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COMPARING OPEN SOURCE CONTENT MANAGEMENT SYSTEMS:

WORDPRESS, JOOMLA, DRUPAL AND PLONE

FULLY UPDATED

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Our original set of criteria for reviewing Open Source Content Management Systems was developed through interviews with 14 different nonprofit consultants and staff members. See the 2009 version of the report for more information on those contributors.

For more background information about all of our authors and contributors, please see Appendix D.

How Was This Report Funded?

About Idealware

Idealware, a 501(c)(3) nonprofit, provides thoroughly researched, impartial and accessible resources about software to help nonprofits make smart software decisions. For many more free resources, or to sign up to be notified when we publish new articles or reports, go to www.idealware.org.

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INTRODUCTION

Idealware's first report on Open Source Content Management Systems for nonprofits, published in March of 2009, covered WordPress, Joomla, Drupal and Plone. More than a year-and-a-half later, these four systems still account for the lion's share of the nonprofit market, but a lot has changed—in fact, all four systems have grown stronger.

"A lot has changed since our first report—in fact, all four systems have grown stronger."

Two of the systems—WordPress and Plone—released major new versions, and the other two—Drupal and Joomla—are scheduled to do the same within a month or two of the publication of this report. These new versions address some of the shortcomings we noted in our initial report, and in many ways the systems are drawing closer to each other in functionality.

Of course, the core purpose of a Content Management System has not changed. A web presence is critical for almost every nonprofit, but creating websites can be daunting. It can take a lot of time, money and technical expertise, which are often in short supply. And just because you have a website up and running doesn't mean your work is done. You still need to keep up with maintenance, updates and desirable new features. This is where an open source Content Management System (CMS) can help.

Generally speaking, a CMS is a software package that lets you build a website that can be quickly and easily updated by your non-technical staff members. These open source systems are created and supported by a community of developers, and can be downloaded without cost. Both their feature sets and their price tags make open source systems particularly attractive to nonprofits.

"A Content Management System is a software package that lets you build a website that can be quickly and easily updated by your non-technical staff members."

This report rates the four most widely used Content Management Systems in the nonprofit world (see Appendix C for more details on our market analysis) on a variety of criteria, including updating the information from the last report on areas like system flexibility, features, ease of use and the availability of support, and some new criteria—most notably, website accessibility and search engine optimization. We also dig a little deeper into what open source is all about, and how a CMS can help streamline processes. We even take a look at some vendor-provided systems, along with a few other open source options, to help you understand when you might want to look beyond the four systems we reviewed.

We've done our best to use language that's relatively easy for someone with a non-technical background to understand, but not so basic that it won't be of value for the technically savvy. And we've tried to provide

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"The person or firm that designs and builds your website is likely to be as important as what CMS you choose."

details about the important features and useful differences between the systems. For the two systems with major releases just around the corner, we look at both the current features and those available in the beta versions.

Keep in mind, however, that a system is only one part of the equation. The person or firm that designs and builds your website is likely to be as important as what CMS you choose. In fact, if your needs are straight-

forward (for example, a hierarchically organized site that's less than 100 pages) and you're planning to hire a consultant, choose a great consultant and use whichever CMS he or she is familiar with. If your needs are more complex, though, it can be very useful to have a sense of the differences between the systems. Many consultants specialize in a particular CMS, which means you'll need to weigh your comfort level with the consultant and the fit of the CMS for your needs to decide on the right person.

No report can answer every question. If you're planning to spend $50,000 or more on a website, get tens of thousands of visitors a day or have detailed questions about sophisticated functionality, you'll need to look beyond this report for the additional information you'll need to choose from these four systems. But if you're a small to mid-sized organization, whether your needs are simple or sophisticated and your technical knowledge is shallow or deep, this report can provide you with a good overview. Taking the time to read through it carefully can save you a lot of work and money.

WHAT'S CHANGED SINCE THE LAST REPORT?

New to the world of open source CMS? Skip this section, and head straight to the overview on page 8. But if you read our 2009 report and want to know what's changed since we last reviewed the systems, here's a quick summary of the updates.

WordPress

Since our last review, WordPress has moved from version 2.7 to 3.01. Having taken notice of the widespread use of their platform for full websites and not just blogs, they've added substantial enhancements to make WordPress more usable as a full CMS.

Content administrators will appreciate the customizable admin screens, the ability to edit a number of page items or posts at once, image editing, contextual help and user-friendly menu and sidebar item-management interfaces.

Developers and site administrators can now take advantage of such behind-the-scenes improvements as easy access for the creation of custom content types and taxonomies, and the inclusion of all the functionality of WordPress MU (which used to be a separate system focused on complex multi-author and even multi-site blogs) for the administration of multiple sites through one installation.

Joomla

The Joomla community continues to focus on streamlining and refining the core system while creating more options for developers and making the administration system easier to manage for content editors. They've moved from version 1.5.8 to 1.5.21 since our last review, with the launch of the major version 1.6 right around the corner.

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Releases since the last report have mainly focused on bugs and security issues with few new features added. However, theme- and add-on developers have provided many mature products to the community that enhance the core system with easy theme-customization and a wide variety of content types and functionalities.

With a big step forward, Joomla 1.6 will remove the imposed three-tier hierarchy in older versions, making content organization both easier and more flexible. Along with enhanced management of sidebar items and robust user groups and permission functionality (including the ability to allow users to edit or publish only the content in a particular section of the site), this release will remove many of the system's previous sticking points. The already user-friendly administration interface has been thoughtfully updated and refined, as well.

Drupal

Drupal has moved from version 6.8 to 6.19 since our last review, with the major launch of version 7.0 scheduled for the beginning of 2011. The core development team engaged the Drupal community for feedback, took careful note of their needs, and set to work implementing many of the most requested features and updates in the core system.

Releases in the 6.X version of Drupal have focused on bugs and security issues with no new features being added. The community as a whole made progress toward easing the learning curve and development needs for new installations through distributed Installation Profiles, which include typical modules, themes and configurations for various types of sites such as news or e-commerce. Several community-contributed add-ons, like custom fields, have become so widely used that they are being committed to the standard core in the upcoming Drupal 7.0.

Drupal 7.0 includes the ability to easily create custom content types and manipulate images on upload. A dramatically updated administration interface, including a top-level toolbar and reworked architecture, simplifies the sometimes-overwhelming number of options available to site administrators. User permissions, which were already robust in earlier versions, become much easier to manage with the new approach to user groups and inheriting settings through hierarchy.

Plone

The Plone core development team continues to leverage the strengths of the Python community to find efficient ways to provide a strong level of complex functionality and improve end user experience. They've moved from version 3.1.7 to 4.0 since the last report.

The new consolidated approach to installing add-ons and themes via the "Build Profile" means all installation is done by editing a single text file that then finds and extracts resources from a set of repositories on remote servers. This improves security and provides a powerful tool for developers to control most aspects of the site.

Content editors will appreciate the new less-technical-feeling aspects of the updated theme, a new WYSIWYG editor with enhanced image and video manipulation possibilities, and the ease with which they can roll back changes through the normal administration screens.

New tools being developed in the community, such as XDV, will enable a full separation of the theme layer, dramatically easing technical knowledge requirements for web designers working with the system.

WHAT IS AN OPEN SOURCE CONTENT MANAGEMENT SYSTEM?

At its most basic, a Content Management System (CMS) is a software program that makes building and maintaining websites faster and easier. Let's say you're using a site without a CMS—if you want to post an event and have that event show up in five different places on the site, you have to perform the same activity five separate times on five separate pages. With a CMS, you only have to post the event once—and any staff member can do it, regardless of their technical expertise.

"The system can automatically pull the content out and show it on the appropriate pages based on rules you set up in advance."

How does this work? Content management systems store the actual content (text and images) in a database. The system can then automatically pull the content out and show it on the appropriate pages based on rules you set up in advance. The ways you can organize it, and the types of rules you can use, depend on how structurally flexible the CMS is. This setup makes it easy for all your content administrators—the staff members writing and publishing the actual information on the site—to create content without worrying about technical issues, or even knowing all the places the content should go.

Content Management Systems also separate graphic design from the content itself. This is accomplished through the use of "themes," or graphic design layers that control graphic elements, font and navigation styles, and page layouts for each page on the site. You simply choose a pre-packaged theme for your site, or create a theme that's completely customized to your own look and needs.

"Open source systems are free in many ways."

The term "open source" is a key distinction. It means the software's source code is freely available for everyone to see and change (as opposed the source code for MS Word, for example), but it also has many wider implications. While proprietary software is created, distributed and maintained by a business, with open source software these tasks are handled by a community of developers and users (recently, for-profit consulting and development firms have also become important vehicles for support). Just how effective that community is at its job is an important consideration when choosing an open source CMS.

Open source content management systems are free in many ways. They're free as in "free speech"—you can do what you wish with the product and the code behind it, extending and integrating it as you see fit. They're free as in "free beer"—there's no license cost for the software, and anyone can download and install them on a web server without cost, though you'll likely need to pay for the server, or pay someone to install the system. And they're free as in "free kittens"—that is, an open source CMS takes work. You'll

either need to put a lot of time into implementing and maintaining your system, or hire someone to do it for you. No CMS will magically design and write your whole site for you; that's a job for humans.

Open source content management systems are also designed to be modular. When you download one you get the set of features a group of developers decided ought to be the base level of functionality, called

''An open source CMS takes work. You'll either need to put a lot of time into implementing and maintaining your system, or hire someone to do it for you.''

the "core" of the system. But there's a huge range of add-on modules that provide additional functionality for each CMS, and a rich network of developers working to create more. If there's something you want for your website that the core CMS doesn't already do, someone else has probably already built what you're looking for—and, if not, you can build your own, or hire someone to build it for you.

There's a whole community of people who create add-ons, modify source code, and ask for and offer support. When you decide to install an open source CMS you become a part of that community. But there's an expectation that when you ask a question, you have at least some knowledge of the system; they're not going to do the work for you. If you don't have someone with technical skills on staff, you may want to hire someone to implement the CMS. And as we've noted before, if you're planning on building a simple site, the person you choose to implement the CMS is considerably more important than the CMS itself.

An open source CMS certainly isn't a cure-all; it may not even be the best option. But for many organizations, it can offer useful savings in time, money and resources.

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WHAT OTHER CONTENT MANAGEMENT SYSTEMS ARE AVAILABLE?

While the four tools in this report are appropriate for a wide range of organizations, they're not the only games in town. A number of other options might be relevant, and there are several key reasons you might want to look beyond what we've reviewed:

- **You have a complex site with specific needs.** If you're going to spend $50,000 or more on website design and implementation, or are considering substantial customization, it's worth looking at other systems in addition to these four. While any of the four could work well for even sophisticated needs, taking time up front to assess more options (and potentially purchase software) might save you money down the road. Other systems also provide compelling and useful feature sets in different combinations than the systems outlined here. In particular, if you require complex workflows (for example, different users being able to edit or publish things in specific ways), or integration into standard business systems (like Microsoft Active Directory or Sharepoint), other systems could provide better options.

"There are several important reasons you might want to look beyond these four systems."

- **You want a one-stop-shopping arrangement for your website, constituent data, email and online payment needs.** Some organizations prefer to have their website tightly coupled with tools to handle constituent and donor tracking, broadcast email and online payments. While any of the four systems in this report can provide options for these features, there are a number of other integrated platforms that might be as compelling—or more so—for your needs. Systems like WildApricot or Neon by Z2 may be of interest to smaller organizations, while Convio and Blackbaud Sphere target larger ones. Association Management Systems like Avectra, Aptify or IMIS might also be of interest as integrated systems for membership-based organizations.

- **You want to standardize on a .NET Framework or other infrastructure.** If you have established a set of IT standards, it's common to centralize on applications that are supported in a particular coding language or operating system. This way your IT team doesn't have to maintain lots of different systems. With the exception of Plone, which is programmed in Python, the systems in this report are programmed in PHP. If you've standardized on Microsoft .NET as your primary coding language, for example, none of these systems will fit within that standard. DotNetNuke and Umbraico are open source solutions built on Microsoft .NET, making them interesting options for organizations. Some of the systems mentioned below, like Ektron, Kentico and Sitefinity, are also built on Microsoft .NET.

- **You want a company-backed solution but don't want to spend a fortune.** There are a number vendor-provided Content Management Systems that provide features comparable to the four

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systems reviewed, and some are pretty inexpensive. Ektron, CommonSpot, Kentico and Sitefinity are all commonly used proprietary systems that might make sense for those with modest budgets. They generally start at about $5,000-$10,000 as a one-time upfront purchase, with additional yearly maintenance fees. Crown Peak and OmniUpdate offer hosted options, which allow you to pay with a monthly fee rather than an upfront license cost.

There are also a number of viable open source systems that are not as widely used in the nonprofit community. Movable Type offers interesting options for straightforward sites, or complex blogs, in a similar vein to WordPress. Typo3 and Xoops (or its new branch, Impress CMS) are feature-rich systems comparable to Drupal or Plone. Campsite, eZPublish, MODx and Lenya are also worth consideration.

''There are also a number of viable open source systems that are not as widely used in the nonprofit community.''

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HOW DO THESE SYSTEMS COMPARE?

Enough background and context…. How do these systems actually compare to one another? We took a detailed look at 14 different areas to see how they stack up.

Ease of Hosting and Installation

All open source Content Management Systems require the services of a web host—a company that provides and maintains the servers on which the CMS resides. These companies also connect your website to the Internet safely and securely. But not every CMS can be hosted by just anyone. Technical requirements can have a big impact on how easy it is to find a web host, and potentially on your budget. Standard shared hosting—an inexpensive arrangement in which your website is one of many on the same server—costs from $5-$25 per month. An ideal setup, where you have your own section of a server (called a Virtual Private Server), is likely to cost $30 per month or more. A virtual private server minimizes security and downtime risks, and is important to support higher traffic sites or more complex systems.

"Not every CMS can be hosted by just any hosting company."

Once you have chosen a host, someone will need to download the package of code and files that make up the CMS and install it on the server. If you're hiring a consulting firm to build your site, ease of installation is not likely to be a concern, but it's worth considering if someone less technical is doing the job.

WordPress, Joomla and Drupal can all be installed easily on shared hosts, but Drupal is a bit more complex than the other two. You might want to have someone on hand who's familiar with shell access, which can make Drupal easier to install and administer. Some hosts provide a central control panel that makes it easy to install all three of these systems with a single click.

Plone is in a somewhat different category. It requires a Virtual Private Server and thus is often a little more expensive to host. It also takes much more technical expertise to install. If you're not familiar with Plone, consider a host with Plone experience who can install it for you. However, if you're considering a Virtual Private Server anyway as a best practice to support more traffic or advanced needs, the difference in installation between the systems is minimal.

Ease of Setting Up: Simple Site

If you want to quickly build a straightforward website, it doesn't matter how feature-rich the CMS is. In fact, if you're hoping to build a site that's less than 50 pages or so, simple in structure, and without a lot of extra features, it's a real benefit to not have to understand and navigate through a set of complicated options. Instead you'll want a system that makes it easy to set up your pages, and provides everything you'll need to allow non-technical staff members to update the text and images on the site.

High quality, easy-to-install "themes" can help you build a website quickly. A theme is a graphic design layer that controls graphic elements, font and navigation styles, and page layouts. One theme can have many templates—you might have one that dictates the homepage look and the layout, and another that controls the article pages on the site. You can create your own theme, but there are many pre-packaged themes available for all four of these systems, meaning

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you can just choose one that works for your organization, install it into the CMS, and be ready to go. A few of these tools also allow you to easily tweak key components of the theme—like a background color or logo—without technical skills.

Along with solid themes, look for systems that allow you to easily set up your pages and a simple navigation scheme. And if you'd like your site to include an events calendar or list of news stories, look to see if these are included with the basic CMS or will need to be installed separately.

"If you want to build a straightforward website quickly, it doesn't matter how feature-rich the CMS is."

WordPress excels in this area—even someone without a lot of technical experience can get a simple site up and running without investing a lot of time. Joomla is also relatively straightforward to set up—it's currently somewhat less-intuitive to understand what types of pages you should be using than WordPress (which only has one type of page), but the upcoming version 1.6 simplifies this a bit.

Plone makes it easy to set up site navigation, and is the only one to offer an events calendar out of the box, but installing a new theme is technically complicated. Navigation and theme setup on Drupal is straightforward, but unless your staff members know HTML, you'll need to install a WYSIWYG (What-You-See-Is-What-You-Get) editor as an add-on module for them to edit text on the site.

Ease of Setup: Complex Site

As you move from building simple sites to creating more complex ones, the learning curve becomes important if you're going to build your own website. Many organizations will find it more effective to hire a consultant who already understands the CMS, as well as general best practices around building a site, rather than going it alone. If you're planning to hire a consultant, this section isn't relevant for you.

If you're planning to learn the system yourself, though, you'll need to consider how long it will take to understand the administration tools, develop custom graphic themes, master more advanced features and understand the tools available to build a navigation structure. What resources are available to help? If you want to extend your site with add-on modules, how easy is it to find out what's available?

There is substantial documentation, including published books, on all four systems, but the complexity varies considerably. WordPress is the easiest to learn when it comes to creating themes and adding functionality. Some of its most advanced features, however, are not shown in the administrative interface unless a third-party add-on is installed, so it's difficult to know they're there. Joomla is also relatively easy to learn—it requires a bit of a learning curve to understand the terminology and structure, but once you do, it's comparatively straightforward to set up even fairly advanced sites.

"If you're planning to learn the system yourself you'll need to consider how long it will take to understand the administration tools."

Drupal is another step beyond in complexity—there's a lot of options, settings and screens, and the flexibility of the system means it's important to think through the best way to accomplish what you want before diving in. However, the admin interface in the upcoming Drupal 7.0 release will simplify the process a bit. The Joomla website lists and rates add-ons; you'll need to use the site drupalmodules.com to see ratings and reviews of Drupal add-on modules.

Plone is the most difficult system to learn—even professional technologists are likely to require some training to master it. The system provides a lot of power, but that also means a complex set of options and settings to learn in order to take advantage of the available features.

