Digital library a review

Mr. Himalaya
Student, Computer Science & Engineering,
Sharda University, Uttar Pradesh, India.

Ms. Gunjan Aggarwal
SUSET Assistant Professor,
Computer Science & Engineering,
Sharda University Uttar Pradesh, India.

ABSTRACT

A digital library is nothing but the transformation from traditional library. The digital libraries concept come into existence in the 21st century. Virtual library, electronic library, library without walls and digital library are related to each other. In this study, we have to discuss about the definition of digital library, its challenges and issues, objective. Using digital library, access anyone, anytime, and in any form.

Keywords: Digital Library, Issues and Challenges.

INTRODUCTION

Digital means, information in any digitized format and library means, a total mechanism for obtaining access to, storing, organizing and delivering information. So, digital library is the library to collect the information with associated services, where the information is stored in digital format like text, video, audio etc. and accessible over a network.

The right information available to right person at right time is the aim of any modern library. The revolution in the IT sector is influencing the information industry also. It is well recognized that libraries all over the world are undergoing transformation, especially owing to the development in information and communication technologies. Traditional libraries are changing to digital libraries and new libraries that are being set up are increasingly of the digital kind.[7]

Recent years have seen several digital library development initiatives in India. The study reveals that most articles focus on developing digital libraries and digital collections except for a few studies on copyright issues and management of digital libraries. No studies have touched upon issues such as digital rights management, security and digital library policies [4].

OBJECTIVES

1. To review the problems faced by the librarians in new digital Era is the main issue.
2. To identify the major challenges for librarians to work smoothly in cyber environment.
3. To furnish recommendation to overcome the problems and tackle the challenges.
4. To develop and conduct tutorials for users and utilize the facilities and resources made available by the library.

5. To collect, organize digital information and disseminate at the point of care for future use.

6. It will provide cutting edge facilities and services to support research, teaching , learning ,and communication across discipline

This column gives an overview of issues and challenges in digital library research under the following headings:-

1. Digital library architecture, systems, tools and technologies,
2. Digital content and collections,
3. Metadata ,Standards,
4. Building the Resource,
5. Interoperability,
6. Effective Access,

Issues:-

1. Digital library architecture, systems, tools and technologies:

- Open networked architectures for new information environments.
- Audio-visual and multimedia information retrieval systems.
- Content management systems.
- Intelligent systems for indexing, abstracting and information filtering.
- collaborative, visual, 2D and 3D interfaces [10]

2. Digital content and collections:

- One major challenge with regard to metadata is the diversity of digital information formats
- Collection development strategies, policies and management.

- Identifying collections of information which are not accessible or usable because of technical barriers;
- Formulating strategies for sustainable and scalable collections.

3. Metadata And Standards

Issues for metadata researchers include:

DSpace uses Dublin Core set of elements for furnishing metadata and describing items intellectually[8]

- Human and algorithmic approaches to metadata provision;
- choosing from a wider range of metadata formats.
- applying metadata standards across digital collections.
- meta-data harvesting.
- developing metadata extensions for pedagogical.

Some types of standards which have been the focus of research include:

- digital collection development standards.
- archiving and preservation standards.
- metadata formats (e.g. Dublin Core, MARC, IMS).
- cataloguing content and indexing standards.
- electronic publishing standards for books, journals and other media, OAI and Z39.50.[10]

Challenges:-

4. Building the Resource:

- Develop improved technology for digitizing analog materials.
- Design search and retrieval tools that compensate for abbreviated or incomplete cataloging or descriptive information.

DESCRIPTION:- There is a need for more automated support for capturing in explicit data structures the navigational and organizational clues implicit in printed works through page numbers, tables of contents, and indices.

In order to apply scarce resources to the digitization of significant quantities of content, it is often necessary to reduce the level of detail offered in catalogs or indexes.[5]

5. Effective Access:

- Develop approaches that can present heterogeneous resources in a coherent way.
- Provide more efficient and more flexible tools for transforming digital content to suit the needs of end-users.

DESCRIPTION:- In the face of great diversity of content and description, special problems attend to the development of a coherent approach to indexing and presenting retrieval results. It is important that any approach allow all the information available to be used to aid retrieval rather than force the user who wants to search across the entire resource to rely on some lowest common denominator of descriptive information.

A content provider may produce large and small versions of images; compressed and uncompressed versions of images, texts, audio, and video; texts formatted for browser software and also formatted for preservation or publication and materials both in proprietary formats and in public or "open" formats. This burden of plural production and maintenance results from the fact that today many digital objects are hard to transform on the fly.[5]

6. Sustaining the Resource:

- Develop economic models for the support of the National Digital Library.

DESCRIPTION:- The creation and maintenance of digital libraries is very expensive. Costs are incurred for production, for ongoing provision of access, and for preservation of the digital information. The cost to develop and operate a distributed architecture for long-term archiving, migration, and backup of digital materials will be high. Since the resource is distributed among providers, the net cost tends to be disguised. Libraries would benefit from better estimates of costs and trends in cost for production and maintenance of a corpus of digital information.[5]

CONCLUSION

Our main research was focused on helping users to find relevant material more easily. We achieved it by using data mining techniques on historical data and by recommending the services that similar users would choose. A complete system should built to maintain digital library. There is no doubt that the utility of digital libraries as they facilitate live and interactive access to wide variety of content online. But the problems of managing digital library content and its development are manifold. Management of digital library content requires two prolonged strategies: i) to digitize local content; and ii) to devise options for accessing external resources. Generally there is a feeling that publishers copyright most of the contents available in our library, and we are not in a position to provide online access to those contents.

Contents in a digital library are organized and managed for the purpose of immediate access to the target audience. How contents are developed and managed, is a critical issue to the long-term success of digital library services, especially when technical resources are limited. Content management includes the following key functions.

Data mining techniques are used to recommend digital library services based on the user's profile and search history. First, similar users were clustered together, based on their profiles and search behavior.

REFERENCES:-

[1] Innovare journal of education RAKESH KUMAR MISHRA *Received:* 21 May 2016, Revised and Accepted: 26 May 2016.

[2] International Journals of Advanced Research in Computer Science and Software Engineering **Dr. Sarangapani** H.O.D, Library Information & Science, Bharatiar Unimaversity Coimbotore, Tamilnadu, India Οχτοβερ 2017

[3] Anuradha, K.T. 2007. Design and development of institutional repositories: A case study.
The International Information & Library Review 37(3): 169–178.
Arora, J. 2001. Indian National Digital Library of Engineering.

[4] **Khub Ram Yadav International Journal of Advanced Educational Research January 2018,** **www.educationjournal.org**

[5]https://memory.loc.gov/ammem/dli2/html/cbed l.html#IntellectualProperty

[6]https://www.researchgate.net/publication/2206 77039_Using_data_mining_to_improve_digital_li brary_services

[7] G. Mahesh and Rekha Mittal
National Institute of Science Communication and Information Resources, New Delhi, India 2008.

[8]Hanadashisha Warr
Dr. P. Hangsing ssues, Challenges and Trends" held on March 3-4, 2009, at Manipur University,
Canchipur, Imphal, Pages 238-258. Edited by Th. Madhuri Devi and Ch. Ibohal Singh.

[9]Gary Cleveland
UDT Core Programme Universal Dataflow and Telecommunications Core Programme
International Federation of Library Associations and Institutions March, 1998.

[10]Ali Shiri, Senior Researcher at the Centre for Digital Library Research (CDLR), University of Strathclyde, Glasgow, UK July 2003