



Communication Software Laboratory
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E-learning Platforms.
Moodle and Dokeos.

Group 95

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1. Introduction

E-learning

E-Learning is a general term used to refer to a form of learning in which the instructor and student are separated by space or time where the gap between the two is bridged through the use of online technologies.

E-learning is used interchangeably in a wide variety of contexts. In companies it is referred to the strategies that use the company network to deliver training courses to employees. In distance education Universities it is defined as a planned teaching/learning experience that uses a wide spectrum of technologies mainly Internet to reach learners at a distance. Lately in most Universities, e-learning is used to define a specific mode to attend a course or programs of study where the students rarely, if ever, attend face-to-face or for on-campus access to educational facilities, because they study on-line.

Standards

As in any activity, some standardization in the tools is required to ensure compatibility between them. In the case of online training, there is a set of standards that allow to "execute" courses in any kind of platform LCMS or LMS.

Among the most widely used standards SCORM (Sharable Content Object Reference Model) is distinguished by the ease with which they have adopted most of the organizations and institutions involved in e-learning.

Platforms

An e-learning platform is a software application that integrates different management tools, communication, evaluation, monitoring, etc.. with the aim of providing technological support to teachers and students to optimize the various phases of the teaching-learning process, either the educational process completely remote, classroom or mixed nature and combine both modes in different proportions.

Main Features of the e-learning platforms:

- Authentication
- Generating content
- Viewing content
- Different media with a teacher / tutor
- Carrying out activities such as tasks, group work
- Report of the activities undertaken by the pupil
- Evaluation tools

2. Functionalities

Depending on the functionalities and the goals of the e-learning platform we can classify them as:

CMS: Content Management System

The CMS system is the most basic functionality; is used for small projects where it is needed to generate the content within the system. Among the communication tools can be found **forums, email and chat**.

As an example we can mention: PHPNuke, Drupal, Mambo, Content Management Server, CoreMedia CMS, etc..

LMS: Learning Management System

The LMS is a system that is focused precisely the area of education, allows control on both the contents and individual users who interact within it. The contents are created and loaded with some external authoring tool.

It has most of the tools of communication and monitoring activities of users. For example, Moodle, ATutor,...

LCMS: Learning Content Management System

Integrates profits from previous systems, what gives greater robustness. Generally is a LMS to be added to the form or functionality to create within the content.

In addition to managing the administrative functions of online learning, some systems also provide tools to deliver and **manage instructor-led synchronous and asynchronous online** training based on learning object methodology. These systems are called Learning content management systems or LCMSs. An LCMS provides tools for authoring and re-using or re-purposing content as well as virtual spaces for learner interaction such as discussion forums and **live chat rooms**.

3. Platforms

Another classification can be made attending to the software developer; we have open source platforms and proprietary platforms. Some of the most important platforms of each class are:

Proprietary

These systems are generally more robust, well documented and with various features that can be expanded according to the needs and the project budget.



Blackboard

Blackboard: founded in 1997 is a leading provider of e-Education enterprise software applications and services. Its main characteristics are: courses Management, content creation, didactic units, textbook online, teaching and learning tools, administration of personal information, board discussion, group project, book of qualifications and control panel.



LMS QStutor: offers communication tools mentor/student and student/student both synchronous and asynchronous: lectures in real time, integrating video conferencing services, forums and messaging.



Saba: Saba's Learning Management System (LMS) provides comprehensive learning management for identifying, managing, developing, and measuring the capabilities and knowledge of people throughout an enterprise.

Open source

Open source software (OSS) is having a significant impact throughout e-learning but patents may pose a special problem for open source. Next we comment some of the most extended platforms and its features:



ATutor

ATutor is an Open Source Web-based Learning Content Management System (LCMS) designed with accessibility and adaptability in mind. Administrators can install or update ATutor in minutes, develop custom themes to give ATutor a new look, and easily extend its functionality with feature modules. The main features for both teachers and students are:

Learners	Instructors
Accessibility Security Inbox/Messaging Student Profile Adaptive Navigation Work Groups Group Blog Feedback Communication Tools Content Package Viewer Test Manager Glossary	SCORM Run-Time Environment Course Manage Page Work Groups Manager Assignment Drop Box Content Editor IMS/SCORM Content Packaging Test Manager Polls Forums Course Email Privileges Addon Modules



Claroline

Claroline is an Open Source eLearning and eWorking platform allowing teachers to build effective online courses and to manage learning and collaborative activities on the web. Translated into 35 languages, Claroline has a large worldwide users' and developers' community.

