SUSTAINABILITY AND ACCESSIBILITY OF DIGITAL RESOURCE MANAGEMENT INITIATIVES FOR ENGINEERING COLLEGE LIBRARIES IN KARNATAKA – A FUTURISTIC STUDY

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Abstract:

In the present digital age the digital content plays an important role in sustainability and accessibility of digital resources. To get the better and ease the accessibility the library professionals should enhance the skills and upgrade for providing the better accessibility. This paper highlights the usage, satisfaction of stakeholders, the existence of various e-resource databases and barriers faced in the access of e-resources. This study shows how the electronic resources can be used to improve efficiency and productivity in academic activities.

Keywords: Digital resource management, e-resources, virtual reference service.

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1.   Introduction

In a digital age everyone wants contents and to be successful information service providers, information centre and libraries needs to develop services in such a way so that the end users may manipulate the content in ways as they desired. The information explosion is a big problem, that the information is scattered everywhere. Managing digital resources such as e-books, e-journals, e-databases, CD-ROM's etc are difficult, it will affect the use. So the library staff should train to manage and at the same time attract the users to use these digital resources. Technical institutes like engineering colleges are spending more funds on procure these digital resources to their libraries. The library should provide a service to manage digital resources such as institutional repositories, portals, blogs, etc. So there is a need to provide quality service to the users, disseminate technical knowledge and offer modern tools to access information.

2. Literature survey

Chetan Sharma (2009)[1,] paper entitled *"Use and Impact of E-Resources at Guru Gobind Singh Indraprastha University (India): A Case Study"* examines the existence of various e-resource databases in Guru Gobind Singh Indraprastha University library. Chetan Sharma highlights the preferences and importance of online resources among the teachers and research scholars. Chetan Sharma observed that the availability of e-resources on the campus is almost sufficient for all the existing disciplines but the infrastructure to use these resources is not adequate and can hinder the ability to meet the requirements of users.

Saha, Nimai Chand., Debnath, Kanika; Das, Tapas Kumar (2010)[2], paper entitled *"Implications of Selection & Collection Policies for E-resources: With Special reference to Visva-Bharati Library"*, discussed the types of e-resources, general criteria for selection of e-resource, licensing factor relating the e-resource acquisition, argument in favour of collecting the e-resource, etc. Finally the paper would like to disclose the strategy and present state of e-resource collection in the Visva-Bharati Library. To cope up with the changing environment, the Visva-Bharati Library is also trying to initiate our library by collecting e-resources and introducing the required ICT based infrastructure. As a result of which, Visva-Bharati has already purchased e-books and trying to offer IT-based services to its users. It may be stated that it is very much difficult to suggest a model to collect the e-resources of any library. Still, to get

the optimum collection of e-resources library has to go through some strategies so that e-resource acquisition process should be of biased free and impartial. Saha, Nimai Chand., Debnath, Kanika; Das, Tapas Kumar hope that the Visva‑Bharati library will have the handsome number of e-collection if the institute gets enough financial supports for acquiring the e-resources.

Singh, Shuchita (2010)[3], paper entitled *"Online service and digital resource management in Central University libraries of India"*, describes the efforts of the Central University libraries in providing access to the online services and developing the digital resources. The university libraries are willing to adopt the new technologies such as - libraries are interested to procure the online journals, databases, in order to ensure the pin-pointed and exhaustive services to their clientele. Some university libraries are provoked towards the conservation and preservation of the manuscripts and rare materials also.

Satpathy, Kishor Chandra., Sarma, Rahul; Sarma, Roon Dev (2012)[4], in a research paper entitled *"E-Resource Management in Technical Institute Library: A Case Study on NIT Silchar",* explains the e-resource concept and its advantages. The paper explains e-resources of Central Library of NIT Silchar and a case study on e-resource management. The authors also explain the usefulness of user awareness program to alert new resources subscribed by the library.

