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Building Online Content and Community with Drupal

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Libraries use content management systems in order to create, manage, edit, and publish content on the Web more efficiently. Drupal (drupal.org), one such Web-based content management system, is unique because it employs a bottom-up strategy for Web design that separates the content of the site from the formatting which means that "you can more easily change either without having to recode your entire Web site."[1] Drupal appeals to many libraries both because it is free open source software, and because it allows individuals and communities to easily contribute content to the library's Web site.

Dries Buytaert created Drupal in 2000. He was inspired to find a way to collaborate and keep in touch with friends during and after college. Drupal began as on online message board that migrated into an online Web site and is now available as open source software. Buytaert had intended to use the Dutch word for village, "dorp," as a domain name for this online community. However, a typo caused the site to be called drop.org. "Drupal, pronounced 'droo-puhl,' derives from the English pronunciation of the Dutch word 'druppel,' which means '[to] drop.'".[2] Although Buytaert's name for his site did not turn out as he had planned, his vision of creating an open, collaborative Web site where people could develop and share their ideas has been fully realized through Drupal.org.

 Traditionally, organizations have had a Webmaster(s) in charge of formatting and posting content to a Web site. Drupal assigns permissions to various users based on their role (administrator or other user) so that multiple users can edit the Web site without going through a designated Webmaster. Depending on a user's assigned role he/she will have permission to edit or view Web sites, blogs, wikis, or staff intranet sites.

Additionally, all users are allowed to post content without using code, which enables less tech savvy users to contribute content just as easily as their more proficient counterparts. For example, a library could use Drupal to allow library staff to view and edit the library Web site, blog, and staff intranet. Separately, patrons would have permission to view the blog and the Web site to post comments. The combination of libraries-contributed content and the community content results in a Web site that is dynamic and collaborative in nature.

Drupal also makes it easy to incorporate feedback from the community through interactive forms that can facilitate communication and discussion between the library and its patrons. Drupal's administrative interface collates all comments and feedback so that libraries can manage this information and respond accordingly.

Drupal provides the core content out of the box, however it requires additional modules to customize it and to make it useful. According to the Getting Started Guide, these "modules are plug-ins that extend Drupal's functionality," enabling the addition of blogs, books, images, and interactive polls.[3] The Drupal.org community has also contributed additional modules that are available to all users. Drupal's core content also allows libraries to change the look and feel of the site and to dictate how the site displays to the end users.

System Requirements

As an open source platform, Drupal is required to comply with the Open Source Initiative's (OSI) criteria for open source software. OSI requires open source software to have free redistribution, an open and accessible source code, and a non-restrictive license that allows for derivative works.[4]

Drupal is available free at http://drupal.org and is licensed under a software license called the GNU General Public License Version 3.

Drupal is compatible with Windows, Mac, and Linux operating systems. It requires a Web server, a database program, and a programming language. Drupal is most commonly used in conjunction with an Apache Web server, MySQL database, and PHP programming language, all open source software systems that provide open code through a General Public License. This combination embodies the powerful potential of the open source movement and is a tribute to its success.

While Drupal is designed to allow users to edit Web sites easily, the initial set up can be challenging for site administrators. Many have criticized Drupal for having a steep learning curve because it requires both technical knowledge of the PHP programming language and familiarity of the MySQL database. This is further complicated by Drupal's use of a unique set of terminology that describes its site components. For example, Drupal uses "node" as a generic term for "content." Nodes can be blog entries, forums, pages, polls, or stories. Fortunately, Drupal terminology and jargon are well documented in the Getting Started section, (http://drupal.org/getting-started/before/terminology). In addition, Drupal's online handbook includes *The Drupal Cookbook (for beginners),* (http://drupal.org/handbook/customization/tutorials/beginners-cookbook). Although it can be complicated to learn this new vocabulary, persistent programmers will be rewarded with the potential to build a functional, attractive, and customizable Web site.

The Drupal Community

Drupal is not just a platform; it is an active community of collaborative users. Drupal enthusiasts meet online and in person at Drupal conferences and camps around the world. More than two hundred Drupal devotees participated in DrupalCamp Colorado 2009 and more than one thousand are expected to attend DrupalCon Paris, September 2009. Like many open source operations, Drupal's greatest asset is its community of users that contributes modules and continually works to improve the functionality of the software, not the least of which are the thousands of modules that have already been created by the burgeoning Drupal community and hundreds of Drupal Groups have formed to allow people to collaborate on projects.

Drupal and Libraries

The Drupal Group for Libraries, (http://groups.drupal.org/libraries), both includes lists and reviews of the library related modules and provides information and updates for various presentations. The site contains a directory of public, academic, school, and special libraries that currently use Drupal. The Drupal community has already created several library-specific Application Protocol Interfaces (APIs): a bibliography module that uses management tools like EndNote and RefWorks; a MARC record module; a book review module; a book post module that links to WorldCat, LibraryThing, or Google Books; and a Z 39.50 module that is capable of searching Z 39.50 compliant metadata (including most Web OPACS). Other modules interface with specific library OPACs including SOPAC (an open source OPAC) and the Millennium Integration Project Module for connection to Innovative Interfaces Inc.'s Web OPAC. The Drupal Group for Libraries tracks the latest updates, announces new modules, and provides a forum for discussion.

University of Illinois at Chicago librarian Leo Klein maintains a listserv for librarians interested in Drupal: DRUPAL4LIB (http://listserv.uic.edu/archives/drupal4lib.html). Librarians can use the listserv to post questions about Drupal and to connect with peers.

Could Drupal Work for Your Library?

Since Drupal is an open source project released under the GNU General Public License Version 3 (GPLV3), libraries should be aware that any project developed using Drupal also needs to be released under the same license, "Anyone considering the use of Drupal [needs to read] and understand the requirements of the GPLV3 and how it interacts with any institutional policies or expectations for development projects."[5] Employing an organized and knowledgeable project manager is key to implementing Drupal. As with any open source product, there are concerns that Drupal is not supported by a vendor. Therefore the responsibility to maintain and develop Drupal is transferred to the library.

When considering content management systems, libraries should investigate their options. For example, there is a significant overlap in functionality between Drupal and Joomla, another open source content management system. Many libraries have adopted Joomla because of its ease of use and superior administrative interface.[6] However, Drupal supporters argue that once it is set up, Drupal provides more functionality and room for development. The latest software release is Drupal 6, and Drupal 7 promises an abundance of improvements including more core modules (which means less initial set up), better security, and an improved administrative interface.

Dries Buytaert created Drupal so that people share can resources and information. This brainchild is popular among librarians because they can tailor their Websites specifically to their communities, and Drupal can satisfy the need for better content management. The collaborative nature of Drupal with its reciprocal contributions by users and developers alike fits the mission of libraries.

End Notes

[1] Austin, Andy, and Christopher Harris, "Drupal in libraries," *Library Technology Reports* 44 (May/June 2008): 5.

[2] Drupal.org, "Drupal", http://drupal.org (accessed June 29, 2009).

[3] Ibid.

[4] Open Source Initiative, "The open source definition", http://www.opensource.org/docs/osd (accessed June 29, 2009).

[5] Austin and Harris, 8.

[6] Irene E. McDermott, "Joomla! looms." *Searcher* 16 (May 2008): 8-13.

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