Its main characteristics are:

Instructors
Manage documents and links Create online exercises Tracking the results of the users Develop learning path Coordinate group work Produce : assignments and wiki Discuss : chat and forum Organize : agenda and announcements Supervise : users and statistics



DotLRN

.LRN is a full-featured application for rapidly developing web-based learning communities..LRN comes with the following applications:

Instructors
Assessment
Forums
E-Mail/Bulk mail
Calendar
Curriculum
News
Project Manager
Homework Dropbox
Staff List
Edit this page
Survey
Gradebook/Evaluation
Syllabus
Expenses Tracking
User Tracking
FAQs
Weblogger
File Storage
Slide presentations



Dokeos

Dokeos is a learning suite that allows you create, organize, follow and coach learning activities. Some of its main features are:

Instructors
Authoring templates
Coaching interaction
Surveys
Tests authoring
SCORM Reporting
Learning path

building Portal administration SCORM content import Community extensions



Ilias

ILIAS is a powerful web-based learning management system that allows you to easily manage learning resources in an integrated system.

Instructor
Course Management Group Management Standards Compliance (LOM, SCORM, IMS-QTI, AICC) Learning Progress Management Test & Assessment Survey Chat, Forums Exercises RSS, podcasting Google Maps Support Web Service Interface



Moodle

Moodle is a course management system (CMS) - a free, Open Source software package designed using sound pedagogical principles, to help educators create effective online learning communities. It's Simple, lightweight, efficient, compatible, low-tech browser interface. Easy to install on almost any platform that supports PHP and requires only one database.

Next we are going to deeply compare two of the most valuable platforms: Moodle and Dokeos.

4. A practical comparison

Many studies claim that Moodle is the best platform (although some of them are now a bit old), but Dokeos is quite popular also. Let's have a look at them.