Ease of Use: Content Administrator

When it comes to updating text and images in a CMS, simplicity is of paramount importance for many organizations. Can non-technical staff members find and edit pages quickly? How hard is it to add a new page? How easy to add an image, a link to a document, or even a video? Can you paste text from Microsoft Word, or does that result in a big mess? Can you undo a change that you accidently published? None of these systems is difficult to use, but all four are likely to require a bit of training for less technically savvy people.

WordPress has the edge in this area. A polished interface, easy tools to add and manipulate images, and straightforward support for undoing publishing mistakes make it friendly to learn and use. Plone also offers friendly and polished support, allowing non-technical users to not only update pages and images but also sidebar items and almost any page text with ease.

Joomla is the most polished and friendly looking of the systems, with an emphasis on icons and usability. However, there's less editing functionality in the core system than WordPress or Plone—the administrator will need to install third party tools to support image manipulation or undo publishing mistakes, and editors can't easily see how the text they are editing will look in the full context of the page without actually publishing it.

Drupal provides straightforward page editing (once you have installed an add-on module to allow editing without knowledge of HTML), but some more advanced editing tasks may require content administrators to venture into Drupal's formidable site-setup interface, which poses a training challenge. The new 7.0 release provides a revamped admin interface, easing some of the learning curve.

Ease of Use: Site Administrator

Content Management Systems are not, unfortunately "set and forget" kinds of things. Someone will need to manage the users who can update and create new content, and install new updates which add features, address security issues and fix bugs. Look for a system with an easy update process that doesn't make frequent major changes, which can break themes and add-ons. It's also useful for a system to continue to support old major "legacy" versions of the system with security updates, so you can opt out of a major update, at least for a while.

You're also likely to want to make changes to the structure of the site—to add new sections, edit footers or sidebars, or delete images that aren't actually being used. And you'll need to back up your site regularly—without a backup, if your web host were to suddenly go down, your entire site could be irrevocably lost. Some systems make these tasks easy; others require considerably more technical expertise or learning curve.

WordPress makes site management easy, with one-click upgrades and tools to manage users, images and the navigation bar. Joomla, Drupal and Plone all provide reasonably easy-to-use tools to manage users, update sidebar content or backup the site content, but require site administrators to have a bit more technical skills to install new upgrades. Plone updates in particular require the administrator to know how to edit a somewhat-complicated text file, and how to restart the entire Plone system—requiring someone with more technical know-how.

> **"As the graphic design for your site says a lot about your organization, graphical flexibility is an important factor."**

Graphical Flexibility

As the graphic design for your site says a lot about your organization, graphical flexibility is an important factor. All four systems allow you to create a custom graphic theme which controls the design, fonts, colors and layouts of your pages. Creating a theme isn't a trivial process in any of these systems; it takes a technically savvy person with HTML/CSS skills. The details of implementation vary—for instance, you'll want to think about how you'll define the look of your sidebar elements, or create different looks for different parts of your site. But all four systems allow extremely granular control over look and layout, which means they can support pretty much any graphic design and layout possible using standard website scripting languages.

Accessibility and Search Engine Optimization

Features that make it easier for the visually impaired to use your website—generally referred to as "website accessibility" features—have a lot in common with features that enhance your website's likelihood of appearing prominently for desirable keywords searches on sites like Google or Yahoo, generally known as Search Engine Optimization, or SEO. For both it's important that the CMS use common conventions within the code it creates for your webpages—for instance, using the tag "H1" to denote a top level header—and provides access to change information like alternative text read by a screen reader when a picture is displayed to others.

In the United States, websites for federal government agencies are required to be compliant with the standards listed in the "Section 508 Amendment to the Rehabilitation Act of 1973," often referred to simply as Section 508, or 508 compliance. While these standards are not specifically applicable to nonprofits—even those funded by the government—they're a useful set of guidelines by which to judge the systems.

Only Plone ensures that both the administrative tools and the default themes are specifically and purposefully 508-compliant. The upcoming version of Joomla, version 1.6, also includes 508-compliant versions of the administration interface and themes. You could build your own theme for WordPress or Drupal to make your public site 508-compliant. The WordPress community offers specific add-on modules and themes to bring their administration site into compliance, but you'd need to do substantial work with custom themes and add-on modules to make Drupal compliant.

> **"The rubber really meets the road with CMS's in how well, and in how many different ways, you can organize complex content."**

Plone and Joomla 1.6 shine in the area of SEO as well. Websites that include keywords relevant to their content in a lot of key places place the best with search engines, and Plone and Joomla 1.6 handle this well by allowing you to update the page title and descriptions that are used by search engines, and include keywords in a human-readable URL (as opposed to just strings of numbers, for example). WordPress, Joomla 1.5, and Drupal provide less robust functionality in this area.

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Structural Flexibility

The rubber really meets the road with Content Management Systems in how well, and in how many different ways, you can organize complex content. If all content has to fit into a simple hierarchical structure, you aren't going to be able to create as dynamic a website as you can with a CMS that's more structurally flexible.

Structurally flexible systems offer the ability to display some information—like a news story, or a description of an upcoming event—in different ways in various lists on the site. For instance, you could show the titles of your next two upcoming events on the homepage, a full list with descriptions for the next two months on the events page, and just the financial events in the finance section.

Other complex features differentiate the systems. Can you manage lists or directories of unusual types of content, like schools where your programs are offered? Can you change what appears in the sidebar of the page without changing the whole page template? Can you easily define custom forms to collect information from your visitors? Can you support a set of affiliated websites that share some pieces of content, but not others?

Both Plone and Drupal are strong in this area. They allow you to create custom content types and site structures, then granularly determine what content goes where on the page and on the site. Joomla offers some flexibility, but is not as strong in determining what is shown where on your site, or in creating custom content types. The Joomla core system only supports three levels of hierarchy: sections, categories and articles in the current version, and makes it a bit difficult to define that a sidebar should show everywhere except a certain page—but both limitations are overcome in the upcoming 1.6 release. WordPress is the weakest of the four within the core system, but offers substantial functionality to support custom content types, unusual directory structures, and where sidebars appear with community contributed add-ons.

User Roles and Workflow

If only a few people will be working with the content on your website, you don't need specific functionality to manage user roles or how content tasks flow from one person to another. But if your site has a lot of complex, categorized content that's handled by multiple people, a CMS that can assign users permission to add, edit or publish content by site-specific criteria (for example, by type of content or by section) can be useful. For instance, you might want to say that any of 10 people can edit the pages in their own sections, but a central person must approve everything before it can be published. Similarly, it's often useful to be able to control who can view what on the site.

> ## "A CMS that can assign users permission to add, edit or publish content by site-specific criteria can be useful."

It can also be helpful for your staff members to be able to easily see what needs to be done by whom and when—the ability to, for instance, get notifications from the system when something needs to be reviewed, or create a to-do list.

Plone is the most powerful system of the group in this area. It allows the highest level of control of user roles, user permissions and detailed configuration of the flow of content through the system. Drupal also has a detailed and granular system for user roles and permissions. Site managers can define custom user roles and be very specific about what roles have what permissions. There are modules that also allow permissions by node (content unit) as well as by taxonomy (content category). But Drupal does not have Plone's out-of-the-box powerful workflow configuration.

WordPress and the current version of Joomla have a relatively small number of defined user types.

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You can't define different kinds of user roles, and users have access to either only their own content, or all content on the site—there is no way to limit permission to access content based on other criteria in the core system. The new Joomla version, however, changes this with a vengeance; the new release offers much more flexibility, with the ability to define roles based on section, content type or more.

Community/Web 2.0 Functionality

Content Management Systems offer many options for organizations to interact with their constituents. Visitors can comment on articles, forward on your articles, "like" you on Facebook, or even publish their own blogs. CMSs can help visitors subscribe to your site content through RSS feeds, or allow you to pull content from other sites via RSS and display it on your own.

For more advanced community building, social networking features—like the ability for visitors to create their own profiles on your site, and then link to other people or groups—can be useful. So can the ability to accept and post content (such as stories or photos) from visitors. A good Spam filter is important to keep blogs and comments useful, because when you open your site up to the world, you unfortunately open it up to Spam.

Drupal was designed from the ground up to be a community platform. It shines in this area, offering profiles, blogs and comments out of the box, with enhancements available through add-on modules. WordPress is, at heart, a blogging platform, and so has many robust blogging and comment features as well as add-ons to create social networking sites . Joomla and Plone offer somewhat fewer community features in the core, but a number of add-on modules provide some support.

Extending and Integrating

If your needs are especially unusual, you may have to create your own add-ons. All four systems allow developers to flexibly program custom add-ons. WordPress, Joomla and Drupal add-ons are coded in

"All four systems allow developers to flexibly program custom add-ons."

the widely used PHP coding language. Plone add-ons are coded in Python, a less-widely used programming language, making it harder to find developers to create those add-ons—but the system offers strong tools to allow programmers to create almost any kind of customization.

In addition, many organizations want to integrate their CMS with other organizational systems, such as constituent databases, accounting systems, event registration or broadcast email packages. Joomla and Drupal have pre-existing connections to the constituent databases CiviCRM, Salesforce and Democracy in Action, while Plone and WordPress have connections to Salesforce and Democracy in Action. A CMS that already integrates with your database out of the box is the ideal choice, but all four systems offer robust custom data integration support to those with the programming skills to take advantage of it.

Security

All software by nature has vulnerabilities, so when you're shopping for a CMS, it's not a simple question of a secure versus an unsecure system—the ideal CMS is the one with the fewest identified, and fastest-resolved, vulnerabilities.

Websites can suffer different types of attacks, such as SQL injections, which are designed to capture sensitive data like usernames and password; link hacks, which insert links (usually invisible) to Spam and/or pornographic sites; or Denials of Service, which prevent visitors from viewing site content.

Dealing with these attacks is a bit of an arms race, as hackers are constantly on the prowl for vulnerabilities.

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The instant one is identified, it starts spreading around the hacker community. This makes it important to fix vulnerabilities immediately. And the more popular the CMS, the more important it is to fix those vulnerabilities fast.

Plone is the strongest in this area. It has very few reported security vulnerabilities, and is immune to SQL injection attacks, as it doesn't use SQL. Drupal and Joomla have more reported vulnerabilities, but they promptly issue updates to fix them. WordPress has the most reported vulnerabilities, and is the only one of these systems to that has security issues identified by security watcher Securitas.com that have remained unfixed.

"When choosing a CMS, it's critical to factor in the strength of the community."

Support/Community Strength

In the past, support for open source software has come primarily from the community of developers and users. More recently, for-profit consulting and development firms have also become important vehicles for support. When choosing a CMS, it's critical to factor in the strength of the community. How easy is it to get answers to questions? Can you hire someone who knows the system to help you? Are there enough add-on modules to meet your needs? And for all of this, how likely is it that the system will become less widely used and thus harder to support in the future?

All four systems have robust developer and user communities with lots of free support available from a variety of community-centered and third-party sources, such as forums, IRC and email discussion lists. And all four systems have a substantial network of developers, designers and consultants who provide paid support. Several good books about each system are available that are suitable for beginning users as well as developers. Help on each system is available now and into the foreseeable future.

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THE COMPARISON CHART

	WordPress	Joomla 1.5.21	Joomla 1.6	Drupal 6.19	Drupal 7.0	Plone
Ease of Hosting and Installation	Excellent	Excellent	Excellent	Excellent	Excellent	Fair
Ease of Setup: Simple Site	Excellent	Solid	Solid	Solid	Solid	Fair
Ease of Setup: Complex Site	Excellent	Excellent	Excellent	Solid	Solid	Solid
Ease of Use: Content Editors	Excellent	Solid	Solid	Solid	Solid	Excellent
Ease of Use: Site Administrator	Excellent	Solid	Solid	Solid	Solid	Solid
Graphical Flexibility	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Accessibility and Search Engine Optimization	Solid	Solid	Excellent	Fair	Fair	Excellent
Structural Flexiblity	Solid	Solid	Solid	Excellent	Excellent	Excellent
User Roles and Workflow	Fair	Fair	Excellent	Solid	Solid	Excellent
Community/Web 2.0 Functionality	Excellent	Solid	Solid	Excellent	Excellent	Solid
Extending and Integrating	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Security	Fair	Solid	Solid	Solid	Solid	Excellent
Support/Community Strength	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

• **None** ◎ **Fair** ◯ **Solid** ● **Excellent**

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RECOMMENDATIONS

What CMS should you choose? It depends on your own needs and situation. All four are solid systems with robust communities and a huge amount of functionality that will allow your technical staff to update your site.

If your needs aren't very complex—that is, if you're planning to hire someone to build you a site that's less than several hundred pages, is generally hierarchically arranged, and will be updated by only a handful of people in your organization—any of these systems will work fine. In fact, the person you hire to build the site will be the much more important choice. Look for someone who understands your needs and your organization, is responsive, can speak in a language you understand, and seems eager to work with you… and then use whichever CMS he or she recommends.

"It's time-consuming to switch Content Management Systems once you're up and running."

If you're planning to build your site yourself, however—or if you're planning a site that requires complex cross-referencing of information, a number of owners and editors, or significant custom functionality—it can be worth carefully comparing the systems to choose the one that's right for you. It's time-consuming to switch Content Management Systems once you're up and running, so it's worth taking time up front to define an infrastructure that will work for the long run.

WordPress

WordPress is a great choice for fairly small (a few hundred pages or less), simply arranged websites. It's the easiest system to install and understand, and is easy to maintain and update, putting site setup within reach of anyone with a sense of technical adventure. There are many predefined graphic themes available; adapting them to your particular needs can range from trivial—if the theme allows you to select your own color and add your own logo, for instance—to a relatively straightforward process for someone familiar with HTML and CSS. Updating and editing images and text is also quite straightforward, and multiple add-on modules are available.

However, WordPress doesn't scale as intuitively as the other three systems to support complex sites. For custom content types or article listings displayed based on automatic rules, you'll need to try to find a contributed add-on or theme that provides that functionality. There is only limited support for differentiation of user roles, although add-ons are available to support permissions based on section or type of content.

Joomla

Joomla is a solid utility player, good for a variety of different situations, and it's relatively straightforward to install and set up. There's a bit of a learning curve to understand how the menus, site structure and content work and interrelate, but once you've got it the system provides a strong infrastructure for straightforwardly creating useful site structures to support even very large sites. Add-on modules support a wide variety of functionalities, from directories to shopping carts to community features, providing a solid base for many different kinds of sites.

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While Joomla supports more complex site structures than WordPress, it is not as flexible as Drupal or Plone. Each piece of content is typically associated with a single page. This makes the system more straightforward to understand, but can be cumbersome to update and limits very advanced structures (like structuring a site around a multifaceted taxonomy). It's not easy, for instance, to create your own types of content (for example, a directory of state schools that includes key information about those schools), and then show it in different views on different pages of your site. If you're not sure what any of this means, you probably don't need to worry about it—these are advanced considerations that won't apply to the vast majority of sites.

Joomla's upcoming release, version 1.6, adds robust permission features to allow people to add, edit or publish information based on site section, content type or more—if you require a complicated workflow, you will want to wait for this version. The new version also somewhat simplifies organization and display of content items. However, you are still limited to one category per article, which may lead to the need for duplication if you want to include it in more than one site section.

Drupal

Flexible and powerful, Drupal is a great choice for more complex sites. It supports a wide variety of site structures—with widely used add-ons, you can define very detailed rules as to what content should be displayed where, and build your own custom content types. It has particularly strong support for Web 2.0 and community functionality, including user-submitted content. It's also easy for content administrators to find and update content—once you have installed a WYSIWYG editor to let them format the text, which does not come out of the box.

But Drupal's power comes with complexities. Understanding what the system offers and how to configure it is more difficult than WordPress or Joomla. The administrative screens for configuring a site have a huge number of options and settings, making them harder to interpret. And the flexibility of the system means it's important to think through the best way to accomplish what you want before diving in. Most people will want to hire a consultant familiar with Drupal to help them set up a site rather than trying to go it alone.

Drupal's upcoming release, 7.0, includes a new administrative interface that makes content editing and maintenance tasks more intuitive, and adds the ability to create custom content types without an add-on.

Drupal is not as strong as Plone in workflow, and may not be the best choice for organizations that want to have many different people with different roles and ownership over content.

Plone

Plone is a powerful and robust system suitable for organizations with very complex needs. It's used by major newspapers and huge businesses, and it shows. The system offers a huge degree of flexibility and control, and it supports almost infinitely complicated workflows. And since the content admin tools are well laid-out and friendly, it's easy for non-technical administrators to update body text, images and sidebar areas. Plone's functionality is as strong, or stronger, than the other three systems in every area we reviewed except for one—Web 2.0/Community support, where Drupal came out on top.

Its main downside is in system installation and configuration. Plone requires a customized hosting setup (as opposed to a typical Linux/Apache/MySQL/PHP environment). Adding existing graphic themes and add-in modules, creating custom themes and setting up the site structure is all more complex than the other systems. Many seasoned technologists will likely want training to understand the system. Learning Plone to build a single website doesn't make much sense—you'll want to hire a consultant who's already familiar with it. And since Plone is written in Python (unlike the more familiar PHP of the other systems), it may be harder to find someone to extend the system through custom code.

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Wrapping Up

While none of these systems is perfect for every organization, open source Content Management Systems work well for many nonprofits. They're community-minded, cost nothing to acquire and can put editing websites within the reach of even the most non-technical people. Use the community aspect to help you make your decision—do some online research, and ask questions on message boards. Don't be afraid to take a CMS for a test run. If you don't find what you're looking for in a core system, it may well be available as an add-on. The time you take to make the right choice will be well worth it compared to what you'll save in resources over the long term.

"The time you take to make the right choice will be well worth it compared to what you'll save in resources over the long term."

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METHODOLOGY

This report involves three sets of data: the interview data that was used to generate the criteria for review, the actual information about the systems, and the information about other Content Management Systems.

Review Criteria

Much of the criteria in this report is the same as in the original report written in 2009. From November 2008 to January 2009, Idealware conducted hour-long telephone interviews with 11 participants to investigate the primary factors that are important in selecting a Content Management System to build a nonprofit website. Four of these interviewees were consultants who implement more than one of the four systems covered; three were nonprofit staff members who had evaluated Content Management Systems and chosen to implement a particular system; and five were consultants who specialize in a single one of the four systems covered here.

