Supporting the N Gen Learner by Integrating e-resources Within a University VLE

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Abstract E-learning has become an integral part of many students' learning experience. Over the last three years the availability of e-books and e-journals has increased dramatically and in many higher education libraries there has been a steady movement from print to electronic materials. At Bournemouth University over 50% of the total Library budget is now spent on electronic resources. In some Schools within the University it is in the region of 70 %. The ways in which students are using the resources are changing. In 2005, the number of electronic downloads from databases, e-books and e-journals, far exceeded the number of books borrowed. Statistics gathered from the Athens authentication service make it clear that many students access the resources remotely, and some rarely visit the Library.

In 2005 Bournemouth University decided to implement a single VLE across the University and following many discussions and an extensive tendering process Blackboard was selected. The aim was to approach the potential of Blackboard from the perspective of our learners and so chose the unit of study as our standard for integration, which is the equivalent of a course in Blackboard. Thus the focus was on providing the materials where they would be most accessible to the students.

The first phase of the implementation, involving the roll-out of the Blackboard to four Schools, presented an opportunity to review the Library provision and identify what could be done better at the unit level. There were several areas which had presented challenges for some time, namely the provision of reading lists, management of the Short Loan Collection and the storage of past exam papers. Implementing Blackboard gave us an ideal opportunity to address these problems.

This paper will look at what has been done in these areas, and how the use of Blackboard can be tied in with the information skills sessions already being delivered by the Library Subject Teams and materials already available on the Library web page. It will also consider the second phase of the implementation and the opportunities it will present.

Net Gen Students

Higher education institutions have to adapt to a new type of student, one who has grown up with different expectations and needs than previous generations. Oblinger and Oblinger (2005) categorise people based on when they were born. The main categories are Matures (born between 1900 and 1946), Boomers (born between 1946 and 1964), Generation X (born between 1965 and 1982) and the Net Generation (born between 1982 and 1991). It is this final category, the Net Generation (Net Gen), who has the biggest impact on the way we will deliver higher education in the 21st Century. They are the first generation to grow up with new technologies such as computers, ipods, mobile phones and the internet. According to Oblinger and Oblinger (2005) the world can now be divided into two camps, digital immigrants, who have had to adapt to using the new technologies and digital natives who have grown up with them. Traditional teaching methods have always centred on the academic as the keeper of knowledge, disseminated through lectures and seminars. This new generation requires different delivery methods, with the emphasis on experiential learning and active engagement (Skiba and Barton 2006). The Net Gen student thrives on peer-to-peer experiences and group work.

> "Only by understanding the Net Generation can colleges and universities create learning environments that optimize their strengths and minimise their weaknesses". (Oblinger and Oblinger 2005)

The academic library once was perceived as a quiet place of order where books and journals were acquired, catalogued, stored and possibly lent to one individual at a time. The 1990's was the decade that saw exponential growth in e-resources which began with e-journals. The words "The Internet changes everything" were first used by the New York Times in 1998 and reused by Bill Gates shortly thereafter. A phrase could never have been more apt, the proliferation of the web as a source of knowledge was seized upon by academic librarians as a way of enabling access to knowledge of truly Alexandrian proportions. Suddenly the concept of information being accessed anywhere any time became a reality. No longer were academic collections limited to what could be acquired and housed in library buildings.

The 21st century has seen the Net Generation embark on their higher education studies and with their arrival on campus, libraries needed to not only provide access to an e-library of ever growing proportions but also to provide services that enabled their favoured social learning.

> "To remain what it is, the library must change .. if it does not change, it will not remain what it is". (Penniman 2005)

Academic Librarians have been engaged in educating their users since the 1950's. Urquhart (1957) wrote that "Libraries (in technical colleges) should be treated as an essential part of the educational apparatus. The student should be taught how to use libraries and sources of information to keep themselves up to date". But in the 21st century, the Google phenomena, where it was perceived that everyone could be their own librarian without any training, meant a radical rethink was needed. Were academic standards under threat? Would students engage with recommendations on reading lists that were not predominantly "e"? How could librarians, academics and learning technologists develop new ways of working together that might ensure both information and e-literacy? How could it be claimed that the Net Gen students were reading for a degree once more?

