

Overview and Comparison of Web Content Management Systems

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Abstract – A Web Content Management (WCM) system facilitates the publication of content to a website and removes the need for the user to possess technical knowledge of editing HTML files. Such systems allow content creators to directly add or update content on a website without involving an IT department or external company. A WCM system therefore empowers members of each department within an organisation to update their own sections on a website, therefore reducing the number of resources involved in the end-to-end process and ensuring that timely updates can be made. WCM systems provide authoring tools which allow users to edit text and upload images and other media in a WYSIWYG (what you see is what you get) manner, i.e. giving an experience similar to editing text in a word processing application such as Microsoft Word. They often provide approval mechanisms which can be set up so that several content contributors can submit content for approval to a few approvers. Approvers have the ability to publish content to the live website or request further amendments, thus retaining control over what content appears on the website. Hence Content management systems are used to make the work-flow and management of websites easier. They tie together content management, design and implementation, eliminating much of the time and resources required to design and program websites from scratch. Content management systems have become the most popular method for website creation, in part for their ability to incorporate multiple users of varying skill levels with the creation and management of website content.

INTRODUCTION

ICT development and Internet revolution is affecting an every aspect of our life. Now a day's lots of content are burgeoning over the web. But managing content is becoming very difficult but this is also true that the content published on the Web never stops growing. To overcome this problem now a day's lots of organization are using the open source content management system to manage the organization content. Mostly CMS's are built on the LAMP (Linux Apache MySQL PHP) stack and are FOSS (Free Open Source Software.). Content Management System (WCMS) is a server program that stores web page text and publishing details in a database, instead of as HTML pages. The choice of CMS is still a problem for organization as it's not easy because lots of vendors are available in the market who are providing the CMS and a wide range of WCMS available: some are a lot cheaper, some extremely expensive. But the important thing for the entrepreneurs is to find the system that can provide the right solutions for the organisation, because the functionality of each system varies. When choosing your CMS, your main considerations should be the kind of

navigation your system will offer, as well as ease of use and upkeep. What you need to consider is how flexible do you need the system to be: do you need it to integrate third party plug-ins or customer relationship management (CRM).

OPEN SOURCE SOFTWARE

Open-source software (OSS) is computer software that is available in source code form which permits users to use, change, and improve the software, and to redistribute it in modified or unmodified form. Open source software is very often developed in a public, collaborative manner

CONTENT MANAGEMENT SYSTEM

Gartner Definition of WCM

Gartner defines WCM as the process of controlling the content of a Web site through the use of specific management tools based on a core repository. These may be procured as commercial products, open-source tools or

hosted service offerings. Product functionality goes beyond simply managing HTML pages to include:

- Content creation functions, such as templating, workflow and change management
- WCM repositories that contain content or metadata about the content
- Library services, such as check-in/check-out, version control and security
- Content deployment functions that deliver prepackaged or on-demand content to Web

Source: Gartner.

Top Three Content Management System

Although there are so many great platforms, Drupal, Wordpress and Joomla are currently the top three opensource CMS systems.

OVERVIEW

WordPress is an open source blog publishing application powered by PHP and MySQL which can also be used for content management. It has many features including a plugin architecture and a templating system. Used by over 2% of the 10,000 biggest websites, WordPress is the most popular blog software in use today. As far as popularity concerns, WordPress is without any doubts way above its competitors. Initially designed as a blogging platform, WordPress has changed into a highly useful content management system throughout the past several years. One of the main advantages of WordPress is the large number of plugins released by independent developers. In fact, every aspect regarding the creation, organization and search engine optimization of a site can be now handled with the use of WordPress plugins. Actually, these plugins are add-ons to the CMS and improve the functionality of the user interface.

"WordPress is web software you can use to create a beautiful website or blog. Over 60 million people have chosen WordPress to power the place on the web they call "home"."

Core Features:

1. Full standards compliance
2. No rebuilding
3. WordPress Pages

4. WordPress Themes
5. Cross-blog communication tools
6. Spam protection
7. Full user registration
8. Password Protected Posts
9. Easy Importing
10. XML-RPC interface
11. Workflow
12. Intelligent text formatting
13. Multiple author

Drupal.org is the official website of Drupal, an open source content management platform. Equipped with a powerful blend of features, Drupal supports a variety of websites ranging from personal weblogs to large community-driven websites. Drupal is a content management system (CMS) which allows every –day users to add and update web pages without technical assistance. Drupal is a dynamic platform that will grows your presence expands .By adding features like advanced search , auto-tagging and internationalization you'll allow users to explore your web in new content and exciting ways , assistance , Drupal can be installed in multiple languages , allowing both administrators and users to view site in the language of their choosing..Drupal's content management features make it easy to create and manage your site.

