

# ISSUES AND OPTIONS IN RELATION TO CREATING A SCHOOL WEBSITE USING A CONTENT MANAGEMENT SYSTEM (CMS)

## INTRODUCTION/OVERVIEW

This review attempts to summarise the main issues and options in relation to creating a school website using a Content Management System (CMS).

Specifically, the review considers:

- Choice of CMS
- Hosting
- Migration issues

## CHOICE OF CMS

There are a number of factors that influence choice of CMS. The main requirements (in no specific order of importance) for a school would appear to be:

- relatively low initial cost (license, hosting, development, content addition and training) and ongoing costs (hosting, content and site maintenance and support)
- provision for a range of functionality, eg. web-based editing, news items, image gallery, features, events calendar, e-newsletter subscriptions, etc.
  - and applicable to educational/school requirements
  - and with minimal requirements for the creation of extra features via additional programming/costs
- ease of editing and administration, self administration/editing/content publishing of some areas by approved users
- improved interface/design, more modern design (if there is an existing website)

Choice of CMS can be simplistically, but usefully, divided into:

1. Commercial options
2. Open Source options, and in the context of this review, Open Source solutions can be further considered with respect to:
  - a. General CMS's – designed for a range of uses, but usually community focused
  - b. Educational/Learning Management specific – specifically designed for use in educational settings and which usually also provide learning management tools/features. These include solutions such as Blackboard and Moodle.

## COMMERCIAL CMS

The term commercial CMS in this context is intended to mean that a license is paid to a company in order to use their (usually) proprietary CMS, either for a period of time (eg. annually) or indefinitely. This license may also include upgrades, support and associated hosting. License costs in relation to a commercial CMS suitable for a small-medium enterprise (SME) are likely to be in the range of \$300-\$2000 (or more), and hosting may be in addition to this cost. It is possible that some desired features may require either additional license fees or programming costs (if the feature is not currently available). It may also be difficult to create additional features independently of the company providing the CMS, since access to the source code may be limited/restricted.

Hosting is probably best done via the company (or affiliate) providing the CMS, in order to minimize server requirements/upgrade problems and to facilitate better help desk support. A premium will probably be paid for this hosting in comparison to standard shared hosting solutions.

There are a number of commercial CMS's (see 'Further Reading - [List of content management systems](#)) that could provide for the requirements of a school website, and many provide free demonstrations. It should be noted that many of those listed are aimed at the corporate market and have significant license costs and hosting requirements.

Given the availability of Open Source solutions and the requirements of the project, it is likely that only a few of the listed commercially available solutions would be suitable in the educational context.

The main advantages of commercial CMS's (as distinct from Open Source) include:

- Good documentation/support from developers and hosting providers
- Fewer usability problems – emphasis on design
- Free upgrades (but depends on license)
- CMS will be further developed/supported in the future (depends on business model and marketplace stability)
- Improved security – possibly better coding/testing, additional features only developed in-house

The main dis-advantages (can) include:

- Upfront license costs
- Limited hosting options
- Possibly more difficult to install/configure (particularly if hosted external to the company providing the solution)
- Fewer features without paying additional costs – company needs to recover development costs
- Limited ability to modify and add additional features – proprietary

- Subject to economics – company may not be able to sustain itself for the long term.

## OPEN SOURCE CMS

There are a number of Open Source CMS's that could provide for the requirements of a school website (see 'Further Reading' - [List of content management systems](#)).

The main advantages of Open Source CMS's (as distinct from commercial) include:

- No license costs
- A range of hosting options
- Relative ease of installation (eg. Joomla comes as an add-on with many hosting packages)
- Ability to modify and add additional features
- Many third party 'add-on' features
- Community development model can provide very functional solutions
- Rapid development life-cycle
- Coding problems can be solved quickly (assuming a significant CMS 'community' exists)

The main dis-advantages (can) include:

- Lack of documentation/support from developers and hosting providers (community based support model)
- Potential usability problems – emphasis on features rather than design
- CMS may not be developed/supported in the future - dependent on momentum of CMS community
- Lack of features (depends on the CMS)
- Security issues – poor coding, use of third party add-ons
- Quality control issues
- Some 'add-on' features of Open Source CMS's can only be required via a commercial license.

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## JOOMLA

[Joomla](#) is one of the more popular Open Source CMS's, falling into the category of a general CMS (for the purposes of this review) and could be considered as a replacement for the current website.

It is commonly provided as an easy to install 'add-on' with many commercial shared hosting packages, and hence it is easy to set up. Hosting costs can be quite low (\$100's/year), depending on the host chosen, however hosting and support quality can vary. The specific requirements of Joomla may not be supported by a particular host, so it is worth checking whether this is the case before installation.

The low cost advantages of shared hosting mean that it is suitable only for relatively low-medium traffic and low server intensive situations, however this could be quite satisfactory for many school requirements.

The design of a Joomla site can be changed by installing a new 'template', many of which are available online (free or commercial, eg. [Joomlashack Shack Pack for Schools](#) and associated [demo school site](#)). These can also be modified further, however knowledge of html, Joomla templates and Cascading Style Sheets (CSS) and image editing techniques is required.

