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The Evolution of Web CMS: From Basic Content Management to Advanced Personalization

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ABSTRACT: The use of Content Management Systems (CMSs) such as WordPress, Drupal, and Joomla have become increasingly popular for building websites due to their ability to simplify website management and improve website performance. In this research paper, We examined the characteristics, benefits, and drawbacks of these widely-used CMSs, assessing their appropriateness for different kinds of websites. We analysed their customization options, security measures, and technical requirements, providing statistical data and references to support our findings. Our research highlights the importance of choosing the right CMS based on individual needs and requirements, and taking steps to secure your website against potential threats. By understanding the advantages and limitations of CMSs, users can create effective and secure websites that meet their specific needs.

KEYWORDS: Content management system, CMS'S, Word Press, Drupal, Joomla, website management, website performance, customization options plugins, themes, security measures, technical requirements, website development, website design, website building, website creation.

I. INTRODUCTION

Web Content Management Systems (CMS) have become essential tools for building and managing websites. A CMS is a software application that enables users to create, manage, and publish digital content, such as web pages, blog posts, and images, without the need for coding knowledge. CMSs have revolutionized website development by simplifying the process and enabling non-technical users to create and manage their websites. In this paper, we will examine three of the most popular CMSs: WordPress, Drupal, and Joomla. We will delve into their features, benefits, and drawbacks to assist users in making informed decisions when selecting a CMS for their website.

II. HISTORY AND EVOLUTION

During the early years of the internet, when websites were basic and mostly used for displaying static HTML pages, the idea of content management first emerged. The requirement for a system to control the production, storage, and delivery of content increased as web-sites got more dynamic and complicated. Tim BernersLee, the creator of the World Wide Web, created one of the first CMSs in 1990. With the aid of a simple WYSIWYG interface, web pages could be created and edited using this CMS, known as the World Wide Web browser/editor. More advanced CMSs started to appear in the middle of the 1990s, including platforms like Vignette and Interwoven. These systems provided more sophisticated capabilities including content reuse, version control, and workflow management. Open-source CMSs like Drupal and WordPress started to gain popularity in the early 2000s. These platforms gave developers the ability to adapt and modify the software to suit their particular needs, making them a more flexible and affordable alternative to proprietary CMSs. Today, WCMS has developed to include a variety of features and functionality, such as personalised content delivery, enhanced analytics, and multichannel content distribution. Social networking, mobile technology, and cloud computing have all significantly influenced how WCMS has developed.

III. USAGE STATISTICS

According to W3Techs, as of March 2023, WordPress is used by 41.2% of all web-sites, Drupal is used by 2.5% of all web-sites, and Joomla is used by 1.4% of all websites (4). Meanwhile, Built With re-ports that WordPress is used by 39.2% of the top 10,000 websites, Drupal is used by 2.4% of the top 10,000 websites, and Joomla is used by 1.7% of the top 10,000 websites (5). These statistics indicate that WordPress is the most popular CMS by a wide margin, followed by Drupal and Joomla.

IV. FEATURES

A. WordPress

WordPress is known for its ease of use and user-friendliness. It has a vast collection of plugins and themes, making it easy to customize and extend the functionality of a website. WordPress has a simple and intuitive interface, making it a popular choice for beginners. Addition-ally, WordPress has a strong community of developers who create new plugins and themes regularly, ensuring that the platform is continuously updated and improved.

B. Drupal

Drupal is known for its robustness and flexibility. It can handle complex web-sites with high traffic and advanced features. Drupal has a modular architecture, which means that it has extended with custom modules to provide additional functionality. Drupal's strong point is it has ability to handle complex content types, such as events, locations, and us-er generated content. Drupal is an ideal choice for enterprise level websites with complex requirements.

C. Joomla

Joomla strikes a balance between WordPress and Drupal, providing a user-friendly interface along with a variety of powerful features. Joomla is easy to use, and its drag-and-drop interface makes it simple to create and manage content. Joomla also boasts a robust community of developers. who create new extensions and templates regularly. Joomla is ideal for small to medium-sized websites that require a balance between ease of use and functionality.

V. DESCRIPTION

WordPress is the most popular CMS, with a 64.2% market share, according to W3Techs (2023), followed by Shopify (3.9%), Squarespace holds 3.6% of the market, and Wix accounts for 3.3%. In contrast, Drupal and Joomla each capture only 3.7% of the market. This means that WordPress is the most popular CMS for creating websites, and it is the platform of choice for millions of people globally. While WordPress has the majority of the CMS market, Drupal and Joomla each have their own distinct advantages. Drupal is a popular choice for government and enterprise websites because it is highly versatile and can be customised to meet the specific needs of huge and complicated websites. Joomla, Conversely, has an easy-to-use interface and a vast extension library, making it an excellent alternative for small and medium sized enterprises. WordPress provides a variety of plugins and themes that allow users to customise their websites to their own needs. Over 60,000 plugins are presently available in the WordPress Plugin Directory, which will be used to add functionality like as contact forms, social media integration, and e-commerce. Drupal has a similar set of modules, however Joomla has a library of extensions that may be used to add features like image galleries, calendars, and event management. When it comes to website security, taking measures to safeguard your site from potential threats is crucial. This includes keeping the CMS and plugins up to date, using strong passwords, and implementing security measures such as firewalls and malware scanners. Additionally, Regularly backing up your data is essential. your website to protect against data loss in the event of a security breach.

VI. CONCLUSION

In conclusion, CMSs have revolutionized website development by enabling non-technical users to create and manage websites without any coding knowledge. WordPress, Drupal, and Joomla are three of the most widely used CMSs, each offering a unique set of features, benefits, and drawbacks. Drupal is highly flexible and can be customized to meet the specific needs of large and complex websites. Users can choose a CMS based on their requirements, such as ease of use, flexibility, and scalability. While CMSs have their limitations, they offer a range of benefits, including simplified website management, a wide range of plugins and extensions, and search engine optimization. with just a few clicks.

CMSs are also search engine friendly, meaning that they are optimized for search engines such as Google, Bing, and Yahoo. It is essential for users to secure their CMS and plugins to protect against security threats, and to optimize their website's performance to ensure a smooth user experience. As CMSs continue to evolve, they will become even more user friendly and feature-rich, enabling users to create and manage websites that are both functional and visually appealing.

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