Digital Library of Theses and Dessertations

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Abstract

Building of Digital Library largely depends on the nature of content and quality of digital resources. The digital library resources include electronic journals, electronic books, full-text CD-ROM databases, etc. In research and academic institutions, theses, dissertations and research reports play a vital role as primary sources of information since they contain information of research value. Therefore, most of the research scholars refer to these documents regularly. To ensure easy and wider access to these documents, a digital library of theses and dissertations has been established in Tamilnadu Veterinary and Animal Sciences University and connected with the Intranet of the university. The digital library provides access to the constituent units of the university including remote colleges. This paper discusses in brief about the establishment of the digital library of theses and dissertations.

Keywords : Networked Digital Information Service, Digital Library, Digitization, Theses, Dissertations

0.   Introduction

The concept of digital library is outcome of the popular use of information technology. It is a library without walls which provides digital information environment in which all the information resources are available and performed through the use of digital technology. It is not merely equivalent to a digitized collection with information management tools but an environment to bring together collection, services and the people in support of the full life cycle of creation, dissemination, use and preservation of data and information. The physical feature of digital libraries do not reside in a specific building. Since the scope is widespread and unlimited, the user can have access to any part of the collection and the information can be made available on user's desktop. The digital library system consists of resources of both text-based and non-text information such as photographs, drawings, illustrations, works of art, numeric data, digitized sound, and moving visual images. A digital library if networked with other library networks such as Local Area Network, Metropolitan Area Network or Wide Area Network and World Wide Web can be accessed world over by any one or anywhere.

1.   Defination

There are a number of definitions available for digital library. A 'digital library" may be "remote access from any point in the work at library content and services, combining bibliographic news, electronic texts, image banks and all kinds of information by means of a computer network. The digital library can be called as a 'wall free' electronic workstation to access universal knowledge irrespective of distant location of information.

2.   Characteristics of a Digital Library

The following are some of the major characteristics of a digital library.

- ✍ Accessibility to network
- ✍ Compatibility to handle large amount of information
- ✍ Speedy
- ✍ Searching and retrieval
- ✍ User-friendly interface
- ✍ Compatibility to multimedia

2.1 Prerequisites

The following are some of the important prerequisites for establishing a digital library:

- ✍ High speed computer
- ✍ Multimedia kit
- ✍ Fast Scanner
- ✍ Server segments
- ✍ Printer
- ✍ LAN connectivity
- ✍ Internet connectivity
- ✍ Trained library staff

3. Establishment of Digital Library of Theses and Dessertations

3.1 Building Resources

The basic requirement in creating a digital library will be the building the digital library resources. The digital library resources include various resources such as electronic journal, books, full-text CD-ROM databases, theses and dissertations, etc. Theses and dissertations are playing a vital role as reference sources in academic and research institutes.

Since the Tamilnadu Veterinary and Animal Sciences University is engaged in education, research and extension activities in the fields of veterinary and animal sciences, the theses and dissertations are playing an important role in reference service. It is also observed that a large number of external users also consult these documents frequently. Considering the improved use of these documents by a large number of users, it has been decided to digitize the theses and dissertations.

In the theses and dissertations, the abstract portion is very important since it profiles the brief picture of the whole research work. So, the research scholars always show interest to refer to the abstract part of the theses/dissertation. So, in view of providing the needed materials in digital format and to complete the digitization task with the limited available financial resources, it has been decided to digitize the abstract part of all the theses and dissertations. The theses/dissertations which have been awarded for quality research work have been selected for full-text digitization.

3.2   Digitization

The primary method of building a digital collection is digitization. It is the process of converting analogue information to a digital format. All the 114 awarded Ph.D. theses have been fully scanned using scanners. Abstract part of the remaining theses and dissertations have also been scanned. All the scanned documents have been subjected for proof reading by spell check facility available in MS-Office package and final proof reading manually.

3.3   Designing of the Database

Theses and dissertations will have a number of access points viz., title, author, subject, chairman, etc. It is necessary to provide a searchable database of theses with the required access points to ensure fast and accurate retrieval of required information. Therefore, a database with the following ten access points has been designed using MS-Access.

