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Survey on Library Automation Activities in India

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Abstract – From the user point of view cataloguing system is most important and also forms the base for other library activities. Keeping these two points in view UNESCO developed a PC based software titled 'CDS/ISIS' and is available at a very nominal price to all the libraries in developing countries. For details librarians may contact ATIRA/NISSAT. This software can export data in ISO 2709 format and therefore at later stage if one decides to go in for some other software, data transfer poses no problem. INFLIBNET has developed public domain library software titled 'ILMS' which is available on DOS AND UNIX platform. With the recent government policy the PCs and other accessories have become affordable. The in-house training for handling the software is usually provided by the developers and one can choose the software which can suit their budget. However, training for CDS/ISIS is available at INSDOC, INFLIBNET and DRTC. For further information on training programmes one can contact NISSAT. The training of library staff also depends on the level of automation. If one decides to go only for cataloguing a minimum training of one or two week's duration will enable the librarians to develop a database and maintain it. With this basic training one can easily transfer the same data on a server/main machine in a network environment. The job becomes easy as most of the institutions have systems department with computer professionals maintaining the network.

Key Words: Software, Public Domain, Information, Computer Professionals.

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INTRODUCTION

India is a vast country inhabited by over 1, 00 crore people spread over 28 states and 7 union territories, which is further divided into approximately 593 districts, 3126 towns and 600000 villages. The country has a unique mixture of the best and the worst kind of situations. It has the fastest jet planes and also 6 million bullock carts. The country has premier educational and research institutions but also primary schools without blackboards (Malhan, 2006). India is a paradox where on one hand, it has come to be a global information technology power and on the other hand, a large part of its population is illiterate and faces extreme poverty. We have just seen the beginning of the new millennium. The digital library is the most important development of 21st century. It has opened up an exciting new world of information delivery for the researchers and citizens of tomorrow. Humanity has never had such great opportunities to access and exchange as much information as now, particularly in the Indian context, where the problems of tremendous growth of population, illiteracy and unemployment are endemic. The key to development lies in effective utilization of information and reaching the maximum number of people. Library and information centers are considered the heart and knowledge center of educational and social organizations and every individual and group concerned should come forward to facilitate the free flow of information there, to give citizens their fundamental right to information.

REVIEW OF LITERATURE:

Digital technology can make the works of man or needed information accessible to all whether they live in a village or in an urban area. The father of Indian librarianship, Dr S. R. Ranganathan, in the past centuries has recognized the great potential of public libraries to improve the quality of life and provide opportunity the citizenry. Similarly digital libraries, widely available and accessible will improve the global society in ways beyond measurement. Hence, there is an urgent need of a workable strong strategy at the national level. The principal benefit of this will be to supplement the formal education system by making knowledge available to anyone who can have access. Several efforts are now being made in different parts of the country towards starting digitizing the existing resources and networking the existing institutions and libraries, especially suitable for accessibility mechanism. The major initiatives are briefly described below:

Government of India has set up NICNET which is the largest government owned information network. NIC is providing network backbone and e-governance to Central Government, State Government, UT Administrations, Districts and other Government bodies. It offers a wide range of ICT services

including Nationwide Communication Network for decentralized planning, improvement in Government services and wider transparency of national and local Governments.

Similarly, Digital Library of India (DLI)-Universal library project is a major initiative. It is a collaborative project between Indian Institute of Science, Bangalore and Carnegie Mellor University with partners from the Government, Academia and Religious Institutions. The main objective of the project is to digitize all the significant literary, artistic, and scientific works of mankind and making them freely available, in every corner of the world, for our education, study and appreciation and for all our future generations. Moreover, Portal of digital library of India was launched by the President of India in September, 2003 at Bangalore. It is a part of the Universal Library Project mentioned above. This shall make it possible for people to have access to knowledge that exist in languages other than their own. Although some institutions like IS1 and llTs in the country have imported mainframe computers in the late1 950s and early 1960s, priority was being accorded for productivity-and R&D-linked jobs. This is because of the huge costs involved in getting mainframes and also due to the fact that library work was generally viewed as not so important by the concerned authorities who accorded lower priorities in allotting computer time for such work. Many of the libraries and information centres started using computers for their work after the introduction of mini computers during late 1970s. Even these were generally costly, only elite institutions in the public, academic, R&D and private sectors could afford them and so, the libraries in these institutions were able to utilize them to some extent. Library automation, as a result, did not progress satisfactorily. However, the arrival of microcomputers and personal computers (PCs) in the Indian market in the 1980s gave the necessary impetus; the environment began to change and library automation picked up momentum.

