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## INSTITUTIONAL REPOSITORIES : A PERSPECTIVE FOR THE INDIAN UNIVERSITIES

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### Abstract

*The world is witnessing a sea change in the area of scholarly communication. Perhaps the control over scholarly communication has started a gradual shifting from commercial publishers to academic organizations and many author initiatives in the area of Open Access (OA). Open Access is perhaps opening up the major barriers that higher education institutes and libraries face specially when it comes to escalating journal prices and shrinking budgets. Institutional Repositories (IRs) are one of the two most powerful tool to empower and strengthen open access movement. Universities and other academic institutions of the developed countries are already reaping the rich benefits of institutional repositories. The technology is free, the software is available free of cost and the universities are also having the necessary infrastructure for implementing IRs at their premises. The only required link which is missing is the awareness and willingness. To make IRs a success awareness is also needed regarding advantages of self-archiving and publishers' policies regarding self-archiving. It's high time that Indian universities should take a decision and a strong commitment to develop IRs and convince the faculty members and research scholars to deposit papers in the digital archive. IRs may also contain learning objects in digital formats thus facilitating IT enabled pedagogy in the Indian universities.*

**Keywords:** Institutional repositories; Open Access; Scholarly Communication; Self-archiving; Open Source Softwares

### 1. Introduction

The oldest journal on record is the "Philosophical Transactions (1665-)", founded by Mr. Henry Oldenburg in the 17th century and since then libraries have by and large struggled to deal with the so-called "serial crisis" and have suffered in the scenario where they have no control over scholarly publishing.

The scenario is: authors publish research papers in reputed journals, and the university to which he or she is affiliated is buying that journal at prices the publisher ask for to make that work available to readers of that university. But thanks to the recent models of scholarly communication that is gradually empowering the libraries, readers, authors and in general the whole society. Now much of the scholarly literature is available through a significant level of free access and at the same time authors are in a position to publish and open their intellect for the global audience. This changing face of scholarly communication aims to globalise and pluralize the "world's knowledge asset" and

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the “global intellectual output” without any biases and barriers. Barriers here include financial and technological barriers along with many other factors. It is interesting to see what we want today:

- all that has been published in the concerned topic or discipline.
- scholarly.
- full text.
- well indexed and abstracted.
- key word searchable.
- strong sorting and filtering facility.
- browse by topics/ disciplines.
- free.

Our attempt in the present paper will be to present the current scenario in the field of scholarly communication, the issues involved and critical evaluation how successful institutional repositories are in addressing these issues and fulfilling the demands mentioned above. Attempt has also been made to analyze the situation in India and explore the possibilities and responsibilities of Indian universities regarding setting up institutional repositories and managing it effectively and efficiently.

## **2. Scholarly Communication**

Association of College & Research Libraries (ACRL) has defined Scholarly Communication as a system through which research and other scholarly writings are created, evaluated for quality, disseminated to the scholarly community, and preserved for future use. The system includes both formal means of communication, such as publication in peer-reviewed journals, and informal channels, such as electronic listservs. This paper addresses issues related primarily to the formal system of scholarly communication.

One of the fundamental characteristics of scholarly research is that it is created as a public good to facilitate inquiry and knowledge. A substantial portion of such research is publicly supported, either directly through federally-funded research projects or indirectly through state support of researchers at state higher-education institutions. In addition, the vast majority of scholars develop and disseminate their research with no expectation of direct financial reward.

Cornell University Library defines scholarly communication as the process used by scholars to share the results of their research—is fast approaching a crossroads. Individual disciplines and the scholarly community as a whole will soon need to make far-ranging decisions about how scholarly information is formally and informally exchanged, because current methods of scholarly communication are increasingly restrictive and are economically unsustainable.

### **2.1 The Crisis in Scholarly Communication**

Libraries and their institutions worldwide can no longer keep up with the increasing volume and cost of scholarly resources. Journal price increases of more than 215% over the last 15 years have forced libraries not only to cancel journal subscriptions but to purchase fewer monographs as well. Countries of the third world who are economically disadvantaged are the worst sufferers. They can't

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afford to acquire even a fraction of reputed journals and databases.

