ISSN: 2456-9348
Impact Factor: 5.004

iJETRM
International Journal of Engineering Technology Research & Management

SHARING MODEL OF NETWORKING & RESOURCE FOR LIBRARIES

Parvathi V
Document Officer
psarvathisait87@gmail.com
Sambhram Institute of Technology, Bangalore, Karnataka

Dr. Adhinarayanan K
University Librarían
Vellore Institute of Technology, Vellore, Tamilnadu
adhikovai@gmail.com

ABSTRACT
A network typically consists of a structured arrangement whereby all potential users have access to materials, information, and services provided by a variety of libraries and other organizations. Libraries may be in separate jurisdictions, but as each serves its own residents, they agree to represent each other on the same basis. Amongthe methods used to promote contact between them may be computers and telecommunications. There are a range of very expensive commercial applications on the market and small/medium sized libraries cannot afford them. commercial software in the market which is very costly and small / medium sized libraries cannot afford them. However, a range of free software is also available nowadays, some are open-source software such as KOHA, which is a full library automation and networking program. National Informatics Centre has also developed a library automation programknown as e-Granthalaya which is provided to libraries in India at zero cost. The program is beneficial for automating in house processes in a library as well as user facilities

Keywords:
Koha, Computer Open Source, Networking, Sharing of Resources

iJETRM
International Journal of Engineering Technology Research & Management

1.1 INTRODUCTION:

we are now living in the 21st century and the new century is called the era of ICT. In the ICT age, ICT instruments are used in day to day operations, such as, e-buying, e-selling, e-prayers, e-friendship with the aid of ICT resources. Similarly, libraries now use numerous modern ICT resources to provide users with quality, instant library services. The library users do not need to come to the library now for a day, but the library will come to the desktop of the user with the aid of modern IT resources, software and hardware.

1.2 PROPOSED MODEL OF LIBRARY NETWORK

The proposed Visvesvaraya Technological University (**VTULIBNET)**affiliated library network for Engineeringcollege libraries**.** All participants have different resources here and are spread in various places that they can share across distributed network with each other. The following image explains the distributed network structure as it occurred in many other library networks.

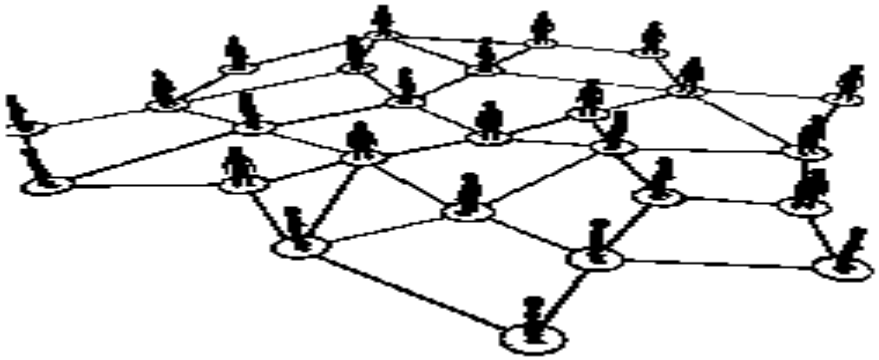

Figure 1.1: Model of Library Networking

1.3 PROVISION OF FINANCE:

Necessary funds have to be given by organizations or funding agencies for the procurement of hardware, software, furniture, etc. for networking and resource sharing while planning for library Networking and Resource Sharing. It should be noted that if adequate funds are not available for the purchase of the entire program, then step-by-step networking should be established by the library only in which networking and resource sharing is of utmost importance.

1.4 STRUCTURE OF ORGANIZATIONAL

iJETRM
International Journal of Engineering Technology Research & Management

This model was established for cooperation between the libraries of engineering college affiliated with VTU, Belgum. In eight districts of Western and North Karnataka, the VTU authority was distributed. Using cloud-based server system, the server system, the service that the model wants to share are acquired in a single database as well as on a single platform. The following mechanism for its control and governance is to run this model smoothly and consistently.

