# Design and Development of Library Web Site: A Case Study

M. Kumaran\* and M. C. Subangi

Librarian, Builders Engineering College, Kangayam, Tirupur – 638 108, Tamil Nadu, India Asst.Librarian, AEC&RI (TNAU), Kumulur, Trichy – 621712, Tamil Nadu, India

#### **Abstract**

Prospect and demands of the Library users from LIS professionals have been transformed. ICT is the advantage of 21st century in all pasture. At present, the users are inclination for e-resources and library without wall with 24x7x365 way in access. Altering mindset of users and the form of documents and requirements is very important for LIS professionals to change their self and their library services also. Consequently, it is the demand of the digital era to have a library website to provide best services accordingly to its local and remote users and it can be also used as a promotion tool to promote the library usage. Designing website with proprietary/commercial software is not a simple task due to the towering cost. Purpose of this paper is to make LIS professionals aware the development of website with the help of freely available tools and software so that the majority of library may perhaps be benefited which are already facing the financial crisis and authors also tried to make understand how library website can be utilize as promotion tool with ease.

Keywords: Library Website, Design, Web Design Tools, Computer Programming Languages

# 1. Introduction

Web site is an important tool commonly used by most of the developed institutions in order to create awareness about the institution and to disseminate information to its users. All web sites compete with each other in design and also on cost factor. The way of presenting information is very important in the sites. User friendliness and accessibility is another important aspect.

Instead of hunting the web for information, a person identifies himself to the web site, and the site brings all relevant information to the person. The role of a library web site is to put a consistent "face" to this information so that visitors don't have to deal with dozens of different web interfaces to get their information.

The College might also contain various educational resources like e-books, e-journals, theses and dissertations, lecture notes, old question papers, and other digital collections. But due to ignorance or financial reasons only limited resources are being used. By creating a web portal and uploading these resources in a server we can be able

to increase the usage to the maximum level. Users of the web portals, can save their time and cost by locating the required information from the vast collection of resources available in the internet.

University provides the resources like exam results, syllabus, course details, norms and regulations for affiliated college, admission procedure for different course, facilities available in the universities etc. Apart from these resources some important e-resources can be uploaded to the web portal, and can be shared with the colleges.

An attempt has been made to explore the various resources of a College through a digital interface that is library web site. A web site has been designed and developed for the College Library.

# 2. Objectives of Study

 To design a web page at the college Library for storing, organizing and disseminating information related to education for its students and group of institutes.

<sup>\*</sup>Author for correspondence

- To design a college Library gateway to provide online information available in the college.
- To provide unbiased, trustworthy, credible, researchbased information to help the students and faculty members of the institute and make them more informed.
- To provide information resources usable for the whole student community.
- To provide information to the students and faculties about academic activities and other existing resources.
- To provide a comprehensive database containing information about various courses, and other educational applications.
- To save the valuable time of users and increase their use of Library services offered by the college.

# 3. Methodology

The literature on web page (library) has been studied and reviewed which facilitates in disseminating the e-resources and services for students and faculty, members of the college and its group of institutes. A web site has been developed using MS Front page, HTML and JAVA Script. This web site has a number of options for the users to retrieve the available e-resources. Users can view the resources available in the Web site through internet access and Intranet access.

#### 3.1 Web Site

A web site is a site on the World Wide Web that typically provides personalized capabilities to its visitors, providing a pathway to other content. It is designed to use distributed applications, different numbers and types of middleware and hardware to provide services from a number of different sources. In addition, web sites are designed to share resources in-between a group of individuals or institutions.

#### 3.2 Case Study

Case study can be described as a case history of an event or series of events set in an organisational framework with or without a related environment. The events are described in some detail with the main and subsidiary points highlighted. Actions taken by subjects in the case are described; reactions, responses and effects on other subjects are related, and events taken to a conclusion or to a point that is irreversible.

The Oxford College of Engineering has been taken for this study. The Oxford College of Engineering was established in the year 2000. The Oxford College of Engineering is one of the most prestigious institutions in Bangalore that provides quality training in professional education in various streams of engineering, post graduation programme in Computer Application (M.C.A) and post graduation programme in Business Administration (M.B.A).

