
Website content management with Joomla!

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A steady trend in web development history has been an increase in interactivity. Early websites were designed with the aim of putting out content that the public could passively absorb; calling a site “responsive” usually meant that it included a hyperlinked email address. Later, the development of form codes and programming languages, such as Perl, made it possible for users to send more structured information to the site managers; however, it is only in the last few years, with the arrival of blogs and wikis, that it has become possible to let a community of users construct a website for themselves – with or without the supervision of a skilled designer.

What kind of community might need its own blog-style site? Small professional associations, work teams or departments, fan clubs, international liaison groups, service organisations and their clients – almost anyone who has a website can see the advantage of allowing at least some community input. However, not everyone wants to use one of the large-scale publicly available blog or wiki hosting services. They may want to tie their community forums to the other components of their website, they may want to host it securely on a local intranet, or they may simply prefer the extra control that comes with self-hosting.

Luckily, the same tools that large-scale blog hosts use are now available to ordinary people. Using a content management system such as Joomla! (the exclamation mark is part of the name, alas) or Drupal, any web designer can now install a community-based website quickly and easily on almost any host. A few years ago, a package like this would have cost thousands of dollars, now they’re available free. If you’re paying a developer to “add interactivity” to your website, there’s a good chance that they’re using Joomla! or something similar. Here’s how it works.

Nearly all websites support a programming language called PHP, which stands, self-referentially, for *PHP: Hypertext Preprocessor*. If a web designer has included some PHP codes in a webpage, then, when a user accesses that page, the web server will see these codes as commands to be carried out. The commands may involve preloading images, querying a database, sending or interrogating a cookie, asking for a password, or anything else that the user’s browser is capable of doing.

Joomla! is a collection of pre-written but highly customisable PHP scripts, encased in a user-friendly interface called the Control Panel. These scripts cover nearly all the management tasks involved in setting up and maintaining a community site. All the content, the user names and passwords and other administrative information are stored in a single large SQL database, which is set up when Joomla! is installed on the site – a process that takes about ten minutes.

The site administrator can then use the Joomla! site Control Panel for a variety of tasks, including:

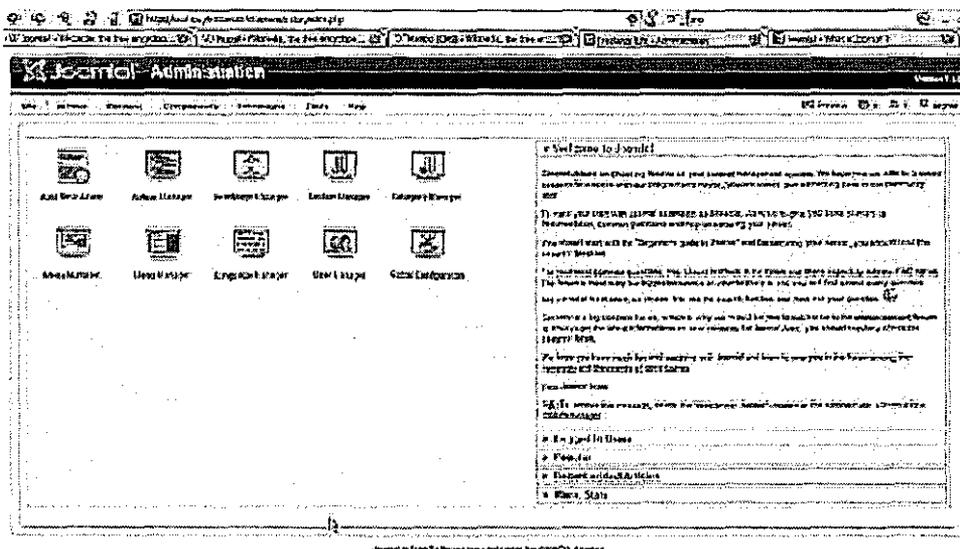
- adding or removing registered users and editing their details – eg access level or email address. The administrator can nominate co-administrators who then have access to some or all of the site Control Panel settings;
- creating *static content* – articles which are permanently displayed on the site – eg the association’s rules or Constitution. This can include any of the HTML material normally found on a traditional website;
- creating sections and categories for the material which is to go on the site;
- creating, editing, deleting, displaying or hiding *articles* – the units of content. These are written and edited in a mini text editor window which allows for standard HTML markup – bold, italics, headings, etc – as well as the inclusion of graphics;
- creating a menu structure to help users navigate the site. This is dynamic eg if a new category is added to a section, a menu that lists all the categories will automatically include it from then on;

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- adding or deleting *modules* – functional elements that can be made to appear on any page. Some modules are supplied as part of the Joomla! Package, others are available as free or commercial downloads. They permit users to work with tables, manage projects, create image galleries, maintain databases, work with calendars and timelines, use shopping carts and online catalogues, and connect to weather sites or other online information;
- selecting *components* for the site – structured elements which connect to the Joomla! navigation system. These can include user polls, banner advertisements, contact lists and collections of external web links. As with modules, many additional Joomla! components are available from third parties;
- selecting a template which determines the overall appearance and navigational structure of the site. The template can be edited fairly easily and new templates can be added as required. Some sites even allow users to choose from a list of templates when they access the site. Colour-blind users, for instance, can be catered for in this way; and
- an email system makes it possible for the administrator to send emails to all registered members or any subgroup with particular privileges eg all co-administrators.