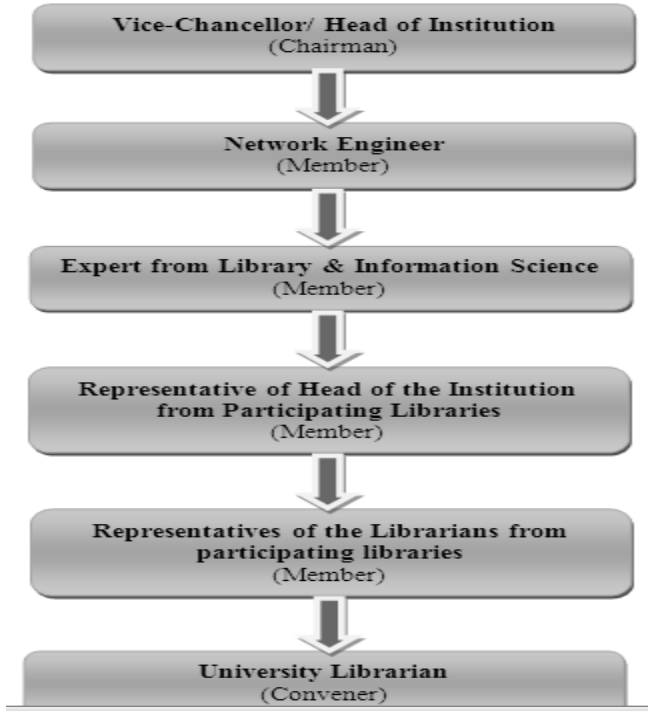

Figure 1.2: VTULIBNET's Organizational Structure

4.4.1 Name of the Colleges

ISSN: 2456-9348
Impact Factor: 5.004

iJETRM
International Journal of Engineering Technology Research & Management

TABLE NO- 1.1 List of the Colleges under VTULIBNET

Sl.NO	NAME OF THE LIBRARY	PLACE
1	B.M.S. College of Engineering	Bangalore
2	Dr.Ambedkar Institute of Technology	Bangalore
3	Dayananda Sagar College of Engineering	Bangalore
4	K.L.S. Gogte Institute of Technology	Belgaum
5	M.S. Ramaiah Institute of Technology	Bangalore
6	Malnad College of Engineering	Hassan
7	N.M.A.M. Institute of Technology	Bangalore
8	Nagarjuna College of Engineering and Technology	Bangalore
9	National Institute of Engineering	Mysore
10	Nitte Meenakshi Institute of Technology	Bangalore
11	PES College of Engineering	Mandya
12	R.V. College of Engineering,	Bangalore
13	RV Institute of Technology and Management	Bangalore
14	Siddaganga Institute of Technology	Tumkur
15	Sri Siddhartha Institute of Technology	Tumkur
16	Bangalore Institute of Technology	Bangalore
17	Bangalore Institute of Technology	Bangalore
18	Dayananda Sagar Academy of Technology and Management	Bangalore
19	Sir M. Viveswaraya Institute of Technology	Bangalore

iJETRM
International Journal of Engineering Technology Research & Management

20	J.S.S. Academy of Technical Education	Bangalore
21	B.M.S. Institute of Technology	Bangalore
22	C.M.R. Institute of Technology	Bangalore
23	Acharya Institute of Technology	Bangalore
24	New Horizon College of Engineering	Bangalore
25	M.V. Jayaram College of Engineering	Bangalore
26	SJB Institute of Technology	Bangalore
27	R.N.S. Institute of Technology	Bangalore
28	Sri Sairam College of Engineering	Bangalore
29	Sri Venkateshwara College of Engineering	Bangalore
30	The Oxford College of Engineering	Bangalore
31	Vivekananda Institute of Technology	Bangalore
32	B.T.L. Institute of Technology and Management	Bangalore
33	Sri Revana Siddeshwara Institute of Technology	Bangalore
34	B.N.M. Institute of Technology	Bangalore
35	Sapthagiri College of Engineering	Bangalore
36	Sai Vidya Institute of Technology	Bangalore
37	Reva Institute of Technology and Management	Bangalore
38	City Engineering College	Bangalore
39	Kammavari Sangha Institute of Technology	Bangalore
40	HKBK College of Engineering	Bangalore