In September 2010, we solicited public feedback and updates to revise this initial set of criteria. We invited a set of consultants who had helped with the first version of the report and an expert on each system to review the criteria. We also publicly invited members of the NTEN-Discuss discussion list to view and comment on the criteria on a public wiki. About 10 people participated in the review of criteria. Based on this feedback, we edited some of the existing criteria and added new ones.

Software Reviews

From October to November 2010, Idealware conducted detailed reviews of all four systems with the help of an expert on each system. Both Idealware and the system experts reviewed the 2009 description of their system. We then walked through the description with the expert to ask them to demo online the features that had changed, as well as to show us features relevant for our new criteria. At the conclusion of the research, the reviews were fact-checked by the system experts and a number of consultants who implement more than one of these systems.

Other Content Management Systems

In February 2009, we interviewed another four people who had experience with multiple open source and vendor-provided systems to understand when organizations should look beyond those included in this report. In November 2010, we solicited and received comments from three people with similar experience about the changes in the marketplace and important updates to this section.

For a list of report contributors, please see Appendix D: Authors and Content Contributors.

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APPENDIX A: DETAILED SYSTEM REVIEWS

WORDPRESS

Version 3.0.1

Ease of Hosting

- **Hosting Environment:** The CMS can be hosted on a standard (and inexpensive) shared Linux/Apache/MySQL/PHP environment.

- **Hosting Requirements:** The platform can run on a Linux, Windows or Macintosh OS; it requires MySQL as a database and PHP as a scripting language.

- **Time to Install:** A user with experience installing other systems (but not this one) can install the core package in less than 15 minutes.

- **Skills to Install:** Installation does not require technical knowledge beyond how to FTP and how to set up a database on your Web host. Those using a common shared hosting tool like Fantastico can easily install the software with a one-click process.

Ease of Setup: Simple Site

- **Default Setup on Installation:** Upon installation, the platform includes one blog post, one page, one comment, some default widgets that would commonly be used on a blog, and one theme.

- **Availability of Pre-packaged Themes:** Many pre-packaged graphical themes appropriate for a small nonprofit website are available for download

- **Ease of Theme Installation:** Installing an existing graphical theme is quick and easy from within the administrative interface. You can search for, preview and install the selected theme. Once it is installed you can preview the theme with your own site content.

- **Updating Themes without Tech Skills:** Many themes, including the default themes, offer parameters that can easily be changed in a non-technical interface. These parameters vary based on what the theme programmer built into the theme template, but often include easy ways to change the logo, banner, font colors, page colors or more.

- **Completeness:** The core platform includes all typical components to create and administer a basic nonprofit site with a hierarchical page structure.

- **Setting Up Users:** Setting up administrative users is straightforward. The first user is set up during install; others can be easily added through the administrative tools.

- **Structuring a Simple Site:** Creating a simple 20-page site divided into four sections is intuitive. As you set each page up, you can define whether it should go into the navigation bar, or otherwise where it should fall in the site hierarchy. You can have pages added automatically to the menu or create custom menus and hierarchies via the new menu administration area.

- **Support for News Stories and Events Calendar:** The core platform includes the ability to support featured news stories, but you would need to install an events calendar as an add-on module.

- **Documentation on Getting Started:** Considerable documentation on getting started is available. It's well organized to allow new users to quickly find the material they are most interested in.

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Ease of Setup: Complex Site

- **Ease of Creating a Custom Theme:** Creating a custom theme requires HTML/CSS skills and understanding how to work with a set of templates. The theming process in WordPress is a bit more straightforward than in other systems; those with HTML/CSS skills are more likely to be able to tweak existing themes without the need to extensively consult the documentation.

- **Ease of Updating Themes via HTML/ CSS:** HTML and CSS files are easily accessed via the web administration interface. For someone with the HMTL/ CSS skills required to update the look of a static website, the theming process will look very familiar. The theming files, including HTML, PHP and CSS files, can be easily updated within the web administration interface. Because direct access to site files is readily available, editors must be careful to not inadvertently update the live site in real time.

- **Ease of Understanding What's Possible:** A technically savvy user is likely to be able to understand the basics of what the system can do and how to do it in a few hours by looking through the options in the administrative interface. However, complex features and options such as custom content types and taxonomies are available but not shown in the administrative interface; users would need to consult the documentation to realize they are available.

- **Documentation:** Substantial documentation on how to use the system, including published books, is available from multiple sources.

- **Likelihood that Add-ons will be Necessary:** Basic functionality is provided by the core system, but to meet more advanced or specialized requirements you will likely need to find and install additional add-on modules.

- **Where to Find Info on Add-on Modules:** WordPress.org has a listing of add-on modules that includes community ratings and reviews.

- **Available Add-ons:** WordPress.org lists thousands of community-contributed add-ons available for download.

- **Installing an Add-on:** To install an add-on module, a site administrator simply locates the module in the admin interface and installs it in a one-click process.

- **Importing From a Data File:** The standard install comes with several importing tools and many more are available as community contributed add-ons.

Ease of Use: Content Editors

- **Look of Admin Interface:** The interface for adding or editing content is polished and friendly-looking, with a useful "dashboard" of recent drafts and comments. Administration screen views are customizable by the user and include contextual help.

- **Ease of Finding What You Want to Edit:** An administrator can easily find the particular page or article they want to edit within the visitor view of the website, and then click a button to edit it, or they can browse or search through a list of all pages in the administrative interface. Through the administration menu you can also edit settings for a number of content items at once, or "quick edit" things such as title, author and published state.

- **Ease of Text Editing:** Editing the text of an existing page is straightforward. Text can be formatted using a standard, Word-style WYSIWYG formatting toolbar.

- **Integration of Advanced Options:** When editing a page advanced options are readily available, but can be selectively removed to simplify the screen for efficient work flow.

- **Pasting from Word:** The core system does not handle text pasted in from Microsoft Word well. Garbage tags appear on the final web page unless they are deleted by hand, and the original font styles from Word (which are unlikely to match the style of the website) are preserved.

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- **Adding an Image or Document:** An image or document can be uploaded and added directly from the page-editing form, without the need to add the image first through a different form.

- **Advanced Image Manipulation:** Images can be scaled, cropped and otherwise manipulated when uploaded. Four versions of the file, of different sizes, are saved based on the site settings which can then be placed in page content.

- **YouTube Videos:** YouTube videos can be embedded in a page by pasting the YouTube URL into the WYSIWYG editor where the system will automatically convert it to an embedded video. However, there is also an "Insert Video" button that does not reliably work when a YouTube URL is entered, which is likely to be confusing to many users.

- **Adding a New Page:** The option to add a new article is prominent and obvious. New pages are edited the same way as any other content, and can be published into sections on the site by picking a parent page.

- **Admin Languages:** The administrative interface is available in 61 languages.

- **Reverting to Previous Page Versions:** If content is published to a page by accident, a content editor can easily access old versions, compare them and revert back to one.

- **Previewing Before Publishing:** A content editor can easily preview how pages and posts will look within the context of the full page. However, sidebar items cannot be previewed before making them live.

- **Editor documentation:** It's difficult to find a manual specifically targeted at content editors. Considerable documentation is available on how to use the editing systems, but it's not presented separately from other documentation and editor-specific material must be sought out.

Ease of Use: Site Administrator

- **Adding a Section to the Navigation Bar:** As you set each page up, you can define whether it should go into the navigation bar, or otherwise where it should fall in the site hierarchy. Alternatively, you can create custom menus and hierarchies via the new menu administration area.

- **Editing footers or sidebars:** Sidebars can be updated through the widget menu. The manner of updating page headers and footers is dictated by the theme: some are controlled by widgets and can be updated through the widget menu; other themes have optional admin menus for the header and footer; or the site administrator may need to edit the theme files via HTML.

- **Managing site users:** A non-technical administrator can easily add, delete or change the security levels of users through a polished interface.

- **Managing images and documents:** A non-technical administrator can view the images and documents used on the site through a "Media Manager." Using this interface, they can find all images and uploaded files, see where they are used on the site and perform bulk actions on your files, including deleting all files that are not currently attached to the website.

- **Site Backup:** To back up the website, a site administrator downloads all the site assets (HTML pages, documents, images, etc.) from a single directory on the web server, and then backs up the database either in PHPMyAdmin (provided by most web hosts) or using simple commands on the command-line. Third party add-ons can help with this process.

- **Upgrade Frequency:** There have been nine feature upgrades and 29 bug-fix and security releases between January 2007 and October 2010

- **Upgrades Which Affect Themes and Add-ons:** Major upgrades may break existing add-on components but correctly coded themes should not be adversely affected by most system upgrades. Since January 2007, three major updates have affected add-ons.

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- **Notification of Out-of-Date Version:** The CMS includes a notice to the administrator when they are using an out-of-date version of the system.
- **Options to Not Upgrade:** The CMS maintains legacy branches, one version behind the current, so those who choose not to make a major update (which might break themes and add-ons, for instance) can still get security updates.
- **Ease of Installing an Upgrade:** To install a new update, the administrator backs up the site, then uses an automatic upgrade utility in the web interface.

Graphical Flexibility

- **Finding Pre-Packaged Themes:** Hundreds of pre-packaged graphical themes are available. The official CMS website includes version compatibility, ratings and download statistics.
- **Ease of Updating Themes via HTML/ CSS:** HTML and CSS files are easily accessed via the web administration interface. For someone with the HMTL/ CSS skills required to update the look of a static website, the theming process will look very familiar. The theming files, including HTML, PHP and CSS files, can be easily updated within the web administration interface. Because direct access to site files is readily available, editors must be careful to not inadvertently update the live site in real time.
- **Creating a Custom Theme From Scratch:** Creating a custom theme involves creating several different template files, a style sheet and a screenshot of the theme.
- **Creating a Theme from an HTML Page:** Adapting an existing HTML page and style sheet to create a theme involves several steps: creating template files from the HTML page; creating a style sheet; including any images; determining where content and functional elements should go in the templates; and adding any additional necessary files.
- **Design Flexibility:** This theming structure provides a huge amount of flexibility in site look and layout. It supports nearly any web page that can be designed via HTML and CSS.
- **Defining multiple templates for one site:** An administrator can set up as many page templates for the site as they like and set a default template for new pages. Content editors can further define which page uses which template in the editing screen.
- **Defining the look of sidebar elements:** Each sidebar element (called a "widget" in WordPress) has a specific ID, which can be used in the CSS file to customize styles just for that particular area.
- **Print-friendly version:** Plug in options are available to create print-friendly views or the site developer can create a print style sheet and include the code in the theme.

Accessibility and Search Engine Optimization

- **508 compliance of core themes:** The core theme included with the standard download is not accessible to 508 standards.
- **Order of standard nav bar and content items:** The standard navigation bar elements and content templates are reasonably ordered within the code, to facilitate someone visually impaired in reading the site with a screen reader. The order can be modified if desired to make it more accessible.
- **508 compliance of admin interface:** The administrator interface is not 508-compliant. However, there are specific themes and patches available within the community to bring it into compliance.
- **Alt-tags:** Users are prompted to include alt text when uploading or editing images but it is not required.
- **Standard header tags:** The core theme creates standard header tags—like H1 and H2 tags—by default, which

is an accessibility and search engine optimization best practice. Some themes allow the administrator more or less control over these settings.

- **Page titles and metadata:** The HTML page title is generally pulled straight from the user input title of the page. Some themes and plug ins allow you to alter this on a per page basis. Defining other metadata, including a page description, requires a contributed add-on.

- **Human readable URLs:** The text used for page URLs is pulled by default from menu item and page names—making it quite readable by default. It's also possible to rename directory or page file names directly.

Structural Flexibility

- **Number of Pages:** There is no practical limit to the number of pages the platform can support.

- **Levels of Hierarchy:** Pages can be arranged into a hierarchy with as many levels as you like.

- **Displaying Content Automatically Based on Category:** Site posts, but not pages, can be placed in one or multiple categories. The platform automatically displays the posts in the appropriate sections based on those categories.

- **Support for Unusual Content Types:** The system is based around the idea of pages and posts. The core system includes the infrastructure to add custom-content types (event listings, a directory of local stores, etc.) but not the administration tools; the administrator must use one of several community contributed add-ons to install an interface with which to create custom content types.

- **Related Items:** Add-on modules are available to create a "related items" feature on a page. This will automatically display links to site information similar to that shown.

- **Changing sidebar elements without changing the template:** Editors can choose which widget areas appear on a page by defining which page template should be used. To more-specifically designate exactly which page certain sidebar elements will appear on you will need to install a community contributed add-on.

- **Custom Data Collection Forms:** Site administrators can create custom forms to collect data from visitors, without coding, through an add-on module.

- **Search Engine:** The system includes a search engine but it only searches pages on the site, not documents.

- **Multi-Language Support:** An add-on package helps manage a single piece of site content that appears in multiple languages (for example, a news story with both English and Spanish versions).

- **Sharing Content Across a Set of Affiliated Websites:** You can use different themes for different site sections, and define what data can go in each section using a variety of criteria. This makes it straightforward to support a group of affiliated websites that share some pieces of content but not others.

- **Support for Multiple Domains:** You can support sites with different domains using the same deployment of the CMS.

User Roles and Workflow

- **System Roles:** The system supports three administrative content roles—someone who can draft new content but cannot publish; someone who can draft and publish their own content; and someone who can edit and publish other people's content as well as their own. Community contributed add-ons allow for the creation of new roles, such as permission to edit based on category.

- **Possible Article Statuses:** Articles can be in draft, pending review or published mode. More content statuses are available through an add-on module.

- **Notifications:** There is no notification system to flag and forward content but add-on modules are available to create this functionality.

- **List of System To-Dos:** Site content editors can see a list of content items that need their attention, such as drafts to be published, within the interface.

Community/Web 2.0 Functionality

- **Comments:** The content editor can allow site visitors to post comments for any piece of site content.
- **Comment Moderation:** The system provides access to very detailed Spam filtering and detailed comment moderation support, including the ability to individually whitelist or blacklist users.
- **Blogs:** Blogs, including multi-author blogs, are supported.
- **Community of Blogs:** Registered site visitors can create their own personal blogs on the site, if the administrator allows visitors this ability.
- **Publishing a RSS Feed of Your Content:** Full support for outgoing RSS feeds is provided.
- **Displaying Others' RSS Feeds:** Other RSS feeds can be pulled into and displayed on the site as part of the core functionality, but you would need to use an add-on module to moderate which items from those feeds you would like to display.
- **Visitor Profiles:** Public site visitors can create their own site profiles with a few standard fields. More full-featured profiles are available through add-on modules.
- **Social Networking:** A popular add-on module allows public site visitors to friend each other and create groups.
- **User-Submitted Content:** With an add-on you can provide a way to allow public website visitors to submit content (like stories or photos) through the front end, and then manage that content like any other site content.
- **Share This and Facebook "Like":** A number of widely-used add-ons allow site visitors to easily repost an article to sites like Twitter or Digg, or to add a Facebook "Like" functionality.
- **Engagement Dashboard:** Through a combination of core features and using add-on modules, you can create a dashboard overview of how many people have commented or forwarded information.

Extending and Integrating

- **Integrating with Other Systems:** Add-on modules that manage integrations with Salesforce and Democracy in Action are available.
- **Likelihood that Custom Add-ons Will be Necessary:** As the system combined with available community contributed add-ons allows for administrative users to create custom forms or content types through the administrative tools, it's unlikely that writing custom add-ons will be necessary—except to integrate outside systems, or for unusual or sophisticated needs.
- **Programming Language for Add-ons:** Add-on components are coded in PHP, a widely used programming language.
- **Customization Flexibility:** The tools available to programmers include access to modify or enhance all system functionality.
- **Updating Core Code:** If you want to extend the system beyond available functionality, you would very rarely need to update the core code.
- **Dependences Between Add-ons:** The system is designed so that each add-on works fairly independently. However, it is possible to have two add-ons conflict by accident.

Security

- **Security Updates:** Security vulnerabilities are not published on WordPress.org. Updates occur frequently.

- **Security Advisories:** Secunia.com reports that there have been 34 security advisories for the WordPress 2.x core code between January 2007 October 2010 (no advisories have been issued on 3.x code). Eight of them (23%), all termed less critical or not critical, have not been patched. Nine (26%) of the advisories since 2007 were termed moderately or highly critical updates. From January 2009 - October 2010 specifically, they reported seven advisories, only 1 (14%) moderately critical or above.

- **Security Process for Add-ons and Themes:** There is no official process for vetting add-ons or themes for security issues beyond community ratings.

Support/Community Strength

- **History:** WordPress originated in 2003 as a continuation of another open source CMS, B2/cafelog.

- **Consultant Support:** The CMS is supported by hundreds of different independent consultants or firms in the United States.

- **Community Support:** There are a number of different helpful forums and discussion lists where anyone can ask questions about the system and receive answers. These communities have a reputation of being helpful to newcomers.

- **Available Books:** Several reputable books on the system are available.

- **System Governance:** WordPress is led and supported by the for-profit company Automatic, which provides the service WordPress.com.

- **Online User Forums:** In WordPress's "How To and Troubleshooting" forum (the busiest of eight topic based forums for questions about functionality and implementation), approximately 1,500 discussion threads were posted to or created in the third week of October 2010. Of these threads, about 275 (18 percent) were questions without any replies.

Joomla

Version 1.5.21 (and 1.6)

Ease of Hosting

- **Hosting Environment:** The CMS can be hosted on a standard (and inexpensive) shared Linux/Apache/MySQL/PHP environment.

- **Hosting Requirements:** The platform can run on a Linux, Windows or Macintosh OS; MySQL as a database and PHP as a scripting language is preferred, but the system can run under Oracle and Microsoft SQL as well.

- **Time to Install:** A user with experience installing other systems (but not this one) can install the core package in less than 30 minutes.

- **Skills to Install:** Installation does not require technical knowledge beyond how to FTP and how to install a database on a Web host. Someone without any specific technical experience can install the system using a point-and-click interface on the control panel of many major shared hosting services (i.e. through a service like Fantastico), or through Windows IIS.

Ease of Setup: Simple Site

- **Default Setup on Installation:** Upon installation, you have the option to work with a set of sample data (such as news stories), or you may start from a blank slate. There are three themes to choose from. *The upcoming 1.6 release includes three themes to choose from and an additional 508-compliant administration theme option.*

- **Availability of Pre-packaged Themes:** Many pre-packaged graphical themes appropriate for a small nonprofit website are available for download.

