

Running head: USING THE DRUPAL CMS IN EDUCATION

Using the Drupal CMS in Education

David Wees

Ruamrudee International School

Abstract

All public and private schools today need to communicate with their educational community. Most schools today have implemented a public facing website to serve part of their communication needs usually using a content management system (CMS). The question is which of these content management systems is most suited for an educational institution? There are a number of good choices, including Drupal, Joomla, Wordpress and other popular content management systems. Of these, Drupal has the lead in terms of functionality an educational institute requires of their website but has a ways to go before it provides everything a school requires. This suggests that building partnerships between educational institutes and Drupal developers will improve the set of features needed by the educational institutes.

Using the Drupal CMS in Education

In today's world, it is crucial that all members of an educational community are involved in a common dialog with each other. In K-12 education this includes students, parents, teachers, staff and administrators. In higher education this includes current students, parents, professors, staff, administrators and prospective students.

One way that many schools are facilitating this discussion between the different members of their community is through a public website. This can be used for disseminating information between all members of the community, providing a framework for collaboration, administering physical and digital resources for their community and many other uses.

It is important that whatever system the schools to implement to organize and maintain their website includes simplicity of use, administration of content, and it should be feature rich. Most content management systems are designed to include these qualities, but some are better than others. Drupal is a content management systems which has recently become a leader in the open source community for content management. Therefore an analysis of what Drupal has to offer the educational market is in order.

Market Focus

One of the major advantages of the Drupal CMS is its flexibility, as a result a school can pick and choose which features they want to include for their website. It would be appropriate for any learning institution, although that is not its primary focus. Drupal's strengths lie in presentation, administration and editing of content. It is not especially suited for course

management. However quite a number of educational institutes are already using¹ Drupal as their main content management system.

Right now in order to be useful for any kind of institution Drupal requires quite a bit of customization. There are some packages which can be installed and would be useful to a school without an enormous amount of effort, but in general, getting Drupal ready for consumption by an educational community requires a fair bit of expertise which is not always locally present. This means that only schools with either in house experts or the money to spend on outside experts can use Drupal.

Types of Offerings

Drupal is a content management system. This means it is only providing an infrastructure for producing online content. What functionality there is for Drupal is available in the form of add-ons called modules. Almost all of these contributed modules are free and have been created by members of the Drupal community.

In terms of open source projects, Drupal is well supported by the community surrounding it with over 350 000 registered users², but support for the individual modules varies greatly depending on the author of the module. Some modules are virtually abandoned by their creators. Others have only paid support available. So in terms of services offered, Drupal only has outside contributors to rely upon.

Who is the Buyer?

As we previous indicated, expertise is required to install and set up Drupal. This means that the vast majority of students will not end up using Drupal at all. Some teachers might have the required skills to set up and use Drupal, by but by the far the most likely people to use Drupal

¹ "Resources for Drupal in Education"

are the administrators of an individual school using either in house or outside expertise to set it up.

Cost is not a barrier to using Drupal over some other content management system since it is released under the greater public license (GPL)³. However any system designed to produce a website has hardware costs as well as retraining costs associated with it. These costs will have to be covered, either by the school or by the school district that chooses to use Drupal.

Global Markets

The Drupal interface is at least partially translated into 59 different languages.⁴ A lot of work has gone into making Drupal user friendly for many different languages. Programming style and simple translation features make it reasonably easy to translate the interface or any module into one's language of choice.

One problem with this process is that the core documentation is largely in English, although some projects exist to translate the documentation into multiple languages. This means that in order to get started with Drupal, one has to have more than a basic understanding of English. This means that in areas of the world where English speakers are scarce, Drupal is inaccessible.

The cost of Drupal and its highly modular structure has encouraged many⁵ developers to overcome any language barriers present and create a translation of Drupal. This means that it potentially be used anywhere in the world, as soon as a translation exists for the local language. As a result Drupal is being used and developed by developers in many different countries.⁶

Development of the Market

² <http://drupal.org/profile?page=17749>

³ <http://www.gnu.org/licenses/gpl.html>

⁴ <http://drupal.org/project/Translations>

⁵ <http://drupal.org/profile/drupal-translator?page=33>

⁶ <http://drupal.org/node/267405>

Drupal is well suited for any environment where the local internet connectivity is somewhat strong, at least in the community that will be using the website. In order to make in-roads in environments where no or little local infrastructure exists, users of Drupal will have to wait for government or corporate organizations to build the infrastructure.

In areas of the world where connectivity is fine, but the Drupal has not yet been translated into the local language, then all that is needed is for someone to do the translation. A small and enterprising group can easily translate all of Drupal by themselves, meaning barriers to introduction are low. However there is unfortunately very little formal structure in place within the Drupal community to support these users.

Marketing of Drupal is a relatively recent phenomenon. Within the past year the Drupal name has finally been trademarked⁷, a formal commercial organization to provide support for Drupal has been created⁸ and the user base of Drupal has increased by about 50%⁹. However, since the product is free, much less work has been done to sell the idea of using Drupal to the world than for a proprietary CMS. The Drupal Association is an example of a recently formed organization "dedicated to helping the Drupal CMS grow."¹⁰

Competition

Drupal's competition comes mostly from other open source projects. Competition from proprietary models is certainly present, but given the great difference in support and practices around these models, it is not really appropriate to make the comparison between them and Drupal. There are literally hundreds of CMS on the market so we will have to narrow down our comparison, so we will focus on open source competition.

