CMS COMPARISON REPORT

of **WordPress, Drupal,** *and* **Joomla**

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CMS Comparison Report

Purpose

The purpose of this report is to describe the functions of a content management system (CMS), why people use CMSs for their web content, the advantages of using a CMS, and to compare the three most popular: WordPress, Drupal, and Joomla.

What is a CMS?

CMSs allow users to store digital content in an online format. They use the WYSIWYG (what you see is what you get) model, which means users can insert content into an online template and see exactly how the final product will look.

A CMS comes in the form of a web application with different levels of management permissions for different users. The application allows users to collaborate and create, edit, and publish website content.

Why do people use CMSs?

Before CMSs, businesses dealt with the hassle of managing a website through a webmaster—first by calling the webmaster, communicating changes, and then having the webmaster modify the code. This process slowed website updates and increased the margin of error. When businesses would need to make thirty to forty updates in one day, misplacing or disrupting code in one place could be devastating to the entire website. Businesses, as well as individuals, use CMSs because users have access to the content separate from the code. Creating a website becomes easier and quicker than updating content and design through a webmaster.

CMSs save money. They allow users to avoid the difficulty of coding your own site. Users can input information without disrupting the design and coding of the site. CMSs provide basic features and tools to save time on having to learn programming language. The software provides and manipulates code for you, which makes building a website democratic—anyone can create a nice-looking website, and easily. Also, CMSs are cheap. Creating a website can cost you nothing with the basic website themes sometimes provided by a CMS. With more customizable themes, the average cost of designing a website is about $58.

CMSs save time. Updating content and design becomes faster by utilizing an administrative interface. An administrative interface gives an administrator (the supervisor of the site) the ability to manage the levels of access for other users. Levels of access provide an easier way to collaborate—you can allow a freelance writer to add and edit content without granting him or her universal access to the site. The ability for multiple people to access a CMS boosts collaboration and saves time by eliminating the full webmaster process.

Some other advantages of CMSs are through the following essentials:

- **Templates**. CMSs provide templates, as well as allow designers to create their own templates, that ensure a consistent look for your website. Templates save time on constructing pages of a site and keep pages updated and uniform. When you choose a color palette to go with your template, the colors will repeat consistently across all pages. You would make a change only once, saving on time and hassle.
- **WYSIWYG editing**. As you insert content, it appears in the template as it will in the published website.
- **Metadata**. Your CMS will include metadata (data that provides information about other data) that improves your website's search engine optimization (SEO). People who visit your site depend on SEO to find information relating to their search, in order of relevance. Useful search results increase the usability of a website greatly, allowing users to more easily navigate information.
- **Statistics**. CMSs can gather information on who visits your website, allowing you to better market your website around demographics.

Figure 1: This WordPress page allows an administrator to grant administrator, editor, author, contributor, or follower access to the administrator's site without giving the invitee the username or password.

WordPress, Joomla, and Drupal make up the three most popular CMSs on the market. By evaluating their strengths and weaknesses, we can decide which CMS most accurately reflects the project's needs.

WordPress

WordPress is "an online, open source website creation tool written in PHP" and is considered the easiest and most widely used CMS with 60.1% of the market share. This CMS is free, and is a great choice for beginners due to its basic interface and already provided themes.

Strengths and Weaknesses of WordPress

Strengths:

- WordPress does not require PHP or HTML knowledge, unlike Droopal and Joomla.
- Easy installation makes this CMS ideal for beginners. The average installation time is about five minutes.
- The popularity of WordPress has led to a higher availability of online help forums. If you have an issue, answers are readily available.
- WordPress has 54,221 plugins which allow greater functionality. One example of a WordPress plugin is "Akismet," which checks your WordPress website for spam bots.
- WordPress offers thousands of themes (templates for site layout and design), with users hosting new themes on WordPress.org every day.
- Because WordPress is an open-source project, it allows developers to increase security, offer new updates, and create new plugins and themes regularly.

Weaknesses:

- Although the basic usage of WordPress doesn't require PHP knowledge, further modification of sites do. Without any experience in PHP, a user would need help from a designer to make significant visual changes to a theme.
- Because WordPress is free, it doesn't provide technical support.
- Plugins can sometimes negatively impact the efficiency of your site by slowing it down.
- The functionality of a plugin can repeat across plugins, and the sheer multitude of plugins on the site—54,221—can be overwhelming to users, and difficult to navigate.
- The strength of WordPress' security is generally low. A user would need to take extra measures to ensure that his or her site's impenetrability.
- WordPress search organizes search results by date, not by relevance.

Who uses WordPress?

Major news outlets, magazines, and newspapers use WordPress to host their websites, such as *The Wallstreet Journal, Variety,* and CNN. WordPress provides exactly what businesses like these need: a place to host static content with customary features, as well as a basic layout. WordPress is also useful for small- or medium-sized sites, such as blogs.