ISSN: 2456-9348
Impact Factor: 5.004

iJETRM
International Journal of Engineering Technology Research & Management

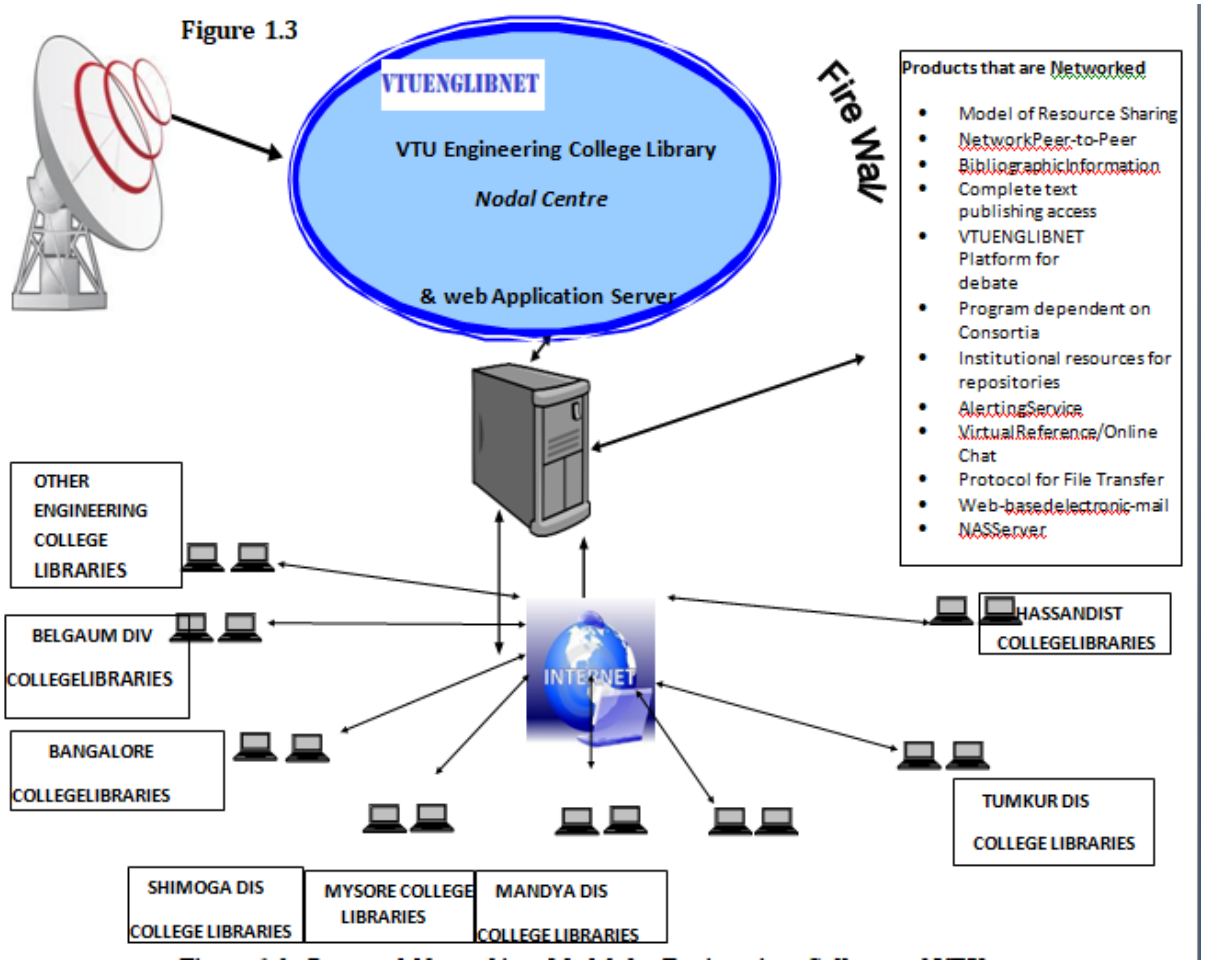

Figure 1.3: Proposed Networking Model for Engineering Colleges of VTU, Karnataka

iJETRM
International Journal of Engineering Technology Research & Management

V

1.5 AREAS OF EXCHANGING WEALTH / RESOURCE SHARING

It is possible to share the library materials/resources via library request on the networking and resource sharing of engineering college libraries. Data services provide users with the following information

1.5.1 Materials for Library

Books, Manuscripts, Bound Volumes/Current Periodicals, Theses/Dissertations, Institutional Repository, university/College papers, Audio /Video materials are included in library materials

- **Books:**

The books (Original or Photocopy) can only be published for Two Months, for fifteen days if further institute re-issue are needed.

- **Journals/Magazines**

Journals/Magazines or reviews in journals are only accessible on request. A journal article is downloaded or scanned via email to the appropriate user and librarian. After paying nominal fees under the scanning and postal fees, one user can get research paper free of cost.

