**INTRODUCTION**

Theses and dissertations are an important part of information resources in any university. In India, access to these resources is generally limited to the university community. Most of the libraries don’t allow photocopying, lending or distribution of theses and they are often difficult to obtain in full text. However, some institutions here are creating repositories for their theses and dissertations but work on a national level project has only recently begun. This paper presents the current state of Indian ETD repository initiatives and introduces a project called Shodhganga, initiated by the Information and Library Network (INFLIBNET), an Inter-University Centre of the University Grants Commission.

Ghosh reported that the first ETD repository in India was started at the Indian Institute of Technology in Bombay in 1999.\(^1\) Since then a number of small ETD repositories have been developed throughout India. The Directory of Open Access Repositories lists 22 ETD repositories in India.\(^2\) These include those from institutions such as, the Indian Institute of Science, the Indian Institute of Technology, the National Institute of Oceanography, the Central Marine Fisheries Research Institute, and the Indian Institute of Astrophysics. There are few universities present in this list.

Due to the individual initiatives for establishing ETD repositories in India, the development of an integrated platform for Indian doctoral dissertations has not gained much momentum. The national level networking agencies (Developing Library Network and INFLIBNET) do provide bibliographic records of Ph D theses, but the list is not complete.

A project to digitize Indian theses, called Vidyanidhi was carried out by Mysore University with the support of the Ford Foundation, Microsoft India and two government agencies; the National Information System for Science and Technology (NISSAT) and the Department of Scientific and Industrial Research (DSIR). Vidyanidhi is also a member of the Networked Digital Library of Theses and Dissertations (NDLTD). The Vidyanidhi project was envisioned as a national repository and consortium for e-theses but it has failed to achieve its objectives. Vijayakumar, Murthy, and Khan explain that Vidyanidhi aims to evolve as a national depository, but no provision is made for mandatory submission.\(^3\) More than one hundred and fifty universities and academic institutions are participating in Vidyanidhi,\(^4\) but there are 42 central universities and 276 state universities in India, which produce doctoral dissertations. A single interface for searching doctoral dissertations produced in India would be indispensable.

The University Grants Commission saw a need for a national repository, which made submissions of e-theses mandatory, in 2009 and assigned the task of creating the repository to INFLIBNET. The Information and Library Network Centre (INFLIBNET) is responsible for creating an infrastructure for sharing library and information resources and services among academic and research institutions in India. Its mandate is the modernization of the transfer and access of information in libraries and information centers, and to support scholarship, learning and academic pursuits by establishing a national network of libraries and information centers in universities, in institutions of higher learning and in research and development institutions throughout India.\(^5\)

A study by Vijayakumar, Murthy, and Khan found that Indian university libraries are looking for policies from government agencies such as the University Grants Commission, as well as infrastructure support, technical expertise, and financial support from their own institutions in order to create ETD systems on their campuses.\(^6\) Ghosh examined ETD developments in India to explore the possibility of creating a national repository for the deposit, discovery, use and long-term care of research theses in an open access environment and recommended the establishment of a national level mechanism to promote the development of ETD repositories.\(^7\) There is currently, a lack of literature on ETD initiatives in India, particularly in regards to the ETD repository—Shodhganga. This study aims to address this lack of information.

**METHODOLOGY**

The ETD initiatives throughout India that were used in this study were identified through a literature survey and Internet search. The websites of the Registry of Open Access Repositories\(^8\) and the Directory of Open Access Repositories\(^2\) were analyzed to establish the number of repositories that exist in India. The data on Shodhganga was collected through a content analysis of its website during March, 2011.

**SHODHGANGA**

The Indian ETD repository called Shodhganga originated to facilitate open access to theses throughout the academic community. The word ‘shodh’ originates from Sanskrit and means research and discovery. Ganga is the name of the largest and holiest river in India. This project was intended to provide online accessibility to Indian theses, to ensure that they are easy to access and to create a place for them to be archived. It was also developed as a tool to help improve the standard and quality of research in India. Its aim is to help prevent duplication of research and to increase the visibility of Indian theses.

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The Shodhganga project requires that participating universities sign a memorandum of understanding with INFLIBNET. When INFLIBNET alerts the University Grants Commission that a memorandum has been signed, they then release the grants earmarked for the project.

Software

Shodhganga uses DSpace, as its decentralized nature provides a platform for research students to deposit their Ph D theses and make them available to the entire scholarly community. The Shodhganga repository has the ability to capture, index, store, disseminate, and preserve ETDS submitted by researchers.

Content

Shodhganga's content is organized by community. Universities exist at the community level and schools, departments, labs and research centers at the sub-community level.

Metadata

INFLIBNET recommends that ETD repositories in member universities use OAI-PMH compliant software, which DSpace supports. As well as maintaining Shodhganga, INFLIBNET has also established a central server to harvest the metadata from all ETD repositories located in universities with an aim to provide unified access to theses through its harvesting server. The repository permits the submitter to create metadata for his/her thesis. Before ETD publication, INFLIBNET staff verifies the metadata for its completeness and correctness.

How Shodhganga Works

Shodhganga obtains content in two ways: either by entering into an agreement with a university to obtain any digital theses that have already been archived there; or theses are submitted by individual scholars. A research scholar or supervisor, or a representative of the university under the university's mandate can submit a digital thesis directly to Shodhganga with permission from INFLIBNET.

Coverage and Collection

Still in an initial stage of development, Shodhganga currently holds 1259 theses from sixteen universities. Seventeen universities have signed memorandums of understanding with INFLIBNET.

Features of Shodhganga

Shodhganga provides simple search and advanced search options to obtain theses. It also includes the following browse options: community/collection, title, author, subject, and date. The repository contains many useful links, as well as highlighting a list of recent submissions and links to other ETD services. It provides step-by-step instructions for submitting theses and a thesis template is provided to help researchers submit their thesis in a standard format. The repository has also incorporated Web 2.0 applications, such as RSS feeds. Overall, the repository has a user friendly interface that provides many options to submitters and users to enable easy navigation.

Conclusion

ETD repositories are becoming a major resource for information on all subjects. The theses and dissertations submitted by students to a particular university in print form were the property of that university and were not easily accessible or visible to others. But ETD repositories are addressing this problem by making institutional knowledge available online and thereby increasing its visibility and use. India is beginning to embrace the idea of digitizing, archiving and making its theses and dissertations available online. There are many examples of individual institutions digitizing their theses. The work of INFLIBNET with regards to Indian ETD repositories is an important step towards bibliographical control and full text access to the knowledge and insight contained in numerous theses throughout the country.

References