- **Ease of Theme Installation:** To install an existing graphical theme, site administrators can enter a directory location or URL in the administrative interface, or upload the file from their computer. The administrator then enables the theme through the administrative tools.

- **Updating Themes without Tech Skills:** Many packaged themes—but not the default themes—offer parameters that can easily be changed in a non-technical interface. These parameters vary based on what the theme programmer built into the theme template, but often include easy ways to change the logo, banner, font colors, page colors or more.

- **Completeness:** The core platform includes all typical components to create and administer a basic nonprofit site with a hierarchical page structure.

- **Setting Up Users:** Setting up administrative users is straightforward. The first user is set up during install; others can be easily added through the administrative tools.

- **Structuring a Simple Site:** Creating a simple 20-page site divided into four sections can be done straightforwardly by creating each page as an "Article" and then associating each page with the appropriate item in a hierarchical menu structure in the "Menu Manager." This structure will not easily support automatically updated lists, like a list of the most recent five news stories. To do this, use Joomla's "Category" and "Section" types. The distinction between a "Category," a "Section" or an "Article" is not obvious, and many users will need to consult the documentation to determine what to do. *With the upcoming 1.6 version, "Categories" are merged with "Sections," making the creation of a more complex site more intuitive.*

- **Support for News Stories and Events Calendar:** The core platform includes the ability to support featured news stories, but you would need to install an events calendar as an add-on module.

- **Documentation on Getting Started:** The Joomla.org site includes a friendly and useful "Absolute Beginners Guide to Joomla" that walks you through what you'll need to know to get started.

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Ease of Setup: Complex Site

- **Ease of Creating a Custom Theme:** Creating a custom theme requires HTML/CSS skills and understanding how to work with a fairly complex set of templates.

- **Ease of Updating Themes via HTML/ CSS:** HTML and CSS files are easily accessed via the web administration interface. For someone with the HMTL/ CSS skills required to update the look of a static website, the theming process will look very familiar. The structure of the site is controlled through a "template" file, written in standard HTML, which arranges Joomla objects by including the objects as the class names of typical "div" sections. The visual look of the site is controlled through one or many pure CSS files.

- **Ease of Understanding What's Possible:** Not all site terminology and structure is immediately intuitive, but a technically savvy user should be able to understand what the system can do and how to do it in a few hours by looking through the options in the administrative interface. *The upcoming 1.6 version collapses "Categories" and "Sections," making the understanding of site configuration somewhat more straightforward.*

- **Documentation:** Substantial documentation on how to use the system, including published books, is available from multiple sources.

- **Likelihood that Add-ons will be Necessary:** Basic functionality is provided by the core system, but to meet more advanced or specialized requirements you will likely need to find and install additional add-on modules.

- **Where to Find Info on Add-on Modules:** The main Joomla.org site has a listing of add-on modules, at extensions.joomla.org, that includes community ratings.

- **Available Add-ons:** Extensions.joomla.org lists thousands of community contributed add-ons available for download.

- **Installing an Add-on:** To install an existing graphical theme, a site administrator can enter a directory location or URL in the administrative interface, or upload the file from their computer. The administrator then enables the extension through the administrative tools.

- **Importing From a Data File:** Widely-used add-on modules provide functionality to help import a data file of content from a different content management system.

Ease of Use: Content Editors

- **Look of Admin Interface:** The interface for adding or editing content is polished and user-friendly, with an emphasis on icons.

- **Ease of Finding What You Want to Edit:** Administrators can easily find the particular article they want to edit within the visitor view of the website, and then click a button to edit it, or they can use a robust interface to browse or search through a list of all pages in the administrative interface. The text that is directly on a "category" or "section" page view (for instance, an overview of a particular program before news items about the program are listed) must be updated in the administrative interface. To do this, the user must understand whether it is an "article," a "section" or a "category"—and it's not easy to tell which type a page is by looking at it. *In 1.6, the concept of a "section" and "category" are merged, potentially making it slightly easier to update the text directly on a category page.*

- **Ease of Text Editing:** Editing the text of an existing page is straightforward. Text can be formatted using a standard, Word-style WYSIWYG formatting toolbar.

- **Integration of Advanced Options:** When editing a page, the more advanced options (such as the ability to assign a publishing start date or define metadata) are effectively prioritized in a sidebar on the page. However, some will have to hunt to find particular options (for instance, a "Parameters (Advanced)" section includes a list of 17 options).

- **Pasting from Word:** The core system does not handle text pasted in from Microsoft Word well. Garbage tags

appear on the final web page unless they are deleted by hand. There are a number of add-on WYSIWYG text-editing modules which have differing levels of functionality when it comes to pasting from Word.

- **Adding an Image or Document:** An image or document can be uploaded and added directly from the page-editing form, without the need to add the image first through a different form. (However, the button to add the image is at the bottom of the page-editing form, making it difficult to find).

- **Advanced Image Manipulation:** Add-in modules with image management and manipulation features are available.

- **YouTube Videos:** YouTube videos can be embedded in a page by pasting the YouTube code into the provided HTML view of the page.

- **Adding a New Page:** The option to add a new page is prominent and obvious, and new articles are edited in the same way as any other. A new article can be published onto the site by saving it and linking to a menu item, or choosing a category or section from a list of available options.

- **Admin Languages:** The administrative interface is available in 100 languages.

- **Reverting to Previous Page Versions:** If content is published to a page by accident, a content editor cannot easily rollback the changes to revert to a previous version of the page within the core version of the system. There are a variety of third-party add-ons that provide this functionality.

- **Previewing Before Publishing:** A content editor can easily preview their work, by clicking a prominent Preview button. However, this displays only the content (text and images) you are editing in the WYSIWYG editor rather than the text and images in the context of the full page.

- **Editor documentation:** It's difficult to find a manual specifically targeted at content editors. Considerable documentation is available on how to use the editing systems, but it's presented in a detailed menu system and with a level of complexity that may confuse novice editors.

Ease of Use: Site Administrator

- **Adding a Section to the Navigation Bar:** To add a new section to the navigation bar, the administrator adds a new page, and then goes to the "Menu Manager" to add the page to the menu. Some users are likely to need training in how to add menu items—adding the section to the menu is not very intuitive.

- **Editing footers or sidebars:** Almost all of the text on a site, including typically created footers and sidebars, can be edited by a non-technical content editor using a WYSIWYG interface. However, it can be difficult to find the proper place to edit sidebar and footer text. The user would need to know that this text is generally controlled by modules, as opposed to a category or article, in order to figure out how to edit it.

- **Managing site users:** A non-technical administrator can easily add, delete or change the security levels of users through a polished interface.

- **Managing images and documents:** A non-technical administrator can view the images and documents used on the site through a file explorer type interface (called the "Media Manager"). There's no way to see what documents or images are currently attached to website pages through this interface.

- **Site Backup:** To back up the website, a site administrator downloads all the site assets (HTML pages, documents, images, etc.) from a single directory on the web server, and then backs up the database either in PHPMyAdmin (provided by most web hosts) or using simple commands on the command-line. Community provided add-ons can help with this process.

- **Upgrade Frequency:** There has been one major upgrade and about 25 security and bug-fix releases between January 2007 and October 2010. *Version 1.6 itself will be a major upgrade.*

- **Upgrades Which Affect Themes and Add-ons:** Major upgrades may break existing themes and add-on components. Since January 2007, one major update has affected themes and add-ons. However, Joomla's very useful "legacy mode" supports the last version of add-ons and themes in current release—making it possible to,

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for instance, run 1.0 add-ons in the 1.5 version of Joomla. *Version 1.6 itself will be a major upgrade that will affect themes and add-ons, but "legacy mode" will continue to support 1.5 themes and add-ons.*

- **Notification of Out-of-Date Version:** The CMS does not include a notice to the administrator when they are using an out-of-date version of the system. Community contributed add-ons are available to provide this functionality.

- **Options to Not Upgrade:** The CMS does not maintain legacy branches. To get security updates, you must upgrade to the latest major version. However, Joomla's very useful "legacy mode" supports the last version of add-ons and themes in current release—making it possible to, for instance, run 1.0 add-ons in the 1.5 version of Joomla.

- **Ease of Installing an Upgrade:** To install a new update, the administrator backs up the site, and replaces the web files on the server.

Graphical Flexibility

- **Finding Pre-Packaged Themes:** Hundreds of pre-packaged graphical themes are available. There is no official template repository, but many third-party sites offer templates.

- **Ease of Updating Themes via HTML/ CSS:** HTML and CSS files are easily accessed via the web administration interface. For someone with the HMTL/ CSS skills required to update the look of a static website, the theming process will look very familiar. The structure of the site is controlled through a "template" file, written in standard HTML, which arranges Joomla objects by including the objects as the class names of typical "div" sections. The visual look of the site is controlled through one or many pure CSS files.

- **Creating a Custom Theme From Scratch:** Creating a custom theme involves creating several different template files, a style sheet, a file which defines options and information, and a screenshot of the theme.

- **Creating a Theme from an HTML Page:** Adapting an existing HTML page and style sheet to create a theme involves several steps: creating template files from the HTML page; creating a style sheet; including any images; determining where content and functional elements should go in the templates; and adding any additional necessary files.

- **Design Flexibility:** This theming structure provides a huge amount of flexibility in site look and layout. It supports nearly any web page that can be designed via HTML and CSS.

- **Defining multiple templates for one site:** An administrator can set up as many page templates as they like, define which page uses which template, and set a default template for new pages. However, for most sites, administrators are more likely to set the pieces of the page—like sidebars—on and off rather than creating multiple templates.

- **Defining the look of sidebar elements:** Various controls exist to style sidebar elements (called a "module" in Joomla) on a group or individual basis by indicating CSS style names via the admin interface. Additionally CSS can reference particular sidebar areas to be styled appropriately

- **Print-friendly version:** The system provides built in options for print page functionality and most good themes include a print-friendly version as part of the theme package. In this case, you would simply need to define what pages should show a "print-friendly view" icon. If you are creating a theme from scratch, you can create a print-friendly CSS file, and point to it in your HMTL template file.

Accessibility and Search Engine Optimization

- **508 compliance of core themes:** Some of the core themes included with the standard download are accessible to 508 standards.

- **Order of standard nav bar and content items:** The standard navigation bar elements and content templates are reasonably ordered within the code, to facilitate someone visually impaired in reading the site with a screen

reader. The order can be modified if desired to make it more accessible.

- **508 compliance of admin interface:** The default administrator interface is not 508-compliant. It includes a number of features, like substantial use of JavaScript, which would make it difficult for visually impaired people to use. However, you could download a specific 508-compliant theme for the admin interface. *The new 1.6 version includes an alternate version of the site administration theme that is 508-compliant.*

- **Alt-tags:** The core text editor automatically applies the user-defined title of the image as an alt-tag. Add-on modules allow more specific control over alt-tags.

- **Standard header tags:** The core system does not by default create standard header tags—like H1 and H2 tags—which are desirable for accessibility and search engine optimization purposes. It is possible to overwrite the template to force the use of these standard tags, but that will require a bit of straightforward PHP coding. *The new 1.6 version creates standard H1 and H2 tags.*

- **Page titles and metadata:** The HTML page title is pulled straight from the user input title of the page. The content editor can also see and update keyword and description metadata on the page edit view.

- **Human readable URLs:** The text used for page URLS is pulled by default from menu item and page names—making it quite readable by default. It's also possible to rename directory or page file names directly.

Structural Flexibility

- **Number of Pages:** There is no practical limit to the number of pages the platform can support.

- **Levels of Hierarchy:** The core system suggests a maximum of three levels of hierarchy: Sections, Categories and Articles. However, the system allows unlimited levels of menu hierarchy. *With the new version 1.6, the core system supports unlimited levels of page and menu hierarchy.*

- **Displaying Content Automatically Based on Category:** Site articles can only be placed in a single category, in the core system. The platform automatically displays the articles in the appropriate sections based on those categories. An article must be copied to show up in multiple categories. Several widely used add-on modules allow articles to be placed in multiple categories.

- **Support for Unusual Content Types:** There are a few additional content types (such as news items and polls) beyond simple pages or articles. Popular and widely used add-on modules allow administrative users to create custom content types (event listings, a directory of local stores, etc.) and define what fields should be stored for each of them.

- **Related Items:** You can use the included "related items" module to automatically display links to site information similar to that shown.

- **Changing sidebar elements without changing the template:** The administrator can set up "modules"—one of a number of types of content modules-- which can then be added to particular pages or not by a non-technical editor. By default, a module will show up on every page, but if you want it to show up on only particular pages, you need to pick which pages one by one, and add it manually to each new page. Content can only be changed based on page or user, and not on other rules. There are a variety of third party add-ons that provide functionality to show or hide content based on more sophisticated rules. *The 1.6 release adds the functionality to set modules to appear on all pages except those designated, eliminating the need to manually pick pages one-by-one and add modules manually to new pages.*

- **Custom Data Collection Forms:** Site administrators can create custom forms to collect data from visitors, without coding, through an add-on module.

- **Search Engine:** The system includes a search engine but it only searches pages on the site, not documents.

- **Multi-Language Support:** An add-on package helps manage a single piece of site content that appears in multiple languages (for example, a news story with both English and Spanish versions).

- **Sharing Content Across a Set of Affiliated Websites:** You can use different themes for different site sections, and define what data can go in each section using a variety of criteria. This makes it straightforward to support a group of affiliated websites that share some pieces of content but not others.
- **Support for Multiple Domains:** It is possible to support sites with different domains by setting your web server to point different domains to same the installation.

User Roles and Workflow

- **System Roles:** The system supports three administrative content roles: the ability to draft new content; the ability to edit existing content; and the ability to publish content. A particular user can be allowed to edit or publish only their own content or all others' as well. It's not possible to grant particular users permission to edit or publish based on section of the site or type of content. A widely used add-on, JACL, adds substantial flexibility as to what criteria can define permissions. *The new 1.6 release allows an unlimited number of, and much more flexible, user roles. A standard set of roles is available by default, but others can be defined to create, edit, publish or delete content based on content type. Roles can be grouped and set to inherit various permissions. Each role can be allowed to edit or publish their own content as well as others'.*
- **Possible Article Statuses:** An article can be in draft, published or archived mode. More content states are available through add-on modules.
- **Notifications:** There is no notification system to flag and forward content. However, the internal email communication system can be used to notify editors when content is ready for review. Community contributed add-ons are available to provide this functionality.
- **List of System To-Dos:** No dashboard or list of content items that need attention is available in the core system. Community contributed add-ons are available to provide this functionality.

Community/Web 2.0 Functionality

- **Comments:** Commenting is not available in the core system, but popular add-on modules supporting comments on any piece of site content are available.
- **Comment Moderation:** Popular add-on modules provide detailed comment moderation support and Spam filtering, including support for whitelisting, blacklisting and the popular Akismet Spam filtering package.
- **Blogs:** Blogs, including multi-author blogs, are supported.
- **Community of Blogs:** In order to create personal blogs on the site, authors need to be set up as a content editor by a site administrator. They can then create and publish their own content on the site.
- **Publishing a RSS Feed of Your Content:** Full support for outgoing RSS feeds is provided.
- **Displaying Others' RSS Feeds:** Other RSS feeds can be pulled into the site and assigned to a menu item. However, you cannot moderate which items from those feeds you would like to display.
- **Visitor Profiles:** A popular add-on module allows public site visitors to create their own site profile.
- **Social Networking:** Two popular add-on modules, CommunityBuilder and JomSocial, allow public site visitors to friend each other and create groups, as well as more advanced community building functionality.
- **User-Submitted Content:** The system can be configured so that public site visitors can submit and publish content (like a story or photo), which then can be managed by content editors like any other site content.
- **Share This and Facebook "Like":** A number of widely-used add-ons allow site visitors to easily repost an article to sites like Twitter or Digg, or to add a Facebook "Like" functionality. Many of the add-ons that support comments and comment moderation also support these functionalities.
- **Engagement Dashboard:** There is no core support to provide a dashboard overview of how many people have commented or forwarded information. Some widely-used add-ons provide a dashboard showing how many people have commented.

Extending and Integrating

- **Integrating with Other Systems:** Add-on modules that manage integrations with CiviCRM, Salesforce and Democracy in Action are available.

- **Likelihood that Custom Add-ons Will be Necessary:** As the system combined with available community contributed add-ons allows for administrative users to create custom forms or content types through the administrative tools, it's unlikely that writing custom add-ons will be necessary—except to integrate outside systems, or for unusual or sophisticated needs.

- **Programming Language for Add-ons:** Add-on components are coded in PHP, a widely used programming language.

- **Customization Flexibility:** The tools available to programmers include access to modify or enhance all system functionality.

- **Updating Core Code:** If you want to extend the system beyond available functionality, you would very rarely need to update the core code. This would likely only be done to support very specialized infrastructural needs, like running Joomla through an Oracle database, or defining complex multi-site setups that span multiple servers.

- **Dependences Between Add-ons:** The system is designed so that each add-on works independently. They are fired based on events within the system, and typically run without any interactions or dependencies between them. It would be difficult to have two modules conflict by accident.

Security

- **Security Updates:** Security vulnerabilities and updates are published on Joomla.org. Updates occur frequently.

- **Security Advisories:** Secunia.com reports that there have been 19 security advisories for the Joomla core code between January 2007 and October 2010. All of them have been patched. Seven (36%) were termed moderately or highly critical updates. From January 2009 - October 2010 specifically, they reported 12 advisories, only 1 (8%) moderately critical or above.

- **Security Process for Add-ons and Themes:** The Joomla community has recently introduced a "Vulnerable Extensions" list, which includes any add-on that's been flagged by security third-parties. An add-on that's included in the list is removed from the official Joomla directory of extensions until the security issue is fixed.

Support/Community Strength Excellent

- **History:** Joomla originated in 2005 as a continuation of another open source CMS, Mambo, which existed as an open source project since 2001.

- **Consultant Support:** The CMS is supported by hundreds of independent consultants or firms in the United States.

- **Community Support:** There are a number of different helpful forums and discussion lists where anyone can ask questions about the system and receive answers. These communities have a reputation of being very helpful and gentle to newcomers.