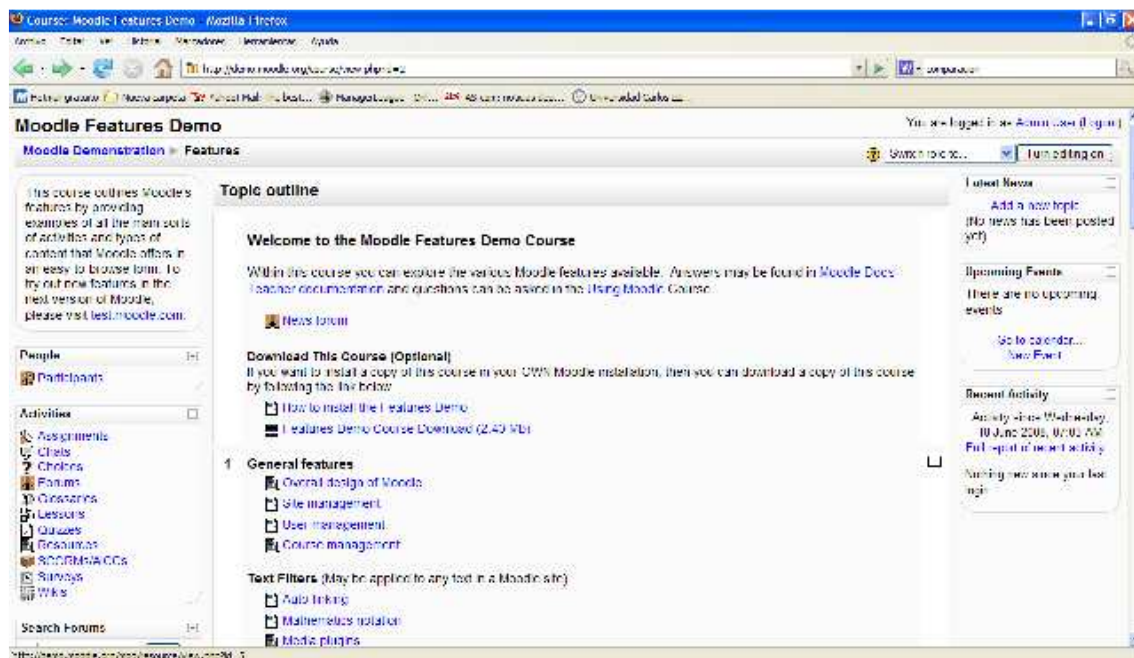
a) Installation

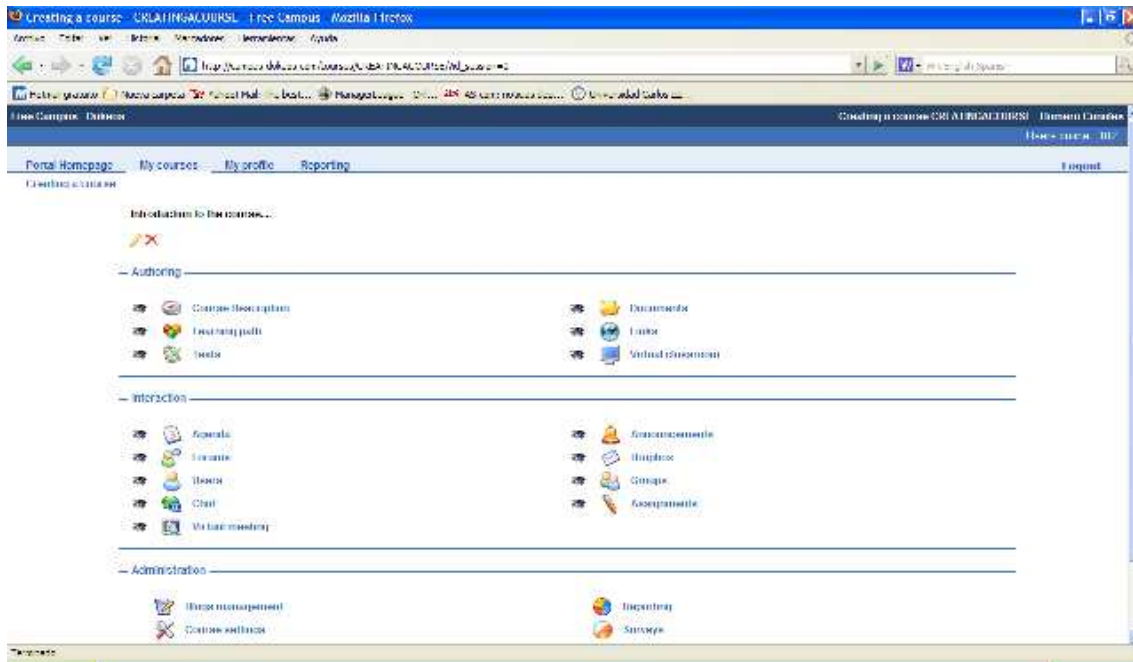
Both platforms are designed to be run on a LAMP system architecture: Linux, Apache, MySQL, PHP. However, they can both also work on other operative systems like Windows (WAMP) or Mac OS X (MAMP). The hardware requisites are thus more or less the same as they are written in PHP.

b) Designing an online course

Both platforms also provide an online demo to try the different features available to the teacher that wants to develop an online course.

The registration is very simple and quick with Dokeos, and a bit more complicated with Moodle, although in the end you find out that for accessing the demo it wasn't necessary.