With a vision to be a respected and brought after group of educational institutions, we are very much engaged in equipping individuals to be capable of building learning organization in the new millennium.

# 4. Home Page of College Library Intranet Web Sites

Home page is like content page of a book which shows the list of chapter's available inside. It provides a neatly arranged list of important links. The design should be simple in nature so that the users can identify the proper resources without any time delay.

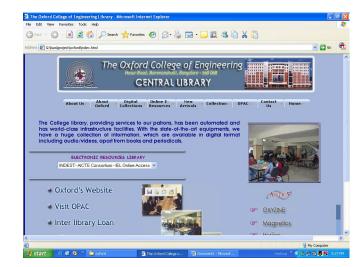


Figure 1. Home page of College Library Intranet Web Site.

This home page has been designed header/title on the top of the page. It has Institution name and address with logo on one side and college building on the other side. Below the header image menu bar has been provided with the following option:

About Us
About Oxford
Digital Collection
Online E-Resources
New Arrivals
Collection
OPAC
Contact Us
Home

Apart from the above options there is 'Electronic Resource Library' link and other college relative link has been given. They are

- Oxford Website
- Visit OPAC
- Inter Library Loan
- VTU Web Site
- **Upcoming Conferences**
- Library User Guide

Links for details on college activities are provided on the right side corner, such as Oxyzine, Magnetics, Horijon and Manojavam

#### 4.1 About Us

This menu options 'About Us' (Figure 2) links to about Library and highlights the infrastructure and collection. The other drop down menu option is as follows:

- **About Library**
- Our Vision
- Library Rules and Regulations
- Library Services
- Collection
- **Working Hours**
- Staff
- Contact Us
- FAQ



Figure 2. About us.



Figure 3. Introduction.

#### 4.2 Introduction

This link gives the brief introduction about the college library. It is about collection and various documents available in the library.

In the 'about us' menu, the about library option (Figure 5.3) gives brief details about the Library. It also gives Vision of the College Library.

### 4.3 Rules and Regulations

Any institution should be framed rules and regulation for administrative purpose so the library has also framed many rules for maintaining the services. The rules and regulation are varies institutions to institutions and for their convenience. It is necessary to have this option in the web site for users.



Figure 4. Rules and Regulation.

From the homepage, select rules and Regulation option from the 'about us' drop menu, it displays (Figure 4) the rules and regulations of the Library.

# 4.4 Library Services

Library is an important section/department in any academic organization. It's served on users oriented. There are so many services rendered. So it is necessary to have this option in the intranet web site.



Figure 5. Library Services.

The above screen appears in the about us drop menu option when choose the library Services. It gives various services rendered by the Library.

# 4.5 Frequently Asked Questions - FAQ

This section is very important for any type of web portals, as it contains questions and its answers that are frequently raised in the mind of users. By using this section users can save their valuable time spent on contacting the portal administrators for common information about the portal.

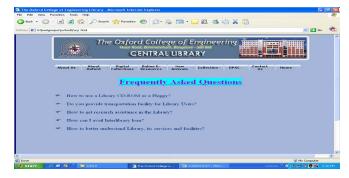


Figure 6. FAQ – Frequently Asked question.

In the above screen (Figure 6), some pre-defined questions with answers are added. So the users can understand and be able to access the resources to the maximum level.

#### 4.6 About Oxford



Figure 7. About Oxford.

Figure 7 shows the about the college. It gives details of the college, courses, affiliation etc..

There are some other options in the menu:

- About the College
- Vision & Mission
- Chairman's Message
- College Layout
- Course Offered
- Facilities

# 4.7 About the College



Figure 8. About the College.

Figure 8 shows information about the Chairman, Executive Director, Director and Principal of the College and also it gives the affiliation details and campus infrastructure.

#### 4.8 Vision and Mission



Figure 9. Vision and Mission.

When Vision and Mission option is selected from the About Oxford dropdown menu the above page Figure 9 will appear.

# 4.9 College Layout



Figure 10. College Layout.

# 4.10 College Location Map

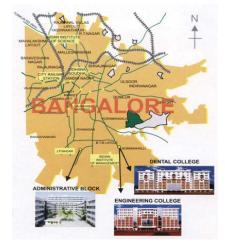


Figure 11. College Location Map.

