Policy Formulation **needed for the Management and Digital Delivery of Theses Information**

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Abstract

Though theses contain valuable information, least facility available in universities in India to deliver this information to the outside users. As compared to many western universities, researchers in India give less priority for publishing the theses in book or any other form. Similar system prevails in the case of other unpublished documents like dissertations, research reports, etc. Efforts of the national agencies like UGC, ICAR, etc. to digitize the theses and provide information on it to the researchers will reap maximum effectiveness if based on some national level policies and mandatory rules. This paper describes the need for establishing a national depository and frame rules for the mandatory depositing of the thesis at source in digital format.

Keywords: Electronic theses and dissertations, Theses digitization, Agricultural information, National policy on information

1   Introduction

Information management is the life blood of any organization, and it is more so in organizations that depend on new generated technologies (Osten,1994). Bibliographic control on information resources is essential for its proper management and effective utilization. Developing catalogues of documents and make it available to all is a primary step towards this goal. Libraries and institutions all over the world are marching ahead towards this target. OCLC (2009) has recently announced a dynamic project to enable the delivery of the WorldCat to hand-held communications devices, such as PDAs and smartphones. By utilizing the advanced global positioning capabilities found in many smartphones and PDAs, WorldCat Mobile users will be able to find local library materials no matter where they happen to be. Such activities are targeted towards increased bibliographic control and maximum utilization of resources. But, Indian libraries are lagging behind to deliver not only documents in full text but even the bibliographic information on books, journals, theses, etc. As information contained in theses and dissertations is vital for any academic and research activity, effective use of technologies coupled with proper rules and regulations will help to deliver this resource to distant places. Use of theses is limited mainly because they are not easily accessible. Only a small percentage of theses are being published in print or in other medium. Since the copy right of the content of the theses is normally vested with the researcher, policies and rules for making these documents made available to the

out side users have to be framed by the universities or ideally, at the national level, by the Government of India.

2   Digital Library of Theses and Dissertations

Availability of theses in digital format will provide lot of benefits to the students, teachers, universities and the society in general. The user is benefited by the ease of access, use, retrieval, download, further manipulation of data, etc. The author is also benefited by the enhanced use of his research findings. The society being the end user of any research, the increased application of research outcome will cause further development.

Digital libraries of theses and dissertations also provide access to the content in more structured manner and allow the user to search the resource easily. Presently, information contained in theses available in Indian universities is underutilized because of limitations in accessibility to outsiders. Where electronic theses and dissertations are open access, they are used many times more often than paper theses that are available only via inter-library loan. Many universities and other organizations world over are doing strenuous efforts to develop the theses and other research documents in digital format and make them more openly available and useful. Measures are also moving to collect the theses and reports in digital format at source. In an attempt to co-ordinate these activities, a workshop was held at the Vrije Universiteit Amsterdam in January 2006, to see what could be learned from existing examples of best practice and to see how the participants might work together in the future. It revealed that in most countries, ETDs are being collected and made available, but only in few countries this is done in systematic manner at a national level. It was also remarked that the legal, copyright or plagiarism issues in sharing the ETDs has to be devolved to the first point in the chain, either the library or the author. The preservation programmes can be taken at basic level by the libraries / institutions holding ETDs. The participants shared that most countries expect to assume much greater importance in future for the sharing of theses information. Implementing semantic interoperability (eg, access via disciplines / subjects, multilingual access), it was agreed to have a single classification scheme, minimum at national level (Jacob, 2006).

A pilot work of digitization of abstracts of theses and dissertations done by the Kerala Agricultural University (KAU) in 1988-89 was not fully successful because of the drawbacks in retrieval efficiency, user friendliness, etc. Along with this, few theses in full text were also transferred to digital format. But, due to the limitations, KAU could not continue the work in a refined manner. It is highly cost effective and efficient, if the theses, reports, articles, etc. could be collected at source in electronic format. KAU has made an academic regulation in 1996-97 to insist the students to submit their theses in electronic format also, along with the printed document. Hence, it is obligatory on the part of all doctoral and post graduate students to submit one copy of the thesis or dissertation in electronic format also. The revolutionary shift from paper to digital documents and the changed pattern of content management and information delivery has made the library websites as an urgent necessity for effective information services. The acceptance and use of digital libraries are heavily depending on user centered digital libraries. Majority of scientists and students think that digitization and web hosting of theses and reports has several benefits. (Francis, Sushama Devi and Razak, 2007). But, KAU could not implement the web delivery of thesis information either abstract or full text.

3.   **Policy Formulation Required**

In order to achieve the target of universal bibliographic control on theses and dissertations and effective delivery of information contained in it to the end users, the following policy guidelines and necessary mandatory rules may be framed by the Government of India or national regulatory agencies like University Grants Commission, Indian Council of Agricultural Research, All India Council for Technical Education, Medial Council of India, etc.:

i. Establish a National Repository of Research Information by the Government of India. This repository may include bibliographical as well as full-text information of all thesis, dissertations and project reports submitted to all universities and colleges in India. As the students and researchers have done the research by utilizing the fund and infrastructure established by the society, it should be mandatory on part of all students and researchers to deposit their research findings for future education and research programmes.

ii. A unique Repository Document Number may be issued for the successful online filing of the theses or report to be made either by the Registrar or University Librarian on behalf of the student or scientist. It should be made obligatory on the part of the universities to insist this Repository Document Number for accepting the theses and research reports from the students or scientists.

iii. All universities in India should made uniform Academic and Research Regulation for the e-submission and deposit of the theses and research reports and permitting the access and use of the information content of the document through network or web by any student or teacher or scientist for his academic and non-profit research programmes with due citation and acknowledgement for the author and the concerned university.

iv. Bibliographic control of theses and research reports available in regional languages creates several problems. So, in such cases, it is proposed to insist the student/university to provide the essential bibliographic details and abstract in English also. It should be obligatory on the part of the University Librarian/Registrar to provide this metadata also to the National Repository.

v. The National Repository of Research Information should provide Web OPAC of all theses and research reports. Time bound activities are needed to include the details of theses previously submitted to the universities. It is better to provide free access to this OPAC and abstracts to any student or researcher in the world. Facility to access and download the full text of the theses may be restricted to authorized users or librarians, either by User Name and Password, IP authentication or streaming software, etc.

vi. While digital preservation poses several challenges such as short media life, obsolete hardware and software, etc. in the life long or permanent preservation, it is high time to frame policies and working plan at national level and also at the university or institution level to preserve our knowledge resources for the posterity.

4.   **Conclusion**

A recently published progress report on information literacy disclosed that *research seems to be*

far more difficult to conduct in the digital age than it did in previous times (Project Information Literacy Progress Report, 2009). Though this is a US based study, the point disclosed by it is absolutely right in Indian context also. So, proper bibliographical control on research information resources is a basic necessity of education and research even in the modern digital era and the libraries and professionals have to do a lot in this regard. Web delivery of information resources coupled with adequate information literacy programmes will help the users to a great extend.

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