"Drupal is a free software package that allows an individual or a community of users to easily publish, manage and organize a wide variety of content on a website. Tens of thousands of people and organizations have used Drupal to power scores of different web sites"

Core Features:

1. Administer
2. Build
3. Collaborate
4. Connect
5. Create
6. Design & Display
7. Extend

8. Organize & Find[8]

Joomla is an award-winning content management system (CMS), which enables you to build Web sites and powerful online applications. Many aspects, including its ease-of-use and extensibility, have made Joomla the most popular Web site software available. Best of all, Joomla is an open source solution that is freely available to everyone. Open free facility of downloading for the public use with the help of shareware has elevated the popularization of Joomla. Developing software that is known for its supreme quality is quite a challenge and could not be achieved by just anybody. You must know that [Joomla](#) design was created and developed by a group of programmers, and of course it had its fair share of limitations. When many intelligent minds were at work, the end product was this irresistible software, which is now being used by a number of firms. Joomla's powerful application framework makes it easy for developers to create sophisticated add-ons that extend the power of Joomla into virtually unlimited directions. The core Joomla framework enables developers to quickly and easily build:

- Inventory control systems
- Data reporting tools
- Application bridges
- Custom product catalogs
- Integrated e-commerce systems
- Complex business directories
- Reservation systems
- Communication tools

“Joomla! is one of the most powerful Open Source Content Management Systems on the planet. It is used all over the world for everything from simple websites to complex corporate applications. Joomla! is easy to install, simple to manage, and reliable.”

Core Features:

1. User Management
2. Media Manager
3. Banner Management
4. Contact Management
5. Polls

6. Search

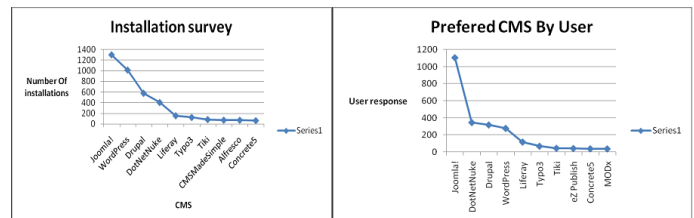
7. Web Link Management
8. Content Management
9. Syndication and Newsfeed Management
10. Template Management
11. Integrated Help System
12. System Features
13. Web Services
14. Powerful Extensibility

SIMILARITIES

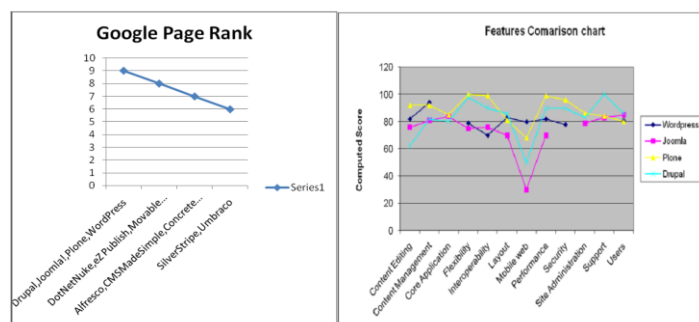
All Three CMSs have:

- Online communities that provide free support via forums
- Developers who contribute modules to add new functionality
- Human-readable and search engine–friendly URLs for search optimization
- Web browser WYSIWYG interfaces for site maintenance
- Themes and templates to update the page design
- Translations and multilingual content integration
- Syndication of site content in RSS/XML feeds

SURVEY RESULTS



Source: Water & Stone, “2010 Open Source CMS Market Share Report



Source: <http://www.cmsmatch.com>

COMPARISON

1. WordPress holds its position as the most popular platform in the blogosphere. It's very user friendly with straightforward installation instructions that are very useful for any beginner. WordPress also has a powerfully built CMS which integrates the blogging functionality.

Drupal is notable for being called the “Developer’s CMS.” With flexible code and more advanced features for a complex website, any expert designer will enjoy the convenience of modifying the code without any issues.

Popularly used as a backbone for web development, Joomla is regarded to be a favorable open source CMS for web developers and designers, especially with its easily customizable interface.

