

## Formation and Open Access of Institutional Electronic Research Corners for Promotion of Communication Facilities and Quality Research

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**Abstract**—Indian higher education institutions (HEIs) are struggling hard to get a berth among top-rated HEIs in the world. One of the important parameters that restrict our HEIs from the list of top-notch global HEIs is ‘contribution to research’. It does not mean that Indian HEIs don’t have quality researchers to produce world class research output. Had that been the case, Indian researchers doing research abroad would not have done miracles with their unique research output in varied domains. The hindrance for researchers in India could be owing to improper communication facility that fails to exchange ideas and outcomes of research among peers. Thus, the urge for formation of sound institutional electronic repositories, i.e., electronic research corners (e-research corners) has crop up. Mere formation of e-research corners won’t suffice to address the issue. Besides formation, e-research corners need to be open accessed. University Grants Commission (UGC) of India has established an Inter-University Center called Information and Library Network Center (Inflibnet), which is the best example of open access institutional repositories. While some HEIs of India do have their research corners that are accessed by only the internal stakeholders, some other HEIs don’t have any such repositories as such. On the backdrop of the necessity of formation and open access of institutional electronic repositories, this paper focuses on unfolding how open access to sound e-research corners promote quality education. Besides, it has also designed a framework that will assist the HEIs to build sound e-research centers. For the purpose, in-depth interviews are conducted with 50 researchers working in reputed HEIs in Bhubaneswar to ascertain how open access e-research centers facilitate quality research. Focus Group Discussion are also conducted among experts in the field like research heads of selected HEIs, Chief Librarians of established Libraries and reputed educationists of the State for designing the framework to form e-research centers. The findings of this research will help in communicating ideas and findings of researchers to all the corners that matter for quality research.

**Keywords**—Open Access, E-Research Corner, Communication Facility, Quality Research, Inflibnet

## 1 Introduction

Existing literature fetches basic ideas for new research as it helps in finding out research gap and narrowing down the topic for new research. Besides, it also facilitates identification of variables to design the research and its methodology. Thus, review of literature is a vital component of research. Quality of research depends on quality of literature reviewed by the researchers. For the purpose of reviewing literature, the researchers are accessing libraries – both physical and virtual. Before the inception of virtual libraries, literature review was a tough most milestone for a researcher as physically accessing libraries of repute was both time-taking and expensive. After the introduction of virtual libraries, the task of literature review has been easier. However, from expenditure front, there has not been much improvement as accessing virtual libraries is reasonably expensive. In fact, considering the huge price, the subscription of virtual libraries is done only at institution level and individual researcher finds it unreachable for independent access. As such, researchers affiliated to those institutions which have subscriptions of virtual libraries get the advantage of easy access of relevant literature. Moreover, all the institutions, particularly higher education institutions (HEIs) in India are not capable to subscribe high-end virtual libraries and hence researchers from such HEIs and researchers without having affiliation to any HEI get deprived of easy access of relevant literature. This problem warrants something that may facilitate easy access of relevant literature without any expenses or with meagre expenses. The solution for the problem may lie with ‘Institutional Electronic Research Corners’. Every HEI in India has its research contribution in the form of research publications by their stakeholders. But the same is not exposed to the researchers of respective areas. Introduction of electronic research corners containing soft copies of published research Papers, Ph. D./M. Phil. Theses, Project Reports, etc. by the HEIs will solve the purpose. The concept of Institutional Electronic Research Corners is not completely a strange concept. Some front-line Universities do have their own research corners. But they have not made it open for all. In fact, they have given the access to their in-house researchers/readers only. But formation of electronic research corner does not suffice to serve the purpose. It must be accessed openly for making the researchers benefited. Best example of an open access institutional repositories is In-*flibnet* [4].

