

Content Management and its application: An Overview

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***Abstract:** Now a day content management tools are gaining tremendous popularity in the present era of Web. For creating websites and manage the digital content, content management tools are used. It also influenced the information society and particular in the library and information environment. The content management tolls are not only manages the content of a library but also allow the user s to participate, contribute and share content with their libraries. This paper discusses the feature of content management and its application as well as feasibility of open source software.*

Keywords: Content Management Software, Drupal, Joomla, Library Website, CMS

1. Introduction

Library Website developed many years ago. At the beginning, most of the library Website provides only the general information, such as opening/closing time, policy of the library, about staffs and users etc. but in the present era library modified their Website with full of features. Now a day more and more library products and services became available through the Website. The Web provides a new medium for storing, preserving, presenting, sharing, processing and using information. It brings us to a new information era. There is a tremendous amount of e-resources or materials, such as newspaper, movies, music, journals, and many other products and services available in the web. In this present situation we can say that Library Website may consider as a virtual library.

2. Content Management

Content is information and experiences that provides value for an end-user/audience in specific context. Content is “something that is to be expressed through some medium, as speech, writing or various arts.” Content can be delivered via very different media including, but not limited to, the internet, television and audio CDs, books, magazines etc. Content Management is the set of processes and technologies that support the collection, managing, and publishing of information in any form or medium. In recent times this information is typically referred to as content or, to be precise, digital content. Digital content may takes the form of text (such as electronic documents), multimedia files (such as audio or video files), or may other file type that may follows content lifecycle which requires management. [1]

A Content Management System (CMS) is a collection of procedures used to manage work flow in a collaborative environment. These procedures can be manual or computer-based.

A content management system is software that keeps track of every piece of content on your Web site; much like your local public library keeps track of books and stores them. Content can be simple text, photos, music, video, documents, or just about anything you can think of. A major advantage of using a CMS is that it requires almost no technical skill or knowledge to manage. Since the CMS manages all your content, you don't have to.[8] The above definition says that the CMS is system used to manage the content on the website.

3. Importance of CMS

- **Self Control:** Know your business better than any designer or developer and if you are getting chance to explain your business or edit your content yourself then it would be like getting golden egg. CMS gives you the full freedom to manage your content yourself without paying a single penny to developer.
- **Daily Update:** If your business is daily knowledgeable work and wants to stay in the competition then you have to fresh content or your content should be changed on a regular basis.
- **No Page Limit:** If you are using a CMS rather than static website then you can create unlimited number of page.
- **Better Communication:** Whether you're a retailer with an on-line catalog, a small business owner looking to grow, a writer looking for exposure, or any business or organization seeking to maximize chances for success, a CMS opens up new ways to communicate with your audience. Especially as e-mail systems become more and more clogged with useless junk mail, your customer can rely your content and get their useful information directly.
- **Creation:** You can create restricted content so only authorized user can view your pages. There is complete user manager in various CMS so you can choose which page you want to public and which one not.
- **Keys:** Anything you see on your site can be easily maintained by you (admin). If you don't like any content in your portal you can log in and changed it or delete it without having to call a web developer.
- **Collaboration:** Content management systems can also incorporate a work flow engine and facilitate the collaborative efforts of your staff in creating, editing, and approving content before it gets published.
- **Ranking is in your hand:** A CMS allows you to make changes to your site in real time if you wish, and these changes will be reflected in your search engine rankings. You can more easily stay on top of your success and make quick adjustments when needed to continually improve your site's effectiveness.
- **Change layout yourself:** You can change CMS website layout yourself. You can change module position, enable/disable them its very user friendly so need to worry about single line of HTML code.
- **Social Media Integration:** Most of the popular content management systems will integrate with social networks platforms such as Facebook and Twitter. Users can view any content and comment on this via social media .