The traditional system of scholarly communication is no longer working. Electronic publishing, innovative business models, and the intervention of scholars and societies offer new opportunities for sharing scholarly information. The higher education community must act. Together we can develop a new system that meets the needs of present and future scholars and students.

### **3. Open Access Movement**

Open Access (OA) means free availability of digital scholarly information without any financial, geographical, or any other type of access barrier. There are many global initiatives for the advocacy of OA and today we are witnessing perhaps the best revolution which is transforming the methods of creation, management and dissemination of the world academic intellect. Many well known authors and publishers have described OA but the universal philosophy is to break free all the knowledge barriers. Any digital object which has to be available freely should

- Become OA at the "born digital" stage plus "a little" time taken for few clicks/keystrokes.
- Be available full text
- Free from any kind of access barrier.

Peter Suber has defined OA as "Open-access (OA) literature is digital, online, free of charge, and free of most copyright and licensing restrictions". OA literature is freely accessible, more visible, immediately available, free at the point of use.

According to Budapest Open Access Initiative (BOAI) Open Access (OA) documents implies: "Free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited."

IFLA strongly supports OA which is visible in the IFLA Statement on Open Access to Scholarly Literature and Research Documentation. It affirms that comprehensive open access to scholarly literature and research documentation is vital to the understanding of our world and to the identification of solutions to global challenges and particularly the reduction of information inequality. According to IFLA "Open access guarantees the integrity of the system of scholarly communication by ensuring that all research and scholarship will be available in perpetuity for unrestricted examination and, where relevant, elaboration or refutation".

#### **3.1 Advantages of OA**

There are perhaps in- numerous advantages of OA but the most immediate advantages are open for discussion.

<b>Community</b>	<b>Benefits</b>
Researchers	Provide a central archive of their work Increase the dissemination and impact of their research More control over their work.
Libraries	Can cope up with the escalating subscription cost of journals. Provides more stability to the budgeting.
Institutions	Increases visibility and prestige Acts as an advertisement to funding sources, potential new faculty
Society	Provide access to the world's research Ensures long-term preservation of institutes' academic output

### 3.2 The Harbingers of OA

Open Access is perhaps the single phenomenon or movement or initiative in the west and other developed countries which is beneficial and profitable for the third world countries in which underdeveloped and developing countries won't find any "hidden agenda" or "vested interest" of the west. It can be adopted or rather utilized without any fear and the advantages are tremendous. OA is about bridging the digital divide or the knowledge gap between the information rich and information poor. Developing countries can at least find a way to build a knowledge society sustaining knowledge economy. However, it is important to consider ways to propagate Open Access movement.

Budapest Open Access Initiative recommends two complementary strategies.

1. **Self-Archiving:** Scholars need the tools and assistance to deposit their refereed journal articles in open electronic archives, a practice commonly called, self-archiving.
2. **Open-access Journals:** Scholars need the means to launch a new generation of journals committed to open access, and to help existing journals that elect to make the transition to open access.

Scholarly Publishing & Academic Publishing Resources Coalition (SPARC) also proposes two complementary strategies for achieving, enabling and empowering OA which are in line with the Budapest Open Access Initiative:

1. **Self-Archiving:** Scholars should be able to deposit their refereed journal articles in open electronic archives which conform to to Open Archives Initiative (OAI) standards
2. **Open-Access Journals:** Journals will not charge subscriptions or fees for online access. Instead, they should look to other sources to fund peer-review and publication (e.g., publication charges)

Stevan Harnad considers Open Access as "Open Access (OA) is free, immediate, permanent online access to the full text of research articles for anyone, web wide." According to him there are two complementary roads to OA:

- the "golden road" of OA journal-publishing, where journals provide OA to their articles (either by charging the author-institution for refereeing/publishing outgoing articles instead of charging the user-institution for accessing incoming articles, or by simply making their online edition free for all);
- the "green road" of OA self-archiving, where authors provide OA to their own published articles, by making their own eprints free for all.

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Peter Suber also maintains that OA journals and OA archives or repositories are the two primary vehicles for delivering OA to research articles. But he states that while OA journals conduct peer review and OA archives do not. He further states that there are other OA vehicles such as personal web sites, ebooks, listservs, discussion forums, blogs, wikis, RSS feeds, and P2P file-sharing networks and there will undoubtedly be many more in the future.