Even, The Indian Society of Agricultural Professionals aims to reach out to at least 100,000 agri-business professionals during the next five years. The Council of Scientific and Industrial Research (CSIR) of India is proceeding with a major project to map the traditional knowledge of the country with the traditional knowledge Digital Library (TKDL).In the same way, there is a new hope of communication of knowledge recorded in some important manuscripts because such works are being digitized. Furthermore, Promotion of workshops and seminars on digital libraries are an ongoing process. International Conference on: International Conference of Digital Libraries 2004 was organized by TERI and Dept. of Culture, Govt. of India in association with the commonwealth of Learning (COL) – Commonwealth Education Media Center for Asia in Delhi. To offer help to our institutions in developing vibrant Digital Libraries, A ‘Center for Development of Digital Libraries’ (CDDL) has been launched. The CDDL shall take up assignments and projects for the promotion and creation of Digital Libraries, on a case-to-case basis. The Center shall offer counseling, consultancy, advise, guidance and also assistance for the development of robust digital library systems (http://iimk.ac.in.libportal). To provide equitable access to information to the academic and research community, two commendable projects have been undertaken by the Government of India, namely, the INDEST consortium and UGC Info net.

MATERIAL AND METHOD:

The Indian National Scientific Documentation Centre (INSDOC), one of the pioneer institutions in library automation field, started using computers for information processing in 1964 utilizing the IBM 1620 at IIT, Kanpur for its union catalogue. It also utilized the IBM 1620 at Delhi University for other related jobs. The Documentation Research and Training Centre (DRTC), Bangalore also started the computerization work in the late 1960s. A Document Finding System was designed and developed with programs to prepare catalogues on tape which was later tested on the IBM 1401 system at ISI, Calcutta. In 1970, the library of NAL, Bangalore made efforts in computerizing the circulation control with an ICL 1004 system. As per a survey conducted by Kamath (1990), there were nine libraries which were using computers in the country. The various library routines where computerized procedures used by these libraries include: procurement (one library), charging and discharging of documents (one library), cataloguing (two libraries), preparing union catalogue (one library), and preparing addition lists (four libraries). INSDOC started providing computerized SDI service from January 1976 using the IBM 3701155 computer at IIT, Madras and the CANISDI software with CA Condensates database. INSPEC A&B databases were also used from 1977 for providing SDI services. In 1977 BHEL (R&D), Hyderabad started providing SDI services to the various units using computers. During 1970s a few more libraries started using computers for library routines. Notable among them include the Tata Institute of Fundamental Research (TIFR), Mumbai and the Space Applications Centre (SAC), Ahmedabad. A number of seminars and workshops were conducted on various facets of library automation during this period by national institutions like SIET, DRTC, BARC, and INSDOC.

This situation improved in the 1980s and the early 1990s with the launching of national and metropolitan networks. Further, during this period the prices of the computer hardware and software have started climbing down making them affordable to many libraries. Metropolitan networks like CALIBNET and DELNET, professional associations like ILA, AGLIS and IASLIC, and national institutions like INSDOC, DRTC, and SIET started training programmes in automation of libraries, bibliographic database development using CDSIISIS and other software packages. National institutions like DRTC, INSDOC

and DESIDOC, were actively engaged in such programmes. INFLIBNET of UGC started providing financial assistance to the academic libraries for library automation. Agencies like NISSAT also supported such activities. The INFLIBNET has, supported 123 universities / deemed universities towards creating infrastructure facilities including buying PCs and modems, developing databases, and getting telephone and Internet connectivity. It is also providing recurring grants for some activities for 5 years after the initial grant is utilized. INFLIBNET expects to extend financial support for another 30 universities in the coming couple of years. These efforts paid rich dividends and resulted in a significant level of automation of academic and research libraries in the 1990s.