- **Available Books:** Several reputable books on the system are available.

- **System Governance:** The community is governed by the nonprofit Open Source Matters foundation.

- **Online User Forums:** In Joomla's "administration" forum (one the busiest of 10 topic based forums for questions about functionality and implementation), 217 discussion threads were posted to or created in the third week of October 2010. Of these threads, 61 (28 percent) were questions without any replies.

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Drupal

Version 6.19 (and version 7.0)

Ease of Hosting

- **Hosting Environment:** The CMS can be hosted on a standard (and inexpensive) shared Linux/Apache/MySQL/PHP environment. Shell access is helpful, but not necessary.

- **Hosting Requirements:** The platform can run on a Linux, Windows or Macintosh OS, with MySQL, or PostgreSQLdatabases. It requires PHP as a scripting language. *The upcoming Drupal 7.0 version also supports MS SQL Server.*

- **Time to Install:** A user with experience installing other systems (but not this one) can install the core package in less than 30 minutes.

- **Skills to Install:** Installation does not require technical knowledge beyond how to FTP and how to install a database on a web host. Those with access to a common shared hosting tool like Fantastico can easily install the software with a one-click process.

Ease of Setup: Simple Site

- **Default Setup on Installation:** Upon installation the default platform is basically a blank slate, with six themes to choose from, and some text suggesting what should be done next to configure the system or add content. It's also easy to add "installation templates" created by the community—these templates provide more of a starting point for particular types of sites , like news, education, etc. *The upcoming 7.0 version ships with four theme options, including defaults enabled for the front end and the administration area. In the beta version we reviewed, no sample content or instructions were included.*

- **Availability of Pre-packaged Themes:** Many pre-packaged graphical themes appropriate for a small nonprofit website are available for download.

- **Ease of Theme Installation:** Installing an existing graphical theme requires the administrator to upload the theme files onto the server, and then enable them through the web interface. *With the upcoming 7.0 version, administrators can install an existing graphical theme by indicating a URL link to the theme package or by uploading files from their computer via the web interface. They then enable it through the interface.*

- **Updating Themes without Tech Skills:** Many themes, including the default themes, offer parameters that can easily be changed in a non-technical interface. These parameters vary based on what the theme programmer built into the theme template, but often include easy ways to change the logo, banner, font colors, page colors or more.

- **Completeness:** The core platform does not include any way for non-technical content editors to format site text or add an image without knowledge of HTML. In order for someone without knowledge of HTML to add any image or do any text formatting of any kind, you will need to install a What-You-See-Is-What-You-Get (WYSIWYG) editor as an add-on module. The core platform does include, however, all other typical components to create and administer a basic nonprofit site with a hierarchical page structure. *The upcoming 7.0 version adds some ability to manage images through the core system, but in order to format text or place images in the body of the page content you must use still use an add-on WYSIWYG module.*

- **Setting Up Users:** Setting up administrative users is straightforward. The first user, a super-administrator, is set up during install; others can be easily added through the administrative tools.

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- **Structuring a Simple Site:** Creating a simple 20-page site divided into four sections is intuitive. As you set up each page, you can define whether it should go into the navigation bar or within the site hierarchy.

- **Support for News Stories and Events Calendar:** The core platform includes the ability to support featured news stories, but you would need to install an events calendar as an add-on module. *In the upcoming 7.0 version, you could choose to create a custom content type to manage an events calendar rather than installing an add-on module.*

- **Documentation on Getting Started:** The Drupal.org site provides documentation on getting started with the system in a variety of ways. This documentation is helpful but may be overwhelming to someone new to Content Management Systems.

Ease of Setup: Complex Site

- **Ease of Creating a Custom Theme:** Creating a custom theme requires HTML/CSS skills and understanding how to work with a fairly complex set of templates.

- **Ease of Updating Themes via HTML/ CSS:** Accessing the HTML and CSS files can only be done via FTP and often classes are defined in many different files, such as for add-on modules and content types. For someone with the HMTL/ CSS skills required to update the look of a static website, the theming files themselves, however, will look relatively familiar. The structure of the site is controlled through HTML with additional PHP and Drupal specific tags. The visual look of the site is controlled via several to many pure CSS files.

- **Ease of Understanding What's Possible:** Complex configuration requires parsing through and understanding how to work with more than 30 different configuration sections. Some of these sections are quite straightforward, while others have a substantial learning curve. As the system is also quite reliant on add-on modules, most implementations will require research into the best modules to use for particular purposes. Those without previous Drupal experience will likely require several days to familiarize themselves what the system can do and how to do it. *The upcoming 7.0 version provides a simplified interface to access configuration options, lowering the learning curve somewhat. However, the sections themselves remain fairly complex, and not all available modules can be found within the simplified interface; those without Drupal experience are still likely to require several days to familiarize themselves with what the system can do.*

- **Documentation:** Substantial documentation on how to use the system, including published books, is available from multiple sources.

- **Likelihood that Add-ons will be Necessary:** As a number of pieces of core functionality, like the ability to format page text without knowledge of HTML, requires add-ons, almost all implementations of the system are likely to require finding and installing multiple add-ons.

- **Where to Find Info on Add-on Modules:** Drupal.org has a listing of add-on modules and the number of people who have installed each module but not reviews or ratings. Drupalmodules.com provides ratings and reviews of add-on modules

- **Available Add-ons:** Drupal.org lists thousands of community-contributed add-on modules available for download.

- **Installing an Add-on:** To install an add-on module, a site administrator downloads the package to their computer, uploads it to a particular directory on the server and enables it through the administrative tools. *In the upcoming 7.0 version, the site administrator can enter a URL into the administrative interface, or upload the file from their computer. The administrator then enables the theme through the administrative tools.*

- **Importing From a Data File:** Add-on modules provide functionality to help import a data file of content from a different content management system.

Ease of Use: Content Editors

- **Look of Admin Interface:** The interface for adding or editing most content is not as polished looking by default

as other systems, but is very stripped-down and simple, making it easy to use. However, more advanced editing tasks, such as updating sidebar content, may require the use of the separate Site Administration interface, which is considerably more formidable. *Version 7.0 includes a redesigned administrative interface including a top level navigation bar on the visitor view. This bar makes it easier to find the right area to edit easier than in the older system. A new overlay interface allows you to administer items without leaving a particular page. At least in the Beta release reviewed, the overlay worked unpredictably, making it sometimes difficult to figure out where you are or how to get back. The overlay can be disabled, and we did so to conduct the remainder of this review.*

- **Ease of Finding What You Want to Edit:** An administrator can easily find the page or article they want to edit within the visitor view of the website, and then click a button to edit it. *The new 7.0 release allows for editing of sidebar areas in the same way.*

- **Ease of Text Editing:** The core system does not include a standard, Word-style WYSIWYG formatting toolbar. However, a number are available as add-on modules.

- **Integration of Advanced Options:** The more advanced page-editing options (the ability to allow comments, define an author, etc.) are handled nicely—the primary content is very prominent on the page, and there is a list of collapsed sections that can be easily expanded and edited. *The new 7.0 administrative interface shows the possible advanced settings via a vertical tab navigation, making it even easier to access additional settings without distracting from the primary page content.*

- **Pasting from Word:** Text cannot be easily pasted from Microsoft Word without adding an add-on module to handle text formatting. As there are a number of different text formatting modules, we were unable to test how these modules handle text pasted in from Word.

- **Adding an Image or Document:** Some of the add-on formatting modules allow images or documents to be added directly from the page-editing form, while others do not. *In 7.0, images can be added to the system and manipulated via the core system. Files can be uploaded and attached to articles. In the core, the content type and theme templates must include a prescribed placement of the images for them to show up. Some of the add-on formatting modules allow images or documents to be added directly to the page in the editing form, while others do not.*

- **Advanced Image Manipulation:** Add-in modules with image management and manipulation features are available. *The 7.0 release adds robust image management, allowing users to upload a single image and use the system to change size, cropping and other attributes then save them as separate files for use within the system.*

- **YouTube Videos:** YouTube videos can be embedded in a page by pasting the YouTube code provided into the HTML view of the page.

- **Adding a New Page:** The option to add a new page is prominent and obvious, and new articles are edited in the same way as any other. Depending on site structure, in order to display a new page the administrator may need to link it in by hand. *In 7.0, the option to add a new page is even more prominent as a default "shortcut" in the customizable administration "shortcuts" menu.*

- **Admin Languages:** The administrative interface is available in 69 languages. *The 7.0 administrative interface is available in 71 languages.*

- **Reverting to Previous Page Versions:** Revisions for site pages can be set to be automatically created or created on a per page basis by the user. In either case, seeing and reverting to previous versions is simple to do from the page editing interface.

- **Previewing Before Publishing:** A content editor can easily preview how pages and posts will look within the context of the full page. However, sidebar items cannot be previewed before making them live. *When using the default overlay system in 7.0, the preview displays only the text block you are editing, rather than the text and images in the context of the full page.*

- **Editor documentation:** It's difficult to find a manual specifically targeted at content editors. Considerable documentation is available on how to use the editing systems, but it's presented in a detailed menu system and with a level of complexity that may confuse novice editors.

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Ease of Use: Site Administrator

- **Adding a Section to the Navigation Bar:** To add a new navigation bar section, the administrator follows the process for adding a new page, and then defines where in the menu the page should go using the "Menu Settings" section of the page editing interface. Menu items and site hierarchy can be further managed and edited via a drag and drop interface in the Menus administration area.

- **Editing footers or sidebars:** Sidebar content items are typically what's called a "block" in Drupal. They can be administered via the Blocks admin screen. The header and footer can also be set up as block areas in the theme. Alternatively, they may be hand coded as part of the theme file, and would be updated in HTML and CSS. *If using the overlay system in 7.0, blocks can be updated simply by clicking on the content, just like editing a page.*

- **Managing site users:** A non-technical administrator can easily add, delete or change the security levels of users through a polished interface.

- **Managing images and documents:** In a standard install of the system, there is no administrative interface that allows non-technical administrators to view the images and documents used on the site. Add-on modules are available for media and file management within the system.

- **Site Backup:** To back up the website, a site administrator downloads all the site assets (HTML pages, documents, images, etc.) from a single directory on the web server, and then backs up the database either in PHPMyAdmin (provided by most web hosts) or using simple commands on the command-line.

- **Upgrade Frequency:** There have been two major upgrades, two feature upgrades, and approximately 31 bug-fix releases between January 2007 and October 2010. *Version 7.0 itself will be a major upgrade.*

- **Upgrades Which Affect Themes and Add-ons:** Major upgrades may break existing themes and add-ons. Since January 2007, two updates—both planned, major updates—affected many themes and add-ons. *Version 7.0 itself will be a major upgrade that will affect themes and add-ons.*

- **Notification of Out-of-Date Version:** The CMS includes a notice to the administrator when they are using an out-of-date version of the system. *The CMS includes a notice to the administrator when they are using an out-of-date version of the system.*

- **Options to Not Upgrade:** The CMS maintains legacy branches, one version behind the current, so those who choose not to make a major update (which might break themes and add-ons, for instance) can still get security updates.

- **Ease of Installing an Upgrade:** To install a new update, the administrator backs up the site, replaces the web files on the server and then uses a web update interface. As the system is quite reliant on add-on modules, the ease of updating can rely heavily on how well the add-ons you are using work with the upgrade and each other.

Graphical Flexibility

- **Finding Pre-Packaged Themes:** Hundreds of pre-packaged graphical themes are available. The official CMS website does not include ratings, but it does include download statistics.

- **Ease of Updating Themes via HTML/ CSS:** Accessing the HTML and CSS files can only be done via FTP and often classes are defined in many different files, such as for add-on modules and content types. For someone with the HMTL/ CSS skills required to update the look of a static website, the theming files themselves, however, will look relatively familiar. The structure of the site is controlled through HTML with additional PHP and Drupal specific tags. The visual look of the site is controlled via several-to-many pure CSS files.

- **Creating a Custom Theme From Scratch:** Creating a custom theme involves creating several different template files, a style sheet, a file which defines options and information, and a screenshot of the theme.

- **Creating a Theme from an HTML Page:** Adapting an existing HTML page and style sheet to create a theme involves several steps: creating template files from the HTML page; creating a style sheet; including any images; determining where content and functional elements should go in the templates; and adding any additional necessary files.

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- **Design Flexibility:** The theming structure provides a huge amount of flexibility in site look and layout. It supports nearly any web page that can be designed via HTML and CSS.
- **Defining multiple templates for one site:** A technical administrator can set up as many page templates as they like, using file names and conditional coding to define which page uses which template. However, for most sites, administrators are more likely to set the pieces of the page—like sidebars—on and off rather than creating multiple templates.
- **Defining the look of sidebar elements:** Each sidebar element (called a block" in Drupal) has a specific ID, which can be used in the CSS file to customize styles just for that particular block.
- **Print-friendly version:** In order to create a print friendly version, you would install and configure one of the widely-used add-on modules and possibly edit PHP and CSS files to customize the output.

Accessibility and Search Engine Optimization

- **508 compliance of core themes:** The core themes included with the standard download are not accessible to 508 standards.
- **Order of standard nav bar and content items:** The standard navigation bar elements and content templates are reasonably ordered within the code, to facilitate someone visually impaired in reading the site with a screen reader. The order can be modified if desired to make it more accessible.
- **508 compliance of admin interface:** The administrator interface is not 508-compliant by default. With add-on modules, configuration options and custom themes it is theoretically possible to bring it into compliance.
- **Alt-tags:** Administrators may have the option to add alt information depending on the image management available with the WYSIWYG editor package they install. *In version 7.0, administrators can specify alt information when uploading images to the core system and may have additional options depending on the image management available with the WYSIWYG editor package they install. With the core installation it is not mandatory and defaults to blank.*
- **Standard header tags:** The core system creates standard header tags—like H1 and H2 tags—by default, which is an accessibility and search engine optimization best practice.
- **Page titles and metadata:** The HTML page title is pulled straight from the user input title of the page. Contributed modules allow for control over titles and metadata.
- **Human readable URLs:** Human-readable URLs can be manually created on the page editing screen with the standard installation but are not automatically created. A popular add-on module called Pathauto provides this option with the ability to generate particular URL patterns based on section or other criteria.

Structural Flexibility

- **Number of Pages:** There is no practical limit to the number of pages the platform can support.
- **Levels of Hierarchy:** Pages can be arranged into a hierarchy with as many levels as you like.
- **Displaying Content Automatically Based on Category:** Site articles can be placed in one or multiple categories. The platform automatically displays the articles in the appropriate sections based on those categories.
- **Support for Unusual Content Types:** With the addition of a widely used suite of modules, "CCK," administrative users can create custom-content types (event listings, a directory of local stores, etc.) beyond simples pages or articles, and can define what fields should be stored for each of them. *In Version 7.0, the ability to create custom-content types has been pulled into the core system so there's no need to install the CCK suite of modules.*
- **Related Items:** You can use the included Taxonomy and the community-contributed Views modules to create a "related items" feature on a page. This will automatically display links to site information similar to that shown.
- **Changing sidebar elements without changing the template:** An administrator can define which elements show up on which page via the Blocks Administration page. The rules for block display can be defined on a page-by-page basis, or be defined based on sections, content type, or users and roles. *In version 7.0, edits to specific blocks can be made contextually via the overlay editing interface, although care should be taken since this changes the block wherever it appears on the site and not just on the specific page it was accessed from.*

- **Custom Data Collection Forms:** Site administrators can create custom forms to collect data from visitors, without coding, through an add-on module.
- **Search Engine:** The system includes a search engine but it only searches pages on the site, not documents.
- **Multi-Language Support:** An add-on package helps manage site content that appears in multiple languages (for example, a news story with both English and Spanish versions).
- **Sharing Content Across a Set of Affiliated Websites:** You can use different themes for different site sections, and define what data can go in each section using a variety of criteria. This makes it straightforward to support a group of affiliated websites that share some pieces of content but not others.
- **Support for Multiple Domains:** You can support sites with different domains using the same deployment of the CMS.

User Roles and Workflow

- **System Roles:** An unlimited number of user roles can be created and ordered into hierarchical groups. A default set of roles (Anonymous User and Authenticated User) is available, and additional roles can be defined to create, edit, publish or delete content based on content type. Each role can be allowed to edit or publish their own content as well as others'. An add-on module allows permissions based on content section (using the taxonomy function). *In the new 7.0 release, roles are able to inherit the permissions of their parent and/ or children's roles, simplifying the administration of permissions.*
- **Possible Article Statuses:** Articles can only be in draft or published mode. More content states are available through an add-on module.
- **Notifications:** There is no notification system to flag and forward content. However, a popular add-on module is available to provide this functionality.
- **List of System To-Dos:** No dashboard or list of content items that need attention is available in the core system. Community contributed add-ons are available to provide this functionality.

Community/Web 2.0 Functionality

- **Comments:** The content editor can allow site visitors to post comments for any piece of site content.
- **Comment Moderation:** The system provides detailed comment moderation support. Spam filtering is available through popular add-on modules.
- **Blogs:** Blogs, including multi-author blogs, are supported.
- **Community of Blogs:** Registered site visitors with sufficient privileges granted by the site administrator can easily create content on the site to support a blogging community.
- **Publishing a RSS Feed of Your Content:** Full support for outgoing RSS feeds is provided including feeds by topic or section.
- **Displaying Others' RSS Feeds:** A popular add-on module allows you to pull in and display other RSS feeds on your site, and moderate which items from those feeds you would like to display.
- **Visitor Profiles:** Public site visitors can create their own site profiles. Several default profile fields are fully configurable by the site administrator. *In Version 7.0, additional fields and tags can be added through the web administration interface.*
- **Social Networking:** A popular add-on module allows public site visitors to friend each other and create groups.
- **User-Submitted Content:** The system can be configured so that public site visitors can submit and publish content (like a story or photo), which then can be managed by content editors like any other site content.
- **Share This and Facebook "Like":** A number of widely-used add-ons allow site visitors to easily repost an article to sites like Twitter or Digg, or to add a Facebook "Like" functionality.
- **Engagement Dashboard:** By using add-on modules, you can create a dashboard overview of how many people have commented or forwarded information.

Extending and Integrating

- **Integrating with Other Systems:** Add-on modules that manage integrations with CiviCRM, Salesforce and Democracy in Action are available.