## 2 Objectives and Methodology

On the backdrop of the necessity of formation and open access of institutional electronic repositories, the objectives of this paper are:

- To unfold how open access to sound e-research corners promote quality education
- To design a framework that will assist the HEIs to build sound e-research centers

For the purpose, in-depth interviews are conducted with 50 researchers working in reputed HEIs in Bhubaneswar to ascertain how open access e-research centers facilitate quality research. Focus Group Discussion are also conducted among experts in

the field like research heads of selected HEIs, Chief Librarians of established Libraries and reputed educationists of the State for designing the framework to form e-research centers.

### **3 Virtual Library**

Virtual Library is “the concept of remote access to the contents and services of libraries and other information resources, combining an on-site collection of current and heavily used materials in both print and electronic form, with an electronic network which provides access to, and delivery from, external worldwide library and commercial information and knowledge sources” [3]. Owing to the peculiarities of prompt and extensive access to existing literature, virtual libraries have now been a universal sign of the data access standard [2].

The virtual library is time-saving as it is designed to access the literature without consuming much of the time of the librarians on selecting, cataloging and managing books and journals. With the help of Virtual Libraries, new concerted partnerships have been developed among libraries, scholars, publishers and document delivery vendors. This, in turn, has been proved beneficial both in advanced and emerging countries [1].

The basic tenets that insisted for Virtual Libraries are; 1) to make available all means for collecting, storing and organizing information and wisdom in digital form and 2) to make those digitally available information and knowledge to the scholars 24×7 [6]. Basically, a Virtual Library enables:

- Access through ICT-based means to all digitally available information and publications for educational purposes available in the public domain and from other sources
- Access of distance education materials by the scholars
- Effective delivery of information to different stakeholders of higher education including scholars and teachers of all higher educational institutions
- Strong communication and collaboration among the research, library and educational communities across the globe
- Enduring learning opportunities

#### **3.1 Thriving service delivery**

For thriving service delivery by the virtual libraries, following are needed:

- Human presence should be embedded with the Virtual Library system so that there could be balance between e-mail interaction and telecommunications. Mere e-mail interactions do not serve the purpose as to get the things the user wants, multiple e-mail interactions may be required and sometimes, it may happen that, the user may fail to get what exactly s/he wants.
- Everyday presence of the Virtual Libraries in the virtual world is necessary to keep the Users/potential users well-informed about the libraries. For the purpose, there

must be regular posting of happenings of digital libraries on different platforms so that whenever an user enters into virtual world, s/he will be insisted to visit the libraries.

- Users, very often, get confused and hence keep themselves away for no clarity on service limit in virtual library facilities. There must be clear-cut guidelines for service limit and it must be in the knowledge of the users.

### 3.2 Advantages of virtual libraries

Virtual Libraries are advantageous in many fronts. Following are a few of those advantages:

- Virtual libraries offer instant access to a variety of resources not accessible in physical collections. They permit unparalleled access to information and philosophies. There has been a paradigm shift in library facilities. Libraries are no more collectors of items, they are facilitators for accessing all kinds of information across the globe 24×7.
- Virtual libraries have made the users access the service conveniently with the prerequisite of internet connection on any device (Computer or even smart phone).
- Opportunities for learning inherent in Virtual libraries are inconceivable in physical libraries. Other learning environments in virtual world such as courses offered online or on distance mode are complemented by virtual libraries.
- Latest information and up-gradation of the same as time passes take place more conveniently and frequently in virtual libraries than the physical libraries.
- Efficiency of the users can be escalated through virtual libraries of right order
- As the users get empowered through virtual libraries, informal learning get promoted.
- Through customization of virtual libraries, a particular unit or community may get connected to communities across the globe and hence a broadened global community of users could be created.
- Through virtual libraries, users can access information sources easily without any barriers. Audio-video mode of virtual libraries facilitate visually and hearing impaired users to make use of virtual resources.

## 4 Inlibnet:[7]

Information and knowledge are the key elements of higher education. Higher education in modern India is struggling hard for formation and dissemination of information and knowledge. For academic excellence, every scholar is in need of information and knowledge, which needs to be shared smoothly with the scholars. INFLIBNET has been playing a great role in this regard.