- **Theses/ Dissertations:**

Theses/Dissertations/Projects are accessible only on a submission. A scanned theses/dissertation/projects are submitted by mail to the user and librarian concerned. And you can get minimum theses/dissertation pages' form one person

1.5.2 Acquisition of Library Products

For participatory libraries such as AGRICAT, INDCAT, the centralized bibliographic database needs to be created. Copy cataloging via the browsing standard Z39.50 was used in the acquisition libraries.

Follow the following guidelines for the unified acquisition libraries.

- **Duplication:**

At the time of buying process, all libraries prevent the replication of records.

iJETRM
International Journal of Engineering Technology Research & Management

❖ **Subject/Areas Specification**

The libraries will agree to purchase the books on Computer Science, Mechanical Engineering, Information Science Engineering, Civil Engineering etc. in the creation of the collection on the basis of subject areas such as one library, the second library will purchase the books on Electrical & Electronics Engineering, General Engineering & Technology, Chemical Engineering and Automotive Engineering etc.

❖ **Security/Defense**

Students/College employees can pay 1600/- on a returnable basis at the time of enrollment under the head of library deposit fee.

1.5.3 Library Devices Appliances':

Libraries can exchange restricted materials at the time of training/workshop/seminar, such as L.C.D projector, computers, audio visual equipment, etc., otherwise equipment would not be exchanged.

1.6 BODYGOVERNING

1	Head of College/Institute Head/Principal	Chairman
2	The Network Administrator	Member
3	Departments Head	Member
4	Users/Students Representative	Member
5	Librarian	The Convener

1.7 REQUIREMENT OF HARDWARE & SOFTWARE

At least some of the following hardware must be in each of the member libraries. The main library (Central Host) can, however, require most of the below mentioned hardware, but with extra disk space. Hardware requirements are given below

1. One Computer/Server
2. The Printer One
3. Scanner One
4. The Method of Service
5. Network for telecommunications, mobile, Internet, LAN, WAN, Switches, etc.
6. Tools for Web Based Library

1.7.1 Software from KOHA Open Source

iJETRM
International Journal of Engineering Technology Research & Management

Koha is an Integrated Library Framework with full features (ILS). The license has no cost; you have the right to change the product to fit it to your specifications, etc. KOHA was initially established by Katipo Communications with the Horowhenua Library Trust in New Zealand. A dedicated team of software vendors and library infrastructure professionals from around the globe is currently running it. That the consumer becomes the "joint owner" of the product by implementing it. In particular, new versions can be openly installed or not by the customer and can take part in new technologies by funding them or carrying them out themselves.

1.7.1.1 Why KOHA

❖ **Cost-effective:**

Users of open-source applications may also install the product using in-house resources by Paying licensing fees for proprietary solutions. They pay only for required help or any additional vendor services they need.

❖ **Innovation:**

Code is open, consumers are free to innovate and upgrade the software to suit their needs. free innovation also ensures that opposed to proprietary software, open source software has much shorter development times.

Why KOHA

❖ **Cost-effective:**

Paying licensing fees for proprietary solutions, users of open-source software can often deploy the product using in-house resources. They pay only for needed support or any additional vendor services they require.

❖ **Innovation:**

Code is open, users are free to innovate and improve the software to meet their needs free innovation also means that open-source software has much faster development cycles when compared to proprietary software.

❖ **Software for Free/open source**

KOHA is an economical alternative to relying on software supplied commercially. This implies a lower cost than commercial software for production, licensing, updating, maintenance, etc. like commercial apps, KOHA does not need the original cost.

❖ **Free/Open source:** The open source program is KOHA.

1.7.1.2Platform for Technology

- Linux operating system: Ubuntu/Linux
- Open source system for library management: KOHA
- Database: MySQL Ver. 14.14.14.14
- Programming Language: Perl
- Version of Server: Apache/2.2.17

iJETRM
International Journal of Engineering Technology Research & Management

- Engine Search: Zebra (http://koha.org)

1.7.1.3MARC tag has been used to describe the respective record

TABLE NO-5.2 MARC TAG

Tag Name	Description
082$a	The Call Number
100$a	Name of a Personal Author
245$a	Book Title
250$a	Declaration of Version
260$a	Publishing Location
260$b	Publisher's Name
260$c	Release Date
850$c	Holding Establishment
942$c	Number of Products
952$a	Home Subsidiary
952$b	Branch Holding
952$p	Accession Number
952$0	Available
952$c	Location for Shelving
952$g	The Price

