Digital Library Project: A Case Study of NIT Silchar

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7. Digital Library Project: A Case Study of NIT Silchar

*Kishor Chandra Satpathy

Abstract-

The paper reflects how the Central Library, National Institute of Technology (NIT) Silchar has been changing its direction from the traditional library to electronic library and now again it is moving towards digital library. The paper gives a brief introduction about digital library & also highlights about the NIT Silchar digital project, it’s objectives, methodology adopted for the implementation of the project & outcome of the project.

1. Introduction

The concept of library is changing from ‘library within wall’ to ‘library without wall’, i.e. “Digital Library”. Digital library could be referred to as computerized network system where all the information is stored in electronic format, which can be accessed and transmitted through network enabling retrieval of desired information by large number users. Users will normally access the information they desire using a web browser from any terminal computer at their place of work.

Digital libraries can immediately adopt innovations in technology providing users with improvements in electronic and audio book technology as well as presenting new forms of communication. Digital Library has the following advantages:

- No physical boundary
- Multiple accesses
- Easy information retrieval
- Takes less space
- Low cost
- Round the clock availability
- Structured approach
- Preservation and conservation
- Easy for networking

2. NIT Silchar & Its Library

The National Institute of Technology Silchar is one of the premier national level institutions for technical education in North East India. Government of India as a joint venture with Government of Assam established Regional Engineering College, Silchar in 1967 with the objective of imparting quality-engineering education, providing cosmopolitan outlook among students and development of National Integrity. Government of India in a move to upgrade the institute has taken-over the institute and has named it National Institute of Technology with a Deemed University status in June 2002. It offers 5 UG courses, 6 PG courses & PhD programmes. The institute has a very good infrastructure and posses one of the most advanced computing environments present in this part of the country. The Mission of the Institute is “To develop the institute into the systematic leader and pivot for excellence in technical education sector and catalyzing absorption, innovation, diffusion and transfer of high technology for improved productivity, quality of life and improved empowerment there by effecting regional growth”. The Institute is situated in a land of undulating ground and lakes covering an area of about 540 acres surrounded by tea estates hillocks providing an ideal environment for students to pursue their studies in an atmosphere congenial to their body and mind.

The Central Library is located in an easily accessible and in a central position in the campus in a separate building. It is managed by well qualified professionals, is equipped with a collection of about 60,427 books, 1883 CD ROMs, 1009 video cassettes, 8621 ISI Codes (printed), 338 Technical Reports and a
good number of back volume journals. It also subscribes to 156 national and foreign journals. It is having CD-Rom database on BIS, ASTM etc. The Central Library is subscribing to all major international on-line journals through MHRD, Govt. of India INDEST Consortium. The library is kept open from 6 AM to 10 PM on all weekdays.

In recent years the library’s main focus has shifted from print to e-resources. Therefore the library is subscribing to the following resources for the resources:

ACM Digital Library
ASCE Journals
ASME Journals
IEL Online
Indian Standards
Proquest Science
Nature
Springer Verlag
Science@direct
J-Gate
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Figure Library Homepage

The vision & objectives of the library are:

- To automate & modernize the Library & Information Service at NIT.
- To support organization to impart quality Education in the field of Engineering & to facilitate technology transfer in North Eastern region.
3. Digital Initiatives at NIT, Silchar

Digital Libraries are the most complex and advanced form of information system that support multimedia data file for use of the users across the globe. Keeping in view the importance of the fact, the NIT Silchar Library has initiated a Digital Library project with the funding from MHRD. The ongoing digital library project is the first digital library project to be set up by an academic institution in the state of Assam is in fact the first Digital Library in the North East. It involves activities like distributed data base management, hypertext, information filtering, developing fast information retrieval tools and multimedia educational technology resource development, collection and dissemination. It will also help in preserving the cultural heritage & documents of the North East.