Thus we find that Institutional Repositories bring the scholarly contents into open access that can be accessed free of cost, otherwise available on payment basis. Whether it be pre-print or peer-reviewed post-print: all disseminated for the public at no charge. Institutional Repositories is proving to be the most crucial catalyst in propagating the noble cause of Open Access and strengthening the open access movement.

#### **4. Institutional Repositories: towards the greener road to OA**

An Institutional Repository (IR) is a well managed digital form of the intellectual output of an academic institution. It is an obligation of the academic institutions and the academics of that institution to make accessible the works of scholarship to the people who contribute directly or indirectly financially.

Clifford A. Lynch defines an Institutional Repository as "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". According to him "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". He says that it may be located anywhere, it may be managed by anybody but, to be effective institutional repository of necessity, it should involve a collaboration among librarians, information technologists, archives and records managers, faculty, and university administrators and policymakers. He recommends two things:

- Management of technological changes
- Migration of digital content from one set of technologies to the next

Mary R. Barton of MIT Libraries and Margaret M. Waters of Yale University have defined IRs as "a database with set of services to capture, store, index, preserve and redistribute a university's scholarly research in digital formats"

Raym Crow, Senior Consultant, "Scholarly Publishing & Academic Resources Coalition" (SPARC) defines an IR as "digital collections capturing and preserving the intellectual output of a single or multi-university community-provide a compelling response to two strategic issues facing academic institutions.

- as a natural extension of academic institutions' responsibility as generators of primary research seeking to preserve and leverage their constituents' intellectual assets; and
- as one potentially major component in the evolving structure of scholarly communication. "

Wikipedia defines IR as "An Institutional Repository is an online locus for collecting and preserving — in digital form — the intellectual output of an institution, particularly a research institution." For a university, this would include materials such as research journal articles before (preprints) and after

(post-prints) undergoing peer review, and digital versions of theses and dissertations, but it might also include other digital assets generated by normal academic life, such as administrative documents, course notes, or learning objects.

One thing that's common in all the above definitions is that "IRs are digital collections capturing and preserving the intellectual output of any academic institution be it a university or a research organization" and they have the potential to promote useful and significant change in scholarly publishing.

A closer look to above concepts and definitions reveals that there exists some deep rooted link between institutional repositories and "Knowledge Management" in some way or the other.

Knowledge Management is "Capturing, organizing, and storing implicit knowledge and experiences of individual workers and groups within an organization and making this information available to others in the organization". It is the process of systematically and actively managing and leveraging the stores of knowledge in an organization. It is the process of transforming information and intellectual assets into enduring value. An institutional repository does that with the difference that it tries to cover both the form of knowledge explicit as well as implicit. What more we can ask for? Thus we can say that institutional repositories are a step further, an extension of KM scope.

Mark Ware in his presentation titled "Institutional repositories — the state of play" at the PALS Conference (24 June 2004) has identified the IR content, IR uses and IR issues as below:

<b>IR Content</b>	<b>USES</b>	<b>ISSUES</b>
<ul style="list-style-type: none"> <li>▪ Pre-prints</li> <li>▪ Post-prints</li>   <li>▪ Author post-prints</li> <li>▪ Publisher PDFs</li>   <li>▪ Technical reports</li>   <li>▪ Working Papers</li>   <li>▪ Theses &amp; dissertations</li> <li>▪ Books or chapters of books</li>   <li>▪ Research databases</li>   <li>▪ Conference proceedings</li> <li>▪ Text</li> <li>▪ Audio/ Video recordings</li> <li>▪ Teaching materials</li> <li>▪ Digital research materials, e.g. simulations, code</li> <li>▪ Unpublished work</li> <li>▪ Data sets</li> <li>▪ Research papers</li> <li>▪ Working papers</li> </ul>	<ul style="list-style-type: none"> <li>▪ Scholarly communication</li> <li>▪ E-publishing</li>   <li>▪ Author recognition</li> <li>▪ Education</li>   <li>▪ Collection management</li>   <li>▪ Long-term preservation</li>   <li>▪ Institutional prestige</li> <li>▪ Research assessment exercises</li> <li>▪ Knowledge management</li> </ul>	<ul style="list-style-type: none"> <li>▪ Sound Policy</li> <li>▪ Persuading faculty to participate</li> <li>▪ Rights management</li> <li>▪ Organizational and administrative</li> <li>▪ Funding / business model</li> <li>▪ Long-term preservation</li> <li>▪ Accession policies</li> <li>▪ Open access or access Control</li> <li>▪ Central vs institutional repositories</li> <li>▪ Metadata</li> <li>▪ Technological</li> </ul>