- ✍   Title
- ✍   Author
- ✍   College
- ✍   Degree
- ✍   Thesis No.
- ✍   Department
- ✍   Chairman
- ✍   Year
- ✍   Keyword

3.4   Designing of the Interface

To ensure easy retrieval of the information, it is necessary to provide a user-friendly interface. In this case, the theses and dissertations have been digitized and a database with all required access points has also been developed. The library user will need an interface to use the digital contents. Therefore, a search screen has been designed using VB-Script so as to search the database using all the available fields.

A PIV multimedia computer with 40 GB HDD is used as the library server to deliver digital contents to the users. The digital library of theses and dissertations has been hosted in the server. The online public access terminals of the library have been connected to the digital library server so as to access the digital library through the OPAC terminals.

3.5   Digital library services through Intranet

The academic departments and research units of the university are functioning in various parts of Tamilnadu viz., Chennai, Madhavaram, Namakkal and Tuticorin. The Namakkal campus and Tuticorin campus are around 400 kilometers and 600 kilometers away from the main library, respectively. Since the research scholars and academicians from those campuses also need these information, it has been decided to extend the digital library facilities for them.

Therefore, the library server has been connected to the Intranet of the university which connects all the academic departments, constituent colleges and research units. With this facility, the research scholars, academicians and students of the university who are in remote areas such as Namakkal and Tuticorin also access the theses and dissertations from their desktops without visiting the library.

3.6   Advantages of the Digital Library

The digital library of theses and dissertations offer several advantages for the library users and few of them are furnished below:

✍   Fast, accurate and timely access

✍   More material can be included (in terms of quantity and type)

✍   Full-text searching facility

✍   Economical

✍   Wider access

✍   Paper-less information retrieval

✍   User-friendly

✍   Resource sharing

3.7   Hardware and Software

The following hardware and software were used for the digitization of the documents.

Hardware :

✍   PIV Computer

✍   HP Scanjet Scanner

✍   CD Writer

✍   Re-writable CDs

✍   Printer

Software :

✍   Digit

✍   MS-Office

✍   Internet Explorer 5.0

3.8   Cost-effective way to establish digital library of Theses and Dissertations

Nowadays, most of the research scholars are preparing their theses/ dissertations by using computers. It is needless to say that they will have a soft copy of the document with them. So, for future use, the academic institutions may insist the research scholars to submit a soft copy of the theses in the form of a CD along with the print theses. This will help the libraries to a great extent to avoid expenses on digitization of the documents.

4.   Conclusion

The digital library of theses and dissertations established in our library has been well received by the library users. The number of persons using the digital library is increasing tremendously. Now, we have insisted the submission of a soft copy of the theses/dissertations to the library while submitting the thesis to the university. This helps us to avoid cost of digitization. Now, we are planning to digitize the annual reports and other publications of the university. It is important to note that the emergence of digital library technologies offers new opportunities to librarians. The digital library accelerates the information capabilities, accessibility and utilization. Libraries have benefited from the increased access to resources, the opportunities for communication and the facilitation of new services that were not possible in pre-digital era. While problems and challenges still exist, it is the need of the hour for any academic library to establish digital library at least with their own resources to ensure better access.

5.   References

1.   Commings, K. (1997). Libraries of the future. Computers in Libraries, September-1: 136-139.

2.   Hulser, R.P. (1997). Digital Library: Content preservation in a digital world. DESIDOC Bulletin of Informtion Technology 17 (7): (1997). 7-14.

3.   Shetty, S.C. and Ramaraj, R. (2000). Role of Digital Libraries in Medical Education. University News 38 (37): 36–39.

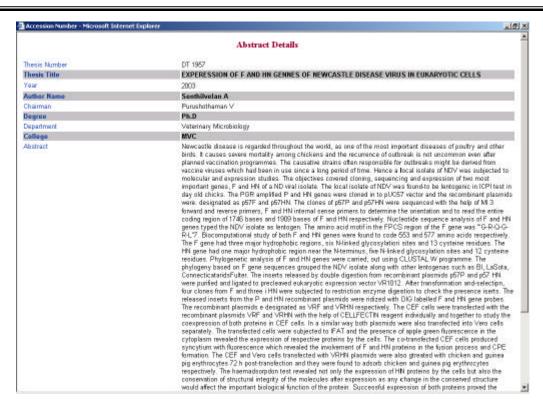**Screen Shots**

Fig. 1. First page of the Library OPAC

Fig. 2. Abstract of the Selected Theses

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