Drupal

Drupal advertises itself as "the #1 platform for web content management among global enterprises, governments, higher education institutions, and NGOs [non-governmental organizations]." Drupal is an open-source software written in PHP and currently holds 4.5% of the market share. This CMS is free and requires existing knowledge of HTML, CSS, and PHP, which makes it incredibly powerful.

Strengths and Weaknesses of Drupal

Strengths:

- The Views module allows users to create, manage, and display lists of content. Non-programmers can create custom content queries and displays using a graphical user interface (GUI), which use metaphors, symbols, and icons to communicate with the user.
- Drupal allows extensive functionality and customization. Drupal sites provide users with a blank website that can become whatever the user wants it to be, and this proves especially helpful through "content types." Content types define default settings according to the site's purpose. Some examples are informational pages, news items, and blog posts. This feature makes prototyping a website more efficient.
- Drupal takes intensive security measures to ensure that sites are safe. Drupal's team has a short response time when discovering gaps in security.
- The Drupal community is large and very invested in the CMS, which has led to strong online support. This overwhelmingly positive response also ensures security in the CMS being long-lasting; users will feel safer investing their time and energy into a CMS that won't fail.

Weaknesses:

- Drupal involves a learning curve for new users because it requires more knowledge than just PHP—knowing Drupal can require skimming pages of API documents (documents that contain instructions about how to effectively use an interface). This can be costly time-wise if you need to create a website in a rush, and money-wise if you need to hire a website designer.
- Updating the full software can be a slow process. Once the software is updated, developers must rewrite their modules to ensure compatibility with the newer update's version.
- For Drupal to remain flexible, the software updates have to respond to a wide array of offered features. This means that users will need to spend time on optimization, hardware, and caching (storing memory).
- Some complain that Drupal would fail to properly host large websites. The reason for this is something called "contributed modules," meaning that as a site grows, modules (plug-ins that extend the functionality of Drupal) run their code all at once and at times may conflict, which leads to slow speeds, errors, and crashing. However, there are ways around this issue.

Who uses Drupal?

Drupal's attentiveness to security and ability to operate on a large scale make it a great host for both government and fortune 500 websites. Drupal's variety of features meet the needs of a more complex audience—such as someone visiting a government website who might need to fill out a form, or create a site that requires [complex content organization](#).

Joomla

Joomla advertises itself as "a free open source software developed and maintained for almost 10 years by a community of dedicated volunteers" with a focus on extensibility and usability, and currently holds 6.4% of the market share.

Strengths and Weaknesses of Joomla

Strengths:

- Joomla has a powerful and user-friendly administrative interface. This interface allows an administrator to manipulate how his or her site looks; it provides a Template Manager to edit template settings or change to a new template entirely, as well as provides new extensions such as components (mini-applications), languages (extensions that translate the Joomla system), modules (extensions that influence page rendering), and plugins.
- Joomla requires some basic technical knowledge, but isn't difficult to learn. A non-developer could understand and use this CMS without difficulty.
- Joomla has an active community with millions of users, making problem-solving easier through help forums and online tutorials.
- The one-click installation feature makes installing this CMS easy.
- Joomla offers multilingual options; the user can select an additional language and begin translating content, all without having to install extensions.

Weaknesses:

- Joomla modules are difficult to obtain and maintain. There aren't as many options for modules, and they aren't regularly updated in the CMS.
- Creating your own custom template in Joomla is complex without developer experience.
- Joomla's control panel is complex as well, and takes more time to comprehend.
- If you decide to change from one theme to another, you'd need to first ensure that the new theme is compatible and supports the existing site content to work properly.
- Purchasing the license to a commercial theme is difficult through Joomla, due to the multitude of commercial themes and their varying price points.
- Joomla lacks an SEO-friendly interface. Users instead would have to install plug-ins to achieve a high rank in search result pages.

Who uses Joomla?

Joomla is mainly used for government, education, media, corporate, and e-commerce websites. Some notable users of Joomla are Harvard University, the Guggenheim Museum, and even business, most notably eBay, General Electric, and Ikea. Joomla's ability to customize, maintain security, and translate content internationally make Joomla essential for multi-national organizations.

Recommendation

If we are looking to create a website with our current staff and resources, I recommend WordPress for the project. We'll be able to create the website at a low cost, without the need for technical expertise. The popularity of this CMS means we have a multitude of online resources to help with any issues we may come across. The themes provided by WordPress are clean, modern, and aesthetically sound. WordPress also provides thousands of plug-ins to choose from, which will increase the functionality of our site.

However, Drupal would be the best CMS for creating a multi-faceted site with greater functionality and customization. Drupal also provides greater security and can smoothly transition sites as they grow—something we need as our site gains traction. Choosing Drupal as the host for this project would require hiring a technical expert, which we might be able to hold off on until the site gains a larger web presence.