- **Likelihood that Custom Add-ons Will be Necessary:** As the system combined with available community contributed add-ons allow for administrative users to create custom forms or content types through the administrative tools, it's unlikely that writing custom add-ons will be necessary—except to integrate outside systems, or for unusual or sophisticated needs. *In version 7.0, custom forms and content types can be created entirely within the core system, without the use of community contributed add-ons.*

- **Programming Language for Add-ons:** Add-on components are coded in PHP, a widely used programming language.

- **Customization Flexibility:** The tools available to programmers include access to modify or enhance all system functionality. The system functionality is very flexible; it can accommodate almost any kind of customization.

- **Updating Core Code:** If you want to extend the system beyond available functionality, you would very rarely need to update the core code.

- **Dependences Between Add-ons:** Although developers aren't likely to need to modify core code, many of the system's functionalities are interdependent so care must be taken when adding custom modules not to affect other site areas unintentionally.

Security

- **Security Updates:** Security vulnerabilities and updates are published on Drupal.org. Updates occur frequently.

- **Security Advisories:** Secunia.com reports that there have been 23 security advisories for the Drupal 5.x and 6.x core code between January 2007 October 2010. All have been patched. Eight (34%) were termed moderately or highly critical updates. From January 2009 - October 2010 specifically, they reported ten advisories, two (20%) moderately critical or above.

- **Security Process for Add-ons and Themes:** The Drupal community has a security team to review contributed modules. The community publishes a known vulnerabilities list.

Support/Community Strength

- **History:** Drupal has existed as an open source project since 2001.

- **Consultant Support:** The CMS is supported by hundreds of independent consultants or firms in the United States.

- **Community Support:** There are a number of different helpful forums and discussion lists where anyone can ask questions about the system and receive answers. These communities have a reputation of being somewhat less accommodating to newcomers than the other systems.

- **Available Books:** Several reputable books on the system are available.

- **System Governance:** The community is governed by the nonprofit Drupal Foundation.

- **Online User Forums:** In Drupal's "Post Installation " forum (the busiest of eight topic-based forums for questions about functionality and implementation), 725 discussion threads were posted to or created in the third week of October 2010. Of these threads, 136 (19 percent) were questions without any replies.

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Plone

Version 4.0.0

Ease of Hosting

- **Hosting Environment:** The CMS cannot be hosted on a standard (and inexpensive) shared Linux/Apache/ MySQL/PHP environment. However, hosting is commercially available through a number of vendors at a price of $15/month and up. If you are planning to use a virtual private server, in order to minimizes security and downtime risks, or support higher traffic sites or more complex systems, Plone is as straightforward to host as anything else.

- **Hosting Requirements:** The CMS can run on a Linux, Windows or Macintosh OS.

- **Time to Install:** A user with systems administration and software installation experience, but no experience with Plone, can install the core package in an hour or so.

- **Skills to Install:** Installation requires technical knowledge, including how to install complex packages from a command-line interface, and configuring Web servers. A few providers, with a special emphasis on Plone, provide a more straightforward installation interface.

Ease of Setup: Simple Site

- **Default Setup on Installation:** Upon installation, the platform is basically a blank slate, with a single theme. The core theme has been completely redesigned for Plone 4.0, and is now more flexible and more likely to be suitable for nonprofit needs out-of-the-box.

- **Availability of Pre-packaged Themes:** Many pre-packaged graphical themes appropriate for a small nonprofit Web site are available for download.

- **Ease of Theme Installation:** Installing an existing graphical theme is a complex process involving a updating a file from the command-line to install the theme. The administrator will need to then restart Plone, install the theme through the admin Web interface, and enable it.

- **Updating Themes without Tech Skills:** It's not currently possible with the core code to update a theme without technical knowledge. An add-on module allows easy access to the theme and the ability to change images, but not colors or fonts. A quite new add-on module, called collective.xdv, allows you to straightforwardly modify an existing HTML/ CSS design for use with Plone, but you'll need to update information in a number of different text files and know how to restart Plone in order to create a theme with it.

- **Completeness:** The core platform includes all typical components to create and administer a basic nonprofit site with a hierarchical page structure.

- **Setting Up Users:** Setting up administrative users is straightforward. The first admin user is set up during install; others can be easily added through the administrative tools.

- **Structuring a Simple Site:** Creating a simple 20-page site divided into four sections is relatively intuitive. First the administrator creates each new section through the "Add New -> Folder" function. Once these section pages are added, sub-pages can be added by choosing "Add New -> Page" from within the appropriate section.

- **Support for News Stories and Events Calendar:** The core platform supports both a featured news stories function and an events calendar.

- **Documentation on Getting Started:** The Plone.org site links to a useful "Practical Plone 3: A Beginner's Guide to Building Powerful Websites" that walks you through what you'll need to know to get started.

Ease of Setup: Complex Site

- **Ease of Creating a Custom Theme:** Creating a custom theme requires HTML/CSS skills, understanding how to work with a fairly complex set of templates, and an understanding of how Plone products are packaged.

- **Ease of Updating Themes via HTML/ CSS:** For someone with the HMTL/ CSS skills required to update the look of a static website, the theming process will look very familiar. The structure of the site is controlled through standard HTML with Plone specific tags, and the visual look of the site is controlled through one or many pure CSS files. The collective.xdv add-on module described above can also speed the process.

- **Ease of Understanding What's Possible:** Plone provides a very powerful but complex system for creating advanced functionality. The learning curve is steep and most people, even experienced technical staff, will require training to take fully understand the configuration options.

- **Documentation:** Substantial documentation on how to use the system, including published books, is available from multiple sources.

- **Likelihood that Add-ons will be Necessary:** The system is designed to cover the majority of needs without add-ons, so you're less likely to need to find and install add-on modules to meet common site requirements.

- **Where to Find Info on Add-on Modules:** Plone.org has a new listing of add-on modules that includes community ratings.

- **Available Add-ons:** Plone.org lists thousands of community contributed add-ons available for download.

- **Installing an Add-on:** To install an add-on module, a site administrator would add it in by name to a text "config" file. Plone will automatically find and add the module and all the files it depends on, assuming the name is correct. The administrator then restarts Plone and enables the add-on through the Web interface.

- **Importing From a Data File:** Widely-used add-on modules provide functionality to help import a data file of content from a different content management system.

Ease of Use: Content Editors

- **Look of Admin Interface:** The interface for adding or editing content is well laid out and relatively friendly looking.

- **Ease of Finding What You Want to Edit:** An administrator can easily find the page or article they want to edit within the visitor view of the Web site, and then click a button to edit it.

- **Ease of Text Editing:** Editing the text of an existing page is straightforward. Text can be formatted using a standard, Word-style What-You-See-Is-What-You-Get formatting toolbar.

- **Integration of Advanced Options:** When editing a page, the more advanced options (the ability categorize an article, define a publishing start date, etc.) are handled nicely. The primary content is very prominent on the page, and friendly sections to define further options can be accessed through a set of tab-like buttons.

- **Pasting from Word:** The core system does not handle text pasted in from Microsoft Word well. Garbage tags appear on the final Web page unless they are deleted by hand, or the admin manually configures the system to catch them. There are a number of add-on What-You-See-Is-What-You-Get text editing modules, which have differing levels of functionality when it comes to pasting from Word.

- **Adding an Image or Document:** An image can be uploaded and added directly from the page editing form. A document can be added into the system using the "Add New -> File" command. The document is then shown with a description in the appropriate section.

- **Advanced Image Manipulation:** The core system provides friendly, useful image manipulation features. The administrator can define a standard set of images sizes for the site. The content editor can then easily choose to use one of those sizes, and the image is automatically resampled to resize it to the appropriate dimensions.

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- **YouTube Videos:** If the site admistrator allows, a content editor can add in a video just like an image. Alternatively, YouTube videos can be embedded in a page by pasting the YouTube code into the provided HTML view of the page, if the site administrator allows this. Add-ons can make this process even easier.

- **Adding a New Page:** The option to add a new page is relatively prominent through a top navigation bar. New articles are edited in the same way as any other, and can be published into the site in the section from which they were added.

- **Admin Languages:** The Plone 4.0 administrative interface is available in 30 languages.

- **Reverting to Previous Page Versions:** The core site includes the ability to easily see a history of all previous version of a page, and revert back to one of them with a click of a button.

- **Previewing Before Publishing:** When creating a new page, you can preview your work by publishing it as "Private" so that no one else can see it. In order to preview something that's already live, if the administrator activates the "staging" module (included in core), the user can "check out" a copy of the page, edit it, save your edits, and preview the checked out copy before checking it back in and publishing it.

- **Editor documentation:** The Plone community offers a detailed manual targeted at content editors and non-technical administrators, which covers all the functions they're likely to need. The manual is a bit technical in places, but provides a generally usable overview of features.

Ease of Use: Site Administrator

- **Adding a Section to the Navigation Bar:** To add a new section to the navigation bar, the administrator chooses "Add New -> Folder" command (this language may confuse some users). They then create the page like any other.

- **Editing footers or sidebars:** Sidebar content are typically what's called a "portlet" in Plone. Portlets can be updated simply by clicking on the content, just like editing a page. The header and footer are typically part of the theme file, and would be updated in HTML and CSS. Add-on components are available to replace the standard footer with an easy-to-edit portlet.

- **Managing site users:** A non-technical administrator can easily add, delete, or change the security levels of users through a polished interface.

- **Managing images and documents:** A non-technical administrator can view the images and documents used on the site, if the site administrator sets them up to do so in advance. There's no way to see what documents or images are currently attached to website pages through this interface.

- **Site Backup:** To backup the Web site, a site administrator can copy the entire master Plone installation folder, which includes all the site assets (HTML pages, documents, images, etc.) as well as a file that contains the entire database.

- **Upgrade Frequency:** There have been two major upgrades, six feature upgrades, and 22 bug-fix releases between January 2007 and October 2010

- **Upgrades Which Affect Themes and Add-ons:** Major upgrades may break existing themes and add-on components. Since January 2007, two updates—both planned, major version—impacted themes and add-on components.

- **Notification of Out-of-Date Version:** The CMS does not include a notice to the administrator when they are using an out-of-date version of the system. They consider this to be a security feature so that no unauthorized connections to outside servers are made.

- **Options to Not Upgrade:** The CMS maintains legacy branches, so those who choose not to make a major update (which might break themes and add-ons, for instance) can still get security updates.

- **Ease of Installing an Upgrade:** To install a new update, the administrator backs up the site, performs the update from the command line, and restarts the system.

Graphical Flexibility

- **Finding Pre-Packaged Themes:** Hundreds of pre-packaged graphical themes are available. The official CMS Web site includes version compatibility and ratings.

- **Ease of Updating Themes via HTML/CSS:** For someone with the HMTL/ CSS skills required to update the look of a static website, the theming process will look very familiar. The structure of the site is controlled through a standard HTML with Plone specific tags, and the visual look of the site is controlled through one or many pure CSS files. The collective.xdv add-on module described above can also speed the process.

- **Creating a Custom Theme From Scratch**: Creating a custom theme involves generating a theme package with a utility, and then creating and adding several different template files, a style sheet, and an information file to the skeleton created by the theme utility.

- **Creating a Theme from an HTML Page:** The best strategy for adapting an existing HTML page and style sheet to create a theme is to adapt from an existing Plone theme; modify template files from the HTML page; create a style sheet; include any images; determine where in the templates content and functional elements should go; and add any additional necessary files for the Plone package.

- **Design Flexibility:** This theming structure provides a huge amount of flexibility in site look and layout. It supports nearly any Web page that can be designed via HTML and CSS.

- **Defining multiple templates for one site:** An administrator can setup as many page templates as they like, define which page uses which template, and set a default template for new pages.

- **Defining the look of sidebar elements:** Each sidebar element (called a "portlet" in Plone) has a portlet ID, which can be used in the CSS file to customize styles just for that particular portlet.

- **Print-friendly version:** The system will automatically create a print-friendly version of each page, or you can customize what is included by creating a print.css CSS file.

Accessibility and Search Engine Optimization

- **508 compliance of core themes:** The core theme included with the standard download is accessible to 508 standards. Accessibility is a core value for the Plone community.

- **Order of standard nav bar and content items:** The standardard navigation bar elements and content templates are carefully ordered within the code to faciliate someone viusally impaired in reading the site with a screen reader.

- **508 compliance of admin interface:** The administrator interface is accessible to 508 standards.

- **Alt-tags:** The core text editor automatically applies the user-defined title of the image as an alt-tag.

- **Standard header tags:** The core system creates standard header tags—like H1 and H2 tags—by default, which is an accessibility and search engine optimization best practice.

- **Page titles and metadata:** The HTML page title is pulled straight from the user input title of the page; the page summary is used for the metadata description. There is a widely used add-on module, called Plone SEO, that provides more control over all page metadata.

- **Human readable URLs:** The text used for page URLS is pulled by default from folders and page names—making it quite human readable by default. The system will also automatically create redirects if you move a page from one folder to another. There is a widely used add-on called "Alias Manager" that allows you more flexibility in creating URLs.

Structural Flexibility

- **Number of Pages:** There is no practical limit to the number of pages the platform can support.

- **Levels of Hierarchy:** Pages can be arranged into a hierarchy with as many levels as you like.

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- **Displaying Content Automatically Based on Category:** Site articles can be placed in one or multiple categories. The platform automatically displays the articles in the appropriate sections based on those categories.
- **Support for Unusual Content Types:** Administrative users can create custom content types (event listings, a directory of local stores, etc.) beyond simples pages or articles, and can define what fields should be stored for each of them.
- **Related Items:** You can use the included Collections module to create a "related items" feature on a page to automatically display links to site information similar to that shown.
- **Changing sidebar elements without changing the template:** An administrator can define which elements show up on which page, by hand or based on sophisticated rules. The rules can be defined on a page-by-page basis, or be defined based on sections, content type, or many other aspects.
- **Custom Data Collection Forms:** Site administrators can create custom forms to collect data from visitors, without coding, though an add-on module.
- **Search Engine:** The system includes a search engine that automatically searches documents as well as all site content.
- **Multi-Language Support:** An add-on package helps manage a single piece of site content that appears in multiple languages (for example, a news story with both English and Spanish versions).
- **Sharing Content Across a Set of Affiliated Web sites:** You can use different themes for different site sections, and define what data can go in each section using a variety of criteria. This makes it straightforward to support a group of affiliated Web sites that share some pieces of content but not others.
- **Support for Multiple Domains:** You can support sites with different domains using the same deployment of the CMS.

User Roles and Workflow

- **System Roles:** An unlimited number of user roles can be created. A default set of roles (contributor, editor, reviewer, manager) is available by default, but others can be defined to allow create, edit, publish or delete content based on content type, site section or other elements. Each role can be allowed to edit or publish their own content as well as others'.
- **Possible Article Statuses:** There are a number of different content stages to facilitate workflow: private; submit for publication; published. In addition, detailed configuration of workflows is possible.
- **Notifications:** A simple notification/events system that allows you to create and send emails when specific configurable events occur is available out-of-the-box. There is a popular add-on module that does this more robustly and flexibly.
- **List of System To-Dos:** You can create, with an out-of-the-box feature, a "dashboard"—a list of items that need attention. For example, you can show each content editor the drafts that are awaiting publication.

Community/Web 2.0 Functionality

- **Comments:** The content editor can allow logged-in site visitors to post comments for any piece of site content. Anonymous comments are provided by an add-on.
- **Comment Moderation:** Popular add-on packages provides detailed support to moderate comments, including defining what visitors need to do to comment (like register), and Spam filtering (including the popular Akismet spam filtering package).
- **Blogs:** Blogs, including multi-author blogs, are supported.
- **Community of Blogs:** Registered site visitors can create their own personal blogs on the site, if the administrator allows visitors this ability.

- **Publishing a RSS Feed of Your Content:** Full support for outgoing RSS feeds is provided.

- **Displaying Others' RSS Feeds:** Other RSS feeds can be pulled into and displayed on the site as part of the core functionality, but you would need to use an add-on module to moderate which of the items from those feeds you would like to display.

- **Visitor Profiles:** Public site visitors can create their own site profiles. Profile fields are fully configurable by the site administrator.

- **Social Networking:** No current add-on allows public site visitors to friend each other and create their own freeform groups.

- **User-Submitted Content:** The system can be configured so that public site visitors can submit and publish content (like a story or photo), which then can be managed by content editors like any other site content.

- **Share This and Facebook "Like:"** A number of widely-used add-ons allow site visitors to easily repost an article to sites like Twitter or Digg, or to add a Facebook "Like" functionality.

- **Engagement Dashboard:** There is no core support or widely used add-on to provide a dashboard overview of how many people have commented or forwarded information.

Extending and Integrating

- **Integrating with Other Systems:** Add-on modules are available to manage integrations with Salesforce, Democracy in Action and CiviCRM.

- **Likelihood that Custom Add-ons Will be Necessary:** As the system allows administrative users to create custom forms or content types through the administrative tools, it's unlikely that writing custom add-ons will be necessary—except to integrate outside systems, or for unusual or sophisticated needs.

- **Programming Language for Add-ons:** Add-on components are coded in Python, a less widely used programming language. Finding a programmer to build an add-on component may be more difficult than with the other three systems.

- **Customization Flexibility:** The tools available to programmers include access to modify or enhance all system functionality. The system functionality is very flexible; it can accommodate almost any kind of customization.

- **Updating Core Code:** If you want to extend the system beyond the functionality that's available, you would never need to update the core code. Instead, you would create add-on modules that would override core code.

- **Dependances Between Add-ons:** The system is designed so that each add-on works fairly independently. It would be difficult to have two modules conflict by accident.

Security

- **Security Updates:** Security vulnerabilities and updates are published on Plone.org. Vulnerabilities and updates are infrequent.

- **Security Advisories:** Secunia.com reports that there have been six security advisories for the Plone 2.x and 3.x core code between January 2007 and October 2010. All have been patched. Two (33%) were termed moderately or highly critical updates . From Jan 2009 - October 2010 specifically, they reported three advisories, none moderately critical or above.

- **Security Process for Add-ons and Themes:** There is no official process for vetting add-ons or themes for s ecurity issues, but the architecture of Plone specifically makes it difficult to introduce security issues by accident.