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#### **4.1 The importance of institutional repositories:**

##### **Ground Realities:**

##### **Researchers**

- journals are the primary research publication channel.
- journal publishing is dominated by commercial ventures.
- Researchers write papers for journals (free or page charges!).
- Researchers transfer copyright to publishers (free).
- Researchers on Editorial Board (free).
- Researchers review papers (free).

##### **Libraries**

- Cannot satisfy the information needs of their users.
- Libraries pay huge subscriptions to publishers to access the paper(and electronic) and universities pay more than once: subscription, photocopying license and for study packs.
- Or possibly they cannot afford the subscription.
- Dissatisfaction with the current scholarly communication model.
- Even the wealthiest institution cannot purchase access to all the information that all of its researchers require.
- Site-licenses and consortia deals have helped, but mainly in the richest countries; though good examples of deals for developing countries (INASP).
- Many commercial publishers charge extra for online access – so causing more pressure on budgets.

##### **Authors**

- Their work is not seen by all their peers – they do not get the recognition they desire.
- Despite subscriptions, they often have to pay page charges, colour figure charges, reprint charges, etc.
- Often the rights they have given up in exchange for publication mean there are things that they cannot do with their own work.
- Readers : They cannot view all the research literature they need – they are less effective.
- Society : We all lose out if the communication channels are not optimal.

#### **4.2 The Three Os of Institutional Repositories:**

There are three philosophies or concepts which are deeply related or associated with IRs. We information professionals deal in these three philosophies somehow or the other. These three philosophies are:

- Open Access (OA) (already discussed)
- Open Standards
- Open Source Softwares (OSS)

## 5. Open Archive Initiative (OAI) & Open Standards

Open Archives Initiative (OAI) is an organization funded by the Digital Library Federation, the Coalition for Networked Information, and the National Science Foundation to develop and promote interoperability standards as a means of facilitating the exchange of digital information content. Its program originated in the desire to advance scholarly communication by improving access to distributed repositories of e-prints, known as "archives." OAI is currently known as an organization and an effort explicitly in transition, and is committed to exploring and enabling this new and broader range of applications. The main product of the OAI is a framework for harvesting and aggregating metadata from multiple repositories and a harvesting protocol known as the OAI Protocol for Metadata Harvesting (OAI-PMH). OAI aims to define a low-barrier and widely applicable framework for cross-repository interoperability and believe that exposing metadata is plausible route to such a goal. The OAI invites anyone to participate in the interoperability framework that is defined in the Open Archives Metadata Harvesting Protocol. Participation is at two levels: Data Providers or Service Providers. It is not to be forgotten that the fundamental technological framework and standards of the OAI are independent of the both the type of content offered (paid & OA) and the economic models surrounding that content.

**"Open":** Here "Open" signifies open from the architectural perspective – defining and promoting machine interfaces that facilitate the availability of content from a variety of providers.

**Archive:** It reflects the origins of the OAI in the e-prints community where the term archive is generally accepted as a synonym for repository of scholarly papers. The OAI uses the term archive in a broader sense: as a repository for stored information.