4. CMS Software:

4.1. Commercial/ Proprietary CMS Software

- ❖ Alfresco (<http://www.alfresco.com/>)
- ❖ Alterian (<http://www.sdl.com/campaign/alteriannews.html>)
- ❖ Ayoola Framework (<http://cmf.ayoo.la/>)
- ❖ Cascade Server (<http://www.hannonhill.com/products/>)
- ❖ Computhink (<http://www.contentverse.com/>)
- ❖ Contegro (<http://www.contegro.com/>)
- ❖ CoreMedia WCM (<http://www.coremedia.com/>)
- ❖ DotNetNuke (<http://www.dnnsoftware.com/>)
- ❖ Ektron CMS (<http://www.ektron.com/>)
- ❖ Elcom CMS (<http://www.elcomcms.com/>)

4.1. List of some open source CMS:

- ❖ Drupal (<https://drupal.org/>)
- ❖ Joomla (<http://www.joomla.org/>)
- ❖ Php-Fusion (<http://www.php-fusion.co.uk/news.php>)
- ❖ Pimcore (<http://www.pimcore.org/>)
- ❖ CMS Made simple (<http://www.cmsmadesimple.org/>)
- ❖ Website Baker (<http://addon.websitebaker.org/pages/en/home.php>)
- ❖ Concrete5 (<http://www.concrete5.org/>)
- ❖ Redaxscript (<http://redaxscript.com/>)
- ❖ xoops (<http://www.xoops.org/>)

5. Application of two popular CMS(Drupal & Joomla)

5.1. Drupal:

Drupal is a free and open-source content management framework written in PHP and distributed under the GNU General Public License. It is used as a back-end framework for at least 2.1% of all websites worldwide ranging from personal blogs to corporate, political, and government sites including whitehouse.gov and data.gov.uk. It is also used for knowledge management and business collaboration.

Drupalib is intended as a place for Drupal implementors in libraries to share ideas, configuration, themes, and maybe even to incubate the development of some modules that allow commonly desired functionality in library websites (both for libraries' principle sites or for secondary or specialized subsites). Drupalib features a blog, a forum, and a listing of drupal sites implemented by libraries. Additional features will be added as the site evolves.

5.1.2 Drupal features:

- Templates - Change the site design templates (look and feel).
- Modules - Install third party programs or functionalities.
- Multiple-user –Multi-level permission user content creation and editing.
- Multiple-level menu system - Main menus, sub-menus.
- Multiple-site support - Provide management of multiple sites.
- Pages - Add / edit text, image, and other media content.
- Blog – Provide full blog (articles with member comments capability) functionality.
- Contact Form - Provides the use of both personal and site-wide contact forms.
- Forum- Provides threaded discussions Forum.
- Polls - Provides the capabilities to capture votes on different topics in the form of multiple choice questions.
- Search - Provides site-wide keyword searching.
- Upload - Allows users to upload and attach files to content.
- Statistics - Provides Site Statistics Reporting.
- Taxonomy - Provides the categorization of content.
- News Feed– Provides RSS, RDF, and Atom feeds.
- Comment and Tracker - Allow users to comment on and discuss published content and tracking of recent posts for users.
- Book - Provide the capability for users to structure site pages in a hierarchy.
- Content translation - Provide the translation of content in different language (This feature is an imperfect translation – Google translate feature is a better solution and easy to implement).
- Ping - Alert other sites when the site has been updated.
- Profile - User profile management.
- Throttle - Provides auto-throttling mechanism, to control site congestion.
- Trigger- Provides the capability for actions to be generated on certain system events, such as when new content is created.
- OpenID - Allows users to log into the site using OpenID.

5.1.3 Drupal module for Library:

- Bookpost: It makes easy to post information about books. Any 10 or 13-digit ISBN placed between double curly braces {{}} in a post will convert into the book cover, title, author and publication info. All data comes from the Open Library Project, an open source catalog that allows users to add books and edit metadata. If there is no cover available for the book you want to post, go on the Open Library and add one!

- **Biblio:** Allows users manage and display lists of scholarly publications. Features include: Import formats: PubMed, BibTex, RIS, MARC, EndNote tagged and XML; export formats: BibTex, EndNote tagged and XML; output styles: AMA, APA, Chicago, CSE, IEEE, MLA, Vancouver.
- **Library:** It allows users to manage the availability of nodes as assets. You can create custom content types using CCK and then add those content types to the library. The module supports multiple copies of a library item associated with one node, and each copy may be individually made available or unavailable.
- **Link Resolver:** OpenURL resolver. Provides Drupal with a local mechanism to add and maintain institutional link resolver data (institution name, resolver url, etc). Data can be added manually but is also "automagically" captured via the WorldCat OpenURL Gateway IP lookup service as users visit your site, imported en masse via CSV (a default list is included in the module) or added via a WorldCat Registry Institutional ID lookup.
- **Z39.50:** It implements the Z39.50 and SRU protocols for Information Retrieval using the PHP bindings for the YAZ toolkit. With this module you can easily search or scan Z39.50 or SRU servers in parallel using the standard Drupal search API and present the results.
- **MARC:** It allows you to import MARC records as nodes, to do things like pre-populating book review sites or even recreating your library's catalog in a rich social environment.
- **Drupal OPAC:** This module enables libraries to integrate their catalog into Drupal allowing importing records, make advanced searches with faceted results, circulation task etc ... This module is intended to work with any ILS by using connectors. Everyone can make its own by creating a php file
- **EZProxy:** It helps provide users with remote access to Web-based licensed content offered by libraries. It is middleware that authenticates library users against local authentication systems and provides remote access to licensed content based on the user's authorization.
- **Millennium:** It integrates Drupal with III/Millennium WebOPACs (library catalogs): you can import bibliographic records, or embed records in a node using the input filter. Imported nodes can have taxonomy terms created from the

