APPLICATION OF E-CONTENT IN EDUCATION: AN INFORMATION REVOLUTION IN THE FIELD OF LIBRARY MANAGEMENT

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Abstract: Electronic knowledge collection and their Management in libraries is a very tough work in the present age of web based technology. There is an important role and social responsibilities rest on libraries in development of higher education. The collection of web based tools and technologies are playing a vital role in electronic knowledge management in vertual libraries. There are so many web sites and databases having latest collections of electronic knowledge at national and international level. In this scenario the paper answers the question: how libraries can fulfill their social responsibility to manage electronic knowledge and pass it to all institutions of higher education ? For this, the paper focuses on various data bases of electronic knowledge management in the level of higher education and how libraries manage those data bases.

Keywords: e-Resources of Indian News, Shodhganga, Shodhgangotri, e-pg Pathshala, e-ShodhSindhu and Vidwan.

1.0 Introduction:

Information and knowledge have a vital role in development of intellectual society from its beginning to present stage. Simultaneously knowledge management in library has a big issue from the age of manuscript based sources of knowledge to web based sources of knowledge. At present technologies such as Information Technology (IT), Information & Communication Technology (ICT) and World Wide Web (WWW) are playing a vital role in knowledge management in libraries. Due to applications of these technologies a new culture developed in the field of Library & Information Science called webs libraries or online libraries or virtual libraries. These systems of providing knowledge at National and International level create a revolution in the field of knowledge management in Libraries.

2.0 E-Resources of Indian News:

Every day publish so many numbers of news papers in various indian languages with important heading of current events related to political, religion, sports, education, science & technology, business, entertainment, life style, travel, health issues etc. Now a days electronic media is playing vital role in access of current news 24*7. The table-1 shows E-Sources of Indian News:

Table-1 E-Resources of Indian News

Sl. No	Name of e-News	Language of e-News	URL
1	5 Dariya News	English/ Punjabi	http://www.5dariyanews.com/
2	Abhitak News	English	http://www.abhitaknews.com/english/
3	Business Line	English	http://www.thehindubusinessline.com/
4	Business Standard	Hindi/English	http://www.business-standard.com/
5	Daily News Analysis	English	http://www.dnaindia.com/
6	Financial Express	English	http://www.financialexpress.com/
7	The Hindu	English	http://www.thehindu.com/
8	Hindustan Times	English	http://www.hindustantimes.com/
9	The Indian Express	English	http://indianexpress.com/
10	The Telegraph	English	https://www.telegraphindia.com/

3.0 Shodhganga:

Shodhganga is a digital repository of electronic theses & dissertations of India. The Shodhganga was set-up by Information & library network which is a inter university center of University Grant Commission. The main ambition of this national digital repository is to providing open access of Indian electronic theses &

dissertations to academic communities along with researchers worldwide. The national digital repository of electronic theses & dissertations is responsible for capturing, indexing, storing, disseminating and preserving of Indian electronic version of theses & dissertations. The Shodhganga is using open source software to maintain data of Indian electronic theses and dissertations called DSpace. This open source software (DSpace) was developed by Massachusetts Institute of Technology (MIT), USA. The DSpace support open archives initiative's protocol for metadata harvesting and uses a qualified version of the dubline core schema for its metadata.

Time to time the University Grant Commission has notified the regulation related to submission of electronic version of theses & dissertations in concern universities and Shodhganga. Submission of Metadata and full-text of Doctoral Theses in Electronic Format Regulation, 2005, mandate for all university of India to create of metadata for both current and old theses, submission of electronic version of theses to concerned university and also setting up of e-theses repository. Minimum standard and procedure for the award of M.Phil. / Ph.D. degree regulation, 2009 mandatory for researchers to submit electronic version of theses and dissertations in university and universities also submit the electronic version of theses and dissertation at Shodhganga within 30 days from the date of award of degree. Minimum Standard and Procedure for Award of M.Phil. / Ph.D. Degree Regulation, 2016 mandates submission of electronic version of theses & dissertations by the researchers in universities to full fill the purpose of open access of Indian theses & dissertations world-wide among academic communities.

