



Content Management Systems: Advantages Of CMS In Managing Corporate Websites And Comparison Of Top Content Management Systems In Market

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ABSTRACT

The purpose of this study is twofold. First to understand what problem companies faces with the existing traditional model of website management and the advantages or improvement that Content Management System brings to them. Second, there are many CMS available in the web development tools market, in this research paper I discuss the Typo3, Joomla, Drupal and Wordpress CMS for analysis. My research will help companies and individuals to understand the benefits of shifting from the traditional model to CMS and will help them decide which Content Management System to choose for their website.

KEYWORDS: CMS - HTML - Web Server - Wordpress - PHP - Joomla - Typo3 - Drupal

INTRODUCTION

In the digital world we work and live in, maintaining and routinely updating company websites is critical. Businesses without in-house web developers require a simple system that allows anybody to readily update content while retaining their brand identity and messaging to potential consumers and clients.

Individuals and organizations can use a content management system, often known as a CMS, to modify, administer, and maintain existing website pages in a single interface without needing specialist technical skills. When hiring a web design business to create a website, make sure it's built on a common content management system (CMS), such as WordPress or Joomla. This will enable your staff to make minor content adjustments, while also allowing the web

design firm to make layout and design modifications more rapidly and affordably.

The discipline of collecting, organizing, categorizing, and arranging information for delivery on a website is known as web content management. CMSs allow a distributed content model by separating content from display and providing a simple interface for content providers to upload material. It's not practical to employ a developer with HTML and CSS understanding every time you need to make a little modification to your website.

A distributed application is a web application that runs many computers and communicates through a web network or a web server. A web application is a platform that can be accessed and used by millions of people at the same time [1]. Web development, although that is where it is mostly practiced today. CMS

is about developing web applications over the creation and delivery of information and functionality [2]. It is about knowing what value you have to offer, who wants what parts of that value, and how they want you to deliver it.

PROBLEMS BEEN ADDRESSED WITH TRADITIONAL WEB TECHNOLOGIES:

Static content management takes a lot of effort and money, especially for sites with hundreds or thousands of pages. Sites are expanding and becoming more content-rich. Successful websites amass a great amount of content quickly. Controlling content anarchy is the top reason businesses seek ECM solutions, according to the survey. Tweets, instant messaging, and external blog postings had the most disorganized material. The 'Style' of the site and the design of the pages are tightly tied with the material itself; to update content, you must engage HTML experts or risk errors and style issues. Content management consumes a significant amount of IT time and money. Separating the content creators from the authors costs time and money, as well as accuracy and currency.

What is the diversity in Today's CMS Market?

Content management platform consists of an environment and development tools on which content management solutions can be implemented.

- As web information services, content portals manage and administrate content and services.
- Virtual classroom management systems enable the distribution of content for online learning and collaboration via forums, chat, and online evaluation, among other features.
- Content is organized in Digital Library systems around users, collections, and services. These systems frequently include collection-specific tools, management, and collaboration capabilities.
- Digital publications, such as newspapers and periodicals, are the focus of digital publication systems.
- Collaboration systems offer capabilities for working in groups, such as the ability to assist groups of users working on projects together. Workflow, users, process and workflow control points, content deliveries, and collaboration tools for communication and activity control are all managed by these systems. Wikis are a type of collaboration system that allows for the

"elaboration of papers for interest-sharing communities."

- Weblogs are typically single-user and basic workflow publishing systems that allow non-technical individuals to publish documents on the Internet.
- "The production, publishing, and administration of firm information and documents on the web" is what web content management entails.

A survey study by Harrisburg University

I studied about a survey done by Harrisburg University on the reasons why companies are willing to shift CMS. Following is my observation:

- Do businesses want the contents of their websites to be evaluated by a group of people before they are published?
Because the contents are prone to error and require ongoing revision before publication, 95% of respondents replied yes.
- Do businesses prefer a simple user interface with template forms to updating on the server machine?
When compared to traditional website management, 75% stated they prefer this functionality since it is easier to handle content.
- Do businesses prefer to control people via browsers rather than UNIX scripts?
Managerial User-related tasks accounted for 39% of the total, while task-related tasks accounted for 11% 33% of the population is technological. ten percent of the content 7 percentage points PERCENTAGE OF EACH FACTOR TO DECIDE ON CMS SWITCHING This question was answered affirmatively by 89 percent of respondents.
- Do businesses desire the ability to control content revisions?
Because of the convenience of reverting back to a previous version of content in the event of an error, 99 percent of respondents said yes.

The responses to this survey show website are using a CMS to manage their main content :

Use a CMS to Manage website			
		Yes	No
User is highly satisfied	Yes	54%	47%
Or not satisfied	No	46%	53%
Total	47	100%	100%