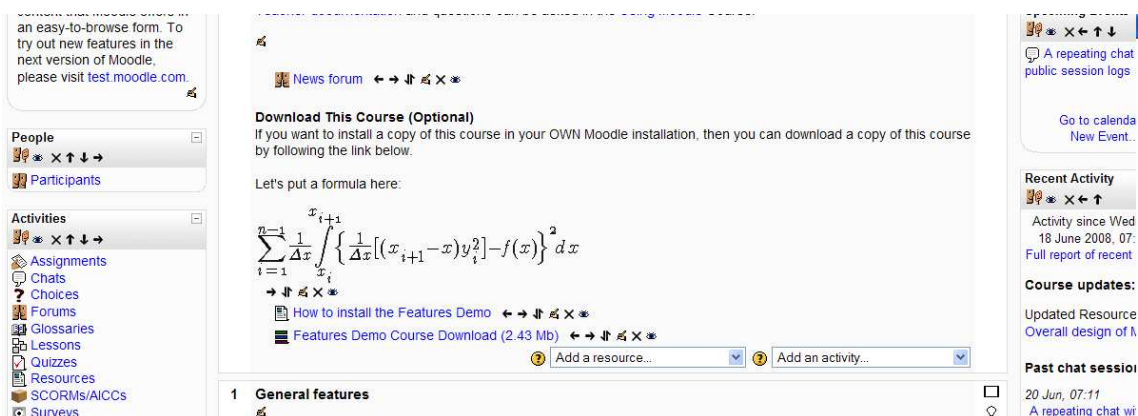




Then if we get a little bit more in detail:

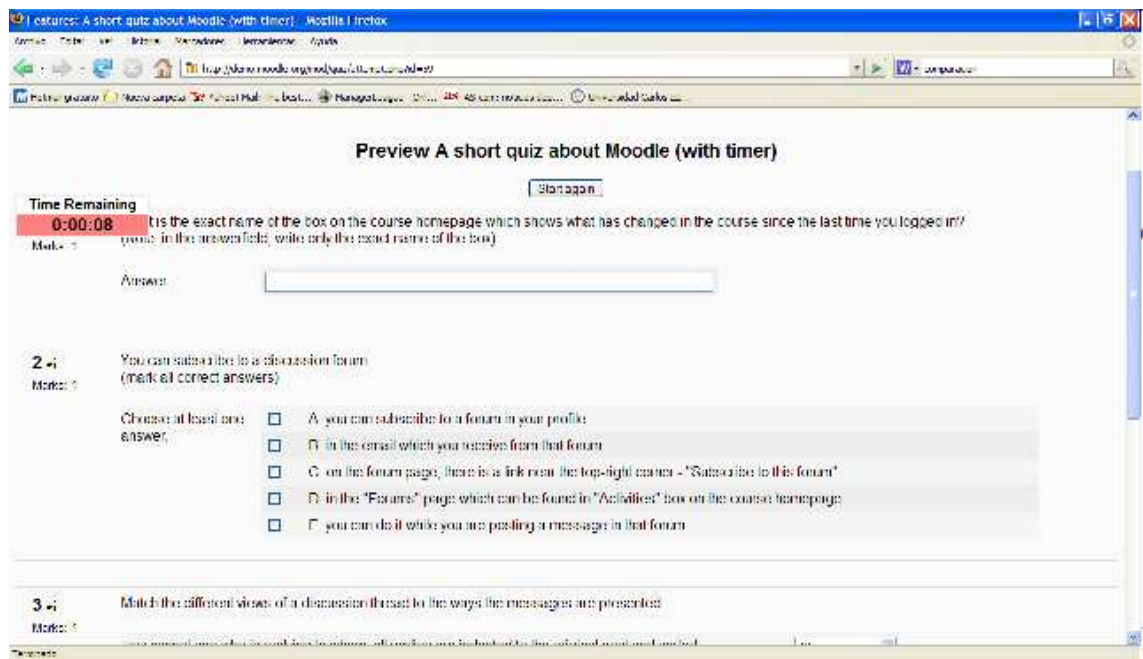
Moodle:

- The first impression is that Moodle has a lot of different features, which can be good, but can also be a drawback if the teacher wants to focus on content.
- You can add/edit assignments, chats, forums, lessons, quizzes, wikis, grades, groups, reports, opinion polls.
- One practical thing is that you can write mathematical formulas in Tex notation, and place them wherever you need:



- You can also create different type of quizzes (Multiple-choice, Short Answer questions, True-False questions, Matching questions). One very interesting is the numerical questions, which allows the teacher to have a tolerance margin on the answer, thus reducing the arbitrary pass-fail model of online tests.