Due to the impact of these above regulations of UGC, the Shodhganga is responsible for collecting and maintaining every year (from years 2010) of electronic version of theses & dissertations from Indian universities. The year wise submitted electronic version of theses & dissertations at Shodhganga are accessing from the website http://shodhganga.inflibnet.ac.in/ 24*7. The table-2 shows year wise electronic theses & dissertations at Shodhganga:

Table-2 Electronic Version of Theses and Dissertations at Shodhganga

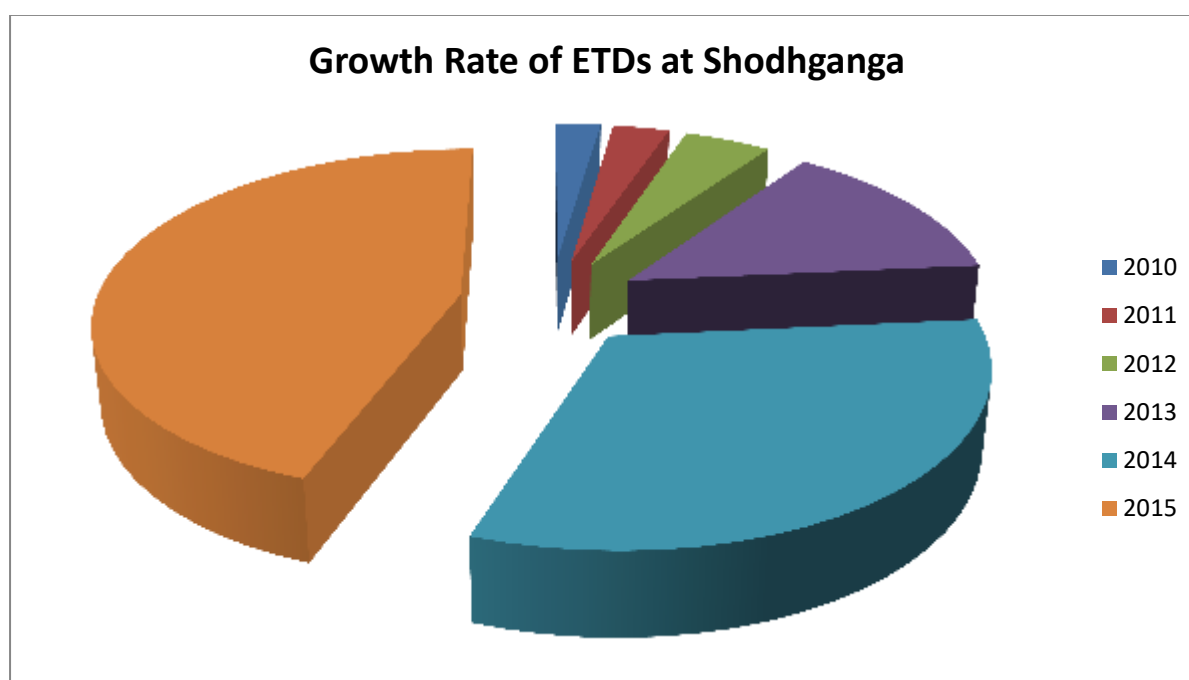| Sl. No.	Years	Total no. of ETD at Shodhganga
1	2010	1,168 (2.32%)
2	2011	1,481 (2.94%)
3	2012	2,281 (4.53%)
4	2013	6,892 (13.70%)
5	2014	16,067 (31.95%)
6	2015	22,391 (44.53%)
7	Total	50, 280 (100.00 %)

Fig-1 Shwoing Growth Rate of ETDs at Shodhganga

Fig-1 shows that total numbers of electronic theses and dissertation are submitted at Shodhganga every year (From years 2010) from different categories of Indian universities such as Central Universities, State Universities, Deemed to be Universities and Private Universities as well as from institutions of higher education. This table also shows that gradually increasing the rate of growth of submission of electronic version of theses & dissertations in every next year at Shodhganga. On the basis of above increasing rate of growth we can say that the time will come very soon that all Indian universities submit their electronic version of theses & dissertations at Shodhganga to easy open access world- wide.

4.0 Shodhgangotri:

Shodhgangotri is a national digital repository of electronic version of Indian research in progress. The Shodhgangotri was set-up by Information & Library Network (INFLIBNET) which is an Inter University Center (IUC) of University Grant Commission (UGC). The main ambition of this national digital repository is to providing open access of Indian research in progress to reveal the trends and directions of research is conducting in Indian universities along with prevent duplications of research work. The national digital repository of Indian research in progress is responsible for capturing, indexing, storing, disseminating and preserving of approved synopsis of India universities. At present 3,865 (Three thousand eight hundred and sixty five) electronic version of approved synopsis from Indian universities has uploaded at Shodhgangotri. These electronic versions of Indian research in progress at Shodhgangotri are accessing from the website http://shodhgangotri.inflibnet.ac.in/# 24*7.

