

Study on Content Management System: WordPress, Joomla, Drupal

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Abstract:

A content management system (CMS) is a system used to manage the contents of a web site. CMS evolved as an alternative to such web-authoring tools. A CMS is software that helps to make websites easier, faster, browser compatible and responsive website with the powerful features. There are several CMS based on usage, functionalities, compatibility and platforms. There is no CMS that is not best suited for every user. The features of a CMS system include web-based publishing, format management, revision control, indexing search and retrieval. There are three CMS names: Joomla, Word press and Drupal. These CMSs are available based on functionalities, usage and platforms. In this paper, we study to analyze these CMSs on the design, usage, function, available, plugin, default, integrated feature, installation process, browser compatibility and performance with different platforms. This paper attempt to analyze the pros and cons of these CMS that user can choose the best CMS according to the application requirement.

Keywords

CMS, Wordpress, Joomla, Drupal

1. Introduction

CMS content management system is a computer application technique. CMSs are most widely used to developed web application containing blogs, news, events and shopping. CMS can be viewed as data repositories that may also contain authoring, sequencing and content aggregation tools, with an objective to simplify the creation and administration of online content. A CMS is a stand-alone application to create, manage and the store content. A CMS consists of two elements: the content management application (CMA) and the content delivery application (CDA). The CMA element allows the content manager or author, who may not

know hypertext markup language (HTML) to manage the creation, modification and removal of content from a website without needing a webmaster. The CDA element uses and compiles that information to update the website.

2. Word Press

Word press is a completely free open source used to create dynamic website in a limited budget. Word press is a versatile a scalable framework that can be used to create websites ranging from small personal blogs to the multifunctional sites of large corporations. Word press was developed for creating blogging software.

2.1. Pros of Word Press

Open source: WordPress is an open source platform meaning that developers can use the code written and used already without having to modify or starting from the beginning.

Usability and simplicity: With other frameworks or CMS you need have a basic understanding of technical jargon and knowledge but when it comes to WordPress users with no technical background and uses it and that too, quite easily.

Easy of operation: With time everything changes or just to abide by the new technology and guidelines that needed to introduce a little modification in your site be it removing/adding a page, changing the background color, themes etc.

Plugins: Another great advantage of WordPress is plugin. It has over 45,000 plugins for most of the every functionality.

Rapid development: The major advantage of WordPress is the speed at which are able to create and start using a website.

2.2. Cons of Word Press

Open source: WordPress is famous because it is an open source and this is the same reason for its

downfall. As it is widely used, it is always at the target of hackers.

The Speed of the site: WordPress sites have lots of generic codes and plugins for incorporating functionality into the site. Hence, it could make the site respond slowly decreasing the loading time.

Excess of plugins: Plugins are there to enhance the functionality of the site but, they could work the other way round too. Using lots of plugins will drastically affect the performance of the site making it slower and decreasing the response time.

Frequent updates: Frequently updating site might hamper its functionality. Updates make the sites more enhanced. After each update some functionality of the site doesn't work for example plugins might stop working and it is needed to remove the old ones with new ones.

MySQL as Database backend: WordPress uses MySQL as a database backend which is less secure, hence, susceptible to cyber-attacks and can easily be hacked.

Suboptimal for SEO: SEO makes your site stay at the top and make it visible for the users to access it.

3. Joomla

Joomla is a free open source content management system (CMS) which enables to develop web sites, web application and online application Joomla is so much more than a powerful content management system. Joomla keeps content in its database to provide dynamic formatting.

3.1. Pros of Joomla

Middle solution: Joomla is a balanced solution between the raw power of Drupal and the simplicity of WordPress, meaning that even a technical novice will be able to create a beautiful and functional website in Joomla.

Usability and versatility: Joomla can be used to make almost any kind of a website. In making a small, personal blog, or an enormous online store with thousands of pages, Joomla has been got covered.

Terrific for social networking and e-commerce: Joomla has all three types of social networks supported. They are created very easily and will be useful for many different websites. Also, this platform is an excellent option for web stores and setting one up is pretty much painless, far easier than both in Drupal or WordPress.

Adaptability and flexibility: Joomla is a great option when website is still small, as it would be able to maintain it by developer. And then later when it (hopefully) gets bigger, it can be expanded and may be hiring someone to do the maintenance for everyone.

Excellent plugins: WordPress has more plug-ins than any other CMS, that's for sure, but Joomla has them better organized.

