

**DEVELOPING A WEBSITE WITH CONTENT MANAGEMENT SYSTEM (CMS): A CASE STUDY OF DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE (DLIS), JADAVPUR UNIVERSITY**

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**ABSTRACT: -**

With the application of ICT in the field of Libraries and Information Centers has brought a monstrous change in the techniques of information access, storage, retrieval and dissemination of information (Hussain, ). This change has eventually brought about a change in in the ways of providing information to the end users. Current users are more web savvy due to the internet. Documents are available in different forms such as XML, HTML , multimedia and text documents and organizing them by hosting on the website by different group of people is a complex task. Creation and maintenance of dynamic website content makes an enormous challenge before information professionals and library authorities, it needs money and professional manpower. Content management systems (CMS) were created to precisely help support this complex task, this is an effective tool for content or resource sharing. With the help of these CMS's libraries can collaboratively produce, share and disseminate information to the users. Without much of technical knowledge CMS like Joomla, allows in creating and managing website easily. Department of Library and Information Science (DLIS), Jadavpur University is currently investigating new ways of collecting, sharing, disseminating and preserving scholarly knowledge with the help of Joomla. This paper discusses about the CMS –Joomla, purpose of DLIS website design, objectives, significance of website, steps involved in installation of website and workflows steps involved in developing the DLIS website using Joomla.

**KEYWORDS:** Website, CMS, Joomla, Department of Library and Information Science (DLIS), Jadavpur University.

## INTRODUCTION

The introduction of ICT in the field of Libraries and Information Centers has brought a sea change in the techniques of collection, organization and dissemination of information resources that a library acquired to serve its users (Hussain, 2013). It has also changed the ways of providing services offered to user's community. In today's world library users are become more web savvy for the availability of internet. For that user expectations have also changed from traditional document to web based or e-documents (Chowdhury, 2014). Documents are available in different forms such as XML, HTML , multimedia and text documents . Lot of documents is in different formats and organized them by hosting the website by different group of people is a complex task (Satish). Creation and maintenance of dynamic website content makes an enormous challenge before information professionals and library authorities, it needs money and professional manpower (Kumar & Sankar). Libraries are facing a situation where demand for dynamic access and online delivery of information is growing rapidly. Add to that an increasing amount of content being generated for Web sites and other publications by a variety of authors, some with little or no Web expertise. In many large academic and public libraries, Web content is created by a roster of authors, including professional librarians, staff members, student assistants, and interns. As a result, the question of how to streamline the workflow and publish easily

and consistently has become a critical issue. The Webmaster model is still employed by many libraries as a primary means to manage its Web site, but has been proven to be inefficient in an environment where a team of developers and editors contribute to the Web site. The changing nature of Web authorship and user demands is necessitating change in how libraries manage their Websites.(Yu, 2004)

## BACKGROUND:

Department of Library and Information Science started taking its shape as a functional organ of Jadavpur University in August 1964, through a meeting of the then Academic Committee. At the threshold, the department was manned by only one full time Teacher. Gradually this department flourished and earned the glory as a pioneering teaching school in Library and Information Science in the state of West Bengal, India. The department has stood witness to five decades of teaching and research and has become a knowledge base for thousands of scholarly documents like research papers, reports, dissertations, theses, memoirs etc. The department offers a Bachelors degree in Library & Information Science (LIS). Master of LIS (MLIS) and Master of LIS in Digital Library (MLIS in DL) are being run by the department as day and evening courses respectively. Apart from Refresher Course and other Short Term Courses, the department also offers PhD in LIS. The departmental library has a reasonably good collection books, journals and dissertations.

Services like document delivery service, Online Public Access Catalogue (OPAC), Online information services Documentation service, Reprographic service, Access to e-journals and Semester question papers etc. are being provided by the department of LIS.

DLIS Libraries is currently investigating new ways of collecting, sharing, disseminating and preserving scholarly knowledge. One central area of interest concerns the online publication of scholarly communications.

### **CMS AND JOOMLA**

The concept of content management is an important one, if also one that is relatively familiar from document management and from information management generally. One of its objectives on the web is to control the potentially complex workflows through the information lifecycle: through creation, approval, updating and weeding. To balance retaining ultimate control in the hands of the web master, who enforces standards of design, currency and so forth, while at the same time enabling anyone to contribute content to a site, probably without their having to know HTML. Another objective of content management is to re-use the same content in different contexts or formats by separating data from presentation. This is an acute problem on the web, because the great weakness of HTML is that once your material is coded, it is difficult to retrieve it to change it or reuse it. Content

management is likely to involve technology, maybe if there is a lot of content a complex dedicated Content Management System (CMS), but it will always involve planning and policies.

A website is a mirror of an organization. It is a real way of expressing what an organization believes by reflecting the organization's mission and vision to its users. Days are gone when we used to build up static website which was a bit difficult to update, modify or make any change. All these difficulties show the way to capitalize dynamic website. A Content Management System (CMS) as a dynamic one helps any novice to create, modify, update and publish the content of webpage without having much of technical knowledge. Now a days library and Information Science professionals can take the advantages of using various open source CMS, Joomla as for example, for developing their website. Joomla is being widely used CMS all over the world to manage the content of the website. It has also been using in the case of website development of a number of libraries and information centers to inform the available services, create user accounts, manage back end database, provide virtual library service, highlight new arrivals, and bring any modification on regular basis. The present paper discusses the significance/application of CMS/Joomla in present-day's digital library environment (Islam, Islam and Sagorika 2011)

## **ADVANTAGE OF USING CONTENT MANAGEMENT SYSTEMS IN LIBRARIES:**

CMS can be used in libraries to:

- a. Create and develop library website.
- b. Manage digital content in various formats (like text, image, audio, video etc).
- c. Provide library users with an interactive interface.
- d. Increase user participation in library activities and services.
- e. Library authority can develop shared content for the library.
- f. Users can also participate in this process.
- g. Easy storage and retrieval or access of data.
- h. Reduce repetitive duplicate input.