Because Joomla! is designed to be modular, the administrators can pick and choose what features they want to use on their site, and anything that's not required can be put aside, to be added in later, as necessary.

FIGURE 1 The Joomla! Control Panel



Once the site is set up, a user can access it via its front page. The front page content is normally determined by the administrator, mainly in the form of menus; however, there is often some user-submitted content on the front page eg current news items. The front page usually includes the option for users to log in or (if new) to register. Depending on the type of site, registration can be automatic, or made to require the administrator's approval. Information about registered members is stored in cookies and the administrator can check at any time to see who is logged in. The time and duration of all visits to the site is stored in a log, which can be made available to users as well as to the administrator.

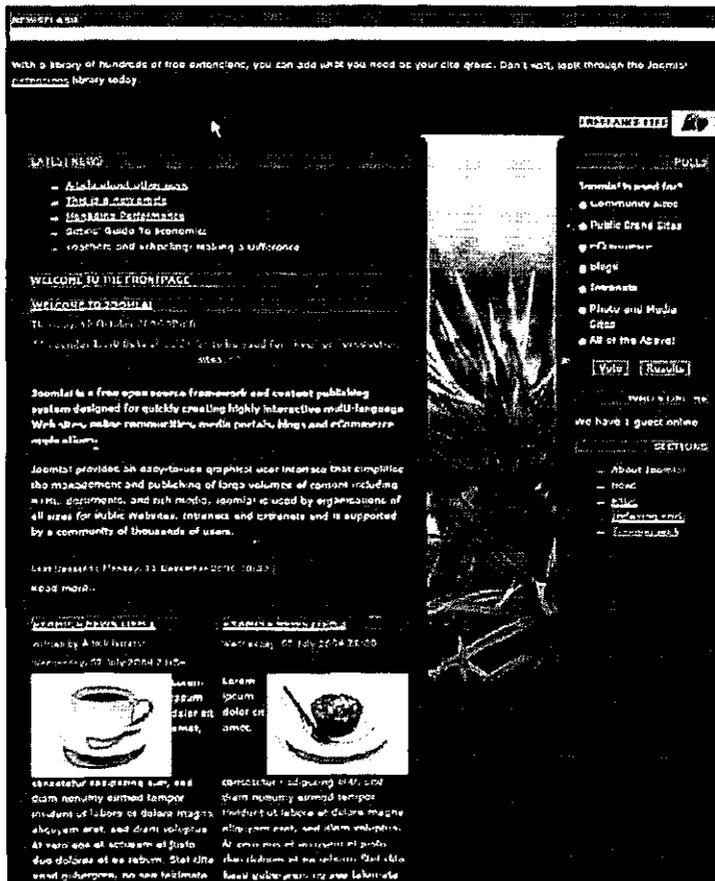
Once logged in, what users can do depends on their level of access; they may read articles, create their own articles, edit articles (their own or someone else's), or publish (display) articles. The system even copes with lost passwords, sending a password reset link to the user's specified email address.

To read articles, the user follows menus to the topic or thread of interest and clicks on the title of each article to bring up its full text. Articles can also be printed, saved to PDF files, or emailed. Users

with appropriate privileges can create new articles or edit existing ones. This is done in a text editing window, which uses a standard formatting toolbar to insert HTML tags. Graphics may be included. In creating an article, a user can also specify how long it is to appear on the site – this is handy for announcement of events. Users may also post polls for community voting and view the results, access an archive of older articles, search the site, or use an RSS feed to link articles on the website to a Yahoo! page or RSS aggregator. Administrators can reserve the right to publish, so they can vet articles before they appear; this is a good idea if spam may be a problem. All articles are automatically tagged with the author's name, the dates and times of submission and last update, and a section and category.

Depending on their privileges, users may also be able to access information on other community members i.e. names, email addresses, and even pictures.

