

# Moodle

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## **Abstract**

No other field of human endeavour promises more and delivers less than pedagogical theory. Experienced trainers will therefore look with deep suspicion on Moodle, which emblazons its ideological adherence to ‘a social constructionist framework of education’<sup>1</sup>. But take heart: the product is better than it seems at first sight. Martin Dougiamas, the developer of Moodle, has degrees in Computer Science as well as Education, and thus a demonstrated capacity for rational thought: and Moodle, as an open-source, highly customisable training package, can be set up in ways that will satisfy the most unreconstructed educator. Installation

Like Joomla!, Drupal and WordPress, Moodle (Modular Object-Oriented Dynamic Learning Environment) is a free content management system (CMS) written in the PHP web programming language and designed to be installed on websites, for use over the Internet or local networks. It can function as the home page for an entire site, or reside in a subdirectory. Course designers who want to add Moodle to existing websites may find it in their site Control Panel, probably as a script for Fantastico or some other remote installer. Designers who lack this option, or who just want to ensure they have the newest version, can download the package from the international Moodle home page<sup>2</sup>, and follow a script to install it.

Readers who simply want to play with the program online without going through the setup process can find free Moodle hosts via a Google search, although some of the current results seem to be out of date. The Italian E-Socrates site<sup>3</sup> is still functioning, as is Gnomio<sup>4</sup>, while at the time of writing the Key To School site<sup>5</sup> was having downtime problems which may by now be resolved.

It’s also possible to set up Moodle directly on a local Windows PC or Apple computer, via a package from the website which includes the built-in WAMP web server. This may have security implications, especially on a local network, so proceed with care. Linux users can achieve the same after separately installing WAMP or a similar package.

I downloaded the current Moodle version (2.1.2) plus WAMP as an 89 megabyte zipped package, and installed it on an elderly laptop running Windows XP. Extraction and installation was slow but smooth, and the Moodle setup page appeared immediately as the home page for localhost. Setting up Moodle required choosing a language, following the prompts to create an SQL database, and agreeing to a standard set of terms and conditions for open-source software. The necessary requirements were checked and apparently met, and within fifteen minutes Moodle had successfully installed all the requisite modules.

I then selected a username and password for administration – and here Moodle gets its first black mark, for its arbitrary password restrictions. The password must – and I quote – “have at least 8 characters, at least 1 digit(s), at least 1 lower case letter(s), at least 1 upper case letter(s), at least one non-alpha-numeric character(s)”. Or in other words, “write your password on a Post-it note **now** and stick it to your monitor, because you will never remember the bloody thing”. Thanks, Moodle, for assuming I’m unable to evaluate the security requirements for my own site.

That done, the installation then collects some necessary information about email addresses, editing features and the use of AJAX and JavaScript, along with obligatory but apparently

unnecessary information about the designer's city and country. Designers can also supply optional contact information in the shape of web addresses, phone numbers, etc, and a brief descriptive paragraph for the front page.

### ***Setting up courses***

Once installation is complete, the Moodle front page will appear, showing the site title, a navigation panel, a calendar, the introductory text, and a Settings panel for the designer(s). This includes site administration options, user management and – top marks for this – a built-in Backup option. Moodle works by the Drupal approach of carrying out all administration through the front end of the site. I find less intuitive than the Joomla! approach of having a separate 'back end' control panel, but others obviously disagree.

The basic building blocks of a Moodle site are *courses*. Each course has a category, a title, some introductory text and a format indicating whether it is to be taught by discussion, by topic, or in weekly chunks. The designer specifies a start date, and whether 'guests' – i.e. members of the public – are to be allowed access to the course. A grouping option allows students to be organised into groups who may or may not have access to each others' work. And just to be politically correct, the designer can specify how they want the software to refer to 'teachers' and 'students' – as 'pedagogues' and 'self-directed learners', perhaps.

Once a course has been created, students can be enrolled. Student details include names and email addresses as well as optional contact information and photographs. These can be added to the site manually by the administrator or uploaded from an external file. It's apparently possible for students to be allowed to register themselves on a Moodle site via email authentication, although I was unable to get this working on my installation.

Courses are divided into topics or weekly sessions, and each topic or session can have its own block of introductory text. The course designer can attach 'resources' to the session in the form of uploaded files or web addresses, and allocate 'activities' including quizzes, chat rooms for discussion and open-ended assignments that can be completed by uploading files or entering text online. Moodle keeps track of each student's contribution and applies deadlines where these are set. It can also calculate grades for closed tasks like quizzes. Lesson activities can also be built out of predefined questions stored in 'Question Banks' with appropriate answers, feedback and grades, although how to do this was not immediately clear to me.

The Moodle standard theme – blue Arial text on a white background – is a little old-fashioned, but the standard package comes with a dozen or so others that are more inspiring, and additional themes can be downloaded from the Moodle home page. These have to be copied into the Moodle home folder with file management software before use, which can be a slightly cumbersome process. Users, including students, can be allowed to set their own themes, which may be important for those who are colour-blind or otherwise visually impaired. Many other plug-ins offering extended functionality are available from the Moodle home page, and can be installed in the same way.

