

Role of IR in Information Resource Mobilization and Management in the Current Scenario of Higher Education: A Case Study of Cochin University of Science & Technology (CUSAT)

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Resource mobilization or generation is one of the global challenges in all sectors such as business, agriculture, banking, industry etc. In recent years, higher education has undergone important changes including the shift from teacher centered to a student centered learning, and the replacement of the traditional practice of learning over a specified period of time by the concept of lifelong learning. Higher education also is facing the new challenges of Information resource mobilization and management. The advancement of Information and communication technology (ICT) and multimedia applications has resulted in a lot of change in education like classroom teaching, e-learning, scholarly communication, online resources etc. In the current scenario of higher education, institutional repositories play a major role in collective resource mobilization and resource sharing across the nation and over the globe. This paper explains how scientific community and academia in Cochin University of Science & Technology contribute for resource mobilization through the institutional repository and how it is beneficial to the institution as well as the academic community.

Keywords: Resource Mobilization, e- Learning, Institutional Repositories, Scholarly Communication, Web2.0

1. Introduction

Resource mobilization is a social concept; it is applied in different fields such as Banking, agriculture, community development, education etc. The meaning changes according to the context; in an organizational base it means a participatory contribution from the members of the organization for the benefit of the organization as a whole as well as the members themselves. Resource mobilization can facilitate the flow of resources from various sources and catalyze the flow of additional resources from public and private institutions. Technology has brought crucial changes in the way of generating and acquiring of information resources and knowledge which has got far reaching applications in education and research. Higher education system is on the verge of major changes in learning especially in the field of science & Technology. Successful internet enabled learning or e-learning depends on many strategies that are optimized within an organization. ICT and multimedia applications are the impressive technology that is driving the change and the mode of conventional teaching and learning process. The concept of teacher instructing and student listening has changed into learning through different ways. Learning does not require training or instruction. People learn in many ways- through access to well designed information, by using new performance- enhancing tools, through experience and from each other. Internet tech-

nologies have fundamentally altered the technological and economic landscapes so it is now possible to make quantum leaps in the use of technology for scholarly communication, online learning, and resources etc.

Recently, Institutional repositories are being developed on university campuses as part of the institutional library across the country and around the world. They provide global visibility for the endeavours of the institution and ensure the long term preservation of vital resources. Researchers, librarians, administrators and the funding agencies have realized the possibilities of institutional repositories in the changing scenario of higher education. They help the researchers to have rapid and broad dissemination of their work; help the librarians to meet the mobilization of information sources, sharing and meeting the information need of the users; the administrators to increase the visibility of their institutions. The funding bodies find it helpful to track and evaluate research outputs produced as a result of their investment. Institutional Repository is expected to become a vital part of every academic institution's infrastructure.

2. Background of the Work

Cochin University of Science and Technology (CUSAT) is a pioneer institution in our country conducting research in Science and Technology in different disciplines under nine faculties spread over 32 departments such as Marine Sciences, nanotechnology, Biotechnology, fisheries, applied sciences etc. Scientific research in CUSAT is interdisciplinary in nature and the R&D outputs are published in different forms and usually circulated only among the scientists and experts working in the relevant discipline. There can be no academic or R&D institution which is self sufficient in their information resources. It is therefore very essential to have resource sharing and collection mobilization in the R&D of Science & Technology. Research in CUSAT is highly interdisciplinary in nature and is linked with social, economic, cultural, industrial, educational, scientific, and environmental development of the region as well as the Nation.



3. Current Information Landscape in Higher education

Institutional Repository of Cochin University of science and Technology (CUSAT) is named as “Dyuthi”. It is a Sanskrit word means spark or shine. Dyuthi is developed with an intention to showcase the hidden treasures of CUSAT. It was funded by the Department of Scientific and Industrial Research (DSIR) under Technology Information Facilitation Programme (TIFP), Ministry of Science & Technology, Government

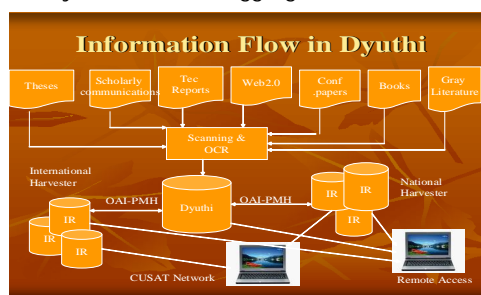
of India. The institutional repository of CUSAT is a full fledged repository having the features and functionality of OAI compliant, metadata standards, interoperability protocol like OAI-PMH. Dyuthi is available at <http://dyuthi.cusat.ac.in>

Definitions of Key terms

- **Institutional Repositories** : An institutional repository is a digital archive of the intellectual product created by the faculty, researchers and students of an institution and accessible to end users both within and outside the institution, with few if any barriers to access.
- **Scholarly Communication** : Scholarly communications is the creation, transformation, dissemination and preservation of knowledge related to teaching, research and scholarly endeavors
- **E-learning** . : E-learning is a nebulous term; meaning teaching-learning facilitated through the modern media like web, satellite, cable networks, etc.
- **Web 2.0:-** The term “Web 2.0” is commonly associated with web applications that facilitate interactive information sharing, interoperability, user-centered design and collaboration on the World Wide Web
- **Scope and Contents of Dyuthi:-**The scope of Dyuthi is to show case the hidden treasures of CUSAT Academic output. It covers the contents of Ph.D theses, working papers, gray literature, Books, conference proceedings, internet discussions, scientific blogs of CUSAT researchers, preprints etc.

4. Role of Dyuthi (IR) in Resource Mobilization

One of the basic features of an IR is OAI-PMH (Open Archive Initiative for Metadata Harvesting). This OAI-PMH helps to expose metadata for supporting interoperability, cross archive aggregation and searching service and also facilitate the efficient dissemination of content. This facility of an IR helps the scientific community to cross walk into different nationally and internationally reputed Institutional repositories. For example CASSIR is to establish a national cross-repository search service by aggregating content from distributed OAI-compliant repositories in India..



The cross repository service (OAI-PMH) supports the academic community to build discipline based community output sharing, citation links etc. The web 2.0 applications help the sharing of scientific resources to peer groups and resources mobilization.

5. Conclusion

The institutional repositories have great potential for value added services for the research and author community that is beginning to explore. These include personalized publication list, hit rates, citation analysis links to other repositories etc. These will give greater support for future research and assess institutional quality audits.

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