

Why Digital Library? An Overview

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(Abstracts: The digital library needs a well – defined mechanism to organize store and disseminate the information resources. LIS professional needs to have knowledge about new technological advancement for providing information to users. The paper an overview on Digital Library Concepts, DL Requirements and Resources, Building Digital Collection ,Digitization, and Preservation)..

Key Words: Digiral, Library, Mechanism, Organize

Introduction:-

A Digital library is an automated or electronic library, where activities like accessing, retrieval, are accessed with the help of computer. The users can access information from anywhere, anytime and information can be stored any where across the world.

The unprecedented motion of waves of activities and interests in digital library can generally be attributed to the following factors,

1. Embrace of internet and web technologies as media of information dissemination and retrieval. The internet, particularly www allows rapid access to a wide variety of net worked information resources extending uniform interface to a vast number of multimedia resources. The web, being a hyper media based system, allows linking amongst electronic resources;
2. Availability of highly evolved, extraordinarily simple and intuitive user interface...i.e. internet explorer and Netscape navigator for all prevalent platforms; and
- (3) Development in online technologies enabling storage technologies enabling storage of large amounts of contents at increasingly affordable cost;

The digital library offers significant and unparallel improvement and value edition to library services while providing workable solutions to problems traditionally associated with the management of print based collections in traditional libraries. Improved information retrieval and enhanced document delivery capabilities are widely acclaimed strength of digital libraries.

1. Digital Library Requirements

Internet and World Wide Web provides the impetus and technological for the development and operation of digital library. The internet provides the TCP/IP and its associated protocol for accessing the information and web provide tools and technique for publishing the information over internet.

In the digital environment it is reasonable to say that central back up or archive should be created at the national level. This will store information output of the region as well as information from outside the country,

Some of the requirements for a digital library are;

- 1) Audio visual: T.V, VCR, DVD, sound box Telephone etc.
- 2) Computer -with multimedia
- 3) Network -LAN/WAN/MAN, internet etc
- 4) Printers, Laser, Digital graphic printer etc.
- 5) Scanner, Hp Scan Jet, Flat bed, Sheet feeder, Drum Scanners.
- 6) Micro filming Scanner, Digital Camera, Barcode scanner
- 7) Storage Device: optical storage device, CD Rom Jukebox etc.
- 8) Software Any suitable software, which is interconnected and suitable for LAN and WAN Connection. Eg.. CDSware , D space, E prints, Fedora

2. How to Create a Digital Library

The integration of digital media in to traditional collection will not be straight for word, like previous new media (eg, video and audio tapes).

Because at the unique nature of digital information it is less fixed, easily copied and remotely accessible by multiple users are simultaneously. Some of the more serious issues facing the development of digital libraries are below;

- i) Technical requirements.
- ii) Building digital collection
- iii) Digitization
- iv) Metadata
- v) Naming and identification
- vi) Preservation

i) Technical Requirements:

The technical requirements is that the technical architecture that underlines any digital library system. Libraries will need to enhance and upgrade current technical architecture to accommodate digital materials. The architecture will include components such as;

- * High speed local networks and Broad Band net collection.
- * Relational data bases that support a variety of digital formats.
- * Full text Search engines to index and provide access to resources.
- * A variety of servers, such as web servers and FTP servers.
- * Electronic document management functions that will aid in the overall management of digital resources.

ii). Building Digital Collection

One of the largest issues in creating digital libraries will be building of digital collections. Obviously for any digital library to be viable, it must eventually have a digital collection with the critical mass to make it truly useful there are essentially three methods of building digital collections.

- A) Digitization, converting paper and other media in existing collections to digital form

- B) Acquisition of original digital works -created by publishers and scholars for eg. Electronic book journals and data sets.
- C) Access to external materials not held in house by providing pointers to web sites, other library collections or publishers servers.

iii) Digitization:

Digitization simply it the conversion of any fixed or analogue media such as books and journal articles photos and paintings, micro forms into electronic form through scanning sampling or in fact even keying. An obvious obstacle to digitization is that it is very expensive.

iv) Meta data

Meta data is another issue central to the development of digital libraries. Meta data is the data that Describes the content and attributes of any particular item in a digital library it is a concept familiar to librarians because it is one of the primary things that librarians do they create catalogues that describe documents. Meta data is important in digital libraries because it is the key to resource discovery and use of any document.

iv) Naming and identifiers

The issue is related to metadata It is the problem of naming in a digital library. Names are strings that uniquely identify digital objects and are part of any document metadata. Names are as important in a digital library as an ISBN number is in a traditional library. They are needed to uniquely identify digital objects for purposes such as.

- * Citations
- * Information retrieval
- * To make links among objects
- * And for the purpose of managing copy right

3) Preservation

Preservation is another most important step of preserving digital information. In the preservation of digital materials, the real issue is technical obsolescence; technical obsolescence in the digital age is like the deterioration of paper in the paper age. Libraries in the pre-digital era had to worry about climate control and the de-acidification of books, but the preservation of digital information will mean constantly coming up with new technical solutions.

Digital preservation is in its infancy worldwide and presents some difficult technological issues. Since the creation of digital media, over different Storage mediums have been invented ranging from magnetic tape to CD-Rom. Each of these mediums presents a variety of their own preservation issues and also requires a diverse range of technology which in many cases is no longer manufactured. In addition to this, there are thousands of different formats in which data stored on each medium; and each type of storage formats may also require a specific piece of software to interpret the data's meaning.

There are several stages for preservation has mentioned bellow;

- Technical Preservation (with the original hardware and software on which it depends)
- Refreshing
- Intellectual Preservation: printing of digital materials in to a hard copy. But this approach does not seem not be available solution.
- Data migration: Data is transferred whole sale from on hardware / software configuration to another, without attempting to imitate the original.

When considering the digital materials, there are three types of "Preservation" one can refer to.

- The preservation of the storage medium
- The preservation to access to content
- The preservation of fixed –media material through digital technology.

Conclusion

Libraries around the world have been working on this daunting set of the challenges for several years now. They have created many digital library initiatives and projects and have farmed various national schemes for jointly exploring key issues. With several years of accumulated experience, the initial enthusiasm surrounding the development by sober second thought. Librarians have discovered that, with a few expectations, making a business case for digitization and investments in digital technology is more difficult than first envisioned, especially given the technical constraints that must first be overcome.

As with most other technical developments in libraries over the years, we will have to move forward in small, manageable evolutionary steps, rather than in a rapid revolutionary manner.

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