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Support/Community Strength

- **History:** Plone has existed as an open source project since 2001.

- **Consultant Support:** The CMS is supported by hundreds of independent consultants or firms in the United States.

- **Community Support:** There are a number of different helpful forums and discussion lists where anyone can ask questions about the system and receive answers. These communities have a reputation of being helpful to newcomers.

- **Available Books:** Several good books on the system are available.

- **System Governance:** The community is governed by the nonprofit Plone Foundation, which owns all of Plone's code and trademark assets.

- **Online User Forums:** In Plone's "general questions" forum (the busiest of 7 topic based forums for questions about functionality and implementation) 40 discussion threads were created or posted to in the third week of October 2010 Only two of these threads (5%) were questions without any replies.

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APPENDIX B: HOW WE RATED THE SYSTEMS

Each rating assumes that the system also meets the criteria for all previous rating level—so for instance, a system cannot be rated Excellent unless it also meets the critera for Solid and Fair.

Fair	Solid	Excellent
Ease of Hosting and Installation		
• The platform can typically be hosted for less than $100/month. • A user with experience in installing systems (but not this one) can install the core package in several hours. • Installation does not require technical knowledge beyond how to FTP and how to install a database on a web host.	• The platform can be hosted on an environment that is commercially available through a number of vendors for under $50/month. • A user with experience in installing systems (but not this one) can install the core package in several hours.	• The platform can be hosted on a widely available and inexpensive shared environment, without a virtual private server, for under $25/month. • A user with experience in installing systems (but not this one) can install the core package in several hours.
Ease of Setup: Simple Site		
• Graphical themes appropriate for a small nonprofit website are available for download. • All typical components to create and administrate a basic nonprofit site with a hierarchal page structure are available at least through add-ons. • A web-savvy user with no experience with the system could set up a 20-page site divided into four sections in less than two hours.	• Installing an existing graphical theme is essentially a process of uploading theme files onto the server and then enabling that theme in the web interface. • Creating a simple 20-page site divided into four sections is quite intuitive, and is not likely to require a web-savvy person to consult documentation. • Many themes offer parameters that can easily be changed in a non-technical interface, offering easy ways to change logos, banners, font colors, page colors, or more.	• Someone without any specific technical experience can install a graphical theme through a user interface in an easy point and click process. • The core platform includes all typical components to create and administer a basic nonprofit site with a hierarchal page structure. • The core platform includes features to support EITHER featured news stories OR an events calendar. • The community provides straightforward documentation on what beginners will need to know and do to get started.
Ease of Setup: Complex Site		
• Substantial documentation on how to use the system, including resources for various skill levels and published books, is available.	• Core functionality or widely-used add-on modules provide functionality to help import a data file of content from a different content management system. • A custom theme is primarily controlled through standard HTML and CSS. • Useful listings of add-on packages are available.	• A technically savvy user could familiarize themselves with most of what the system can do and how to do it within a few hours. • Theme files can be easily found and accessed through the web administration interface. • The official website provides a directory and ratings of add-on packages. • Add-ons can be installed through the administrative interface.

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Fair	Solid	Excellent
Ease of Use: Content Editors		
• A user without technical knowledge can be trained to use the CMS. • Content editors can format text using a standard formatting toolbar, as opposed to through HTML code.	• A content editor can easily find the page or article they want to edit • Most users are likely to be able to figure out how to add a new page without training. • Most users are likely to be able to figure out how to add an image to a page without training. • Users are able to add a standard embed file—like to embed a YouTube video—without any technical knowledge	• Web-savvy users are likely to be able to conduct common tasks—such as updating pages or adding new pages—without referring to documentation. • Users can easily see what a page will look like in the full context of the page, including images and navigation, before publishing it. • The core system includes the ability to scale, crop, and otherwise manipulate photos. • Users can easily revert back to an old version of the page. • The community offers manuals targeted at content editors specifically.
Ease of Use: Site Administrator		
• A non-technical administrator can add a new navigation bar section to the site. • A non-technical administrator can add, delete, and change the security levels of users. • A non-technical administrator can update most sidebars.	• A non-technical administrator can update most page headers and footers without knowledge of HTML. • A non-technical administrator can view all the images and documents used on the site. • The CMS includes a notice to the administrator when updates are available. • A site administrator can install an upgrade without technical knowledge beyond how to use a FTP utility . • Between Jan 2007 and Oct 2010, only one or two updates to the system have impacted many themes and add-ons OR The CMS maintains legacy branches so those who choose not to make a major update can still get security updates.	• A non-technical administrator can easily find where to edit sidebar, header, and footer information. • A site administrator can easily see all images or documents that are not used on the site, and choose to delete them. • In order to backup or export the website, a site administrator can download all the site assets (HTML pages, documents, images, etc.) from a single directory on the Web server. • A non-technical administrator can use an automatic upgrade utility within the web interface to completely install a new update.
Graphical Flexibility		
• The site administrator can choose one from at least dozens of pre-packaged graphical themes. • The site administrator can tailor the colors and the fonts of the site.	• A site administrator can create a custom theme for their site which provides substantial flexibility and graphics. • A custom theme is primarily controlled through standard HTML and CSS.	• You can create as many different graphical page templates as desired for a site. • The platform supports nearly any graphic design that can be created via HTML and CSS. • It's possible to style different sidebar elements independently of pages and other sidebar elements.

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Fair	Solid	Excellent
Accessibility and Search Engine Optimization		
• 508 compliant themes for public websites are available through the community. • It is theoretically possible to bring the administrator interface into 508 compliance. • Users can define alt-tags and page titles.	• The community provides specific themes and patches to make the administrative interface 508 compliant. • The core system creates standard header tags—like H1 and H2 tags—by default. • Human readable URLs are created by default by the core system.	• Some of the core themes included with the standard download are accessible to 508 standards. • The core system includes a version of the site administration theme that is 508-compliant.
Structural Flexibility		
• There is no practical limit to the number of website pages the platform can support. • The core system allows you to arrange pages into a hierarchy with as many levels of hierarchy as you like. • Site administrators can flexibly define a "related items" feature on a page, to automatically show links to site.	• The system includes a search engine. • It's possible to support most typical types of nonprofit content items (like news stories or a list of events) at least via add-on modules. • The platform offers a number of options to define what types of content (for instance, the most recent five news stories, a list of events in March) should go where on the site, in what order, and what information should be shown with each piece of content, without custom code. • It's possible to manage content in multiple languages (for example, a news story with both English and Spanish versions) at least via add-on modules. • You can support sites with different URLs using the same deployment of the CMS.	• A single site pages can be categorized, and then displayed, in as many categories as desired. • An administrator can define which sidebar elements show up on which page by hand, or based on rules defined by sections, content type, or user role. • The system allows administrative users to create custom content types (like event listings or a directory of local stores), and define what fields should be stored for each of those content types, without custom code
User Roles and Workflow		
• The system allows for a workflow where a user can create content without the rights to publish it to the site. • It's possible to save site content in draft mode and allow someone else to review it.	• The core system supports the creation of custom user roles, defining who is allowed to create, update, publish and delete content by content type OR by site section • The system tracks prior versions of each page and content item, and allows content administrators to revert back to a previous one. • Site administrators can see a list or dashboard of content items that need their attention, such as drafts to be published, within the interface.	• An administrator can define complex user roles and workflow without resorting to coordinating multiple add-on modules. • The system supports the creation of custom user roles, defining who is allowed to create, update, publish and delete content by content type AND by site section, possibly through an add-on module. • There is a flexible notification system to flag and forward content items to content administrators' attention, by email or within the system, possibly through an add-on module.

Fair	Solid	Excellent
Community/Web 2.0 Functionality		
• The content administrator can allow site visitors to post comments for any piece of site content. • The system provides detailed comment moderation support. • Blogs are supported. • Public site visitors can create their own site profiles. • The system provides full support for outgoing RSS feed.	• You can pull in and display other RSS feeds on your site. • Public site visitors can submit and publish content (like a story or photo), which then can be managed by content editors like any other site content. • Widely-used add-ons allow site visitors to easily repost an article to sites like Twitter or Digg, or to add a Facebook "Like" functionality.	• Public site visitors can friend each other and create free-form groups, potentially through an add-on module. • You can pull in and display other RSS feeds on your site, and moderate which of the items from those feeds you would like to display, potentially through an add-on module. • You can create a dashboard overview of how many people have commented or forwarded information. • Registered site visitors can create their own personal blogs on the site, to support a blogging community.
Extending Beyond Existing Functionality		
• The tools available to programmers include access to all system data, and most system functionality.	• The tools available to programmers include access to modify or enhance all system functionality.	• If you want to extend the system beyond available functionality, you would very rarely need to update the core code. • There are existing integration modules with at least two of: CiviCRM, Salesforce and Democracy in Action, Convio, Blackbaud.
Security		
• Secunia.com reported fewer than 50 security advisories for the core code between January 2007 and October 2010.	• Secunia.com reported fewer than 25 security advisories for the core code between January 2007 and October 2010. • Patches are available for all security advisories posted by Secunia.com	• Secunia.com reported fewer than 10 security advisories for the core code between January 2007 and October 2010. • The community has a specific plan for preventing or publicizing security vulnerabilities in add-on modules.
Support/Community Strength		
• The code base for the system has existed as an open source package for more than two years. • At least 20 different independent consultants or firms in the United States provide support or implementation services.	• The code base for the system has existed as an open source package for more than three years. • At least 50 different independent consultants or firms in the United States provide support or implementation services. • The system has community forums where questions are asked and answered at least once a day on average.	• The code base for the system has existed as an open source package for more than five years. • At least 100 different independent consultants or firms in the United States provide support or implementation services. • Several reputable books on the system are available.

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APPENDIX C: MARKET ANALYSIS

In order to determine which software packages are most commonly used by nonprofits to create and manage their Web sites, our original report took a look at a number of metrics of popularity. Download information and similar statistics were not readily available for most of these tools then, and unfortunately are still not available now. We've therefore updated the popularity metrics to account for changes in the market.

We generated a list of the top open source Content Management Systems based on the open source systems included in the Real Story Group's (formerly CMSWatch) CMS report (http://www.realstorygroup.com/Research/Channel/CMS/), as well as the tools that were included in the previous report's market analysis. For each of these systems, we looked at three different metrics to investigate the number of times they were mentioned, both on the web at large and associated with nonprofits specifically:

- Incoming links to the application's website, according to Google.
- Number of results using the query 'Application Name, CMS, nonprofit' on Google.
- Number of results using the query 'Application Name, CMS, nonprofit' on the Google Blog Search.

The results were weighted to give each metric the same weight, and tallied. The final tally showed Joomla as the market leader, followed by WordPress, then Drupal, then Plone. The results were as follows (note that the weighted score has no particular meaning in and of itself, but a higher score shows a higher degree of popularity in our analysis):

Rank	Application	Weighted Score
1	Joomla	6.75
2	WordPress	5.86
3	Drupal	1.09
4	Plone	0.83
5	eZ Publish	0.36
6	DotNetNuke	0.34
7	Movable Type	0.25
8	Magnolia	0.15
9	OpenCMS	0.12
10	Xoops	0.07
11	Typo 3	0.05
12	MODx	0.02
13	Impress CMS	0.02
14	Hippo	0.02

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APPENDIX D:
AUTHORS AND CONTRIBUTORS

Authors

Laura Quinn, Idealware. Laura is the Executive Director of Idealware. She directed the research for Idealware's original CMS report, including the interviews from which the review criteria were generated, and oversaw all elements of this report including the reviews, review criteria, and the comparisons and recommendations throughout the entire report. She oversaw an implementation of Drupal for Idealware's own website, and now uses Drupal as a content administrator.

Heather Gardner-Madras, gardner madras | strategic creative. Heather is a consultant who helps nonprofits with technology selection, planning, marketing and design of websites. She then implements or oversees the development process, and has experience with a wide variety of open source and proprietary content management systems including WordPress, Joomla, Drupal, and Plone. Heather was a paid consultant on this report, and participated in demos of the four systems, drafted much of the system review text, and reviewed almost all the text for this report.

Contributors

We are indebted to the community of nonprofit staff members and consultants who were reviewed versions of this report and provided demos of the systems.

We gathered the information presented in this report by working with experts in each of the four systems. These experts reviewed the descriptions of their system in the previous version of the report, demoed new features, and reviewed the new descriptions of features.

We also worked with a number of nonprofit consultants and nonprofit staff members to review and revise the criteria we used to rate the systems, and to review drafts of the report itself.

Chris Bernard, Idealware. Chris is Idealware's Senior Editor. He oversaw the tone and language of the report, and did a final copy edit for grammar and style. He uses Drupal to update Idealware's website, but otherwise has no experience with any of these systems.

Tracy Betts and Jill Kurtz, Balance Interactive. Balance Interactive helps businesses, associations and government groups design and implement cutting edge Web technologies. They implement five different content management systems, including WordPress, Joomla, Drupal and two proprietary systems. Tracy and Jill reviewed drafts of the report.

Matt Bowen, http://m.odul.us. Matt is a consultant who helps clients plan and implement websites and applications. He specializes in Plone, but also has experience with Drupal. Matt reviewed a draft of the report.

Brian Choc, Teaming for Technology Colorado. T4T Colorado is a nonprofit whose mission is to advance the use of technology among nonprofit agencies through technology planning assistance, computer training, and providing free and reduced cost referrals including software, hardware, and consulting services. He has experience implementing sites, primarily in Drupal, but also in WordPress and Joomla. He reviewed drafts of the report.

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Jeff Herron and Marco Rogers, Beaconfire. Beaconfire works with nonprofits on software evaluation, web design and development projects, and online marketing. Both Jeff and Marco have experience with a wide variety of Content Management Systems, both open source and proprietary. They have specific implementation experience with Drupal and WordPress. Both Marco and Jeff reviewed drafts of the report.

Bryan House, Acquia. Acquia offers a free Drupal distribution, a network of services to simplify site opertion, commercial support, and hosting for Drupal websites. Bryan was our official Drupal contact for this report, and demoed the system, answered questions and reviewed the report in that capacity.

Ryan Ozimek, PICnet. Ryan is the CEO of PICnet, which helps nonprofits plan, design and implement web sites in Joomla, and runs a hosted Joomla solution called Non-Profit Soapbox. Ryan is on the board of Open Source Matters, the nonprofit organization that governs Joomla. Ryan was our official Joomla contact for this report, and demoed the system, answered questions and reviewed the report in that capacity. PICnet is also a lead sponsor of this report.

Jared Seltzer, Rad Campaigns. Rad is an online communications firm that provides services to nonprofit organizations, political campaigns and socially responsible businesses. They implement WordPress and Drupal. Rad is also the lead WordPress sponsor for this report. Jared was our official WordPress contact for this report, and demoed the system, answered questions and reviewed the report in that capacity.

Jon Stahl, Groundwire. Groundwire helps nonprofit environmental organizations design and implement online strategies, including websites in Plone. Jon was a past board member of the Plone Foundation. He was our official Plone contact for this report, and demoed the system, answered questions and reviewed the report in that capacity.

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CALIFORNIA		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
imagistic imagistic You dream. We deliver.	www.imagistic.com **Westlake Village, CA** imagistic is an award-winning digital marketing, strategy and development company founded in 1997 by Michael Weiss and Kevin Howard Goldberg. Kevin Howard Goldberg, 818-706-9100 or kgoldberg@imagistic.com		●		●		Custom, PaperThin, Ektron
Jackson River, LLC jacksonriver	www.jacksonriver.com **San Francisco, CA** Jackson River are experts in Drupal. We specialize in integration and focus on how all your technology fits together. Ask us about Springboard, our Drupal modules for online fundraising and marketing. Alice Hendricks, 301-215-7808 or alice.hendricks@jacksonriver.com				●		

CALIFORNIA		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Landau Design	www.LandauDesign.com **Ojai, CA** Landau Design offers print, web design and development services. From marketing strategies, to a technically-savvy Web presence, we provide all strategic and creative aspects for your projects. Steve Weed, 805-640-1458 or steve@landaudesign.com		●	●			
PICnet	www.picnet.net **San Francisco, CA** Affordable Web development and design services, with support you can count on. We take the pain and expense out of open source Web development with our cloud-based Non-Profit Soapbox service. Ryan Ozimek, 202-585-0239 or cozimek@picnet.net			●			
WackyPuppy Design	http://wackypuppy.com **Ventura, CA** Web design and development is our specialty: making this world a better place is our passion. WackyPuppy is a full service design firm serving nonprofits since 1998. Joomla, Drupal, Wordpress, Magento Alison Bradley, 818-470-2001 or alison@wackypuppy.com	●	●	●	●		Magento
WireMedia Communications, Inc.	www.wiremedia.net **Los Angeles, CA** Strategic communications for non-profits, campaigns, and sustainable businesses. Marcy Rye, 212-686-1486 or marcy@wiremedia.net		●		●		
Bechman & Associates	**Simi Valley, CA** Stuart Bechman, 805-405-3929 or sbechman@sbcglobal.net		●	●			
Groove Interactive	www.grooveinteractive.com **San Francisco, CA** Brian Miller, 415-670-9060 or brian@grooveinteractive.com				●		

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CALIFORNIA		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Idealist Consulting	www.idealistconsulting.com **San Francisco, CA** Cat Monaghan, 800-889-8675 or info@idealistconsulting.com	●	●	●	●	●	
Urban Insight	www.urbaninsight.com **Los Angeles, CA** Chris Steins, 323-857-6901 x109 or steins@urbaninsight.com				●		

PACIFIC NORTHWEST		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Forum One Communications FORUM ONE COMMUNICATIONS	www.forumone.com **Seattle, WA** For over 13 years, Forum One has harnessed cost-effective opensource content management systems including Drupal and WordPress to create high-value solutions for governments and nonprofits. Chris Wolz, 703-894-4311 or info@forumone.com	●	●	●	●		
Freeflow Digital freeflowdigital	www.freeflowdigital.com **Eugene, OR and Portland, OR** Freeflow Digital builds data focused CMS and CRM solutions. We help non-profit leaders make better use of information through custom site development and integration with their existing systems. Peter Davis, 541-434-5693 or peter.davis@freeflowdigital.com	●	●		●		
Fuse IQ FUSEIQ	www.fuseiq.com **Seattle, WA** Fuse IQ strategizes and creates end-to-end solutions for nonprofits and mission-based organizations. We are Drupal experts. We also specialize in custom database solutions. Joel Meyers, 206-788-4484 x101 or info@fuseiq.com				●		