The main players in library automation in the past decade have been the special libraries of the country. Most of these library and information centres are in the R&D institutions under the central government and in universities. These include the Council of Scientific and Industrial Research (CSIR), Department of Atomic Energy (DAE), Defence Research and Development Organization (DRDO), Department of Science and Technology (DST), Indian Council of Agricultural Research (ICAR), Indian Council of Medical Research (ICMR), Indian Space Research Organization (ISRO), Public Sector Undertakings (PSUs) and the institutions of national importance like IITs, Indian Institute of Science (IISc), All India Institute of Medical Sciences (AIIMS), and National Medical Library. Although special libraries took the lead initially, many university libraries and libraries from major institutions in arts, humanities, social and behavioural sciences, and management are increasingly participating in library automation.

Some special factors favoured special libraries, which were able to undertake library automation. These include: (i) easier decision making due to the relative autonomy they possess being in publicly-funded organizations, (ii) the pressure these libraries experience to provide efficient services and better, wider access to information (this pressure is the result of the goals or deadlines to be achieved by the institution), (iii) the wide availability of PCs, and (iv) the free availability of Unesco's Micro CDSIISIS which facilitated easy development of databases (Haravu, 1993). Another factor is that in many of the institutions, internal talent was available in the form of computer specialists (programmers) who were responsible for the in-house development of library software. A detailed discussion of the benefits, prerequisites modules and files needed for library automation can be found elsewhere (Rao, 1990 and 1995; and Seth and Dalal, 1995). The Ministry of Human Resource Development (MHRD), India, has set up a consortium-based subscription to electronic resources for the technical education system in India, named the INDEST Consortium and the University Grants Commission has taken the initiative to implement UGC Info net, connecting more than 170 universities in the country. ERNET India will provide the backbone and host 16-mirror sites. INFLIBNET is monitoring the network and is performing as the nodal agency. It will also be involved in conducting training programmes in network management in collaboration with ERNET (www.ugc.ac.in/new) initiatives/infonet.html-8k.). In addition, a group of Indian organizations has set up a National Alliance to make certain that the rural poor are not excluded from the benefits of information and communications technologies. The national alliance for information and communication technologies for basic human needs was launched at a meeting of more than 50 development experts at the M.S. Swaminathan Research Foundation (MSSRF) in Chennai on May 2004. It aims to take knowledge-based services to all of India's 600000 villages by 2007. The committee established seven task forces to look into the issues of connectivity, content, policy, capacity building, resources, organisation, and management and programme design, respectively, and to develop a common minimum action plan. Committee also discusses on providing broadband connectivity to rural homes at affordable costs and integrating it with diverse technological applications that could be the key to helping the poor benefit from ICT. The National Alliance would help India leapfrog from a few thousand information kiosks to a knowledge-based rural economy. They advocate converting information kiosks into multipurpose community centers. Such communication hubs could provide multiple telephones and communication services to the village including a 'virtual academy' and training centre; support centre for rural entrepreneurship; and outlet for banking, financial and insurance services, and trading. In addition, they could serve as digital libraries providing health, education and livelihood information and services.