### 5.1 OAI Protocol for Metadata Harvesting (OAI-PMH)

OAI-PMH is a lightweight harvesting protocol for sharing metadata between services. It allows third-party services to gather standardized metadata from distributed repositories and conduct searches against the assembled metadata to identify and ultimately retrieve documents. It creates potential for interoperability between Repositories by enabling metadata from a number of archives to be collected together in one searchable database. The OAI-PMH gives a simple technical option for data providers to make their metadata available to services, based on the open standards HTTP (Hypertext Transport Protocol) and XML (Extensible Markup Language). The metadata that is harvested may be in any format that is agreed by a community (or by any discrete set of data and service providers), although unqualified Dublin Core is specified to provide a basic level of interoperability. Thus, metadata from many sources can be gathered together in one database, and services can be provided based on this centrally harvested, or "aggregated" data. Some commonly used terms with regard to OAI-PMH includes:

TERMS	MEANING
Protocol	A protocol is a set of rules defining communication between systems. FTP (File Transfer Protocol) and HTTP (Hypertext Transport Protocol) are examples of other protocols used for communication between systems across the Internet.
E-print	An e-print is an author self-archived document. In the sense that the term is ordinarily used, the content of an e-print is the result of scientific or other scholarly research.



Metadata	Structured information about resources (including both digital and non-digital resources). Metadata can be used to help support a wide range of operations on those resources. In the context of services based on metadata harvested via OAI-PMH, the most common operation is discovery and retrieval of resources.
Harvesting	In the OAI context, harvesting refers specifically to the gathering together of metadata from a number of distributed repositories into a combined data store.
Data Provider	A Data Provider maintains or administer one or more repositories (web servers) that support the OAI-PMH as a means of exposing metadata. There are 498 OAI conforming repositories which are working as a registered data providers. Examples : arXiv, BioMed Central, CERN Document Server (Beta), dare, DSpace at MIT, E-LIS, Manuscripts and Archives Digital Image Database (MADID), NAL Institutional Repository, RePEc etc.
Service Provider	A Service Provider issues OAI-PMH requests to data providers and uses the metadata as a basis for building value-added services. A Service Provider in this manner is "harvesting" the metadata exposed by Data Providers. There are 22 registered service providers listed on the OAI web site. However, since registration in both cases is optional, the actual number of adopters of the OAI-PMH is unknown. Examples: Arc, BASE, citebaseSEARCH, DL-Harvest, OAIster, Scirus
Aggregator	An OAI aggregator is both a Service Provider and a Data Provider. It is a service that gathers metadata records from multiple Data Providers and then makes those records available for gathering by others using the OAI-PMH.
Interoperability	Interoperability is the ability of systems, services and organisations to work together seamlessly toward common or diverse goals. In the technical arena it is supported by open standards for communication between systems and for description of resources and collections, among others. Interoperability is considered here primarily in the context of resource discovery and access.

## 5.2 Probable Advantages in Participating in the OAI

- Membership in a OAI-PMH community
- Interest in the functionality offered by specific service providers
- Exposing metadata as a means of knowledge sharing.
- Value addition to the metadata.

### Registering of a repository with the OAI

The registration data base serves as a publicly accessible list of OAI-PMH conformant repositories, making it easy for service providers to discover sites from which metadata can be harvested. The registry database contains all the information available through the OAI Identify request including:

Repository Name: Human readable name for the repository.  
 Base URL: BASE-URL for making protocol requests to the repository  
 Protocol Version: Version of the OAI-PMH supported by the repository;  
 Admin. Email: E-mail address of the administrator of the repository. additional protocol information and repository-specific description packages.

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## **OAI-PMH and Dublin Core**

Mapping among multiple metadata formats will be complex and time taking for service providers, who harvest the metadata and use it to build higher level services. Dublin core presents a simpler ultimately more deployable solution. The fifteen elements Dublin Core has over the past several years evolved as a de facto standard for simple cross-discipline metadata and is thus the appropriate choice for a common metadata set.

## **6. Institutional Repositories and Open Source Softwares (OSS)**

### **6.1 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.

### **6.2 VALET for ETDs by VTLS**

VALET for ETDs is a customizable, web-based interface that allows remote users to submit Electronic Theses & Dissertations into a FEDORA™ digital object repository. VALET for ETDs is offered as a free, open-source solution for web self-submission of ETDs.

### **6.3 GNU Eprints**

GNU EPrints is a software package developed at the Electronic and Computer Science Department of the University of Southampton, United Kingdom, that enables the creation of an electronic archive of departmental or institutional publications.