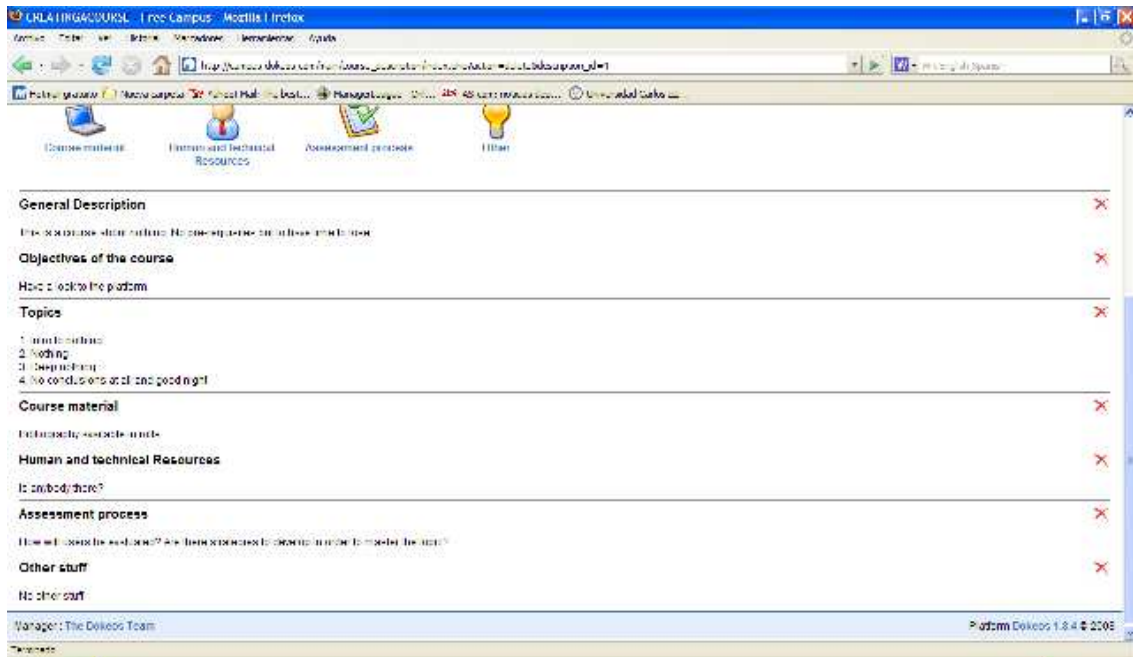
- There are 6 different types of permissions (administrator, course creator, teacher, non-editing teacher, student, guest) and a lot of settings available for the course, maybe too many.
- You can put links to multimedia files: audio, video, pdf, flash, images... but not so much integrate them in the text.
- A funny feature is the Hot Potato, a type of quiz where you can integrate any kind of questions (yes/no, multiple choice, short answer, etc.) into one single quiz.
- You can also time the answering, which gives more credibility to online testing in terms of examination.



- It seems that moodle has every single functionality you may want to use as a distance teacher.

Dokeos:

- This time the first impression is that no matter the number of features Dokeos has or hasn't, they all look pretty nice! The graphical interface is very user (in this case teacher) friendly.
- You don't need any manual to use Dokeos, everything is very intuitive.
- You can write a detailed description of the course before going into the lessons and examination