Some more digital library projects in the context of rural development in our country have also been initiated to create, collect and host information of interest to the rural community to improve the rural livelihood: C-DAC developed an Internet enabled Mobile Digital Library (DDGS) for common citizen, for promoting literacy and for remote areas using Mobile Van with satellite connection for connectivity to Internet and fitted with printer, scorer, cutter and binding machine point. ITC, one of India's largest exporters of agricultural commodities has launched e-choupal in June 2000. "ITC's e-choupal has already reached 3.1 million farmers and is expanding into 30 new villages a day-making it Corporate India's most ambitious rural initiative ever" E-choupal is infact Internet based agricultural information service through which villager can access agricultural information of their concern, buy seeds, fertilizers etc, and sell their agriculture produce. The Ministry of

Information Technology, Government of India, launched a project to establish Community Information Centres (CICs) in all blocks in North-Eastern States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Sikkim and Tripura to extend the reach of modern day technology even to the remote areas and difficult mountain terrain of these states in order to provide internet access, email, printing, data entry, word processing and training for the local populace to enable rapid socio-economic development. Many State governments also stepped into and launched their programmes for e-readiness. Kerla Government is setting up information kiosks, named as Akshay Kendras in different villages. These information kiosks have been launched to leverage more on the benefit of IT for more transparent and people friendly governance and to digitize the rural land revenue A record, Bhoomi Project was launched by the Karnataka Government to bring the area closer to the national mainstream. Besides, FRIENDS (Fast Reliable Instant Efficient Network for Disbursement of Services) have been launched in all 14 district headquarters by the Government of Kerla through its Department of IT in association with the local bodies and seven other Departments as in integrated services center with a view to enable a smooth and transparent Citizen to Government (C2G) interface (http//www.keralaitmission.org/content/egovernance/) and Mahiti Shakti Kendras (MSKs) project of Gujarat envisions a portal providing a single window to all relevant information and services. In addition, esava of the Government of Andhra Pradesh provides 'One stop shop' for over 66 citizen services using state of the art technologies. It builds on the success of the TWINS pilot project launched in December 1999 and now has over 46 service centers in the twin cities of Hyderabad and Secunderabad, and the adjoining Rangareddy District. Under the Jana Mitra scheme information kiosks have been set up in remote areas of Jhalawar district of Rajasthan. The scheme aims at providing access to information pertaining to government services and availing of many such services on line in remote pockets of the country thereby bridging the gap between the local administration and the people of the area. Similarly, Raj Nidhi Scheme in Rajasthan State has been initiated jointly by the Rajasthan's Department of Information Technology and Rajasthan State Agency for Computer Services. The schemes are providing access to information pertaining to Government services and information services relating to health, family planning, immunization schedules for children, employment, transportation, distance education etc. Warana Wired Village Project is executed by National Informatics Centre covering 70 villages in Maharashtra. It allows internet access to cooperative societies and aims to deliver information relating to agriculture, health and education by creating networked information booths in these villages. Under the Gyandoot scheme twenty villages in five blocks in the tribal areas of Dhar District of Madhya Pradesh have been interconnected through an intranet owned by the community. It deals with pay rolls, budget, land records, commodity prices, public programmes and relief operations. To provide the general public easy access to government information and facilities of e-governance at their door step Himachal Pradesh Government has taken up Lokmitra Project.

National Institute of Rural Development, Hyderabad, has set up two public information kiosks with Internet connections, one at Vikarabad in Ranga Reddy; district and the other at Tenali in Guntur district (both in Andhra pradesh). The kiosks provide such information as examination results, directories, agricultural prices, governmental forms, land priced. Furthermore, National Institute of Agricultural Extension and Management, Hyderabad, under its National Agricultural Technology Project (NATP), has set up internet kiosks in 24 districts in seven states, viz., Andhra Pradesh, Bihar, Himachal Pradesh, Jharkhand, Maharashtra, Orissa and Punjab. These kiosks provide facilities of emailing and information regarding weather, examination results, etc. All services are moderately priced. Even Non Government Organizations and corporate sectors have started contributing towards the improvement of information sector and development of digitized human resources.

CONCLUSION:

Among the initiatives described above, only a few government institutes have shown their interest. Out of three hundred universities in India, only two, the University of Hyderabad and the University of Mysore, have taken up digitization initiatives. The remaining institutions need funds, manpower, and guidelines from the UGC and their state governments. The vision should be an Indian information infrastructure linking education, research, government, and business. Questions of funding and governance, as well as technical issues, require the participation of state and national governments.

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