10	35.7
AACR 2	15	53.5
MARC 21	5	17.8
CCF	2	7.1
ISO	4	14.2

The 53.5 % (15) by the colleges are using AACR2 as the bibliographic/Meta data format. Ten colleges each (35.7%) are using the Dublin Core for bibliographic database and five college (17.8%) using MARC 21 format respectively. The four college using ISO (14.2)% and two college use CCF (7.14%) for bibliographic/metadata format to maintain the database.

TABLE V INDEXING/SEARCHING FACILITIES

Indexing /Searching facilities	Number of Colleges	Percentage
Title	27	96.4
Author	27	96.4
Source	14	50.0
Publisher	14	50.0
Keywords	27	96.4
Subject	27	96.4
ISBN/ISSN	12	42.85
Department	10	35.7
Links to reference	4	14.2

The institutional repositories collected through digital form should be organized in a systematic manner so as to cater the needs of the users in time. The searching facility has to be made easier to identify the resources. It is found that 96.4 % of the colleges (27) are providing the searching facilities such as title, author, key words, subject etc. 50 % of the colleges (14) are providing sources and publishers and 42.8 % (12) colleges using ISBN/ISSN oriented search. The 35.7 % provide department wise search facilities by (10) colleges. Very few colleges (4) are giving links to the references and the percentage is 14.2.

TABLE VI ARCHIVAL FORMAT USED

Archival Format	Number of Colleges	Percentage
Word	27	96.4
PDF	27	96.4
HTML	20	71.4
JPEG	15	53.5
Text	3	10.7
RTF	2	7.1
Excel	12	42.8
BMP	10	35.7
MP3/MP4	11	39.2
Wav File	2	7.1
Power Point	20	71.4

The 96.4 % of the colleges (27) are preserving digital resources by word format and PDF format. Next to this, 71.4 % of the colleges (20) are keeping its resources by 'HTML' and PPT formats. Fifteen institutions under survey are keeping their institutional resources by 'JPEG' format. Twelve colleges 42.8% are keeping excel format and 11 colleges 39.2% are keeping Mp3/Mp4 format. The three college 10.7% keeping text format and two colleges each 7.1% keeping RTF and Wav files.

TABLE VII OPEN ACCESS INITIATIVES LINKED WITH INSTITUTIONAL REPOSITORIES

OAI Linked with IR	Number of Colleges	Percentage
DSpace	15	53.5
E Prints	4	14.2
Internet Archives	3	10.7
Fedora	5	17.8

The Open Access Initiatives (OAI) linked for digital repositories are mentioned in the table. The maximum of 53.5 % of the colleges (15) are using Dspace and 17.8 % of the colleges are using Fedora for open access link. It is also worth mentioning, the most of the surveyed colleges are keeping its resources for their own use and few institutions were uploaded its resources in the internet for worldwide global access.

The challenges faced by the library professionals in managing the digital repositories of the institutions surveyed are listed out in the table. The maximum of 78.5 % of the colleges (22) are much worried about the Risk of Plagiarism. The next 71.4 % of colleges (20) are worried about the ICT infrastructure and awareness and willingness of authors, ICT know how for digital repositories. Next to this 67.8% of college (19) budgetary allocation for digital repositories.

TABLE VIII CHALLENGES IN ESTABLISHING INSTITUTIONAL REPOSITORIES

Challenges	No. of Responses	Percentage
International Patent Right	20	71.4
Peer Review	10	35.7
Integrity of Data	15	53.5
Storage and archive of material	18	64.2
Risk of Plagiarism	22	78.5
Awareness and willingness of authors	20	71.4
ICT Know how	20	71.4
ICT infrastructure	20	71.4
Budgetary Provision	19	67.8
Exclusive manpower	12	42.8
Standardisation of Metadata fields	10	35.7
Coordination with IT Professional	7	25.0

There are 15 colleges 53.7% of integrity of data problems. The 10 colleges each 35.7 % are worried about peer review and standardization of Meta data fields. There are 12 colleges 42.8% of exclusive manpower problems.

TABLE IX UPDATING KNOWLEDGE AND SKILLS ON DIGITAL REPOSITORIES

Method of acquiring skills	No. of Responses	Percentage
By participating workshops	22	78.5
By attending training programmes	20	71.4
By organizing tutorials	12	42.8
By participating seminar	20	71.4
By attending UGC courses	7	25.0
By discussing with experts	15	53.5
By discussing with colleagues	10	35.7
By periodical visits to websites	15	53.5

It is found from the above table that the library professionals are of the opinion that they are acquiring knowledge of digital repository management by participating workshops (78.5%) and by attending the training programmes and participating seminars workshops (71.4%). It is also seen from the table that they are acquiring the skills by discussing with experts and periodical visits to website (53.5%). The table shows that by organizing tutorials 42.8% and by discussing with colleagues 35.7% and by attending UGC/AICTE courses 25.0%. There are about 45% of the librarians acquire the digital library skills by attending training, seminars, discussing with colleagues and by periodical visits to the websites of various digital libraries.

## X. CONCLUSION

In India, there are a number of institutional repositories in many forms, such as open access journals, archives of back volumes of journals, subject-specific repositories, document-specific repositories, open courseware, etc.. Initiatives also make available cultural heritage literature to the world. The study revealed that the libraries started implementing the Institutional repositories and the users also started using the repositories.

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