INSTITUTIONAL REPOSITORY OF JAWAHARLAL NEHRU UNIVERSITY LIBRARY, NEW DELHI

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Abstract

The JNU, New Delhi was started in 1969 and during the past thirty six years it has grown into a prestigious university of its kind in India today. Being a premier university in teaching and research programmes, it aimed to develop digital library for collecting the documents and manage networked information services for the benefits of faculty, students, research scholars and other academic community in their education and research. The University has more than thirty six centres, which comes under nine schools. Each year it publishes close to 1000 research papers and awards about 2312 degrees in various disciplines. To reveal the prestige of a university, Institutional Repository is the one and only way to make the whole world knowing the esteem of a university. With access to IR, the students will be able to find, read the literature reviews of their peers and global knowledge sharing is also possible. In this paper we discuss the future plans towards implementation of IR in JNU Central Library and also describe about some available IR software.

Keywords: Institutional repository; Digitalization; ETD; JNU, Theses.

1.   Introduction

The world's universities, museums, governments, and other organizations house treasures that have been hidden in archives, basements, attics, print formats, and a variety of storage devices. Institutional repositories (IRs) are now being created to manage, preserve, and maintain the digital assets, intellectual output, and histories of institutions. Institutional repositories are a practical, cost-effective, and strategic means for institutions to build partnerships with their faculty to advance scholarly communication. There is a growing desire from the faculty and researcher communities of posting their research online for expanded exposure of, and access to, their work. In addition, digital publishing technologies, ever-expanding global networking, and enabling interoperability protocols and metadata standards are coalescing to provide practical technical solutions that can be implemented now. The convergence of these interrelated strands indicates that institutional repositories merit serious and immediate consideration from academic institutions and their constituent faculty, librarians, and administrators.

2.   Institutional Repositories

An institutional repository is a database with a set of services to capture, store, index, preserve and redistribute a university's scholarly research in digital formats.

Institutional repositories are digital archives that capture, organize, preserve and disseminate the intellectual assets and heritage of a single university or group of universities by forming a national and international system of distributed and interoperable digital resources.

The Scholarly Publishing and Academic Resources Coalition (SPARC) organization defines institutional repositories as follows:

- Institutionally defined
- Scholarly
- Cumulative and perpetual
- Open and interoperable

Here open and interoperable – means they are OAI-compliant and allow open access to scholarly research.

Clifford Lynch defines IRs in the following way: 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.

3.   Need and Purpose of Institutional Repositories

While the main purposes of institutional repositories are to bring together and preserve the intellectual output of a laboratory, department, university, or other entity, the incentives and commitments to change the process of scholarly communication have also begun serving as strong motivators. Repositories may be limited to one field, one department, one institution, or a consortium of several institutions. Collaboration through a consortium reduces costs for each member through resource sharing while expanding access to digital materials. The basic institutional repositories are to promote wider use of intellectual output and heritage of particular institution or group of institutions.

4.   Benefits for Faculty and Researchers

There are several benefits of institutional repositories:

- IR enhances the professional visibility of the faculty, and raises the prestige of the University.
- Open access repositories lower access barriers and offer the widest possible dissemination of a scholarly communication.
- Research has demonstrated that open access online articles have appreciably higher citation rates than traditionally published articles.

- Serves to establish priority of ideas and intellectual property, i.e. registering the work with a date stamp and identifier.
- The centralized system manages and presents the research output of the Universities or Institution in an organized fashion.
- Serves to demonstrate the breadth and depth of research output.
- Students can easily access faculty papers through this open access repositories.
- Preserves and provides long-term access to the scholars' research output.
- OAI and the "Google"-ing of research - publications in IR can be immediately found in global indexing and search services.

5.   Software of Institutional Repositories

The landscape of software platforms for building institutional repositories is constantly changing. Some of the commonly used institutional repository software platforms with few examples are listed below:

CDSware (CERN Document Server Software)

CDSware (http://cdsware.cern.ch) is free, open source software developed by CERN, the European Organization for Nuclear Research, based in Geneva. CDSware is designed to run an electronic preprint server, online library catalogue, or a document system on the web. Example: CERN [http://cdsweb.cern.ch/].

