#### **SYNOPSIS**

# ROLE OF THE INTERNET IN ENHANCING THE RESOURCE SHARING AND ENRICHING THE INFORMATION RESOURCES IN THE SPECIAL LIBRARIES IN INDIA: AN INVESTIGATION

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#### 1. Introduction

Information and Communication Technologies (ICTs) or the Information Technology (IT) have been playing substantial role in library and information systems and services ever since its inception. The revolution in information and communication technologies is registering significant changes in all types of libraries in India. The libraries and information centers in India are facing unprecedented crucial resource building problems. It is strongly felt that IT / Internet technologies can enable, empower and enrich libraries astoundingly in information resource building and in resource sharing.

#### 2. Statement of the Problem

The research proposal seeks to address two important issues the libraries in India have long been confronted with, viz., 1. Collection building or resource enriching processes and strategies, and 2. Resource sharing programmes and techniques.

The research study undertaken is titled 'Role of the Internet in Enhancing the Resource Sharing and Enriching the Information Resources in the Special Libraries in India: An Investigation'.

#### 3. Objectives of the Study

The present study was undertaken with the following objectives:

1. To assess the Internet and other computerised network based information resources, facilities and services of a select list of national level special libraries in the country. 2. To assess the existing status of the information resources of the libraries selected for study. 3. To assess the existing status of the IT infrastructure, the Internet facilities and services of a select list of national level special libraries in the country. 4. To conduct a user opinion survey to ascertain the feedback of their information environment. 5. To ascertain the feasibility for effective resource building and resource sharing by using the Internet and its suite of tools. 6. To develop a working model supporting the feasibility of establishing an IT / Internet enabled library enriching the information resources and enhancing the resource sharing.

## 4. Hypotheses

1.Internet is the global information infrastructure (GII), an unparalleled knowledge repository with worldwide presence and it has unique features as a content publisher, content holder and a content communicator, and hence libraries and information centres are significant beneficiaries of this evolving global information system. 2. The libraries and information centres are responding to the tremendous developments in Information Technology (IT) and the Internet, towards enhancing their resource sharing activities and resource enrichment processes. 3. With the information resource crunch looming large, libraries and information centres in India are resorting to newer techniques of resource sharing. 4. There is increasing awareness, usage and usability of Internet based information resources and information services in the libraries. 5. IT / Internet enabled library enriches information resources and enhances library resource sharing.

## 5. Scope and Coverage

The scope of this study is confined to special libraries only. The universe of this study is confined to select special libraries in India. The coverage includes select R&D / Academic organizations of the Government of India, spread across the country.

## 6. Limitations of the study

The major limitation of the study is that it has not included all those R&D and academic institutions in India for want of time. However, the choice of the major institutions are considered to be representatives of the type of organizations under study.

#### 7. Means and Methods

The study focused on the possibilities and potential of the Internet and related technologies in the resource building and resource sharing processes in the special libraries in India. The study had two major components – 1. Assessment of information resources and IT infrastructure in the select libraries under study; and 2. User Perspectives and Requirements.

#### 7.1. Data Collection

- I. Data on the library's information resources IT/Internet infrastructure were collected, from a stratified sample of the Universe, with the help of a Questionnaire, through the organization's Web sites, E-Mails, personal visits to organizations, interviews with the librarians and the library staff.
- II. For the User Perspectives survey, the cluster sampling method was adopted. There were 10 clusters viz., 1. IISc/IIT, 2. IIM, 3. NIT/REC, 4. CSIR, 5. ICAR, 6. ICMR, 7. DRDO, 8. DOEACC, 9. IIITM, and 10. Others. Within each cluster at random, 10 users were distributed with a Questionnaire reaching to a target population of 100. These 100 active users are the faculty, scientists, and researchers.

## 7.2. Data analysis

The data collected using the above tools were analysed both manually and using SPSS (Statistical Package for Social Scientists) Package (Version 10). Each question in the questionnaire was analysed to find out against each of the following eight facets: 1. Information Infrastructure, 2. IT Infrastructure, 3. IT enabled Information Services, 4. Induction of Internet and related technologies, 5. Internet based Resource Sharing, 6. Resource Enrichment while introducing Internet technology/ies, 7. Availability of Finance, and 8. Availability of human resource.