FIGURE 2 Joomla! front page with one template

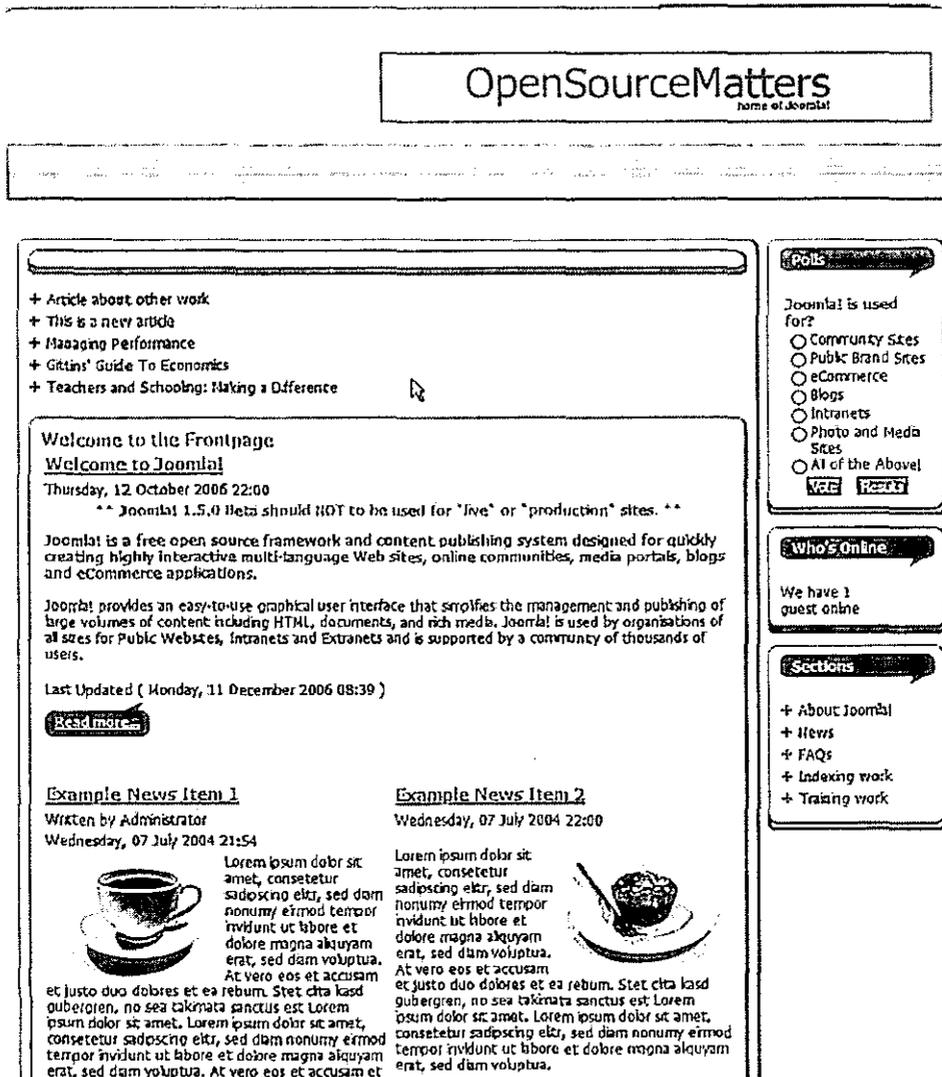


Because all the information is stored in a database, no hands-on work with HTML is required, and the administrator can get by without a web authoring package such as Dreamweaver or FrontPage. Joomla! is designed to avoid the need for direct contact with the PHP code and just about everything can be done through the push-button interface. Finding one's way around takes a little time; it requires a mental adjustment to think of the site's structure in terms of menu navigation rather than physical pages. Web managers accustomed to a traditional approach may find this disconcerting at first -- I certainly did.

Joomla! has a strong Australian connection – of eighteen core developers, three are Aussies. It was founded by the core programmers from an Australian project called Mambo, after some legal

wrangles in 2005 caused that product to bog down (Mambo remains in existence but appears to be attracting little further attention). A Wikipedia list of content management systems shows nearly one hundred, which demonstrates the increasing level of interest in this area. According to the Joomla! site, new users are signing up at the respectable rate of 172 per day. Joomla!'s main competitor is probably Drupal, which is also free and which was developed by Dries Buytaert, in Holland, as a bulletin board system. Drupal takes a similar approach to content management, but reportedly allows more control over user registrations and privileges.

FIGURE 3 Front page, with a different template



Both Joomla! and Drupal are available for downloading from the web. Joomla! is available at <http://www.joomla.org> and Drupal at <http://www.drupal.org>. Joomla is currently in transition; potential users will have to choose between the official version (currently 1.0.12) and the more advanced Joomla! 1.5, which is still in Beta testing. Both Joomla! and Drupal are extremely well documented and have a number of busy forums at which designers can post questions and suggestions. Both are used to run and maintain a number of well-known sites e.g. *The Onion* satirical newspaper, which is

run in Drupal. The Joomla! site itself is a good example of what the program can achieve. Books on both products are available (including a German version of *Joomla! für Dummies*).

Users can set up and run Joomla! on any site that supports PHP, which includes most free and paid hosts; however, anyone trialling it on Windows XP Home Edition will need to install and run web hosting software. I used the free Wamp5 from <http://www.en.wampserver.com/faq.php>.

Anyone who has maintained a community-based website in the traditional way will know just how much time goes into adding dribs and drabs of news, updating email addresses, fixing typos and chasing up contributors. Joomla! and the other CMS programs offer a solution. By separating the content from the structure of the site, they make it possible for a web manager to focus on administration and delegate the content management to the members who are providing the material in the first place. This is a first-rate product at an unbeatable price.