Brockenhurst College

1 Introduction

Brockenhurst College, located in the New Forest, is a tertiary college providing Sixth Form and Adult Education for South West Hampshire and East Dorset.

Courses include professional, vocational & AS/A Level courses, Foundation Degrees and Higher National Diplomas (HNDs) & Higher National Certificates (HNCs). This provides a context and emphasis, which is radically different from e.g. Universities or Higher Education colleges.

Many of the general aspects of what a Managed Learning Environment is, can be or can offer are not essentially different when applied in Brockenhurst's Tertiary College context, but both the development routes taken and the choices and prioritisations during development and implementation of MLE components are clearly different from what is typical in significant parts of Higher Education.

2 ICT and ILT profile of Brockenhurst

Facilities at Brockenhurst have developed rapidly in recent years. A College-wide computer network allows students to access their files and the Internet whilst working in any of the computer areas. The main buildings are in part served by a wireless network.

In 2001 a major building project provided a significantly extended Learning Resources Centre. There are over 170 study spaces in a variety of areas including a separate silent study area and a quiet study zone. A wide range of multimedia CD-Roms are available.

The Learning Resources Centre includes a large Information and Learning Technology (ILT) Centre giving access to a large number of computers, which can be booked in advance. Colour printers, scanners and a CD copying facility and a range of software are available in the ILT Centre.

Over £1,000,000 was spent on IT equipment / infrastructure in 2000 - 2003; there are data projectors in about half of the classrooms and a computer in each classroom. Internet access is freely available for students, together with a number of Internet-based information services to which the LRC subscribes.

3 MLE development in Brockenhurst: Emily at the centre

Brockenhurst College has an MLE Strategy Group, which includes the Principal and all SMT plus various technical, finance, MIS and curriculum managers. The MLE Manager reports directly to this group, which ensures short and effective lines of communication. The group has been established recently and from a short discussion with members of this group it has become very clear that the priorities and drivers are different from what is typical in the university sector.

A key observation is that where university sector MLE developments and strategies often develop from existing or intended activity centred on course-related content and communication provision through VLEs or intranets, this is not the case in Brockenhurst. Initial activity seems to have centred around three specific and related areas of activity, which are core to the college operation:

- Student registration and progression
- Adherence to Curriculum Standards
- Mentoring and tutoring
- Timetabling
- Development of (more) accurate and timely management information

It seems likely that these activities have a high priority for many tertiary education institutions, reflecting the profile and age of their student population, the structure of their curriculum, the pedagogical approaches taken and the legal, standards and inspection frameworks in which they operate.

Information advice & guidance for and monitoring of students at Brockenhurst is extensive and sophisticated and relies on detailed, accurate and up-to-date information on student performance, progression and targets. This is reflected in termly Individual Learning Plans (ILP), developed and monitored jointly by mentors and students.

Consequently, early on, the emphasis has been on integration of systems and services and on interoperability issues across the colleges, and less on the creation of course-specific facilities and content.

The Emily system, developed in house, reflects these priorities at Brockenhurst and can be seen as a core component of an emerging Managed Learning Environment for the College. It primarily supports the creation and monitoring of information relating to Individual Learning Plans and is used by all mentors to access and update information directly during mentoring sessions. It is linked to an in-house developed web register system based on ASP.Net, which has replaced an earlier (wireless) student registration called EARS from BromCom.

4 Technology choices

Platforms and technologies in use at Brockenhurst College include: .net and Java web service technologies, Enterprise Web Services (EWS), The Microsoft® Class Server Learning Management System and e.g. iCalendar / xCal specifications as possible formats for timetable exchange.

Considerable development and integration activity is undertaken in-house. This seems to be an important element of the approach taken at Brockenhurst College, - the next section provides further details.

5   Development route and future

Brockenhurst has chosen a route, which is characterised by in house development work, based on integration of standards-based components, using open and modular frameworks such as ASP.Net. Trials are underway using this approach to provide single sign-on into Emily from Sharepoint (for staff), and viewing of live timetables within Sharepoint for both staff and students.

This is continued and significantly extended in a project, started in May 2004, called Sweet.Net (service oriented student records and timetable data) funded under the JISC elearning frameworks programme.[1] The intention is to facilitate the integration of commercial, home-grown, and open source components and applications within institutions and regional federations, by agreeing common service definitions, data models and protocols.

The project is designed to address some common scenarios which appear time and time again during institutional MLE development, including:

- Appropriate access rights to content and services for students and staff; Smaller applications which also need to be aware of up-to-date class lists, locations of people and groups, enrolments and related data, without duplicating existing data; Single sign-on where possible.
- Providing staff & student access to timetables from e.g. institutional portals, mobile phones, messaging systems, Personal Information Managers, college calendars.

The overall aim is to address these common scenarios by piloting and publishing a toolkit to enable the adoption of a service-oriented approach. It intends to present MLE developers with an easy way to move away from duplication of data and functionality, and towards service orientation and will evaluate a "test driven" approach to software development. The complete toolkit will be made available through open source licensing for developers to use as the basis for their own MLE back-end projects.

Profile and Summary

Interestingly, aspects of systems integration which often become more central in the later stages of VLE / MLE development activity in the university sector, have been priorities from the start at Brockenhurst College.

In particular, the integration of end-user (e.g. academic or teaching staff and students) systems and back-office facilities has been and remains at the centre of attention when MLE related concepts are discussed and taken forward. The lesser emphasis on course-related online content (and thus VLE issues), seems to have facilitated this, but other factors have clearly contributed, including more prominent and frequent student support and progression monitoring, and relatively short lines of communication. The issues and requirements of e.g. Individual Leaning Plans

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[1] http://www.jisc.ac.uk/index.cfm?name=sweetnet

and student tracking have driven activity and underpin and focus development priorities.

The main incentives for MLE related development work at Brockenhurst include:

- Requirements for Student registration and progression;

- Adherence to Curriculum Standards;

- Student mentoring and tutoring;

- Timetabling and dissemination of timetable information;

- Opportunities for development of more accurate management information

Brockenhurst College has started to address all these issues through development and implementation effort, mainly resourced internally by the College, with some external funding elements.

Key characteristics of the approach taken by Brockenhurst College include:

- High level input into the MLE development activities and strategy is ensured through a dedicated MLE Strategy Group, including the Principal and Senior Management Team, plus technical, finance, MIS and curriculum managers;

- The development route(s) taken and the choices and prioritisations during development and implementation of MLE components are different from what is typical in significant parts of Higher Education;

- Development effort characterised by in house development work, based on integration of standards-based components, using open and modular frameworks.

- External (JISC) funding has been attracted to take forward the integration of commercial, home-grown, and open source components and applications and to share the resulting products and lessons.