The related responses were scaled. Frequency Tables, with valid and cumulative percentages, were developed to draw inferences. Simple statistical techniques such as percentages, f-Tests, t-Tests, ANOVA Tests, Chi-Square Tests were employed as and when required.

## 8. Working Model

Observing that the libraries are yet to take definitive advantage of the vast treasure of opportunities and the real potentialities of IT / Internet technologies, the Investigator, based on the studies conducted at the Indian Institute of Management Kozhikode (IIMK) and enthused by the knowledge and skills acquired during the period of study, attempted to develop a working model of an ideal digital information system. The working model projects four of its integrated functional components constituting the IT enabled role model computerized library system of the IIMK. The fifth one is the Virtual Biomedical Library created for the benefit of the biomedical fraternity in India, a project funded by the WHO Office in India. These five components are: (i) IIMK's Library Portal as a Content / Information Integration model; (ii) Developing Digital Libraries using Open Source Software; (iii) IIM Library Consortium based on Internet accessible databases and journals; (iv) Creating an Institutional Scholarly Repository using Open Source Software; and (v) Creating a Virtual Biomedical Library of Public Domain information on the Internet.

## 9. Summary of Major Findings

- 1. The study revealed that the IT / Internet technologies are quite feasible for effective resource building and resource sharing.
- 2. The traditional trio of the library and information system libraries, users and the information resources has acquired 'added value' with the newly emerged significant fourth component 'IT Infrastructure & Skills'.
- With the advent of the electronic information environment, the gap between the information rich libraries and the information poor libraries are widening at an alarming rate.
- 4. Majority of the libraries lack IT policies and IT strategies and a clear-cut vision on the deployment of high-end IT infrastructure.
- 5. IT / Internet facilities and services have reached all the special libraries covered by the study, but at significantly varying degrees, substantiating that there is a digital divide.

- 6. Libraries are yet to explore and capitalize on the full potential of the IT / Internet technologies in enabling, empowering and enriching them. A vast horizon of possibilities of these technologies are still unexplored, untapped and unutilized.
- 7. The Library Consortium concept is fast catching up in the country and there is positive response received from the top managements all over (INDEST, UGC "INFONET", CSIR, FORSA, IIM, ICMR, HELINET, ISRO etc.).
- 8. Internet has been instrumental in bringing about newer concepts such as electronic, virtual and digital libraries. These newer models are accepted, appreciated and utilised worldwide.
- 9. Internet has paved way for the innovative movement known as the Open Source Software (OSS), which is close to our hearts, primarily for their free availability and the broad rights it awards to the consumer.
- 10. E-Publishing, Open Archives Initiative (OAI) and the Open Access (OA) movement are slated to give a face lift and a paradigm shift to the upcoming scholarly information systems.
- 11. Digital media, though dynamic and vibrant, demands tremendous amount of professional trainings, technology skills and continuing education.
- 12. Existing IT infrastructure / Internet facilities are not able to withstand the ever growing user needs as well as the fast pace of obsolescence of Hardware and Software.
- 13. For the information professional the Internet is a treasure unlimited. It is only limited to one's imagination and vision.
- 14. World Wide Web is the most used and preferred service, after E-Mail, from the Internet's suite of services.
- 15. Institute's Library Web Site is a most frequently visited site by the user.
- 16. Users expect cutting edge technology and state-of-art information resources and services from libraries.
- 17. Users demand the latest Internet based resources and services.
- 18. Content integration and content aggregation services must be improved.
- 19. Libraries should be more aggressive in marketing their resources and contents among the user community.
- 20. Users registered concern on the dearth of electronic resources and services in most of the libraries.
- 21. User training programmes on Internet and information resources need to be improved and strengthened.
- 22.IT / Internet skills of the information professionals need to improve drastically, to meet the challenges being posed by the technologies, as well as to explore their possibilities and opportunities.
- 23. National level library networks, viz., the INFLIBNET, DELNET etc. could play commendable role in library resource building, resource enriching and the sharing of information. The metropolitan library networks (CALIBNET, ADINET, BONET, MYLIBNET, PUNENET, MALIBNET etc.) need to strengthen and value add their services and make their presence more visible and lively.
- 24. The working model showcases how the IT / Internet and related technologies have immensely contributed and strengthened the role of special libraries.

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