Support: Joomla did a great job recently as it has improved dramatically on the SEO field. It's no longer necessary to search for third party plugins and achieving decent ranking on search engines such as Google will no longer be an issue.

SEO capabilities: Joomla did a great job recently as it has improved dramatically on the SEO field. It's no longer necessary to search for third party plugins and achieving decent ranking on search engines such as Google will no longer be an issue.

Free: Joomla is free to use and has hundreds of free plugins.

3.2. Cons of Joomla

Difficult to migrate your content: Joomla does update very often, which is great. But, this will also cause some problems since many upgrades break a lot of extensions and plugins since they are not updated at the same time in many cases.

Media: Media management could be made better. It has some really limited capabilities as it can be unable to move, resize, crop, scale organize, or edit pictures in Joomla Media manager.

Not that free: Joomla is free to use. But, it is needed to know that Joomla offers no free hosting if on a budgeting, as WordPress does.

Lacking ultra-deep customization: Joomla will not offer a complete customization meaning that it will be find some limitations.

4. Drupal

Drupal is another popular Content Management Software. Although Drupal is often described as a "Content Management System" it is also a "Content Management Framework (CMF)". Unlike a typical CMS, it is geared towards configurability and customization.

4.1. Pros of Drupal

Free use and open source code: CMS is completely free allows it to compete with other similar products - such as Joomla and WordPress.

Focus on professional webmasters: Drupal was originally developed with the idea that mainly professionals will be using it.; this is the main advantage of the system and distinguishes it among its major competitors.

Plenty of room for creativity: With the help of Drupal web developers have the ability to create resources, neglecting the difference between the complex and original designs.

High speed: As compared to other CMS Drupal, due to the built-in caching has the best speed.

A rich set of modules: Because the source code is open, as in any free CMS, Drupal has the ability to improve and extend its functionality by adding additional modules.

The presence of additional functions: Due to the presence of the built-in queries, forums, and multi-blogs, any project created with the help of Drupal gets a good start.

Security: Unlike its free competitors, this system has increased its protection so it does not break down so easily.

Professional online community: Although there are more fans of Joomla and WordPress, the online community of Drupal has a large number of professional programmers.

4.2. Cons of Drupal

The difficulty with familiarization: For those users who have not previously built a site, the creation and promotion of a site using Drupal can be difficult. While it will not take long to master the basic functions of the system, to fully understand it may take you several months.

Advanced interface: Professional construction systems make Drupal difficult to master. Due to its complex interface, it is not very intuitive.

High system requirements: Before turning to the use of this CMS, you must be prepared to forget about cheap fares and pay an expensive hosting fee.

The lack of high-quality designs in free access: Most users of the system are engaged in self-development designs for their projects. This leads to a shortage of quality topics for the site design.

Difficulty in the installation of updates and program modules: This system is complicated for those web developers who previously had to deal with a simple CMS, as the installation of updates and additional modules in the Drupal software is made through FTP.

5. Core Features

This section can be described in the 3CMSs: WordPress, Joomla and Drupal as follow:

WordPress	Joomla	Drupal
<ul style="list-style-type: none"> • Simplicity • Flexibility • Publish with Ease • Publishing Tools • User Management • Media 	<ul style="list-style-type: none"> • Installation • Maintenance and update • Multilingual • well supported • Easy up grads • Media Manager 	<ul style="list-style-type: none"> • Templates • Modules • Multiple user • Multiple level menu system • Pages • Blogs

<ul style="list-style-type: none"> • Management • Easy Theme System • Extent with Plugin • Multi Lingual (60 language) • Easy to mall and upgrades • Importers • Freedom • Community • Password Protection • Time travel • Never Lose a word • Plugin system • Theme system 	<ul style="list-style-type: none"> • Banner Management • Contact Management • Search better and search smatter • Content Management • Nested Categorization • Frontend editing • Content Versioning • Menu Manager • Powerful Extensibility 	<ul style="list-style-type: none"> • Contact form • Polls • Search • Upload • Statistics • Taxonomy • FAQ Management • Word flow engine • Newsfeed • Comment and tracker • Content translate • Ping • Profile • Trigger • Open ID
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6. Conclusion

The three CMSs, Wordpress, Joomla, Drupal are the most popular content management system, free open source and built on PHP and MySQL. In this paper, we study the some pros and cons of the Wordpress, Joomla and Drupal. We also state that to analyze these CMS on the core features, installation process, browser compatibility and performance with different platforms.

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