DSpace

DSpace (http://www.dspace.org) is free, open source software jointly developed by MIT and Hewlett Packard Labs. DSpace is a digital library system designed to capture, store, index, preserve, and redistributes the intellectual output of a university's research faculty in digital formats. Examples: Massachusetts Institute of Technology (MIT) [https://dspace.mit.edu/], Documentation Research & Training Centre (DRTC) [https://drtc.isibang.ac.in/].

EPrints

GNU EPrints (http://software.eprints.org) is free, open source software developed at the University of Southampton. It is designed to create a pre-print institutional repository for scholarly research, but can be used for other purposes. Examples: University of Southampton, UK [http://eprints.soton.ac.uk/], Indian Institute of Science (IISc), Bangalore [http://eprints.iisc.ernet.in/]

Fedora (Flexible Extensible Digital Object Repository)

Fedora (http://www.fedora.info/index.shtml) is free, open source software jointly developed by University of Virginia and Cornell University. Fedora serves as a foundation for building interoperable web-based digital libraries, institutional repositories, and other information management systems. It demonstrates how you can deploy a distributed digital library architecture using web-based technologies, including XML and Web services. Example: University of Queensland, Australia [http://espace.library.uq.edu.au/]

Greenstone

Greenstone (http://www.greenstone.org/cgi-bin/library) is free multi-lingual, open source software developed by the New Zealand Digital Library Project at the University of Waikato. Greenstone is a suite of software for building and distributing digital library collections. Greenstone was developed and distributed in cooperation with UNESCO and the Human Info NGO. Examples: New Zealand Digital Library [http://sadl.uleth.ca/nz/cgi-bin/library], Indian Institute of Management, Kozhikode [http://www.iimk.ac.in/gsdl/cgi-bin/library].

bepress

Bepress (http://www.bepress.com/repositories.html) is commercial software developed by the Berkeley Electronic Press. Bepress builds and hosts their customers' repositories. Cost includes software, custom implementation, infrastructure, training, hosting, offsite backup, technical support, and software upgrades.

CONTENTdm (DiMeMa)

CONTENTdm (http://contentdm.com/) is commercial software developed at the University of Washington, is distributed by OCLC. CONTENTdm Digital Collection Management is a tool for providing everything from organizing and managing to publishing and searching digital collections over the Internet. It also offers scalable tools for archiving collections of any size. Example: University of Washington [http://content.lib.washington.edu/].

VITAL

VITAL (http://www.vtls.com/Products/vital.shtml) is commercial software, product of VTLS. VITAL is an institutional repository solution designed for universities, libraries, museums, archives and information centers. This software is designed to simplify the development of digital object repositories and to provide seamless online search and retrieval of information for administrative staff, contributing faculty and end-users. Example: Australian Research Repositories Online to the World [http://www.arrow.edu.au/].

6.   Policies

In establishing repositories there are a variety of decisions to make. Policies, systems architecture, and other elements will depend on institutional context and the scope and purposes of the repository. To control and manage the accession of this content requires appropriate policies and mechanisms, including content management and document version control systems. The repository policy framework and technical infrastructure must provide institutional managers the flexibility to control who can contribute, approve, access, and update the digital content coming from a variety of institutional communities and interest groups (including academic departments, libraries, research centers and labs, and individual authors). Several of the institutional repository infrastructure systems currently being developed have the technical capacity to embargo or sequester access to submissions until the content has been approved by a designated reviewer. The nature and extent of this review will reflect the policies and needs of each individual institution, possibly of each participating institutional community.

7.   Standards

Interoperability requires that repositories employ standards developed to handle issues associated with open access. These standards include the Open Archival Information System (OAIS) Reference Model [http://nost.gsfc.nasa.gov/isoas/], Open Archives Metadata Harvesting Protocol (OAI-PMH) [http://www.openarchives.org/OAI/openarchivesprotocol.html], and the Metadata Encoding and Transmission Standard (METS) [http://www.loc.gov/standards/mets].

