

Institutional Repository: An overview

A.Kaladhar

Research Scholar
Dept. of Library and Information Science
JNTUK
Kakinada (A.P)
Email:librarian@svecw.edu.in and

B.R. Doraswamy Naick

Dept. of Library and Information Science
Associate Professor
UCE- JNTUK
Kakinada (A.P)

K. Somasekhara Rao

Dept. of Library and Information Science
Andhra University
Vishakapatnam (A.P)

***Abstract** - This paper discusses about the overall features of Institutional Repositories(IR) like what is IR, its content, challenges, benefits its future and how an institutional repository can be treated and converted as service. It aims to show how the IR can empower, elevate and enhance the intellectual efforts of an institution. It also deals with access management of the IR in terms of security aspects. This study mostly concentrated on research activity of the institution and to what extent it is helpful, assists in sharing and learning, improving knowledge in an institution. Institutions are spending so much of money on subscribing to e-resources like e-journals, e-books, online services, databases and web portals. It is the duty of the librarian to minimize the cost and to maximize the accessibility of e-resources. Integration of scattered information within the institution is most appropriate method to be applied and adopted to make the library resourceful and visible. As the exponential growth of Information systems could also leads to offer electronic information services.*

Key Words: Institutional Repositories, Content, Benefits, Challenges, Access Management, Future, Security.

1. INTRODUCTION

The Motto behind the institutional repository is to meet the user needs and expectation of electronic resources and services. Institutional repository is a set of information in the form of electronic resources to support the user needs of an institution. The organization of Institutional Repository depends on the subject specialization of the users working in the institution. Since the inception of the concept of institutional repository is growing drastically in handling variety of information needs of the users. To establish better link between users and repositories, there is a need for better search tools, so that a better interaction between users and information will be established to both existing as well as remote users also. Digital services are the need of the hour internationally to meet the user

expectations. Immense efforts of both IT personnel and Librarian's are required to overcome barriers in creating the institutional repositories.

2. WHAT IS AN INSTITUTIONAL REPOSITORY

In simple terms Institutional repositories can be defined as "Extension of an academic institutional activity in support of research and developmental activities of the institution, protecting intellectual efforts and to promote scholarly communication among the users within the institution".

The academic excellence of an institution reflects by its Institutional digital repository which consists of digital material already hosted, ready to host, analyzed and ready for distribution or dissemination by an Institution which is purely an intellectual activity of the students, research scholars and faculty of the institution and accessible to the users at large in the institution and outside of the institution with a restricted measures. Precisely the institutional repository means and consists of the following characteristics are as follows.

- The data which is an intellectual effort of an individual with in the institution
- Web content management like storage and hosting.
- The data which is useful for research and developmental activities of an institution
- Subject based current information and
- Explored, operable and controllable of its operations.

3. CONTENTS OF INSTITUTIONAL REPOSITORY

Academic institutions approaching towards digitization of their scholarly output and research activities into repository form in the process of managing their academic and research activities to be more effective and transparent. Institutional Repository is an archive of the intellectual work done by the faculty, research scholars and students which is accessible to the end users. The Institutional Repository generally contains the following works.

- Papers presented by the institutional members
- Journal Articles published in the journals
- Text books and reference books published in the form of soft copies
- Papers submitted in the national and international Conferences
- Hand outs from faculty members
- Project works of students
- M.Phil and Ph.D theses submitted by institutional members
- Generated Databases through research projects
- Committee Reports
- Downloadable software
- Art works
- Video lectures and Photographs

4. INSTITUTIONAL REPOSITORY CHALLENGES

Academic and special Libraries are very much fond of IR's due to rising competition in the academics as well as in the specialized subjects. Though there is a need of putting efforts and

logistics involved in creating, organizing, and maintaining a repository, it is worth offering Institutional Repository services. It was realized that the creation of an IR can be a challenging process. The challenges are as follows.

- Administrative and faculty support.
- Financial support
- Staff hours must be dedicated to advocacy of the IR
- Management of the content and creation of metadata
- Preservation of IR
- Problem of Intellectual Property Rights.
- Rising costs of Proprietary Database and Journal subscriptions.