### **6.4 DSpace**

Dspace is an Open Archive Initiative (OAI) - compliant open-source software released by MIT for archiving eprints and other kinds of academic content. The DSpace digital repository system captures, stores, indexes, preserves, and distributes digital research material.

### **6.5 CDS Invenio**

CDS Invenio (formerly CDSware), developed by CERN Document Server Software Consortium, is the integrated digital library system, is a suite of applications which provides the framework and tools for building and managing an autonomous digital library server. It is free software, licensed under the GNU General Public Licence (GPL).

### **6.6 FEDORA**

Fedora is a general purpose repository system developed jointly by Cornell University Information Science and the University of Virginia Library. It is an open source software gives organizations a flexible service-oriented architecture for managing and delivering their digital content.

## 6.7 VITAL (commercial)

VITAL is an institutional repository solution by Visionary Technology in Library Solutions (VTLS), designed for universities, libraries, museums, archives and information centers. VITAL provides all types of institutions a way to broaden access to valuable resources that were once only available at a single location and to a finite number of patrons.

## 7. Why we need it : a new perspective

Obviously, we need institutional repositories to overcome the challenges of scholarly communication and to have a significant degree of control on the issues discussed above. We also need IRs to avail the advantages availed by any country elsewhere in the world. At the same time it is very crucial to explore some new dimensions applicable to our country specially the post 2000 scenario which has witnessed some major consortia emerging and running successfully.

<p>Consortia Initiatives: Evaluating the output</p>	<p>About 100 Indian universities are now getting access to about 4600 scholarly journals through the E Journals consortia, UGC-INFONET of INFLIBNET. Many universities are also getting partial access (eg. IEEE Xplore and Proquest Science Journals) through INDEST-AICTE consortium. Institutional repositories can help us in very interesting ways as it can provide university wise statistics of paper submission (pre-prints and post-prints) by the faculties and research scholars in any discipline. Web of Knowledge and Scopus do that but not many universities can afford to buy these costly databases on their own. The university academia may be submitting papers in reputed journals but there exists no database or proper record of such individual contributions. Not every faculty updates his or her resume frequently. Moreover the resumes are not available online. In such an uncontrolled scenario, the evaluation of the intellect output after having the access to the quality journals, IRs can prove to be a very useful tool. Institutional repositories can offer statistics in the following areas:</p> <ul style="list-style-type: none"> <li>■ Teacher publication statistics</li> <li>■ Teacher Citation analysis</li> <li>■ Publication by research scholars</li> <li>■ Type of journals chosen for publication</li> <li>■ University wise publication</li> <li>■ Discipline wise publication</li> <li>■ Year wise publication.</li> <li>■ National output in the arena of academics</li> </ul>
<p>Electronic Theses &amp; Dissertations (ETDs)</p>	<p>One more advantage, Indian universities can achieve is on the area of electronic theses and dissertation (ETDs). A sort of "complete bibliographic control" can be achieved and a centralized repositories of ETDs can be had. There are many IR software specially for managing ETDs (like VALET).</p>

Knowledge Management	IR can provide a complete KM tool which is affordable, feasible and promising
Dissemination	Quicker and broader dissemination of scholarly works leading to enhanced recognition and academic visibility.
Duplication and Plagiarism	Being powerful KM tool, check possible on duplication and plagiarism.

## 8. Beyond Conclusions

The hunt for a central and cost-effective facility for the orderly and systematic archiving of research results that is accessible world-wide has come to a point where we find institutional repositories as the most viable solution. Institutional Repositories can benefit both the universities and its scholars by raising the institutional profile while also bringing about broader dissemination, increased use, and enhanced professional visibility of scholarly research. IR facilitates nurturing of innovations of the university academics, which is the core mission of any university. Indian universities should be proactive in harnessing such a powerful tool with a promise to change the traditional setup surrounding the universities and libraries. Time has come when libraries should embrace the new opportunities of scholarly dissemination and knowledge management. This will not only bring them at par with the universities of countries in the west but also give them freedom from the financial barriers. Also the cause of digital preservation and longevity will be served.

After all our faculties should do what they are best at – knowledge creation. Maintaining the record of this process of creation is not their prime responsibility. Hence, Indian universities should adopt institutional repositories for the multi-faceted betterment of their intellectual life.

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