College layout option in drop-down menu of About Oxford is linked to the details of the location of the college and a road map of the city appears on the screen. This link is useful when this intranet site becomes internet site.

#### 4.11 Course Offered



Figure 12. Course Offered.

This Link gives the details of various courses offered by the college, department details and facilities of the department with staff details.

# 4.12 Digital Collections



Figure 13. Digital Collection.

Digital collection menu provides access to various e-Resources. There are links to Non-book materials resources, e-book collection and E-Journal Articles.

#### 4.13 E-Book Collection

There are many free e-books available in the Internet. It is duty to bring into one place with subject. The e-books are available in different format such pdf, word file and power point, html, etc. Research (Figure 14) made an effort to bring few e-books and it will definitely add more books in near future.



Figure 14. E-Book Collection.

#### 4.14 E-Book



Figure 15. E-Book.



Figure 16. E-Journal Collection.

The above Figure 14 shows a sample book which is in pdf format. It can be copied or take print out from the site. E-book collections contain list of title available in PDF files.

#### 4.15 E-Journal Collection

Since the college is a member of INDEST consortia, this study made an effort to give link to various journals and articles. It may expand with subject wise in future.

#### 4.16 E-Journal Article

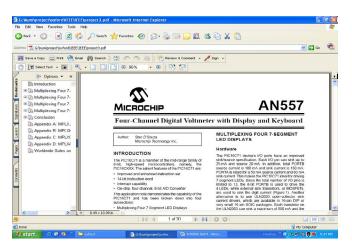


Figure 17. E-Journal Article.

E-Journal Collection is linked to the page which contain free journal article brought in to one place. It is easy to access with intranet connection within the college campus.

#### 4.17 Online E-Resources

Usually online E-resources are limited to college library and also be limited to on by campus access. This page includes other online resources like CD-ROMs, online journals and online databases, etc. In India, INDEST-AICTE consortia IEL-online access can be retrieved major online technical journals related to Engineering and Technology.



Figure 18. Online E-Resources.

This page has been linked the above said e-resources and can be accessed by the users.

#### 4.18 New Arrivals

Library web page plays a important role to provide current awareness service to its users. New books, new issue of Journals received in the library can be put on library web site and it also fulfills the 4<sup>th</sup> law of library service (as given by Dr. S.R. Ranganathan).



Figure 19. New Arrivals.

The latest additions of the library used to display for the users information. All types of document addition used to display periodically as weekly, monthly. The new arrival menu bar has the following materials details:

Book
Periodical
VCD
DVD
Floppy
CD-Rom
E-Journals

# 4.19 Library Collections



Figure 20. Library Collection.

Collection menu has the option of Books, Periodicals and E-Resources. These links are provided the total no. of Books, Periodicals and E-Resources available in the library. The strength of the library collection can be viewed from these two links.

#### 4.20 Book Collection



Figure 21. Book Collection.

When one chooses the book collection from the collection drop down menu, the above screen appears (Figure 8). The book data has been tabled with the details of course name, total no. of titles and total no. of volume updated.

#### 4.21 Periodical Collection



Figure 22. Book Collection.

Periodical collection links to the details of course name. International Periodical subscribed and Indian Periodical Subscribed by the Library.

#### 4.21 E-Resources Collection



Figure 23. E-Resources Collection.

E-Resources collection is linked to INDEST-AICTE Consortium-IEL Online Access page where are can reach IEL-Website. It also gives total no. of Journals and Magazine subscribed, total no. of standards and total no. of conference proceedings available in online.

#### **4.22 OPAC**



Figure 24. OPAC.

This link is very important in any academic institution. It helps the user to find out the details of the document required by him, whether it is available or under circulation. One can know our library status. OPAC has a option for maintaining an user account.

#### 4.23 Contact Us



Figure 25. Contact Us.

If a user wants to convey any message to the librarian they can use librarian email. This page also gives Library Telephone numbers and fax. The persons submitting comments must enter their name and email ID so that the administrator can contact them quickly.