5.0 e-pg Pathshala:

National mission on education through Information and Communication Technology (ICT) under the Ministry of Human Resource Development, Govt. of India has assigned to the University Grant Commission (UGC) for development of electronic content in 77 subjects at post graduate level. These electronic contents are based on high quality course curriculum of institutions of higher education. This mission of education called Gateway to All Post Graduate Courses or e-pg Pathshala.

At present e-pg Pathshala has developed e-content in 61 subjects and work related to other subjects are going on. Presently e-contents of all 61 subjects are merged in 6 (six) main groups i.e. Social Sciences, Physical & Basic Sciences, Engineering & Technology, Arts, Humanities & Languages, Medical & Health Science and Life Science. These above groups are again sub divided in specific categories of subjects such as

5.1 Social Sciences: Anthropology, Buddhist Studies, Business Economics, Commerce, Criminology, Economics, Education, Forensic Science, Geography, Human Rights & Duties, Indian Culture, Law, Library & Information Science, Linguistics, Political Science, Population Studies, Psychology, Public Administration, Social work Education, Sociology and Women Studies/ Gender Studies.

5.2 Physical & Basic Science: Chemistry, Earth Science, Environmental Science, Geology, Jyotish-ganit, Mathematics, Physics and Statistics.

5.3 Engineering & Technology: Analytical Chemistry/Instrumentation, Communication studies, Computational Science, Computational Social Science, Computer Science, Electronic Science, Human Resource Management, Information Technology, Management, Material Science and Risk/Disaster Management.

5.4 Arts, Humanities & Languages: Architecture, Chinese, Comparative Literature, Comparative Study of Religious, English, Hindi, History, Home Science, Japanese, M Planning, Performing Arts (Dance/Drama/Theater), Philosophy, Russian Studies, Sanskrit (Acharya in Vyakrana), Sanskrit (M.A), Spanish, Urdu, Visual Arts.

5.5 Medical & Health Science: Bioinformatics, Biophysics, Museology & Conservation, Pharmaceutical Science, Physical Education (Sports & Health Education), Social medicine & Community Health and Zoology.

5.6 Life Science: Biochemistry, Biotechnology, Botany, Food & Nutrition, Food Technology and Microbiology.

Every above subject will have specific number of papers divided into specific number of modules. These all e-contents of different discipline are accessed and retrieved from http://epgp.inflibnet.ac.in/ 24*7.
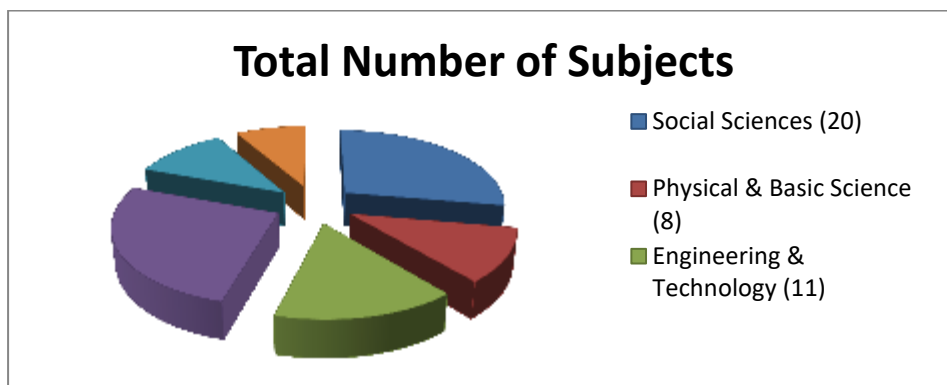
Fig-2 Showing Total Number of Subjects in e-pg Pathshala

Fig-2 Showing the total no. of subjects in different faculties such as Social Science, Physical & Basic Science, Engineering & Technology, Arts, Humanities & Languages, Medical & Health Science and Life Science, these all subjects having a definite number of papers and their modules in electronic forms. On the basis of above description e-pg Pathshala provides e-contents only in seventy two (72) subjects but the National Eligibility Test (NET) Syllabus presently having one hundred (100) subjects. There is also urgent need of e-contents provided by the e-pg Pathshala in all rest of subjects which are mention in NET syllabus.