⁷ <http://groups.drupal.org/node/15023>

⁸ <http://acquia.com/>

⁹ <http://buytaert.net/drupal-download-statistics-2008>

The other major open source platforms which are used by a fair percentage of schools are Wordpress and Joomla both of which have a sizable market outside of education compared to Drupal.

Joomla has the advantage of a much lower learning curve for getting started. From personal experience installation is about the same level of difficulty as Drupal, and although it does not require expert knowledge, it does require some understand of how server technology works. Joomla also has a very large user base, with nearly 5 million copies downloaded since March 2007 so support from fellow users is easy to find.¹¹

A Joomla for education package has been created¹². Presumably it has all of the features one would want in a typical school website. Having previewed Joomla a few times though, I would say that these features lack the flexibility offered by Drupal, and some core features, like administration of school resources, are probably not present.

Wordpress has the same level of difficulty in terms of installation as either Drupal or Joomla; however the interface for creating and managing content is very easy to use. Wordpress is well known as a blogging platform, but the developers have recently added some simple features to expand its use as a CMS. It lacks some of the basic features a school might want to use, in particular the ability to restrict access to some content and the administrative features discussed earlier.

After doing a quick search through the Wordpress add-ons¹³, I discovered some that would add some useful functionality to Wordpress for schools, such a way to securely display grades

¹⁰ <http://association.drupal.org>

¹¹ <http://docs.joomla.org/Evaluators>

¹² <http://www.edugeek.net/forums/edugeek-joomla-1-0-package/8107-edugeek-joomla-package-released.html>

¹³ <http://wordpress.org/extend/plugins/tags/education>

online and some simple course management for Wordpress. However this still means that Wordpress is a poor substitute for either Joomla or Drupal for a general purpose school website.

As discussed earlier, Drupal is the same level of difficulty to install as other CMS. Essentially you upload files to a folder, create a database for your site, and run an online installation script.¹⁴ Where Drupal is more difficult is in the back-end administration of the site. Unfortunately Drupal's flexibility works against it here, as the administration menus tend to be spread out over many pages.

There has been some work on a specific installation profile for Drupal in Education.¹⁵ This particular pre-configuration of Drupal includes some simplistic course management tools, blogs for all users, and an easy way to create podcasts. It is essentially a specialized system which is intended to provide some of the support for the public facing website, but is mostly intended to use as a collaborative authoring tool for teachers and students. It lacks an easy to use administrative interface, and has no resource management tools bundled.

However on the main Drupal website, there are many, many modules which have been distributed which would be useful for an educator.¹⁶ In particular, one I have tested myself provides all of the resource management a school could want.¹⁷ Another provides a teacher grade book through the website¹⁸ and yet another allows a teacher to organize their class content using user groups.¹⁹ These types of offerings make Drupal extremely competitive with the other open source CMS on the market.

Conclusions

¹⁴ <http://drupal.org/videocasts/installing-6>

¹⁵ <http://www.funnymonkey.com/drupaled-latest>

¹⁶ <http://drupal.org/project/Modules>

¹⁷ <http://drupal.org/project/publicbookings>

¹⁸ <http://drupal.org/project/gradebook>

Drupal is competitive in terms of what it offers for educators, but the ease of use and usability need to be improved.²⁰ The core Drupal package is highly flexible and its architecture allows it to be easily extended using modules. The open source nature of Drupal has allowed a large, diverse and active community to form around the Drupal project, which increases the amount of support schools have when using the Drupal project.

Drupal's ability to be translated in any language means that it is much more competitive world wide than either Wordpress or Joomla. Although both of these projects have translations available²¹ neither of them offers the ability to translate parts of the website in the core project²², as Drupal now does.²³

Given that our discussion revolves around the use of Drupal for an education web portal, then it seems clear that Drupal more than meets the requirements. Issues like local internet connectivity are a non-starter since only schools with internet available will want to consider this package. In terms of compliance with local education law, since Drupal does not provide any educational content itself, legal issues are not likely to be a problem.

Drupal is an excellent tool for communication, but this does not necessarily result from its feature set, but mostly because of the fundamental nature of its use. Since it is a web platform, users can access the information from anywhere there is an internet connection, and using any internet connected device. This increases the ability of the school community to interact with each other, which must help improve school wide communication. However this will depend entirely on how it is used and how widely it is adopted by the school community, so systemic

¹⁹ <http://drupal.org/project/og>

²⁰ <http://groups.drupal.org/usability>

²¹ See http://codex.wordpress.org/WordPress_Localization and http://extensions.joomla.org/component/option.com_mtree/task.listcats/cat_id,1837/Itemid,35/

²² See http://codex.wordpress.org/Translating_WordPress and <http://www.joomla-translations.org/>

communication problems will probably still exist. Drupal does however solve many of the problems in communication, including accountability²⁴ and making information publically available.

²³ <http://drupal.org/drupal-6.0>

²⁴ Anytime any content is created or modified, the user name is recorded. This is a standard feature of almost all CMS.

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