Documentation from the main Moodle site is well-written and reasonably thorough, although not everything I needed to know was easy to find. Other support is available via the Web, though much of this relates to earlier versions of the package.

### ***Extending Moodle – and the future***

Moodle has a user base of 55,000 registered sites and almost 45 million users. Its largest client is the UK Open University project, with over 700,000 users of its own<sup>6</sup>. Moodle is clearly not

going to go away any time soon, although some of the sites which previously used Moodle now seem to be experimenting with newer packages. As with other open source content management systems, Moodle's users and developers have created many extension modules and plug-ins which extend the basic system's functionality. These include features such as videoconferencing and recording sessions for later playback. Some Moodle developers are now designing content for delivery to mobile devices such as phones and tablet computers.

A review of Moodle-related articles and posts on the web shows a generally positive attitude, though criticisms have been made of its complexity and its attitude to security<sup>7</sup>. Perhaps the biggest current threat to Moodle comes from the more general CMS programs like Joomla!, Drupal and more recently WordPress, all of which have an ever-growing number of extensions in related areas: the Joomla!<sup>8</sup> and WordPress<sup>9</sup> education extension pages, for instance, each offer four dedicated course management systems for their package.

Moodle provides optional support for the Shareable Content Object Reference Model (SCORM)<sup>10</sup>, a set of standards for e-learning material derived from the ADL Initiative at the US Department of Defence. In theory this makes Moodle content compatible with other e-learning packages, allowing their data to be shared by and exchanged between different systems.

Local course administrators interested in implementing Moodle on their own sites or a hosted site may want to contact moodle.com.au<sup>11</sup>, a Perth-based commercial 'Moodle partner'. moodle.com.au also offers Moodle training courses in Brisbane, Sydney and Melbourne.

### ***A student's perspective***

From a student's perspective, Moodle is rather like one of the old-fashioned teaching machines that surfaced in classrooms during the 1950s and 1960s. Its role is to drip-feed lessons and assessments at the specified dates and times, collect and grade responses, and provide reports on student activities and achievements to the teacher. It incorporates extra features like a news forum, chat rooms, a personal blog and individual file storage, but it is hard to imagine any modern student voluntarily spending much time on these when they could be using Facebook or Twitter. The notion of an online chat room or blog full of keen, tightly-focused students logging in on time and responding with relevance to the topic of interest is – as many teachers have found – the stuff of fantasy rather than real life. As far as its 'social constructionism' features are concerned, Moodle is already looking a little old and tired.

But as a free and highly-customisable system for tracking and storing files, objectively posing and marking questions, keeping track of dates and deadlines – what we could describe as its Personal Assistant role – Moodle is a real contender. Just to tidy up the messy business of teaching getting teaching materials to the right people at the right times, and collecting the responses, is a major achievement. Even if Moodle is ultimately superseded by newer, more versatile, packages, it deserves credit for its role as a pioneer in this area.

*Web citations given are as at 17/10/2011.*

- <sup>1</sup> 'Moodle.com.au .: Official Moodle Partner in Australia .:' <<http://moodle.com.au/>> [accessed 16 October 2011].
- <sup>2</sup> 'Moodle.org: Open-source Community-based Tools for Learning' <<http://moodle.org/>> [accessed 16 October 2011].
- <sup>3</sup> 'e-Socrates.org - Free Moodle Hosting with Ethics' <<http://www.e-socrates.org/>> [accessed 16 October 2011].
- <sup>4</sup> 'Gnomio: Learning Tools for Everyone' <<http://www.gnomio.com/>> [accessed 17 October 2011].
- <sup>5</sup> 'Free Moodle Hosting | Key To School - KTS' <<http://www.keytoschool.com/>> [accessed 16 October 2011].
- <sup>6</sup> 'Moodle - Wikipedia, the Free Encyclopedia' <<http://en.wikipedia.org/wiki/Moodle>> [accessed 17 October 2011].
- <sup>7</sup> 'MoodleMoot | Drupal in Education' <<http://btopro.wordpress.com/2009/06/18/moodleMoot/>> [accessed 17 October 2011].
- <sup>8</sup> 'Courses - Joomla! Extensions Directory' <<http://extensions.joomla.org/extensions/living/education-a-culture/courses>> [accessed 17 October 2011].
- <sup>9</sup> 'WordPress › Search for "course Management" « WordPress Plugins' <<http://wordpress.org/extend/plugins/search.php?q=%22course+management%22&sort=>>> [accessed 17 October 2011].
- <sup>10</sup> 'Sharable Content Object Reference Model - Wikipedia, the Free Encyclopedia' <[http://en.wikipedia.org/wiki/Sharable\\_Content\\_Object\\_Reference\\_Model](http://en.wikipedia.org/wiki/Sharable_Content_Object_Reference_Model)> [accessed 17 October 2011].
- <sup>11</sup> 'Moodle.com.au .: Official Moodle Partner in Australia .:' <<http://moodle.com.au/>> [accessed 16 October 2011].