6.0 Vidwan:

Vidwan is a database of national researchers. It is also known as expert database or national researcher network. It was established by Information & Library Network and financially supported by National Mission on Education through Information and Communication Technology under Ministry of Human Resource Development, Govt. of India.

The Vidwan database provides information about Experts, Scientists, Researchers, Faculty members of Central Universities, State Universities, Deemed Universities, Institutions of higher education and other research & Development organizations of India. The basic information about experts such as educational back ground, contact address, work experience, researcher identity, contact numbers like mobile no. as well as land line no. etc. can be collected from this database.

There are two mode of searching such information from Vidwan database. One is from subject categories and others are organization categories. Table-3 shows subject categories and table-4 shows organization categories information of experts. These all information about experts in different discipline and different organization are accessed and retrieved from https://vidwan.inflibnet.ac.in/ 24*7.

Table-3 Subject Wise Information of Experts

Sl. No.	Name of Subjects	No. of Experts
1	Agricultural Science	2557
2	Arts & Humanities	1291
3	Biological Science	1126
4	Chemical Science	1765
5	Engineering & Technology	5858
6	Medical & Health Sciences	3100
7	Physical Science	2790
8	Social Science	3534

Table-4 Organization Wise Information of Experts

Sl. No.	Name of Organizations	No. of Experts
1	Central Universities	3673
2	State Universities	6279
3	Deemed Universities	2192
4	Institute of National Importance	5799
5	Research & Development Organization	1291
6	Technical Institute	898
7	Other Institute	1956

Table-3 shows that subject wise information of total numbers of Experts, Scientists, Researchers, Faculty members who involved in research work at Vidwan database. Table-4 also shows that organization wise information of total numbers of Experts, Scientists, Researchers, Faculty members who involved in research work at Vidwan database. These above information about experts will more useful and helpful for academic communities and research scholars. This database is acting as instrument for selection of panels of expert for various committees related to higher education and taskforce established by the central government and state government time to time.

7.0.E-ShodhSindhu:

On the basis of recommendation of an expert committee, the Ministry of Human Resource Development, Government of India has established a consortium called e-ShodhSindhu on 1st December, 2015. This consortium is formed by merging of three consortia these are as UGC-INFONET Digital Library Consortium, NLIST Consortium and INDEST-AICTE Consortium. The members of this consortium are Centrally-funded technical institutions, Central Universities, State Universities, Deemed University, National Law Universities and Colleges that are covered under 12(B) and 2(f) section of the UGC Act. The goal of this consortium is to provide access of quality and quantity based e-resources including full-text, bibliographic and factual databases to its members at lower rates of subscription.

On the basis of funding and use of electronic resources by different institutions, there are three types of members in e-ShodhSindhu Consortium these are Universities, Centrally Funded Technical Institution and Technical Colleges.

The Universities mentioned in the list of UGC, such as Central University, State University Deemed University and National Law University as well as Inter-University Center (IUCs) of UGC are the Members of this consortium.

All centrally funded technical institutions such as Indian Institute of Technology (IIT), Indian Institute of Science (IISc.), Indian School of Mince (ISM), Indian Institute of Science Education and Research (IISERs), National Institute of Technology (NITs), Sant Longowal Institute of Engineering & Technology (SLIET), North East Regional Institute of Science & Technology (NERIST), Indian Institute of Management (IIMs), National Institute of Industrial Engineering (NITIE), National Institute of Technical Teachers' Training and Research (NITTTRs), Indian Institute of Information Technology (IIITs), and National Institute of Foundry and Forge Technology (NIFFT) are members of the consortium. Presently 72 AICTE funded engineering colleges are the members of this consortium.

8.0 E-Resources of the Consortium:

The e-ShodhSindhu Consortium provides e-resources such as e-books, e-journals, e-magazines, full-text articles, conference proceeding titles/volumes, monographs, multimedia files like audio, video, animation etc. to its members from different databases at national and international level. These all e-contents of different sources of knowledge are accessed and retrieved from http://www.inflibnet.ac.in/ess/database.php 24*7.

9.0 Conclusion:

On the basis of above explanation about various websites and databases related to current events, information and knowledge author may indicate that the time will come to conclude the shifting of paper based knowledge management system to paper less or electronic paper based or web based knowledge management system in higher education. In other words, it can be pronounced as the physical form of , data, current events, information, knowledge and wisdom will be shifting in digital form to promote current events, information and knowledge among academic communities it is really a boon in higher education. The above mention websites and databases are focusing on the specific area of current events, information and knowledge of higher education.

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