De, Mrityunjoy., Saha, Nimai Chand., Ghosh, Sanjib; Pal, Nirmalendu (2012)[5], paper entitled *"Treasure of Electronic Resource and its Management System at Central Library, IIT, Kharagpur: A Preview"*, attempts to explore the access facilities of e-resource, electronic resource management systems and the present practice followed by the central library, IT, Kharagpur for its successful dissemination among the users to meet their requirements. E-resources are increasing year to year and becoming more popular among user community. As present Electronic Resource Management followed in Central Library is not professional and there are many lacunas. There are very few Library and Information Science Professional in Central Library to manage subscribed e-resources. There is an urgency to clearly define who will manage the subscribed e-resources as because managing e-resources requires expertise working in e-environment and Library Information Science background. So It can be through discussed and be implemented any of the standard ERM method to make system more transparent. It is

suggested that a good ERM system which has ability to manage lifecycle events for e-products, tool to centrally store and maintain contracts, licenses, other raw documents and related procedures and also to Search, retrieve, report across management attributes may be implemented in Central Library, IIT Kharagpur.

Rajput, P S and Gautam, J N (2014)[6], paper entitled "*Users attitude towards electronic resources and services: A survey of Jiwaji University Central library, Gwalior, India*", describes the advantages of electronic resources, UGC-Infonet programme and E-Resources available at Jiwaji University are discussed. Examines the main purpose of the users to visit the library, their awareness about IT based services, identify the most impressive services, and detect the problems encountered by the users and also to find out the satisfaction of the users about the various types of services provided by the central library. Finally highlights the suggestions given by the users for improvement and better utilization of the library services. The study found that the users at JU are insufficiently aware of these e-resources and also that they encounter certain problems while accessing them. Hence some suggestions are given by the authors to improve the use of e-resources.

Baskaran, C (2014)[7], paper entitled *"Information resources access pattern at Alagappa University, Karaikudi, Tamilnadu, India"*, attempted to find out the perceptions and outlook of the university library users with highly response to utilize the facility is available. The study shows that the quality of collection with respect to books, Journals and e-resources. This study reveals that faculty of science respondents secured maximum level due to keen search and obtained information by scientific journals and electronic publications. Baskaran find out that the Yahoo is most popular search engine among the user for browsing the net. Book lending service is the most prefer by the staff.

Mrunal, Barki S; Kishore M Dhumne (2014)[8], in a research paper entitled *"Moving beyond library automation: role of digitization in academic library"* emphasizes computer based information system for acquiring, storing, organizing, searching, distributing and displaying digital materials for end user access; not necessarily network-based but designed and constructed so as to be capable of attaching or being attached to a network. MrunL, Barki; Kishore M

Dhumne also discuss the purpose of Digital Library, Vision of Digital Library, Managing Digital Library, Digital Preservation, Copyright and Licensing.

Chakrabarty, Mahuya (2014)[9,] in a journal paper entitled *"Requisite of digital preservation for shifting of print media to digitalised and the role of library professional to enhance the growth"* explains the essence of digital preservation and the advantages of digital preservation over the same for the paper based media and the techniques used to preserve digital materials in the national library of India. The study includes different measures to solve the problems for digital preservation and the role of library professional to enhance the growth.

3. Objectives of the study

1. To review the models that are been adopted in engineering college libraries for the access of digital resource.
2. To identify the current status and problems of management digital resources in engineering college libraries in Karnataka.
3. To suggest a framework for proper management of digital resources in engineering college libraries in Karnataka.
4. To identify various influencing factors that influences the futuristic plan of accessing DRMI in engineering colleges of Karnataka.
5. To propose a futuristic plan for the management of digital resources of engineering college libraries of Karnatak.

4. Methodology

1. The literature review on digital resource management is learned out by referring to journals, books, conference proceedings and Internet materials to know the existing work done.
2. Engineering colleges are identified and the current status on accessing DRMI was reviewed through survey.
3. A survey method will be followed, questionnaire is designed for data collection.