# 5. Suggestions and Conclusion

The following suggestions are come out from the study

- It can serve as College library intranet website as well as for group of institutions.
- It proposes and achieves resource sharing among the group of institutions.
- News and events of group of institutions can be published through this web site.
- Digital library can be made possible at the least cost.
- Resources available in the web site are reliable.
- It saves the valuable time of the users to locate scholarly papers and other research information sources.

This web site can be implemented at the college library and University also. This site helps to organize educational resources and other relevant information and ultimately increases the popularity of the institute among students and faculties. College library web site should be user friendly and simple in nature. It is a useful tool to keep informed about library activities and new services.

Web site will act as a bridge between information seekers and information sources of any academic institute. The 'College Library web site' can provide services and resources to its users at any time, (24/7) at least cost and reduced manpower.

# 6. Reference

- Antony Jose and Raina Roshan Lal. Networked Digital Libraries (NDLS) for IIMS: A Conceptual Model. Herald of Library Science. 2005 Jan-April; 42(1-2):44-7.
- Briggs Quentin M. ICON (Innovation Curriculum Online Network): The National Digital Library for Technology Literacy. D-Lib Magazine. 2003; 9(6).
- Bryant Stephanie Cottrell. Teach Yourself HTML 4 with XML, DHTML and Java script. IDG Books India Ltd, New Delhi. 2002.
- 4. Devi Chaya V. Development of Dr. V.S. Krishna Library Web site A model Suggestion. Herald of Library Science. 2003 Jan-Apr; 42(1-2):43–8.

- Dinkelman Andrea and Stacy-Bates Krishtine. Accessing E-books through Academic Library Web Sites. College and Research Libraries. 2007; 68(1). https://doi.org/10.5860/ crl.68.1.45
- Goswami Sumit, et al. Virtual Walkthrough System for Library. DESIDOC Bulletin of Information Technology. 2006 January; 26(1):3–16. https://doi.org/10.14429/dbit.26.1.3670
- 7. Henry Shawn Lawton and Popolizio Pasquale, Ed. Quick Tips. 2006.
- 8. Jafari Ali and Sheehan Mark. Designing portals: Opportunities and Challenges. IRM Press, London. 2003.https://doi.org/10.4018/978-1-59140-108-7 PMCid:PMC2343009
- Johnson Scot et al. Using Active Server pages. PHI India Pvt Ltd, New Delhi. 1997.
- 10. Kumar Bharath. INDEST Consortium: Revolutionizing Academic. 2006.
- Letha MM. Library Portal: A Tool for Web-enabled Information Services. DESIDOC Bulletin of Information Technology. 2006 Sept; 26(5):11–6. https://doi.org/10.14429/ dbit.26.3.3691
- 12. Liu Zehua, et al. G-Portal: A digital library portal for Geospatial and Georeferenced Resources. D-Lib Magazine. 2003; 9(6).
- 13. Mohan and Kherde R. Hosting of a Website for Academic. 2005.
- 14. Morgan Tricia. What type of Website Best Suits Your needs? 2003.
- 15. Nagi Reddy Y and Ali Yakub. Information technology based services in a university library: A user satisfaction survey. Annals of Library and Information Science. 2006 March; 53(1):15–7.
- Natarajan M. Cyberinfrastrucutre: An Opportunity for Education and Implication for Research Libraries. Annals of Library and Information Studies. 2005 December; 52(4):147–53.
- 17. Randall Neil. Introducing Microsoft Front Page 2000. PHI India Ltd, New Delhi. 1999.
- 18. Rezayat M. The Enterprise-Web portal for life-cycle support. 2000.
- 19. Tutnall Arthur. Portals, Portals Everywhere. Idea Group Inc. 2005. https://doi.org/10.4018/978-1-59140-438-5.ch001
- 20. Wells David et al. Enterprise Portals: New Strategies for Information Delivery (Ovum Report). Ovum Ltd, UK. 2000.
- 21. Winkler Ramona. What is a Web portal. Atlantic Webfitters, US. 2003. Available at http://www.atlantic-webfitters.ca/AtlanticWebfittersHome/HelpfulArticles/WhatisaWebPortal/tabid/95/Default.aspx