1.7.1.4Configuring Server

- Intel (R) Core(TM) i5- 4210U Dual Core(TM)
- 1.7 Ghz, 3M3540.
- 4 GB of DDR3
- 05 TB SATA HDD Hard Disk or Beyond
- DVD Writer/Optical Disk
- Mother Board of OEM
- Keyboard
- Mouse

1.7.1.5Configuration of Client

iJETRM
International Journal of Engineering Technology Research & Management

- Fourth Generation Intel Core i3
- At 1333 MHz, 2.33 GHz
- 4 GB of DDR-II RAM
- 1 TB HDD
- Keyboard
- Optical Mouse

1.7.1.6 Hardware Supporting

- Printer
- Scanner
- Telephone
- Fax
- Modem
- Switches
- Firewall
- External Hard Disk
- A.C
- UPS

1.7.1.7 SoftwareSupporting

- IR/DL Applications
- Windows 98 Operating System or the new edition,
- LAN/WAN
- VoIP
- Internet Explorer
- Language of Programming (Java/Perl etc.)

1.8 TRAINING OF STAFF

Institute or VTULIBNET governing body organize the training for the staff

1.9 LOCAL AREA NETWORKING (LAN)

Students, staff & scholars can install Local Area Networking (LAN) within the campus to search for resources.

iJETRM
International Journal of Engineering Technology Research & Management

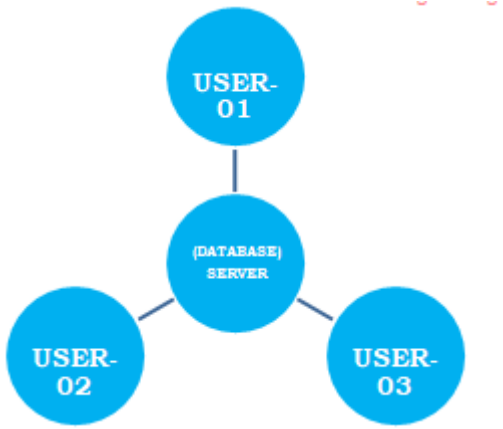

Figure 1.4: Local Area Networking/Institutional Networking

CONCLUSIONS:

We are now living in 21st century and the new is called the era of ICT. In the ICT age, ICTinstruments are used in day-to-day operations, such as e-buying, e-selling, e-prayers, e-friendship with the aid of ICT resources. Similarly, libraries now use numerous modern ICT resource to provide users with quality, instant library services. The library users do not need to come to the library now for a day, but the library will come to the desktop of the user with the aid of modern IT resources, software& hardware. libraries should need a library network for this reason.

REFERENCES:

1. Golwal,M.D. Sonwane,S.S and Kalbande,D.T. (2012). Lis Professionals and Facebook Role: Knowledge Platform for Social Networking. *Barzillian Journal of the Science of knowledge*, Vol. 6 No 1. From Pp. 79-92.

2. On 05/09/2014: http://serc.carleton.edu/introgeo/whatisamodel.html accessed

iJETRM
International Journal of Engineering Technology Research & Management

3. On 10/01/2015http://www.koha.org/ accessed.

4. About Kalbande, D.T. (2012) India's Institutional Repositories: An Overview. *Online International journal of Interdisciplinary Science.* No.4. Vol.2 Pp.194 to 203.

5. Chavan,S.P., Kalbande,D.T., and Golwal,M.D. (2012). Usage ofDatabaseson CD ROM: A Case Study. *International Library and Information Studies journal*, Vol. 2 No 3.Pp. Uh. 55-62.

6. Prabhu,R (2011).College Library Networking Associated with Bharathidasan University: A Review. Written dessertations. 167-189, Page.

7. Preeti, Mahajan, (2005), Academic libraries in India, Library Theory and Practice: A Present Day Scenario,*Vol. 8 (1)*11-3.

8. Ghumre Shivshankar, Veer,D.K. and Kalbande,D.T.,(2013). College Library Budgets spending in the Marathwada Region: A case Analysis of the *Digital Library Services International Journal,* Vol.3 Issue. From 1:23-32p.

9. Shinde,P.A. Kalbande,D.T.,and Ingle,R.N. (2013) Faculty Members'Use of E-Resources:A Case Study. *Library and Information ScienceInternational Research Journal.*No.3. Vol.3. From Pp.459-469.