4. Objectives of the Project

The objectives of the project are:
- To develop a digital library that collects information across the globe through internet for effective dissemination of the same in the North Eastern Region.
- To provide latest research information, electronically to various users in the area.
- To develop inter-institute links within the country to facilitate effective exchange of information resources.
- To integrate with other digital libraries that are set up in various parts of India and abroad to minimize the recurring cost of journals and other conventional print media.
- To set up North Eastern Library & Information Network (NELIBNET).
- To preserve the cultural heritage & documents of the North East.
- To develop a training centre in the NE Region for digital library.

5. Methodology

A Digital Library server and network which will enable the users to access the information available in the digital format which has been developed by subscribing to the journals and articles available at NIT Silchar as well as downloading the free web resources available at various locations across the globe and archiving it in CD ROMs or WORM devices using a CD writer & classifying them & making them in the campus LAN.

The Digital Library of NIT Silchar consists of the following:
In order to implement the Project, the Library has installed the Techfocuz Digital Library. The Techfocuz Digital Library is a CD/DVD server, which can serve from 500 CD images to unlimited number of images based on the storage and Network capability. The Product is highly scalable, reliable and stable. The Digital contents are shared over a network to any number of clients with around 255 users simultaneously accessing a single share, whether it is an Internet or intranet environment.

Techfocuz Digital Library 3.02 is different from a regular file server because, while a regular file server might contain the contents of a number of CD-ROMs/DVD ROMs, the Techfocuz CD/DVD Server contains ISO 9660, UDF, VCD, DVD, AudioCd, Multi-session CD, Bootable CDs, Software CDs, and Magazine CD image of the CD-ROMs. It serves both the images and the contents of the images efficiently (on a file-by-file basis) at the same time. Additionally, the original CD-ROM /DVD -ROM disks can be stored away where they won’t get lost.

6. Features of NIT Silchar Digital Library

CD/Mirror Server Applications

Techfocuz Digital Library 3.02 is based on 3 tier Architecture and designed to access UDF CD, VCD CD, Multi-session CD, Magazine CD, software CD and DVDs.

Network Storage Solution

Techfocuz Digital Library 3.02 is not only meant for CD/DVD Mirror Applications but also very effective for Network Storage Solution which will facilitate through Archive facility.

Archiving Facility

This facility provides Backups of network data. For eg: Electronic documents of Seminar and Project reports of students from various departments.

Searching Facility

Keyword search facility for multimedia and interactive CDs / DVDs. Content search facility for industry standard document formats like PDF, Doc, HTML and Text.

Digital Photo Library

It has a module with the following features
- Add/Edit/Delete/rearrange photos
- Album Creation and its management
- View- Properties of Album, Photos
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Add -Comments
Slide Show

Client Side Access

The Clients can access the digital library using any standard web browser interface. By authenticating with the client interface, user can access CD/DVD information available in allotted categories/subcategories. Other facilities in client side include reports, keyword search based on metadata provided and google like instant search, Archiving and Photo gallery facility.

7. Out Come of the Project

After successful completion of the project, NIT Silchar Library will be able to supplement teaching and learning processes, assist R & D and consultancy activities at the Institute in bigger way. The implementation of the project will:

- Increase library user satisfaction
- Provide information in shortest possible time
- Provide accurate and pointed information
- Save time of information search
- Provide information at user’s desk
- Overcome housing problem of library resources
- Reduce time gap between publication of information and its access

8. Conclusion

Digital library techniques can be applied profoundly across all kind of institutions. By installing the digital library, librarian can enhance more access of digital library collection, which can help them in keep abreast the latest development of their pertinent field and success in competitive world. This facility is also useful to the student for gathering the information related to their academic curriculums and general knowledge.

Digital Libraries are redefining the role of libraries in society & the role of librarians & information specialists. A national level mechanism is essential to promote and coordinate open access and public domain digital library systems. The indigenous local contents need to be digitized & preserved.

9. References

[5] www.nalanda.nitc.ac.in
[6] www.nits.ac.in