Table1- Satisfaction with CMS

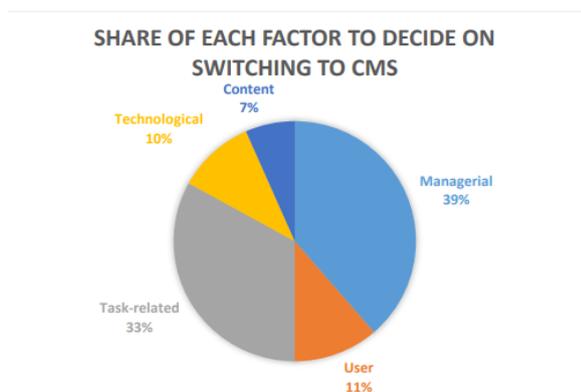


Image 1- Factors to shift to CMS

Features of CMS to consider before selecting one

When choosing the best CMS system, make sure that the vast array of functions is aligned with specific requirements. The installation of the chosen software solution is the first step in implementing a CMS-supported web project. The more complicated the system, the more expensive it is to build and maintain. All of the content management systems provided allow for expansion via extensions, modules, widgets, or plug-ins. When a website is shared by several users at the same time, CMS all open source solutions comparison can be utilised as a multiple user system accessible for user management should be the key decision criteria. CMS systems are used by website developers to make the development and dissemination of online content easier. A decent CMS has functions that allow users to produce and maintain website content without having to know how to programme. Support and service are decisive considerations when choosing a CMS. Personal, small, and medium-sized businesses, in particular, cannot afford to pay for professional online presence implementation, conception, and maintenance services.

Let's discuss some leading CMS ruling the market

Wordpress

Wordpress is a wonderful online programme that can be used to construct web pages or blogs. Wordpress began with a single line of code in 2003, with the goal of improving the typography of everyday writing. It has now matured into the world's most popular self-hosted web design tool, with millions of webpages and millions of daily visitors. Wordpress is a content management system (CMS) based on PHP and MySQL

that is open source and free. Many features added a plug-in architecture and a template design. Wordpress is currently the most popular website design system in use on the Internet. Wordpress relies on peer support as a free and open source platform. The website Wordpress.org provides primary support [3].

Typo3

TYPO3 is a web-based enterprise content management system that is free and open source. It has a lot of versatility in terms of features, functions, and modules. The software has been translated into a number of languages and is being actively developed among a community of over a million users from across the world. Typo3 is a large programme with a large community, adoption, and a long list of further capabilities. The templating system is the most problematic aspect, and it is extremely sophisticated when compared to alternative solutions. It only takes a short amount of time to figure out how to make a page. After experiencing it, I believe it has the best template system of them all. Typo3 is not ideal for a project with a short deadline; this could result in a bad experience. This CMS needs a lot of time to develop first sites for beginners but searching for a platform can be used in all website projects and still is very easy to handle and fully adjustable if experienced once, then Typo3 is best for experienced developers [4].

Joomla

Joomla is a free and open source content management system (CMS) that can also be used on its own to create Web sites and complex online apps. Joomla is a type of Open Source CMS that uses object-oriented programming principles and is built in PHP. It uses a MySQL database for the backend. Joomla is a powerful content management system with the list of features User Management, Media Manager, Languages Manager, Banner Management, Contact, Polls, Search, Web Link, Content, Menu, Templates, Web services Management and Powerful Extensibility. Joomla provides dynamic formatting and keeps content in its database [5].

Drupal

Drupal is a content management system (CMS) that allows for easy content management, organisation, and deployment, as well as a wide range of customization options. Drupal has a large number of APIs that can be

used to integrate with a website, such as Google Maps, payment gateways, and so on. Drupal is adjustable in that we can use a variety of themes and templates to create a configurable layout for our site, which we can then change based on our experiences. The average user spends far too little time forming an opinion about a website. As a result, we have less time to persuade users to stay on our site and buy things from our marketplace. The built-in functions such as t() and l() helps us to stop attacks like SQLIA or XSS. These functions can also be used for language translations, it means we can launch the same website with multiple language options [6].

Comparison between the four

There is a feature list to consider while selecting a CMS for web development. CMS systems are classified by web development category, licencing status, operating system platform, supported web servers, supported database systems, Middleware systems, template design, and so on. Typo3 is in the category enterprise content management system, Wordpress is in the category weblog software, while Joomla and Drupal are in the same category as web content management system, according to the comparison. TYPO3 and Drupal have GPL licences. The CMS is all based on the same cross-platform operating system. The web servers that Typo3 and Joomla support are Apache, Nginx, and Microsoft IIS. Wordpress and Drupal are two CMSs that employ PHP and MySQL on a web server. All types of CMS use the MySQL database server. Typo3, Joomla, and Drupal use the database servers MS SQL and Postgre. Joomla, Wordpress, and Drupal all use MariaDB as their database server. Typo3 makes use of Firebird in particular. Other database servers, such as SQLite and Percona Server, are used by Drupal. Typo3 uses SQL and Javascript in addition to PHP, which is middleware needed by all CMS. Joomla, Wordpress, and Drupal all employ PHP as a template language. Typo3 is a template language with a lot of flexibility.

CONCLUSION & FUTURE SCOPE

This paper has presented the need and benefits of shifting to a CMS website. Benefits supporting my paper are:

- user-friendliness
- quick deployment
- ease of maintenance, including updates

- cost-efficiency, especially without-the-box solutions, open source or freeware
- extendable functionality, through a large number of plugins and extensions
- SEO-friendly features
- developer and community support

One of the main advantages of CMS is that it enables non-technically minded users to create functional pages or upload and modify content themselves, without having to outsource the work to a web developer or understand programming languages such as HTML or PHP.

This article also included a detailed analysis of the features of the various Content Management Systems Typo3, Joomla, Wordpress, and Drupal. A detailed technical comparison of content management systems that provides information on many characteristics to help you choose the right platform for your website development. This comparison reveals that the content management systems are more compatible with one other from various perspectives and scenarios. With the next generation of Content Management Systems and some more sophisticated capabilities, the topic of this research study can be taken to the next level.

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