As an autonomous body floated by the UGC in 19991 and headquartered at Ahmedabad, INFLIBNET has been instrumental in upgrading the standard of libraries in India. It has been modernizing the University libraries and facilitating connections

among all the libraries of the Country for healthy and improved academic ambience [5].

**INFLIBNET** has been performing following activities that promote research and teaching immensely.

**Database Management:** Centralized cataloging of theses, books, etc. by INFLIBNET has proved to be extremely convenient for the researchers to access existing literature. A premier database named VIDWAN has been created by INFLIBNET for profiling the researchers and scholars from across the country so that there will be mutual cooperation for growth and budding researchers will get the right track for doing research.

**Software Research & Development:** For easy and fast service delivery, automation of libraries is a must. INFLIBNET has developed the SOUL library information software for library automation in the country.

**Human Resource Development:** For developing human resources of Universities, INFLIBNET has been conducting Workshops, Training Modules and Seminars for the staff of libraries of Indian higher educational institutes.

**Open Source Software:** Through Open source software computer programs, INFLIBNET has made the source code available to the general public for use and /or modification from its original design free of charge, i.e. open. It also creates electronic theses and dissertations database for the researchers, which are fully open to the readers all over the world.

**N-LIST:** The Project entitled "National Library and Information Services Infrastructure for Scholarly Content (N-LIST)", being jointly executed by the UGC-INFONET Digital Library Consortium, INFLIBNET Centre and the INDEST-AICTE Consortium, IIT Delhi provides for i) cross-subscription to e-resources subscribed by the two Consortia, i.e. subscription to INDEST AICTE resources for universities and UGCINFONET resources for technical institutions; and ii) access to selected e-resources to colleges.

**Shodhganga:** Shodhganga stands for the reservoir of Indian intellectual output stored in a repository hosted and maintained by the INFLIBNET Centre.

**ShodhGangotri:** It is a Repository that provides Indian Research in Progress details (Synopses/Research Proposals for PhD programme).

**Open Journal System:** "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..."

**InfoPortal:** InfoPort is a well-known subject gateway developed by MIMAS, UK, the InfoPort is designed and developed to serve as a comprehensive gateway to all Indian scholarly content.

**UGC-Infonet Digital Library Consortium:** In December, 2003, the UGC-Infonet Digital Library Consortium was launched. 419 universities are benefited out of this consortium. More than 7500 full text e-recourses are available from more than 20 international publishers to member universities and more than five types of bibliographic database available under the subscription.

## 5 Institutional Electronic Research Corners and Quality Research

As discussed in the previous Sections, Virtual Libraries have advantages over Physical Libraries. Price involved in accessing virtual libraries acts as an inhibiting factor to make it accessible by all the researchers and academicians. In fact, institutions having huge financial strength are only capable to subscribe those databases and make their stakeholders benefitted. Moreover, all the research outcomes are not indexed in those databases. Thus, there is a bare need of having electronic research corners by each HEI and one mega research repository like INFLIBNET that could map with all the research corners of the country. In order to know whether electronic research repositories are beneficial to researchers, in-depth interviews were conducted on 50 researchers working in reputed HEIs in Bhubaneswar. The responses are enlisted as under.

- Since good physical libraries are not located at the doorstep of the researchers, they spend a lot just to go to libraries and the problem of finding relevant literature comes next. In fact, some of the researchers have expressed that in spite of spending huge amount on travel and boarding they could succeed only to get a few relevant literatures. Some of them had to visit length and breadth of the country to get reasonable number of relevant literatures. Thus, institutional electronic research repositories are a must to motivate the budding researchers.
- Researchers who were pursuing Ph. D. found that both Sodhgangotri and Sodhganga of INFLIBNET are nice platforms for accessing research proposals (Synopses) and theses that guide them to prepare quality Proposals and Theses. However, they could not find all the departments of all the Universities of the country on both the platforms. They apprehend that some good researches are still beyond the purview of Sodhgangotri and Sodhganga.
- Some of them felt that they are far away from some of the good researches as some researchers are staying very close to them but they are not aware of their research contribution. They feel if every HEI makes the electronic research corners and keep them open to be accessible by all, it will be a great help for the budding researchers.
- Although all the HEIs in India are instructed to upload the Ph. D. Theses and Synopses of their Ph. D. Scholars on INFLIBNET, all the HEIs are not following its true spirit and hence a good number of Theses and Synopses are not found in INFLIBNET.
- Out of 50 researchers studied, 15 are in the verge of completion of their Ph. D. Theses. They feel that had there not been INFLIBNET, they would not have completed their research work by now. In fact, INFLIBNET helped them a lot to complete the milestone on time.

