INTEGRATING LIBRARY SERVICES AND RESOURCES AT THE OPEN UNIVERSITY

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This paper was presented at the cpd25 Conference, London, on 23 April 2007. It gives an overview of the development of the Open University virtual learning environment (OU VLE), using the Moodle open source solution. In particular, this paper provides information and illustration of the Moodle enhancement projects that are being led by the Library, and the new e-portfolio system-MyStuff-into which the Library is having significant input. The paper concludes by indicating how involvement in the development of the new Library website, called Open Library 2.0, and in the OU VLE, has benefited this work and the overall reputation of the Library.

Background

The Open University (OU) has around 200,000 students with almost 10,000 declaring a learning difficulty or disability.

The main method of learning and teaching at the OU is through course packs, written by course teams, that are printed and sent out to students from a large distribution warehouse. Supplementary materials only are made available online through course websites with general information and contact with student services provided through a website called StudentHome. The course packs are of high-quality and students like them. They also appreciate the support they get from StudentHome and the 8,000 or so associate lecturers/tutors who are engaged in supporting students in the regions. So much so that the OU is consistently at the top of the student satisfaction survey of higher education institutions.

However, this approach involves large production costs and long timescales, making updating materials difficult and slowing down responsiveness to requirements for new courses. Duplication between resources and materials provided for courses is also inherent in the paper-based system. This and the opportunities offered by e-learning to work more flexibly and attract more students, has led to the decision to develop and enable the widespread adoption of a virtual learning environment (VLE) at the OU.
Background of the OU VLE Programme

In 2005, the decision was made to develop an open source VLE called Moodle. The main benefits of this are that the OU can maintain control of future directions and developments, and at the same time, be part of an international community of Moodle users, contributing to and learning from new tools and techniques. Much of the source code of the tools being developed as part of the Moodle enhancement projects will be made available to the community for further implementation and development. In addition, the OU has commissioned the Moodle team to develop the core system in ways that will benefit other Moodle users, in particular, improvements to accessibility for learners with disabilities.

The widespread adoption of Moodle will enable the OU to:

- support a rich range of pedagogies;
- streamline and personalise the student experience;
- enhance student support and improve retention;
- facilitate collaboration with partners and entry into new markets.

Moodle Enhancement Projects

Following extensive consultation, several particular Moodle enhancements have been identified, and a programme of projects has been set up, led by a Programme Manager and OU staff seconded from different units. The projects are running from April 2006 to July 2008 and aim to develop or improve:

- communication and collaboration tools – to build upon existing use of FirstClass conferencing to offer wikis, blogs, forums and mind mapping tools;
- e-portfolio – called MyStuff, helping students manage their own learning better, and support transition between courses. More information on MyStuff is provided below;
- calendars – to help students in managing their learning time by offering a greater choice of calendar services with enhanced functionality;
- e-assessment – to improve assessment tools in Moodle in line with OU requirements;
- mobile technologies – to enable the OU VLE to be accessed from mobile devices;
- integrated online experience – to explore how best to present the OU VLE and StudentHome as a single, seamless system for learning management and support;
- learning design – to increase knowledge amongst course teams and associate lecturers of the different pedagogical approaches available to them when using the OU VLE;
- federated search and integrating library resources – these are Library-led enhancement projects and further details are provided below.
e-Portfolio

A new e-portfolio system, called MyStuff, is being created by the OU as a Moodle module to support students in managing their own learning better, and also to support transition between courses. It is hoped that retention and achievement will improve as a result of the widespread use of MyStuff.

Figure 1 shows a view of the introductory page in MyStuff and the range of personalisation options available, including contacts and ‘who’s sharing stuff with me?’.

Figure 2 shows a view of MyStuff, giving options for students to reflect, create specific items, and share with others. Templates have been created to help students in performing certain activities, e.g. writing a CV and job application letter.

Federated Search

The aims of the federated search project are to make it easier for students and staff to search and find relevant resources by:

1. enabling the existing internal search system to search across all OU websites;
2. developing a new search interface and results pages; and
3. enable expert collections of academic journals, e-books and databases, subscribed to by the Library, to be integrated in the internal search system.
Currently, aims 1 and 2 have been achieved. Figure 3 shows the internal search interface with check boxes to allow collections to be selected/deselected in the search, ensuring that results are more relevant. Search options are course materials (staff can search all course materials, students just have access to those courses on which they are registered); online prospectus; freely available resources; other content. The three latter options can also be searched by visitors and members of the public.

As tools from the other Moodle enhancement projects become available, these will be added to the options in the search interface. For example, students should also be able to find results from their MyStuff and/or blog entries. In addition, they should have the option to save search results in their MyStuff.

Figure 4 shows the federated search results page which has been developed to give a more ‘Google-like’ experience. Search terms are highlighted, results are ranked and clustered to enable users to assess the effectiveness of their search.

With regard to the integration of Library expert collections into the new OU search system, a new commercial federated search tool is being procured that makes available an application programming interface (API) using the XML standard protocol. It is hoped that development work will commence in July, and the new combined Library and internal search will be available by the end of 2007.
Integrating Library Resources

The aim of this project is to supply students and course teams with seamless access to a digital library of resources for use within the VLE, and targeted at specific points in their course or learning journey. The first phase of the project involved using RSS (RDF site summary/really simple syndication) technology to develop a tool to provide the technical means for delivering current library resources into course materials, delivered in Moodle-based course web sites. Figures 5 and 6 show the staff view of the tool, where Library resources feeds can be mixed with other relevant RSS feeds and presented within specific blocks or weeks of a course of study.

Figure 7 shows the student view giving the link to the website or article and a short description. In this case, the source of the RSS feed is ROUTES, the OU Library’s database of relevant freely available websites that are tagged with course codes.

More work is currently being undertaken to improve the ease of use of this tool. In addition, phase 2 will look at wider issues of using library collections and services more effectively at personal, course and programme levels, and will include further developing and implementing RSS technologies to enable the automated delivery of library resources and services directly into the OU VLE, the e-portfolio, MyStuff, or other alternate learning web spaces provided for users.

FIGURE 3
Internal federated search interface
particular, the Library will have significant input into phase 2 of MyStuff development, exploring integration into MyStuff of bibliographic management tools for creating citations as well as identifying and addressing skills requirements for personal information management.

**Open Library 2.0**

In parallel with involvement in the Moodle enhancement projects, the OU Library is also redeveloping its website in a project called Open Library 2.0. It has to be remembered that for OU students, the Library website is the Library, since most will never visit the physical Library building. The vision for Open Library 2.0 is to take advantage of so-called Web 2.0 technologies to develop further our provision for students and to ‘synthesise, specialise and mobilise’ (Dempsey 2004) information, offering Web and web-based Library services, delivered to wherever the user is working. The new Library website will be launched in autumn 2007.

This project has benefited greatly from the Library involvement in the OU VLE Programme by building upon some of the skills and tools developed. It has also been able to take advantage of the collaboration with other units, which has been a valuable feature of the OU VLE Programme, in order to gain greater awareness and support for Open Library 2.0 from other units in the University. Through this collaboration, we have also been able to position Library Services in
Integrating library resources through RSS feeds

FIGURE 5
Staff view of RSS feed tool

FIGURE 6
Staff view of RSS feed tool showing lists of feeds allocated to a Moodle course block
the wider University context, and demonstrate our willingness to integrate rather than duplicate provision for our users. We hope that this will allow us to demonstrate where the Library adds value by providing unique services, thereby reinforcing the reputation of the Library within the OU and beyond.

Reference


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