original record, a real-time holdings display, Google Books links and embedded preview, and more.

- Google Books: The Google Books module is a filter module and an API for the Google Books that allows a user to insert rich Google book data into nodes via filters with data retrieved from the <http://books.google.com> domain. The user of this filter module will be able to easily insert book data from Google into pages using Drupal filters, There are options to include / exclude any data fields, a book cover image when it exists and for books with a full or partial preview, the Google Books reader for the volume. The Google Book search can be done with many types of search strings.

5.2. Joomla:

Joomla is a free and open-source content management framework (CMF) for publishing web content. It is built on a model–view–controller web application framework that can be used independently of the CMS. Joomla is written in PHP, uses object-oriented programming (OOP) techniques (since version 1.5) and software design patterns, stores data in a MySQL, MS SQL (since version 2.5), or PostgreSQL (since version 3.0) database, and includes features such as page caching, RSS feeds, printable versions of pages, news flashes, blogs, polls, search, and support for language internationalization. [10]

5.2.1. Joomla features:

- Templates – Changeable site design templates.
- Modules - Install third party programs or functionalities.
- Multiple-user – Multiple numbers of users can create and edit content.
- Multiple-level menu system - Main menus, sub-menus.
- Pages – Users can add / edit text, image, and other media content.
- Polls - Provides the capabilities to capture votes on different topics in the form of multiple choice questions.
- Search – It provides site-wide keyword searching.
- Article – It provides the capabilities to create and archive articles.
- News Feed – It provides syndicated content (RSS, RDF, and Atom feeds).
- Banner – It provides banner advertising functionality.
- Contacts – It provides contact management capabilities.
- Weblinks – It provides management controls for controlling Web Links.

5.2.2. Joomla module for Library

BookLibrary Basic: BookLibrary provides a full-featured book library or book collection management environment on a Joomla-based website. It allows you to manage large book libraries. The component can also be used to easily set up a book selling shop using Amazon if you want. With an Amazon Associates ID (as an Amazon affiliate) you can earn credit with book sales through Amazon, while Amazon takes care of the handling and shipping.

- Full category and subcategory support
- BookID for internal administration
- Lend/Return management, with frontend lend request possibility
- Possibility of frontend book reviews by users, reviews management in the backend
- Built-in ebook support
- Book information and covers retrieved from Amazon through ISBN or entered manually.

Top listing module for BookLibrary: This module can be used to display the Top Books from the BookLibrary.

BookLibrary Top10: The BookLibrary Top10 module displays the 10 most visited books from BookLibrary list.

MediaLibrary Basic: Media Library Basic allows manage books, video, movies, music and games. MediaLibrary provides a full-featured media library or media collection management environment on a Joomla-based website and allows you to manage large media libraries with music, game, video, movies and books. The component can also be used to easily set up a media selling shop using Amazon if you want. With an Amazon Associates ID you can earn credit with media (music, game, video, movies and books) sales through Amazon, while Amazon takes care of the handling and shipping.

6. Conclusion:

The best preparation for creating a home page is for library staff to spend some time by surfing the homepages of similar libraries or organizations. This activity will give the staff an indication of what works and what does not, what is interesting to the online visitor and what is not pleasant to use. (Clyde,L.A). Library can easily create their website using various available Content Management tools. Selecting a CMS tools for a library requires a study and managerial plan that will assessment the type of library, type of content that will be handled and the providing services .The library staffs can straightforwardly handle the CMS tools but most of the library has the non-technical staff. They can't troubleshoot in a proper way. For that, training required for the library staff.

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