2. CMS is recommended for those who wish to code in the specifics as opposed to using WYSIWYG editors (What You See Is What You Get). Drupal has a very bustling community of developers that can help you out if you wish to create a website that focuses on streamlined code and advanced management.

Developers have a sense of freedom in developing their websites because of the features that you can personalize that allows even beginner developers to modify the system without editing the original code, retaining its core functionality

You can even integrate a static homepage to allow your website to fully use WordPress in its navigation and content management backbone. Also, it contains functions such as comments, trackbacks, blogger profiles and pinging services. This is very helpful for traffic analysis so you can check out the progress of your website, especially if you want to monitor its visitors.

3. The downside of WordPress, however, is that it isn't really developer-friendly and its community is considerably smaller compared to that of Drupal or Joomla

The downside of Drupal is that it lacks in terms of design factors. It is not a designer or user-friendly CMS because of its more advanced features

The downside of Joomla is that coding can be inflexible, especially with the retention of the core backbone present. It can also be quite difficult for someone with little website building experience to integrate the software.

| Drupal-Joomla-Wordpress-Comparison | | | |
|--|---|-------------------------|-----------------------------|
| Features | Drupal | Joomla | Wordpress |
| Installation | Fairly easy. However requires some technical expertise. | Easy | Easy |
| Ease of use | Drupal is usually more oriented towards developers and web-masters. | Easy to use | Easy to use |
| Administration | Variety of functions with many controls | Graphical and Intuitive | Easy to administer the site |
| | | | |
| Search engine Optimization: | | | |
| SEO Friendly URL Structure | Yes | Yes | Yes |
| Meta Tags | SEO Standard | SEO Standard | SEO Standard |
| URL Rewrite | Easy to rewrite | Easy to rewrite | Easy to rewrite |
| Site map | Extension | Extension | Extension |
| RSS Syndication | Yes | Yes | Yes |
| | | | |
| Multi-User Publishing | | | |
| Customizable content types, categories, and organizational logic | Yes | Limited | Yes |
| WYSIWYG rich text editors | Yes | Yes | Yes |
| Create and edit pages through front and back end | Yes! All in one interface | Yes | Depends on template |
| Workflow system | Basic, Extendable | Basic, Extendable | Basic, Extendable |

| | | | |
|--|-------------------|--|--|
| Revision tracking | Extendable | Extendable with limited options | Yes, new in Wordpress 2.6 |
| Layout & Design | | | |
| Themes | Decent | Good selection of themes | Excellent, large theme selection |
| Edit templates from within the administrative interface | No | Yes | Yes |
| Use multiple templates | Limited | Yes | Limited |
| Assign modules/blocks/widgets to any page from within the administrative interface | Yes | Yes | Yes |
| Create and manage menus within the administrative interface | Yes | Yes | No |
| Internationalization and Localization | | | |
| UTF-8 Support | Yes | Yes | Yes |
| RTL character support | Yes | Yes | Yes |
| Language packs/Translations for the user interface | Yes | Yes | Yes |
| System Requirement | | | |
| Application Server | PHP 4.3.5 | Any server that supports PHP(Apache recommended), PHP 4.2.x or above | Apache recommended ,any Server that supports PHP 4.3 or above, MYSQL |
| Approximate Cost | Free | Free | Free |
| Database | MYSQL Postgres | MYSQL | MYSQL 4.0 version |
| Operating Sysystem | Any | Any | Os |

| | | | |
|-------------------------|--------------------------|--------------------------------|-------------------|
| | independent | | |
| Programming Language | PHP | PHP | PHP versions |
| General Features | | | |
| Security | Good | Good | Good |
| Blogs | Yes | Yes | Yes |
| Forums | Decent, functional forum | SimpleMachines integrates well | No |
| Ecommerce | Yes | Yes | Yes, with plugins |
| Video | Yes | No | No |
| Audio | Yes | Yes | No |
| Web 2.0 Functionality | Yes | Yes | Yes |
| Speed | Fast | Fast | Fast |
| Integrated Statistics | Yes | Yes | Yes |
| Subscriptions | Yes | No | Yes |
| Comments | Yes | Yes | Yes |

Source: <http://www.dckap.com/drupal-joomla-wordpress-comparison.htm>

CONCLUSION

Joomla! and WordPress are both known for their user-friendly interface. Drupal, however may be able to last you a bit longer, but also take some time to master. For those looking for slick web design and creative plugins, Joomla! and Wordpress take the cake. For those looking to optimize things such as load times and performance, while planning for the future, think Drupal.

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