

COMPREHENSIVE ANALYSIS OF EXISTING LEARNING MANAGEMENT SYSTEMS (LMSs)

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Type of institution: Higher Education

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LMS used WebCT

URL of LMS: odl.ulst.ac.uk

Language of LMS English

Number of years in use 2

Other LMSs used: prev exp of Topclass, Blackboard and FirstClass

Number of students in the system fully integrated with SRS – c. 24k

Number of courses available: approx 150 live courses

Typical duration: Semester

Number of tutors in the system400 + (most currently developing content)

This analysis is divided into six parts.

1 Course development tools

2 Student support tools

3 Tutor support tools

4 Administration (student database and records)

5 Technology (quality of software)

6 Price

1 Course development tools

1.1 Course creation. How satisfactory was the LMS for course creation?

OK

1.2 *Structure and didactic flexibility - openness.* In the creation of course materials did the LMS permit didactic flexibility? Was the structure open to differing didactic possibilities?

UU has found WebCT to be a pedagogically neutral tools. I.e. it does not impose a particular learning style on staff / students. We have examples of didactic and constructivist courses along with communication rich learning communities.

1.3 *Teacher userfriendliness.* How easy was the LMS to use by teachers and course developers?

The current WebCT designer interface does require some staff development training. However, this tends to be done along with the necessary instructional design training.

The instructor interface is intuitive for new users to use with minimal training.

1.4 *Support for graphics, audio and video, moving image.* Did the LMS support the provision of graphical materials, moving images, audio and video in the course content?

WebCT provides a media library facility and a means of integrating CDROM based content

1.5 *Questioning, assessment, assignments.* What provision was made by the LMS for student questioning and assessment and the design of student assignments?

WebCT provides self test, quiz and assignment tools. The quiz tool comes with comprehensive reporting facility.

2 Student support tools

2.1 *Interactivity possibilities.* What provision does the LMS make for student interaction?

Quizzes, communication tools, external links, a take notes feature and a search tool allow students to interact with the course in a number of ways.

2.2 *Online student to student communication (synchronous and asynchronous).* What facilities does the LMS provide for student communication to other students and how successful is it? Is both synchronous and asynchronous communication between students supported?

Calendar, mail, discussions and chat (c/w whiteboard) tools can be used to promote student interaction

2.3 *Online student to tutor/institution communication (synchronous and asynchronous).* What facilities does the LMS provide for student communication to the tutor or to the institution's administration and how successful is it? Is both synchronous and asynchronous communication supported? Are these support services available 24 hours a day?

All communication tools can be targeted to individuals and / or classes and facilitate communication between staff and students and among student groups.

2.4 *Resources, library, references.* What facilities does the LMS provide for student acquisition of resources required by the course, especially library resources and references to required readings?

A curriculum tool can be used to embed reading lists. Also dedicated links to external reading lists (held at department or library level) can be included on the main course menu.

2.5 *Feedback on work and assignments.* What is the quality of provision of feedback to students on their work and assignments?

General text box or attachment feedback can be provided. The release of scores and feedback is controlled by the course instructor

3 Tutor Support tools

3.1 *Tracking students - database questions.* How user friendly is the LMS for tutors wishing to track their group(s) of students and retrieve data from the student database?

Full tracking of student activity and performance is available from a simple MANAGE STUDENTS menu.

3.2 *Group management tools.* What facilities are provided by the LMS to the tutors for managing their group(s) of students?

Group discussions and assignments can be facilitated using the student presentations tool.

3.3 *Preparation of questions and assignments by tutor.* How successful is the LMS in providing tutors with user friendly and didactically successful tools for the design of student questions and assignments?

WebCT 3.x campus edition quiz authoring tool is not the most easy to use. However, the Respondus tool (which integrates with WebCT) is very easy to use in this respect. See www.respondus.com for details.

3.4 *Course planning for students (monitoring pace).* What tools are provided by the LMS to tutors to enable them to monitor and plan student progress?

Student progress etc. is a function of the manage students tool

3.5 *User-friendly administrative systems between tutor and institution.* What provision does the LMS make for successful tutor to institution communication?

UU has fully integrated Webct with its course student and staff databases using the IMS enterprise API tool.

4 Administration (student database and records)

4.1 *Enrolment procedures and fee paying.* What facilities does the LMS provide for student enrolments, course allocations and payment of fees?

In the case of UU, this is done by Registry using the existing student record system (Oracle based)

4.2 *Passwords and security.* How successfully does the LMS handle student access to the system and the security of all student interactions with the system?

Access is via a username / password (the latter can be maintained by the student)

4.3 *Student records database.* How successful is the system's student database, especially for data storage and data retrieval.

4.4 *Examination and certification records.* What structures are provided for recording of data and results leading to examination and certification?

This has not yet been implemented by UU

4.5 *Course, class and tutors database.* What facilities are provided for administration of courses, classes and tutors?

This can be done at a central or course designer level

5 Technology (quality of software)

5.1 *Server - hardware and software options.* What is the quality of server hardware and software options? How is the system integrated with existing software?

5.2 *Client - hardware and software options.* What is the quality of client hardware and software options? Does the system permit metatagging?

5.3 *Flexibility of didactic structure; updating, adaptability.* Is the didactic structure flexible or is it determined by the technology? How adaptable is the technology to updates and to new technology that becomes available to the market?

As noted earlier, we chose WebCT as we felt it was the most educationally flexible tool on the market.

5.4 *Limitation of size (number of students, courses, tutors..)* How satisfactory is the LMS for handling varying numbers of students, courses, tutors? How does it cope with 100, 1000, or 10000 students and large course databases?

We have created over 7000 courses and enrolleds over 24000 students and the system has coped without a problem

5.5 *Speed of system.* How is the speed of the system and student satisfaction? How does it cope with downloading courses and high bandwidth materials?

6 Price

6.1 *Cost of the LMS (Learning Management System).* What is the cost of the LMS to the institution?

6.2 *Annual fee.* What fees have to be paid annually for the system by the institution?

6.3 *Student Enrolment fee (100 students, 1000 students, 10000 students.)* How do fees to use the LMS vary when the student base is 100 students, 1000 students, 10000 students? Is online invoicing available?

6.4 Maintenance costs: staff involved in management, IT specialists, trainers, etc
What is the maintenance course to the institution of the LMS and what staff resources are need to maintain it and keep it functioning?

6.5 Training of teachers and learners and system users. What costs are involved in staff and student training to use the LMS system?

Pedagogic training of staff is necessary if staff are to get real benefits from using WebCT

Conclusion: Overall evaluation:

We have found WebCT to be an excellent tool for implementing e-learning across the institution

What features would you like to see included in this LMS in the future?