5. BENEFITS OF THE INSTITUTIONAL REPOSITORY

There are enormous benefits for Institutions who maintains IRs. Many kinds of information stored in the IRs are easily retrievable. Repositories allow organizing and maintaining scholarly documents generated within the institution at single location which is accessible to everyone in the institution. In addition to these benefits the IRs giving chance to following benefits.

- Exposure to the academic institutions in their research and developmental activities
- Subject wise maintenance of IRs gives better results and fame to the institution.
- The information stored in the IRs is clearly analyzed
- Research and Teaching activities of the institution can be measured by usage reports of IRs.
- Interdisciplinary Research is possible
- IRs supports students their endeavors.
- Findings of Research can be elevated
- Speedy communication of research
- Research Papers can be preserved for long time;
- Institutional research which is scattered over different departments can be viewed at one place
- Promotes collaborative research which helps in getting grants for projects
- Enhancement of knowledge management
- Value-added services are possible

6. THE FUTURE OF INSTITUTIONAL REPOSITORIES

The success and failure of IRs depends on two different opinions of the institutions. Some institutions believe that IRs is the reflection of intellectual effort and scholarly output of their institution. Institutions do not have any objection in disclosing the institutional research activity. On the other hand some institutions don't pay any interest in disclosing their identity by open up the intellectual and scholarly efforts of the individuals in the institute. The institute also wants to have ownership over their institution's content. Perhaps, discourages the author's self archiving. It shows that the negativity of the institution towards the IRS.

The central concept behind the institutional repositories is its benefits to the users as well as to the institution. The IRs should serve as digital libraries perhaps the purpose of collecting; analyzing, disseminating and exchanging of digital information for IRs will be meaningful. In

the near future the IRs must be re-designed for specific services that are needed by different groups in the institution. A new path and innovative steps are necessary to serve the academic community

7. INSTITUTIONAL REPOSITORY AS A SERVICE

Basing on the following characteristics of the Institutional Repositories, we can consider or treat them as Institutional Repository Services. To treat as a Service following characteristics are taken into consideration.

Easy Access: The characteristic of 'Easy access' is that from the user's perspective the accessibility is easy and quick without human intervention, and is economy. The user need not know how the service was provided, from where it was provided, or where it will run in the future. The concept is that it was provided easily, under the ownership of the institution who decided to create a repository.

Immediate accessibility is important in the user perspective. Immediate accessibility without waiting for the orders of the repository administrator is another ease of action in the institutional repository services. This means that the ability for a user to create either a new repository, or a new collection within an existing repository service, needs to occur.

Scalability: The very nature of Institutional Repository is its scalability, when we consider Repository as a service and contributions to it consequently we will find its growth in terms of size. Scalability becomes inherent to the repository. As the size of the repository started increasing, management of repository will need to plan infrastructure facilities for providing better services.

Resource accounting: As the repository grows in size, the maintenance cost will also increases, this may prove burden to the institution. Sharing with other institutions and their combined efforts gives cost benefit to the associated institutions. Enhanced repository services or sharing resources with other institutions accounting better services to the users at large.

Interoperability: Ability of interchange to another system of service for example swapping of e-prints repository to DSpace repository without disturbance to the available features of service provider is possible in maintaining the IRs. This is another characteristic of the repositories it is nothing but interoperability. All most all repositories support interoperability at the time of depositing by using SWORD (Simple Web-Service Offering Repository Deposit). The repository to become swappable-service, there should be a scope for modularization of repositories in order to allow different interfaces.

8. ACCESS MANAGEMENT IN INSTITUTIONAL REPOSITORIES

User authentication is necessary to identify who is accessing the institutional content, to know the transaction being done in various domains. Digital identities are being used to identify the subject based repositories in use, what type of digital content being accessed, system's security, different kinds of users, number of users, their perceptions. The following techniques are being used for user authentication.

Login ID and Password-based Access: The most commonly used authentication process is login ID along with password based access. This is to identify the user who is attempting to access the Institutional Repository. Many websites enrolling the users by their e-mail ID as username, a password of user choice and it is kept secret to others.