Software is a key element in the construction of an institutional repository. Guide to Institutional Repository Software, version 3.0, published by the Open Access Society [http://www.soros.org/openaccess/software] is a valuable tool for selecting software appropriate to the needs and context of the institution and its repository.

Other organizations involved in standards and repository design and operations include the Digital Library Federation [http://www.diglib.org/], Coalition for Networked Information [http://www.cni.org], OCLC [http://www.oclc.org/], RLG [http://www.rlg.org], the electronic theses and dissertations program at Virginia Tech [http://scholar.lib.vt.edu/theses], and Creative Commons [http://www.creativecommons.org].

8.   Role of Librarian

Librarians both use and create institutional repositories. So the Librarians should take leadership roles in planning and building these repositories, fulfilling their roles as experts in collecting, describing, preserving, and providing stewardship for documents and digital information.

9.   Institutional Repositories of Jawaharlal Nehru University

Jawaharlal Nehru University (JNU) was established in 1969. The University has always strived to disseminate and advance knowledge, wisdom and understanding by teaching and research programmes of studies that would be a qualitative and distinct addition to the national resource base in higher education instead of reflecting mere quantitative expansions of the existing facilities. It provides facilities for under-graduate in languages, post-graduate research and teaching in several disciplines. The University is broadly structured into nine Schools and 36 Centres have been created and assigned to the respective Schools. Further, JNU has granted recognition/accreditation to 16 prestigious institutions across the country that has added to the true national character of the University. The common JNU Entrance Examination for admission to various programme of study is conducted by the University on May 20-23 at 50 Centres located in various States/Union Territories in India and 2 Centres at abroad in Kathmandu and Dhaka. Thesis or dissertation is a document that explains the results of the research or scholarship, research process of Ph. D, M.Phil. or M.Tech student. Each year the University publishes close to 1000 research papers and awards about 2312 degrees, Ph.D - 242, M.Phil.- 371, M.Tech.- 19 and the rest in various disciplines by the University after they had successfully completed the programmes. The University has excellent intranet and Internet connectivity. JNU researchers have online access to a large number of e-resources, including bibliographic and citation databases, data sets, over 10,000 e-journals and other web resources.

Over the years, there has been dynamic progress at JNU in all academic and research activities, and a parallel improvement in facilities and infrastructure, to keep it at par with the world-renowned institutions. The organizations around the world and also in India are committed to the increased sharing of global knowledge through digital libraries of Electronic Theses and Dissertations (ETDs). ETD when implemented in JNU will provide supreme quality of information and variety of resources to our users. Moreover, it will provide the opportunity for theses and dissertations to be recognized as a basic channel for the dissemination of research findings and an essential resource in the discovery process.

10. Future

The quality of an academic institute is reflected by the quality of its students' intellectual products. Traditionally, theses and dissertations have been extremely underutilized sources of information due to their lack of physical availability and so little cited. Therefore, the focus for the future needs is to ensure optimal access to ETDs by information seekers. Digital image technology offers distinctive advantages to university with impressive collection of scholarly resources. Information content in the digital form can be retrieved by readers remotely. The development of ETD programs worldwide and the implementation of access structures have the potential to significantly enhance the opportunity for all researchers, independent of geographic and economic constraints, to make their contribution to the global research effort. It is hoped that the ETD efforts will assist, with a global perspective, so that our research scholars are better prepared to be leading scholars in the Information Age.

11. Conclusion

Institutional repositories offer a strategic response both to the opportunities of the digital networked environment and the systemic problems in the today's scholarly communication. This response can be applied immediately, reaping both short-term and on-going benefits for universities and their faculty and advancing the transformation of their research programmes over the long term.

Academic scholarship is currently undergoing the process by which one medium is reformed and improved upon by another. The trend is towards digitizing traditional resources to e-resources. Realizing this digital revolution, the time is ripe for a reputed university like JNU to have its own IR and set an exemplary to other universities in India and the world.

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