For designing a framework to form effective institutional e-research corners Focus Group Discussion (FGD) were also conducted among experts in the field like research

heads of selected HEIs, Chief Librarians of established Libraries and reputed educationists of the State. The outcome of the FGD are listed below.

- To strengthen the database of INFLIBNET, particularly Sodhganga and Sodhgangotri, there should be some sort of action for the HEIs that are not abiding the instructions in uploading theses and synopses. It will ensure inclusion of all the theses and synopses of all the Ph. D. scholars of all HEIs.
- All HEIs are to be mandated to create research repositories on their Website and make it public for open access. Research repository should have all the research contributions (Ph. D. Theses, Ph. D. Synopses, Published Research Articles, Project Reports, Proceedings of Conference/Seminar, Outcome of Workshops, etc.) by the stake holders of the HEI and HEI itself.
- Research corner of each HEI needs to be updated frequently.
- For rating of HEIs and affiliation of HEIs to different Bodies, strength of the Research Repository needs to carry considerable weight.
- Contributions in research repositories need to be Plagiarism free. It may ensure quality research as the researchers will avoid to copy from other sources, otherwise they will be caught in plagiarism test and get punished.
- INFLIBNET needs to get the status of master research repository and it should have direct linkage to all institutional research corners.

## **6 Conclusion**

Since Indian HEIs are not finding place in global ratings, owing to basically dismal performance in research front, focusing on quality of research is need of the hour. Effective communication facilities that disseminate pros and cons of existing researches among new-age researchers are one of the requisites for quality research. Institutional Electronic Research Corners is one of such most important communication facilities. Mere formation of such research corners/repositories is not enough for quality research. They must be made accessible openly by all. The performance of INFLIBNET in this regard is really remarkable and as ascertained from qualitative study, it should be strengthened for better result. All the HEIs need to have their own electronic research corners placed on their respective websites and the same need to be open for all. INFLIBNET may be given the status of master repository having linkage with all institutional repositories

## **7 References**

- [1] Chiweza, D.S. (2006). The potential for Virtual library services to promote teaching and research and reduce the digital divide: a case study of the University of Malawi. (Accessed from: <http://www.ascleiden.nl/pdf/elecpublconfchiweza.pdf>)
- [2] Devi, P., & Singh, S. (2006). Role of UGC in Manpower Development in the field of Library and Information Science in India. *Annals of Library and Information Studies*, 53 (September), 147.

- [3] Gopen, K. G. (1993). The virtual library: Knowledge, society, and the librarian. In: L.M. Saunders (Ed.), *The Virtual Library: Visions and Realities*, pp.1-14. Westport: Meckler.
- [4] Karn, S. K., & Das, B. K. (2009). Information and Library Network (INFLIBNET): A Boon for Higher Education in India. International Conference on Academic Libraries (ICAL-2009) (p. 698700). Delhi: Delhi University.
- [5] UGC, S. (2003). Management of Higher Education. In E. Committee (Ed.), *HIGHER EDUCATION IN INDIA: ISSUES, CONCERNS AND NEW DIRECTIONS*. New Delhi: University Grants Commission.
- [6] Witten, I.H. and Bainbridge, D. (2006) *How to Build a Digital Library*. Amsterdam; Morgan Kaufman Publishers. pp. 44-45.
- [7] <http://www.inflibnet.ac.in>

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