IP Based Access: IP based access is another technique of accessing the repositories. The advantage of this IP based access is the user login is not required, the server system itself checks IP address of the client to authorized access of the content. This kind of access gives the statistics for the institution; misuse of username and pass word can be avoided. The network of unidentified or unauthenticated access can be recognized.

Web Cookies: A cookie is a kind of memory in the form of a small file to recognize the system from which the user previously accessed the content. It gives the facility of personalizing the web pages of a site as per preferences given by the user. In simple terms Cookies tracks individual users' usage of website.

Web Proxy: The use of Web Proxy is to serve as a web cache. Proxy programs like Squid, NetCache prevents access to certain URLs which are not recognized this is nothing but content filtering. It always checks authentication to control web access. EZproxy is another web proxy server program that provides remote access to licensed users of the content offered by libraries.

One Time Password (OTP): This method can be used to identity of a user logging into the network. When a user logs on, the network access server sends a random number to the client machine. The client software uses its password or a secret key, the authentication system verify when the client machine sends back the given key if it matches the user will get access to the content.

URL Authentication: Web address starting with HTTP is also called Referrer, which identifies the address of the web page or URL whether the access of the URL requested is authorized or not from where request is being made will be known to the server. Referrer will be mostly use for statistical purpose.

Biometrics: A person can be recognized by his biometric identification based characteristic features like face, Iris, voice, fingerprints. Biometric technologies are becoming prominent in terms of security solutions.

9. CONCLUSION

Libraries are facing unprecedented confront of managing content spread in different formats across the globe. With the advent of Information technology solutions and the Web revolution, libraries are now able to offer better access to more information to its users. This is the time for libraries to think beyond the framework of digital libraries, there is a need for complete reengineering of our present practices in user services. In the present scenario just maintaining a digital library with the internet facility is no longer feasible hence a multi-system approach to knowledge management is necessary.

Scholarly electronic publishing in the form of institutional repositories, are playing vital role in the modern information management strategies and techniques. The success of academic, special, public and open institutional repositories depends on the expansion of service to a

broad spectrum instead of preservation and dissemination of faculty and student scholarship. The growth of institutional repositories depends on the priority and importance given in institutional research work. It is clear from this study that the institutional repository is a very powerful idea in helping the institutions in their scholarly endeavors. This is the knowledge bank where most of the institutions deposit their intellectual and scholarly efforts assertively.

REFERENCES

1. SPARC Position Paper on Institutional Repositories,” August 2002, URL:<http://arl.cni.org/sparc/IR/ir.html>
2. Institutional Repositories: Enhancing Teaching, Learning, and Research “,October 2003, URL: <http://www.socolar.com/man/NewsUpload/200737104937209816.pdf>
3. Earwage, S. V. (2008). Institutional Repositories: Benefits and Challenges for Libraries.
4. Gibbons, S. (2009). Benefits of an institutional repository. *Library Technology Reports*, 40(4), 11-16.
5. Ashok Kumar N. Institutional Repositories in India from URL: <https://core.ac.uk/download/pdf/11889645.pdf>
6. Mary Wu.(2015). The Future of Institutional Repositories at Small Academic Institutions: Analysis and Insights. *D-Lib Magazine, Volume 21(9-10)*, DOI: 10.1045/september2015-wu
7. Priti Jain, (2011),"New trends and future applications/directions of institutional repositories in academic institutions", *Library Review*, Vol. 60 Iss 2 pp. 125 – 141
8. Lewis, S., Shepherd, K., Latt, Y., Schweer, A., & Field, A. (2012). Repository as a Service (RaaS). *Journal Of Digital Information*, 13(1). Retrieved from <https://journals.tdl.org/jodi/index.php/jodi/article/view/5872>
9. Sreekumar M.G.(2012).Strategies on e-resources management for smart information systems.*Annals of Library and Information Studies Vol. 59*, pp. 155-169
10. Md. Zahid Hossain Shoeb.(2009). Access Management for Digital Repository. *DESIDOC Journal of Library & Information Technology*, Vol. 29(4), pp. 21-27