PACIFIC NORTHWEST

		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
gardner-madras | strategic creative gardner-madras STRATEGIC CREATIVE	**http://heathergm.com** **Eugene, OR** Offering progressive nonprofits full service, experienced strategy, design and execution. Big picture strategy combined with unbiased practical knowledge & implementation for online communications. heather gardner-madras, 541-933-1942 or hgm@heathergm.com	●	●	●	●	●	
OpenSourcery LLC open sourcery	**http://opensourcery.com/ideal** **Portland, OR** OpenSourcery specializes in customizing Drupal for non-profits, including open source social fundraising and volunteer management web applications. We're results-oriented and easy to work with. Brian Jamison, 503-548-9312 or ideal@opensourcery.com				●		

PACIFIC NORTHWEST		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Web Collective	http://webcollective.coop **Seattle, WA** Web Collective helps forward-thinking organizations achieve their sustainability missions by creating services that deepen audience engagement. We hope to put our passion and talents to work for you. Derek Hoshiko, 206-428-1959 or info@webcollective.coop	●	●			●	
Idealist Consulting	www.idealistconsulting.com **Portland, OR** Cat Monaghan, 800-889-8675 or info@idealistconsulting.com	●	●	●	●	●	

MOUNTAIN

		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Dharmatech	http://dharmatech.org **Salt Lake City, UT** We are a 9-yr old Agile software company, offering solutions inline with your goals and strategies. We specialize in Drupal, custom application development, systems architecture and integration. Sarmeesha Reddy, 801-541-8671 or info@dharmatech.org				●		
Firefly Partners, LLC	www.fireflypartners.com **Boulder, CO** Firefly Partners works exclusively with non-profit organizations to help them achieve success online. We strive to educate and empower organizations so they learn to make the most of their online tools. Jen Frazier, President, 303-339-0080 or jen@fireflypartners.com	●	●		●		
Soapbxx	www.soapbxx.com **Denver, CO** At Soapbxx we live by 3 rules: stand out, be heard, get results. We help people solve challenges with smart marketing including strategy, design, development, editorial, & measurement. Peter Genuardi, 303-351-2746 or peter@soapbxx.com	●	●	●	●		Ruby on Rails
Fearless Future:marketing & design for things that matter	www.fearless-future.com **Tucson, AZ** Mary Evangelsite, 202-270-1585 or marye@fearless-future.com		●				

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	Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Contextual Corporation www.contextualcorp.com **Gurnee, IL** Contextual Corporation provides Plone CMS consulting, integration (with SugarCRM and other systems), and development services, for non-profits, such as ChicagoHistory.org Ken Wasetis, 847-356-3027 or info@contextualcorp.com					●	
Fuse IQ www.fuseiq.com **Chicago, IL** Fuse IQ strategizes and creates end-to-end solutions for nonprofits and mission-based organizations. We are Drupal experts. We also specialize in custom database solutions. Joel Meyers, 206-788-4484 x101 or info@fuseiq.com				●		

MIDWEST		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Jasculca Terman and Associates jt	**www.jtpr.com** **Chicago, IL** Jasculca Terman (JT), an award winning, independently owned strategic communications firm, specializes in public affairs. We build and maintain websites for nonprofits, primarily in Drupal. Yesenia Sotelo, 312-337-7400 or yesenia_sotelo@jtpr.com		●	●	●		
Six Feet Up, Inc. **six feet up** where sophisticated web projects thrive	**http://sixfeetup.com** **Fortville, IN** Six Feet Up is a private woman-owned company that develops and deploys sophisticated web projects using open source. Follow us on Twitter. Read our blog. Meet our CTO, the Plone Foundation President. Calvin Hendryx-Parker, 317-861-5948 x602 or calvin@sixfeetup.com		●			●	Django-based CMS projects

MIDWEST

	Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
WebTrax Studio www.webtraxstudio.com **Chicago, IL, Oak Park, IL and Ann Arbor, MI** We are a collaboration of communications and marketing professionals who provide affordable results-oriented services to small businesses and nonprofits. We find a solution for every budget. Estelle Carol, 708-386-7197 or ecarol@webtraxstudio.com		●	●			
Cathexis Partners www.cathexispartners.com **Chicago, IL** Mark Becker, 773-274-0769 or info@cathexispartners.com	●	●	●	●		Convio CMS, Blackbaud Sphere
Cruiskeen Consulting LLC http://cruiskeenconsulting.com **Menomonie, WI** Steve Hanson, 715-598-9206 or shanson@cruiskeenconsulting.com		●		●		
LAC Associates **Lansing, MI** William LaRue, 517-339-4177 or wlarue@acd.net	●		●			Ektron, Site-ground

SOUTH

	Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Enfold Systems, Inc. www.enfoldsystems.com **Houston, TX** Enfold Systems was founded in 2004 by Alan Runyan, co-founder of Plone. We provide Plone solutions ranging from departmental workgroups to high-performance websites, plus Windows integration software. Aimee Errington, 713-942-2377 x155 or aerrington@enfoldsystems.com					●	

SOUTH		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Freeflow Digital freeflowdigital	www.freeflowdigital.com **Austin, TX** Freeflow Digital builds data focused CMS and CRM solutions. We help non-profit leaders make better use of information through custom site development and integration with their existing systems. Peter Davis, 541-434-5693 or peter.davis@freeflowdigital.com	●	●		●		
ifPeople if PEOPLE innovation for people	www.ifpeople.net **Atlanta, GA** We design and build integrated technology solutions that enable you to create, deepen, and nurture effective, relationships. Tirza Hollenhorst, 678-608-3408 or tirzalyn@ifpeople.net					●	
Jackson River, LLC jacksonriver	www.jacksonriver.com **Austin, TX** Jackson River are experts in Drupal. We specialize in integration and focus on how all your technology fits together. Ask us about Springboard, our Drupal modules for online fundraising and marketing. Alice Hendricks, 301-215-7808 or alice.hendricks@jacksonriver.com				●		
Totsie.com Website Development Studio totsie.com	www.totsie.com **Swannanoa, NC** Established in 1996, Totsie.com Website Development Studio has worked exclusively with Plone since 2006. We are known for our unique custom designed sites for both commercial and nonprofit clients. Totsie Marine, 828-299-4521 or totsie@totsie.com					●	
Cathexis Partners	www.cathexispartners.com **Clermont, FL and Austin, TX** Mark Becker, 773-274-0769 or info@cathexispartners.com	●	●	●	●		Convio CMS, Blackbaud Sphere
Prelude Interactive	www.preludeinteractive.com **Austin, TX** Ehren Foss, 512-673-7254 or ehren@preludeinteractive.com	●	●	●			

SOUTH

		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Richir Outreach	www.richiroutreach.com **Raleigh, NC** Jerimee Richir, 919-395-1794 or jerimee@richiroutreach.com		●	●	●		

MID-ATLANTIC (DC, MD, PA, VA)

		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Balance Interactive	www.balanceinteractive.com **Springfield, VA** We help organizations strategically use online tools to engage users. Our best practice methodology for managing content rich websites & solid Drupal expertise ensures value in every interaction. Tracy Betts, 703-451-8675 or tracy.betts@balanceinteractive.com	●	●	●	●		Ektron, DotNetNuke
Beaconfire Consulting	www.beaconfire.com **Arlington, VA** We help nonprofit organizations that serve good causes accomplish great things on the Internet. We design and build Web sites and craft online campaigns that make people care - and act. Michael Cervino, 703-894-0080 x222 or michael.cervino@beaconfire.com	●	●	●	●		ezPublish, Sitecore, Crownpeak, RedDot, Convio, Sphere
Confluence Corporation	www.confluencecorp.com **Washington, DC** Confluence specializes in the design and implementation of nonprofit websites using Joomla. We combine technical expertise, excellent rates and references—making us the choice of hundreds of nonprofits— call us to discuss your project! Lisa Rau, 202-296-4065 or lrau@confluencecorp.com	●	●	●	●		Ektron, Crownpeak, Expression Engine, others

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MID-ATLANTIC (DC, MD, PA, VA)

	Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Firefly Partners, LLC www.fireflypartners.com **Washington, DC** Firefly Partners works exclusively with non-profit organizations to help them achieve success online. We strive to educate and empower organizations so they learn to make the most of their online tools. Jen Frazier, President, 303-339-0080 or jen@fireflypartners.com	●	●		●		
Forum One Communications www.forumone.com **Alexandria, VA** For over 13 years, Forum One has harnessed cost-effective opensource content management systems including Drupal and WordPress to create high-value solutions for governments and nonprofits. Chris Wolz, 703-894-4311 or info@forumone.com	●	●	●	●		
Jackson River, LLC www.jacksonriver.com **Washington, DC** Jackson River are experts in Drupal. We specialize in integration and focus on how all your technology fits together. Ask us about Springboard, our Drupal modules for online fundraising and marketing. Alice Hendricks, 301-215-7808 or alice.hendricks@jacksonriver.com				●		
Message Agency www.messageagency.com **Philadelphia PA** We are an interactive agency that, for 15 years, has helped organizations build relationships thorugh dynamic websites, coordinated print and electronic media, and branding and messaging campaigns. Marcus Iannozzi, 215-546-6496 or marcus@messageagency.com		●		●		
New Signature www.newsignature.com **Washington, DC** We build websites that use technology creatively, are beautifully designed, engage and activate visitors, have a positive social impact, and are always backed by passionate, friendly support. Christopher Hertz, 202-452-5923 or chertz@newsignature.com	●	●	●	●		Convio CMS, eZ publish, ExpressionEngine, DotNetNuke

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MID-ATLANTIC (DC, MD, PA, VA)		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
NGP VAN	www.ngpvan.com				●		
	Washington, DC						
	NGP VAN's New Media team creates custom-designed, engaging and affordable websites that help organizations effectively deliver their message, recruit & communicate with supporters, and raise money.						
	Chris Casey, 202-686-9330 or chris@ngpvan.com						
Phase2 Technology	www.phase2technology.com				●		
	Alexandria, VA						
	Phase2 delivers web application development services using open source technologies from strategy through implementation and beyond for publishing, public policy and non-profit clients.						
	Andre Hood, 703-548-6050 x112 or sales@phase2technology.com						
PICnet	www.picnet.net			●			
	Washington, DC						
	Affordable Web development and design services, with support you can count on. We take the pain and expense out of open source Web development with our cloud-based Non-Profit Soapbox service.						
	Ryan Ozimek, 202-585-0239 or cozimek@picnet.net						
Rock River Star	www.rockriverstar.com				●		
	Philadelphia, PA						
	We provide intelligent, effective, and affordable website development and consulting services to nonprofit, higher education, and corporate clients.						
	Nathan Gasser, 215-592-7673 or ngasser@rockriverstar.com						
Rogue Repairman Productions	http://roguerepairman.com		●				TYPO3
	Alexandria, VA						
	Technology sucks. We make it suck less. Meet Rogue Repairman—user-focused, outcome-oriented design, development and programming services for progressives.						
	Jason A. Lefkowitz, 703-542-4025 or jason@roguerepairman.com						

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MID-ATLANTIC (DC, MD, PA, VA)

	Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Soapbxx www.soapbxx.com **Philadelphia, PA** At Soapbxx we live by 3 rules: stand out, be heard, get results. We help people solve challenges with smart marketing including strategy, design, development, editorial, & measurement. Peter Genuardi, 303-351-2746 or peter@soapbxx.com	●	●	●	●		Ruby on Rails
TerpSys www.terpsys.com **Washington, DC and Rockville, MD** TerpSys helps non-profits and association clients use technology. We offer Drupal implementation services as well as a range of online consulting services. Matt Crudello, 301-530-9106 or mcrudello@terpsys.com				●		
Trellon, LLC www.trellon.com **Washington, DC** Thoughtful, effective solutions for organizations tackling real world problems. Michael Haggerty, 877-661-1862 or mhaggerty@trellon.com				●		
ACLARK.NET, LLC http://aclark.net **Bethesda, MD** Alex Clark, 301-312-5236 or aclark@aclark.net	●	●			●	Django-based CMSes
Center for Arts Management and Technology http://camt.artsnet.org **Pittsburgh, PA** David Dombrosky, 412-268-3143 or daviddom@cmu.edu	●	●		●		DotNetNuke
EchoDitto http://echoditto.com **Washington, DC** Michael Silberman, 202-285-9455 or michael@echoditto.com	●	●		●		
Fearless Future:marketing & design for things that matter www.fearless-future.com **Washington, DC** Mary Evangelsite, 202-270-1585 or marye@fearless-future.com		●				
Impari Systems, Inc. www.imparisystems.com **Frederick, MD** Matt Burkhardt, 301-682-7901 or mlb@imparisystems.com	●	●	●	●		

MID-ATLANTIC (DC, MD, PA, VA)

		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Leaping Bytes	www.leapingbytes.com **Silver Spring, MD** Elena Tchijov, 240-583-0290 or elena@leapingbytes.com			●	●		
Urban Insight	www.urbaninsight.com **Arlington, VA** Chris Steins, 323-857-6901 x109 or steins@urbaninsight.com				●		

NEW YORK AND NEW JERSEY

		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Ben Freda Consulting BenFredaConsulting *extraordinary web services*	www.benfredaconsulting.com **New York, NY** Ben Freda Consulting provides exceptional web services to nonprofits and creative professionals. We're so approachable, you might forget that we're also great web programmers. Ben Freda, 646-450-2236 or ben@benfredaconsulting.com		●	●	●		
Soapbxx soapbxx web platforms for a connected world	www.soapbxx.com **New York, NY** At Soapbxx we live by 3 rules: stand out, be heard, get results. We help people solve challenges with smart marketing including strategy, design, development, editorial, & measurement. Peter Genuardi, 303-351-2746 or peter@soapbxx.com	●	●	●	●		Ruby on Rails
theCoup the coup	http://theCoup.org **New York, NY** theCoup amplifies the impact of public interest campaigns & organizations. With logos, websites & social strategy, we help you connect with partners, funders, news media, & the masses. Since 2004 Matthew Willse, 718-569-8010 or info@theCoup.org	●	●		●		

NEW YORK AND NEW JERSEY		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
WireMedia Communications, Inc.	www.wiremedia.net **New York, NY** Strategic communications for non-profits, campaigns, and sustainable businesses. Marcy Rye, 212-686-1486 or marcy@wiremedia.net		●		●		
Idealist Consulting	www.idealistconsulting.com **Pennington, NJ** Cat Monaghan, 800-889-8675 or info@idealistconsulting.com	●	●	●	●	●	

NEW ENGLAND (ME, MA, NH, RI, VT, CT)		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Database Designs Associates	www.dbdes.com **Boston, MA** Designing technology solutions to promote organizational growth using Drupal and Open Source software Steven Backman, 617-423-6355 or sbackman@dbdes.com				●		
Digital Loom	www.digital-loom.com **Cambridge, MA** Digital Loom collaborates with non-profit clients to design engaging, user-friendly websites. We connect Drupal with Salesforce/other CRMs, develop custom functionality and host & maintain your site. Ben Di Maggio, 617-395-7720 or ben@digital-loom.com				●		
Firefly Partners, LLC	www.fireflypartners.com **Hartford, CT** Firefly Partners works exclusively with non-profit organizations to help them achieve success online. We strive to educate and empower organizations so they learn to make the most of their online tools. Jen Frazier, President, 303-339-0080 or jen@fireflypartners.com	●	●		●		

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NEW ENGLAND (ME, MA, NH, RI, VT, CT)		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Isovera	www.isovera.com **Waltham, MA** Isovera works with non-profits to develop best-in-class websites using powerful and flexible open source solutions such as Drupal and CiviCRM. Stephen Sanzo, 617-621-8555 x735 or ssanzo@isovera.com	●		●	●		
Social Contxt	http://socialcontxt.com **Boston, MA** Social Contxt develops online community and social media applications that help organizations be more effective at solving social challenges. Riche Zamor, 855-GO-SOCIAL or riche@socialcontxt.com				●		
EchoDitto	http://echoditto.com **Boston, MA** Michael Silberman, 202-285-9455 or michael@echoditto.com	●	●		●		
Jazkarta, Inc.	www.jazkarta.com **Boston, MA** Nate Aune, 888-756-6348 or sales@jazkarta.com					●	Django-based CMS solutions
TZC - TeboZandt Consulting	www.tzconsult.com **Trumbull, CT** Violet Bliss Dietz, 203-243-6658 or vbd@tzconsult.com			●		●	Movable Type, Melody

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CANADA

		Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Agentic Communications 	http://agentic.ca **Vancouver, BC** We build Drupal websites with social value for med-to-large orgs to connect with their members online. Phillip Djwa, 604-255-2131 or agentic-info@agentic.ca				●		
Freeform Solutions 	www.freeformsolutions.ca **Toronto, ON and Ottawa, ON** Freeform Solutions is a not-for-profit organization that helps not-for-profit and charitable organizations use technology to build their capacity and increase their effectiveness. Jason Côté, 647-723-5415 x100 or jason.cote@freeformsolutions.ca	●			●		
OpenConcept Consulting Inc. 	http://openconcept.ca **Ottawa, ON** We are a web development shop that has a decade of experience building advocacy tools for the non-profit community. Mike Gifford, 613-686-6736 or mike@openconcept.ca				●		
Raised Eyebrow Web Studio 	www.raisedeyebrow.com **Vancouver, BC** Raised Eyebrow helps mission-driven organizations use online tools more effectively. We're experts in Drupal & WordPress with a decade of experience working with nonprofit and government clients. Emira Mears, 604-684-2498 or emira@raisedeyebrow.com		●		●		

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INTERNATIONAL			Neutral Advice	WordPress	Joomla	Drupal	Plone	Other CMS
Lannen Designs Lannen Designs	www.lannendesigns.com **Christiansted, VI** I love to help non-profits in creating a website for them that will meet their goals, and help them reach out to the community they serve. No matter where they are located. Christina Lannen, 877-792-0328 or chris@lannendesigns.com			●				
Groove Interactive	www.grooveinteractive.com **London, UK** Brian Miller, 415-670-9060 or brian@grooveinteractive.com					●		

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