

OPEN SOURCE CONTENT MANAGEMENT SOFTWARE, JOOMLA & DRUPAL:

A COMPARATIVE STUDY

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Abstract: *Content management is an effective tool for creating, collecting, organising and retrieving electronic document as well as web resources. Content management system can provide us various types' web-based information service. At present open source is a popular choice in the field of Library and Information science. This paper covers two open source content management software i.e. Joomla and Drupal with their technical requirements, features, functions, service, importance etc. This paper will also give a complete overview about content management system with its advantage and need.*

Key Words: *Content Management Software's, Joomla, Drupal, comparative study*

Introduction

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. Now user's wants training videos, presentations, white paper, scholarly article and much more. Blogs, wikis, social networking sites, twitter, RSS and other tools included as web 2.0 technologies have transformed the way content is created, developed, managed and shared. In recent time information in any form is typically referred to as content or digital content. Content management system is an effective tool for content or resource sharing. Libraries have also adopted these new technologies to provide services among all user groups. With the help of these content management systems libraries can collaboratively produce, share and disseminate information to the users. Along with that libraries can also create and develop a web site for their own. Open source software's are also a popular choice in the field of library and information science because of cost benefit and flexibility of use. With a content management system libraries can increasing their information resources and also can disseminate it into wider clientele.

Content Management Systems

A content management system is software that is used to support the creating, updating, publishing, translating, distributing, archiving, and retiring of digital information. It also included standard features, such as tracking the changes made to digital information.

Content managements systems include image files, audio files, and electronic document and web resources. Content management systems have various forms like web content management, document management system, enterprise content management systems etc.

Components of Content Management Systems

A CMS has basically three Components. Those are:

- Content Creation
- Content management
- Content publishing
- Content presentation

Features of Content Management Systems:

Mainly there are three type of feature of Content Management Systems are available. These are:

Core Features	Design Features	Extra Feature
<ul style="list-style-type: none"> ● Integrated and on line help ● Modular and extensible ● Easy user and group management ● Group-based permission system ● Full template support, for unlimited looks without changing a line of content ● Easy to install and upgrade procedures ● Administration panel with multiple language support ● Hierarchy content with unlimited depth and size ● Integrated file manager ● Integrated audit log ● Small footprint 	<ul style="list-style-type: none"> ● XHTML and CSS compliant ● Auto-generated menu ● Every page can have different theme ● Design protected from content editors ● Multiple content areas on one page 	<ul style="list-style-type: none"> ● Search ● Polls ● News ● Blog ● Newsletter ● CGCalendar ● File Uploading ● Glossary ● Forms ● User Management ● Guestbook ● Google Sitemap

Objective

The objectives of this paper are:

- To give an overview of content management systems (CMS).
- To highlight the technical requirements, features and functions of both software's i.e. Joomla and Drupal.

Method used

This paper is based on literature available in internet. We have studied many article, CMS report etc. for this paper. Along with that we have also go through Wikipedia and user manual guide of both software respectively.

About Joomla

Joomla is an award-winning content management system (CMS), which enables to build Web sites and powerful online applications. Many aspects like extensibility and ease of use have made Joomla the most popular content management software. Best of all, Joomla is open source software that is freely available to us.

Core features of Joomla:

- Joomla can work multilingual platform with offering 64 different languages widely.
- It has a strong supportive community. There are thousands of professional (developer and other user) service providers throughout the world who can help to build, maintain and market a Joomla project.
- Joomla provides version update in every fortunately. The updating included notifications of the core software and Joomla extension.
- It has an integrated help support system.
- The administration can manage different type of content with Joomla module which includes banner, template, media etc.
- The search facility of Joomla provides better and smarter search to the user.
- Nested categorization and tagging facility are available for document organisation.
- There are more than 8000 extensions for customizing a website in Joomla.
- Extensive Access Control List, which allows to manage the users of a website, and different groups.

About Drupal

Drupal is a free software package that allows us to easily publish content, organize and manage, with an endless variety of customization. Dries Buytaert was started Drupal software as a message board in 1999. Within a year, many people became interested using and contributing to Drupal, so the project was made as open source. Drupal.org available online from 2001 and the Drupal community gained momentum in 2005 with several code sprints and conferences.

Core features of Drupal:

- Drupal provides many tools to organize, structure, find and re-use of content. It categorizes with taxonomy, automatically create friendly path urls, create custom lists etc.
- Drupal's manage many type of content like video, text, blog, podcasts, and polls with robust user management, menu handling, real-time statistics and optional revision control.
- Drupal comes with great options for new user accounts and user permissions. Users can be also assigned for one or more roles.
- Social networking publishing.
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- Build external and internal-facing websites in a matter of hours, with no need of custom programming.
- The presentation layer of Drupal designers to create highly functional, interactive experiences that engage users and increase traffic.
- Drupal have more than 16,000 modules and add-on modules are also available.
- Drupal makes an easy connect with a website to other sites and services across the internet, using aggregation, feeds, and search engine connection capabilities.

Comparative Analysis

Table 1: Technical requirements and overview of Joomla and Drupal:

Features	Description	
	Joomla	Drupal
Installation Time	Less than 30 minute	Less than 30 minutes
Operating System	Linux, Windows	Linux, Windows
Database	MySQL	MySQL, PostgreSQL, MS-SQL Server
Server	Apache Web Server	Apache Web Server
Language	PHP	PHP
Latest Version	3.3.6	7.38
Official URL	http://www.joomla.org/	https://drupal.org/
Download From	http://www.joomla.org/download.html	https://drupal.org/project/drupal

From this table we concluded that installation time, OS, server and languages are same for these systems. In case of database Joomla is based on only MySQL where Drupal can perform with MySQL as well as Postgresql and MS-SQL Server also. It has been also observed that Drupal is more updated than Joomla. The links of official website and downloading the both systems are also given in this table.

Table 2: Dashboard Menus

Serial No	Joomla	Drupal
1	Site	Content
2	Menus	Structure
3	Content	Appearance
4	Components	People
5	Extensions	Modules
6	Tools	Configuration
7	Help	Reports
8		Help

Table number 2 provides dashboard menus (home page) of Joomla and Drupal. Joomla have 7 features in the dashboard menu where as Drupal have 8 features.

Table 3: Comparison of features & modules of Joomla and Drupal:

Features	Joomla	Drupal
Mode of Installation	Easy	Easy
Multisite facility	Yes	Yes
Blogs	Yes	Yes
Wikis	Yes	Yes
Social Networking	Yes	Yes
Polling	Yes	Yes
User Interfaces	Easy to use	Easy to use
Library specific modules	Yes	Yes
Online Documentation	Yes	Yes
Online support	Yes	Yes
Frequency of Update	Every 3 months	Every 3 months
Ease of Update	Easy	Easy
RSS Feed	Yes	Yes

From this table we can see that all the extra features of Joomla and Drupal are almost same. Feature like social networking is not a core function of both Joomla and Drupal but we can add with the help of add-on module. Wikis is a core feature of Joomla but in Drupal we can add this module.

Conclusion

Selection of content management for library is based on a proper plan and study, type and format of material, provided services of the library, technology skills of library professional, user orientation program etc. This study have concluded some features of both software's like ease of installation, modules, services, functions etc.

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