

Free software can satisfactorily meet the needs of students and faculty for online teaching and learning: Implementing Moodle at University of Zagreb Medical Faculty

Milan Taradi, Sunčana Kukolja Taradi, Marinko V. Marijanović, University of Zagreb Medical Faculty, Šalata 3, 10 000 ZAGREB, CROATIA

With the high spreading rate of the Information and Communication Technologies (ICT) in recent years, the delivery of learning contents has gradually shifted from local desktop to flexible, online-based applications. Moodle is a course management system (CMS) designed to help teachers to create effective online virtual learning environments (VLE). It can scale from a single-teacher site to a 40,000-student University. Moodle was created by Martin Dougiamas, technologist and educationalist – Perth, Western Australia. The acronym Moodle stands for Modular Object-Oriented Dynamic Learning Environment and is a free Open Source software (OSS) program. Its goal is to provide a set of tools that support an inquiry- and discovery-based approach to online learning. Moodle is available in a variety of download packages (<http://moodle.org/>) with different levels of stability, and with a number of additional modules, add-ons and language packs. Currently there are more than 4 000 installations in over 125 countries. Handling is easy and intuitive, community support is great, and there is the possibility of suggesting new features and working on them in the spirit of open source software.

At the University of Zagreb Medical Faculty (UZMF) we have adopted OSS more completely over the last five years. At present, UZMF has more than 1,000 computers and more than 100 computers in computer classrooms are freely available to students who would not otherwise have computer access. We started with Moodle version 1.0.0. (URL address: <http://web.mef.hr/moodle/>) in august 2002. We built a much more involved series of university courses, using previously developed content, consisting of 7 course levels with 1 to 6 sub-levels. The courses are: Regulation of Acid-base Balance, Physiology, Immunology (courses in MD program), Self-assessment and Summative Assessment in E-education, The Art of Medical Education (postgraduate course for younger teachers), Ophthalmology: Tears System (continuous education for medical doctors) and Telemedicine (PhD program). The courses are comprehensive, incorporating video, discussion forums, chat rooms, tests and self-test. A synchronous online classroom system is integrated as well. The goal was to provide flexible and rich learning opportunities, to extend learning beyond the classroom and to deliver multimedia and other educational content on demand. At present, there are more than 120 enrolled students and until today the total number of user logins is about 32 000.

Internet access is provided through the main UZMF domain (www.mef.hr). The system resides on a PC based server provided by UZMF. All software is OSS or free for academic use: Solaris, Apache, Moodle, PHP, and MySQL. Moodle can work on any web-enabled operating system. Moodle is so far beyond the commercial products in capability, cost and ease of development and use. It is trouble-free and reliable. Of course, no one is naive to believe that OSS is absolutely free. It is not a way of saving money, but rather of spending it more effectively! Paying for capable technical support staff is an essential first step to effective use of ICT. Teachers, administrators, IT staff,

developers and students need training in order to be able to use the VLE effectively. As with any new tool, it takes some time to learn usage and gain confidence.

Installing a VLE is an easy process but getting people to use it appropriately is quite another. The ignorance, insecurity, cost and institutional constraints often prevent faculty from blending old teaching methods with a cutting-edge VLE. UZMF has continued to make progress in the use of ICT to improve student learning and to prepare medical doctors for the future. We need to encourage student participation. Often, the advice for effective use of Moodle given by faculty is ignored by students and they do not take all the advantages of the VLE in a course. Because using VLE means additional work in students' spare time, we must make the added value transparent to our students.

In conclusion, all the positive reasons stated as well as ease of installation, configuration, reliability, scalability, functionality and the opportunities for integration with systems and services give us confidence in recommending Moodle to any college or school considering employing a VLE as a part of their on going delivery strategy. The biggest challenge facing most web-based learning sites is simply getting people to use and visit them regularly. Building a community of learners and creating an environment for learning is by no means a simple task. Everybody must try to find their own blend of traditional and online methods that fit best their teaching style and best meet their educational goals and objectives.