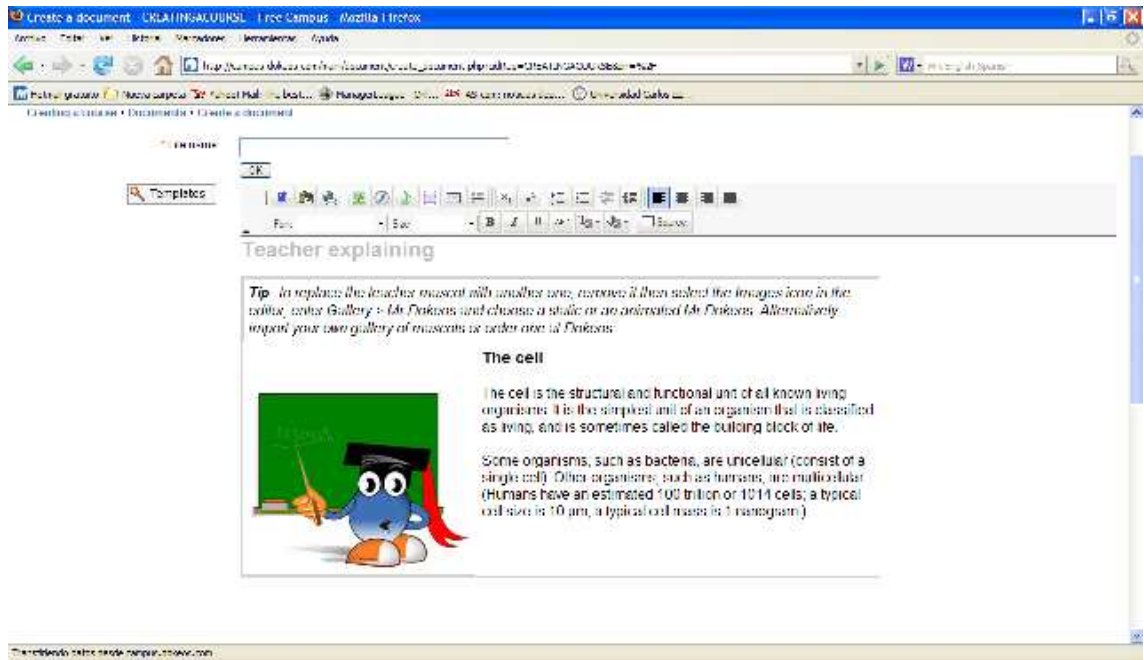


- The learning paths are very clarifying and help maintain coherence in the course structure.
- The lessons can be directly imported and adapted from powerpoint slides, which allows great integration with previous off-line or complementary electronic format teaching material.
- You also have the usual test types, but here we lack the numerical answers.

Add a question :

Question	Type	Export	Modify
1. y esta de varias respuestas	Multiple answers		
2. what about un baño debut?	Multiple choice		
3. where?	Fill in blanks		
4. matches	Matching		
5. cuentame tu vida en verso	Open question		
6. aqui pa meter una imagen (para what?)	Image zones		

- You once again have the possibility to assign permissions, and set e-mail sendings.
- Something really attractive is the integration of flash animations, videos, audios in mp3 and other multimedia stuff directly inside the text of a lesson or whatever.
- Dokeos also provides with some very nice templates to apply and edit in any text part.



- There are definitely less features than in moodle, but for a normal course you have everything you need in dokeos, and with a friendlier presentation.

As we have (briefly) seen, Moodle is certainly the most complete e-learning platform, and also one of the oldest. However, a newer platform more presentation-oriented like Dokeos can be a serious alternative.

The technical knowledge required to design a course in Dokeos is much smaller than with Moodle, and the former is so well looking that sometimes the loss of functionality is worth.

Anyway, really nice courses can be quickly developed in any of the two platforms, depending on the teacher preferences more than on an actual hierarchy.

As illustration of the e-learning current movement of migration to open source we can mention the virtual courses of the UNED (built on Dokeos) or the ADA-Madrid online courses project (Moodle). As a user having dealt with both, I can confirm the conclusions taken from the teacher's point of view, i.e. that moodle is more complete, but dokeos is beautiful.

The installation and maintaining is the same in any case, as you may want to have it running on a LAMP configuration (which has to be installed). No big PHP knowledge is needed, and the teachers can point more to the contents, evaluation forms, and student feedback (as they would do in a physical classroom) than on the technical aspect.

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