**(Chowdhury, 2014)**

## **SIGNIFICANCE OF DLIS WEBSITE**

The primary objective of any website necessarily depends on the parent organization and its end user community. Website designers must have a clear understanding of the objectives before undertaking the task of designing of the site. The role of the DLIS website should be one of selecting information resources, organizing information resources, and providing access to information resources. Analyzing and structuring contents of information resources that can be reflected on the Web through proper classification of resources and links, collocation (placing similar resources together) etc. could match the purpose

and the needs of target audiences which will help to bring the rich information resources on the Internet to the information-seeking users.

Objectives:

- to establish clear site organization and navigation;
- to utilize user-centered nomenclature;
- to ensure easy access from the homepage to information relevant to the entire user population;
- to develop a unified institutional visual identity throughout the site; and
- to enable a content management system

## **METHODOLOGY**

### **Setting up the web server:**

#### **Software Requirements:**

- a. Operating System: Linux (Open Source Software)
- b. Xampp : PHP, MySQL and Apache (Open Source Software)
- c. Software: Joomla (Open Source Software)

## **INSTALLATION**

### **Step wise detailing of installation is as below:**

- a. To develop a website, first download Xampp and extract the tar file:

```
$ tar xvfz xamp-linux-1.6.7.tar.gz -C /opt
```

- b. Create a directory called “dlis” under the directory htdocs inside the lamp installation that was created by xampp

```
$ cd /opt/lamp/htdocs/dils
```

c. Download Joomla and extract the tar file inside the dlis directory

```
$ tar xvfz Joomla_1.0.15-stable-Full_Package.tar.gz
```

d. Change all the permission of the joomla file

e. Joomla site should appear by typing the URL:<http://localhost/dlis> and then need to follow the wizard to finish off installation

f. Run the installer:

```
$ cd /opt/lampp
```

```
$ ./lamp start
```

### STANDARD WORKFLOW MODEL:

With each of the models, the workflows generally break down into about a half-dozen stages, which are defined as follows:

**Content Creation:** In traditional publishing, this would constitute all workflows preceding camera-ready pages. This mainly involves collaborative work among partners of the library, such as composition, editing, reviewing, copyright clearance, etc. Generally speaking, the prototypical format for the results of this workflow would be word-processing documents and/or image files.

**Content Processing:** This refers to system-specific steps required to convert the “camera-ready” content into web-deliverable form. The work primarily involves using HTML and/or another scheme to mark up the material. Planning for this work involves designing the mark-up scheme to be used for a given publication, in

order to lay the groundwork for later styling using CSS.

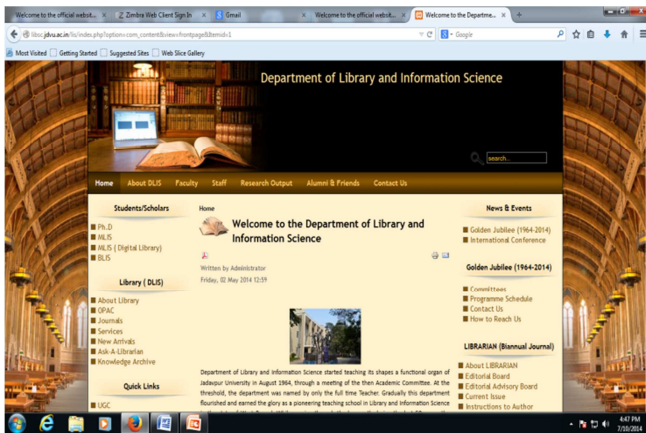
**Content Ingest:** This refers to the process of importing web-deliverable content into the system and making it available for delivery to end-users by the system.

**Content Organization:** This refers to the grouping of individual items into content units. In practice, this will probably most often mean building Tables of Contents for Issues. However, some clients may want to provide other sorts of paths to their content. Also, different systems will accomplish this task in different ways.

**Site Organization:** This refers to the organization of “static” content: standard pages (i.e. Contacts, Submission Guidelines) and custom/constant pages (History of the Publication) This also refers to the procedures available to end-users for managing site functionality (logging in) and/or customization (increasing font).

### THE DLIS WEBSITE:

DLIS Website (fig 1) Provides access to basic information about the library (hours, staff, collections, etc.), and timely updates, online catalog of the library's collection(s), it provides a consistent and standardized interface for the user, it allows more flexibility for the user in manipulating data retrieved from the online catalog. Through this website the users can navigate the electronic resources easily as it has used user-centered nomenclature.



**Figure 1: Home Page of Departmental Website**

## CONCLUSION:

The role of college librarians has changed considerably with the advancement of information. Now in this age of the Internet, it is the library portal that is being called as the "Mirror of the Library". Libraries should make consistent efforts to provide web - based services to their users and it is the role of the librarians to act as a guide and be should up – to – date and should also know the usefulness of web sites, web portals. There is an urgent need to develop dynamic websites with direct hyperlink to the different library's websites homepages and it is even more necessary for the library professionals to design their own websites themselves and host and maintain them.

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