5. Analysis

1. Presently in most of the engineering colleges was adopted and implemented open source software Dspace, in which digitized materials like books, thesis, journal publications, and question papers are stored for the stake holder's reference.

2. Federated search interface-many of the engineering college libraries provided open access, but most of the materials are only for registered user, that is access is limited within the institution. Some of the libraries maintained access through IP login of remote access management system like EZproxy, while some libraries provide access to subscribed e-journals, e-books, databases through their own initiated digital resource management system. Further to this surveys also indicated that the libraries have OPAC, their own library page, through which the stake holders can access journals and other subscribed resources.

3. Virtual reference service-A digital resource management system allows users for remote access to the library collection. This is a system not only for collection of documents in well organized electronic form, but also a platform for user's communication, online learning.

   In the present engineering library environment, libraries are developing well to meet the maximum requirements of the stakeholders needs by providing reference services through e-mail, online chat, web-based services and various social networking tools, which shows a transition from traditional services to automated service. Readers prefer virtual reference service as it is quick, convenient, and reliable.

6. Obstacles that influence the futuristic plan for accessing DRM

The obstacles faced by the libraries for futuristic plan for accessing DRM system are reasonably similar. There is a clustered survey feedback among the libraries.

1. Administrative support

   Most of the libraries fail to get the maximum support in developing the digital resources. Library professionals need to draft a strategic plan and present to the management. In continuation of this libraries need to arrange a regular user training program to make the users aware about the DRM system and its usability.

2. Need for organizational policies

   An organizational policy for DRM system is very important for engineering libraries for implementation purpose. This policy should also highlight about the digitization of same

materials in libraries by developing these policies libraries should be aware of what kind of library materials it has and what will be added to its collection, who are its stakeholders, on their areas the policy document and guidelines should be developed.

3. Library professionals training

Shortage of technically sound library professionals was seen many colleges. The existing professionals had inadequate knowledge about DRM system. To make the process efficient there should be various levels of training to the library professionals, which should conducted also cover the IT infrastructure aspects.

7. Factors considering for developing DRM system

While considering the factors for developing DRM system, it is required to gather/collect information about the architecture, software required, metadata schemes, its preservation, designing and evaluation, integration in to the existing library system.

The few factors mentioned below are

- Planning
  - Feasibility study
  - Institution need
  - Stakeholders need
  - Short term/Long term planning
  - Phases of work to complete
- Technical issues
  - Software selection, metadata, types of format, storage media, backup and security measures.
- Budget
  - Model cost
- Budget distribution
- Collection development
- Selective collection developments
  - Access provided for subscribed database
  - Copyright/IPR issues
- Manpower
  - Strategic human resource, training for library professional

- ➢ Readers
- • User training- providing e-learning module

8. Suggestions/Recommendation

1. Usage of digital resources in engineering college libraries are not satisfactory as expected. To increase the use of digital resources the necessary infrastructure to be developed in digital libraries in engineering colleges.

2. Development of new DRMI model by the LIS professionals will help to increase the usage of digital resources.

3. Single point access to digital resources, like a portal, institutional repository, blogs, etc. Easy to access digital resource to the users.

4. Develop a model for DRMI awareness program, to attract users to available digital resources in the library.

5. Develop a model for planning and development and training for LIS professionals.

9. Conclusion

The review demonstrates the utilization of e-assets is exceptionally basic among the educators and research researchers of Engineering universities and greater part of the instructors and research researcher are subject to e-assets to get the coveted and important data. Be that as it may, down to earth utilization of e-assets is not up-to the value in contrast with speculations made in getting these assets; furthermore foundation and preparing projects ought to likewise be overhauled according to necessities. It is watched that the accessibility of e-assets on the grounds is practically adequate for all the current trains however the framework to utilize these assets is not sufficient and can impede the capacity to meet the necessities of clients.

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