Any user can access the front end of a Joomla site, and users can also create accounts and log-on as members, with access to additional features. The front end is reasonably intuitive to use, although this does depend to some extent on the chosen template and how the site is organized (by the administrator). Editing of most content via the front end can also be achieved by members once logged in, depending on their access rights.

Backend access is only available to administrators, and the backend is used to customize and manage the site overall and also to manage specific components.

Joomla was not specifically designed for use by schools, however the Department of Education, Training and the Arts, Queensland provides Joomla sites (and training/support) for use by Queensland schools (Department of Education, Training and the Arts, Queensland, 2008). A link to their Joomla User Manual has been provided in the 'Further Reading' and it could be useful with respect to using Joomla for a 'school' website. Some of the information may be specific to Queensland schools, eg. the pre-installed templates.

The [Joomlashack Shack Pack for Schools](#) previously mentioned is a customized Joomla site designed specifically for schools. The stated cost is US\$97 (excluding hosting) which includes a tutorial/manual and associated Joomla files. This would appear to be good value even if only used for prototyping purposes. The main issues with this solution are the currency of the solution in terms of the components and modules provided, and the Joomla version that it applies to (v1.0 rather than v1.5). These issues need to be taken into consideration.

The main issue with Joomla, from the author's experience, is site administration. It is likely that the administrator will take some time understanding how to 'use' Joomla in relation to setting up the site in the way it is required, particularly if starting from a basic installation. Templates, components, modules, users, specific content areas, etc, will all need to be installed or created. Use of free or purchased templates will certainly speed up the design process, however customization and content creation will still take time (although solutions such as the [Joomlashack Shack Pack for Schools](#) should help in this regard).

## MOODLE

[Moodle](#) is an educational Course Management/Learning Management (LM) specific CMS that is also used by a number of schools as a 'School' website. While specifically designed to provide for online learning/training, it does contain many of the features required of by a school website. As it is a LMS it has the potential of providing additional functionality to the school, but it may also provide features that are not required/never used.

It is probably fair to say that most schools (that use Moodle) have a separate static or CMS driven school site that further links to their Moodle site (for use as an LMS). For example, Maroochy State HS has a [Joomla based website](#) with a link to Moodle in the main menu.

Similarly to Joomla, Moodle can be customized design-wise via the use of templates, and there is a front and back-end area.

Most Moodle templates generally identify the site as a 'Moodle' site in that the layout/design is similar, however significant customization is possible. The [Marcellin College](#) website is a Moodle site with a significant level of customization and a professional design.

Moodle is relatively easy to manage/administer (compared to Joomla) and requires minimal IT experience of the administrator. There is also a very active Moodle community and support environment.

Because of the server requirements of Moodle, the use of 'cheap' shared hosting environments is not recommended other than for basic Moodle sites or for prototyping. The use of a Moodle hosting partner is thus desirable, however there is an increased hosting cost associated with this option (likely to be \$500-\$2000/year).

## HOSTING

A shared hosting environment is likely to be sufficient for this type of project. If there is a shift towards online Learning Management (ie. use of Moodle) or significant database use, then this may not be the case. It should be noted that most website hosting companies do not guarantee support for particular Open Source CMS solutions, they only provide the hosting environments (which is why many are so cheap). Hence upgrades, maintenance and trouble-shooting will probably need to be managed by the client. The shared hosting solution may also not develop along with the evolving requirements of the CMS (eg. upgrades) and the client/site (more users/traffic/disc space/database queries).

CMS specific shared-hosting solutions (both commercial and Open Source) usually provide for more trouble-free, longer-term solutions, but are likely to be in the range of \$500-\$2000 per year. In this case

the hosting provider guarantees support for a particular CMS and is usually responsible for upgrades, maintenance and trouble-shooting.

It is relatively easy to move Open Source CMS's between hosting providers (if you know how).

Hosting the website internally (in the school) is a possibility, however is probably not desirable given that commercial hosting solutions should provide a cheaper, easier, more reliable and less stressful solution.

## MIGRATION ISSUES

Because a Joomla website is database driven, any existing static content on an existing website, such as text and images (ie. as in a Dreamweaver html based website), will need to be added manually to the new CMS driven site/pages.

Any existing MS Word, PDF and images (on the same web server) are probably located in easily identified folders and can be reused in the CMS driven site, but will still need to be manually linked.

Domain names may also need to be re-delegated if a different hosting environment is chosen.

## FURTHER READING

[Content Management Problems and Open Source Solutions](#) (PDF) by Seth Gottlieb, 2006.

[DrupalEd Is Ready For Download](#) 2007

[Joomla User Guide](#) Department of Education, Training and the Arts, Qld, 2007

[List of content management systems](#) Wikipedia

[Open source vs. commercial CMS](#) by Jörg Dennis Krüger, 2004

[Top Ten Mistakes When Selecting a CMS](#) by James Robertson, 2007

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Department of Education, Training and the Arts, Queensland. (2008). *Joomla - Web Content Management System*. Retrieved April 5, 2008, from The Department of Education, Training and the Arts: <http://education.qld.gov.au/publication/procedure/web/schools/joomla/joomla-index.html>