One approach to finding new ways of enabling and encouraging students to use appropriate and authoritative resources in their learning is by integrating learning resources into the VLE alongside innovative ways of developing information literacy. (Beard *et al* 2007).

Bournemouth University

Bournemouth University adopted Blackboard as its VLE in 2005. When it was launched at the start of the 2006 academic year an alumnus won the competition to name the VLE and it is now known as myBU, a name that personifies a personalised view of learning. The first phase of the rollout of myBU was to implement it in four out of the six Schools within the University. The University Library and Educational Development Services (EDS) worked closely together throughout the implementation. The Library was keen to find ways of integrating resources into the learning experience. Impact surveys carried out over the previous two years had highlighted significant changes in the way that students were using the University Library. There had been a 20% decline in the use of printed resources and in 2005, for the first time, the number of downloads exceeded the number of books borrowed (Beard 2007). Over 50% of the total Library budget is now spent on electronic resources and in some Schools the percentage is in the region of 70%. The surveys showed a worrying lack of knowledge about the availability of reading lists on the library management system and some academics expressed concern that students were placing too much reliance on information found from unstructured internet searches. The timing of the introduction of the Blackboard Academic Suite triggered a project to integrate the Library resources into myBU wherever possible at the unit level. It has given the Library staff the opportunity to address a number of challenges with their academic colleagues such as managing reading lists more effectively, providing electronic access to exam papers and overcoming the limitations of insufficient copies of core printed texts. It has also enabled them to take advantage of their close working relationship with the Learning Technologists and to embed resources deeply within courses.

Reading Lists

Reading lists have been available on Talis, Bournemouth University's library management system, for a number of years. The inclusion of an increasing number of electronic resources on reading lists has made it crucial that they are kept up to date, and the Library Subject Teams, although working closely with their academic colleagues, struggled to try and ensure this. The introduction of myBU presented the Library staff with an opportunity to rethink and streamline the process. It enabled them to make reading lists available at unit level in every related myBU course; a process which it is hoped will develop a new kind of partnership with their academic colleagues. The link on myBU at course level means that staff and students are only one click away from the resources.

During the summer of 2006 members of the Library Reading List Team added a link to each course navigation menu to the relevant Talis reading list for that unit, resulting in over 900 reading lists for the four schools within myBU at its launch. Users can view their reading lists and also access the library catalogue through the interactive link giving location and availability of that item, or directly connect to the e-resource.

Some of the reading lists were found to be out of date or missing from Talis so academics were contacted by the Library team with the result that by February 2007 among the four Schools who were already using myBU, only 98 (9%) of myBU courses did not have a reading list attached. These units were for the most part not traditional units and no reading list was required.

Positive feedback has already been given by both academic staff and students at various Library Review Group meetings and Course Team Meetings. This has resulted in raising the profile of the Library within the University and further strengthening the links between academic and Library staff. The myBU student survey conducted during March and April 2007 revealed that now over 43% of respondents were using the reading lists in myBU. This percentage was up from 23% before the myBU integration into units of study.

Past Exam Papers

Past exam papers had previously been made available in printed format within the Short Loan section of the Library, however this "one person at a time" access was fraught with problems of theft and vandalism. Electronic versions of past exam papers for the last three years were initially made available via the university portal, to ensure students belonging to schools not yet using myBU were not disadvantaged. During the 2006-07 academic year electronic versions of past exam papers were also stored within the Content Management (CMS) area of myBU.

Figure 1 Folder Structure for Exam Papers

These have been organized within a folder structure (see Figure 1 above) to allow users to easily locate the documents, the top level being the School, with subdivisions of programme, level and unit title.

Staff and students are able to browse all folders. Although the CMS is currently only directly available to staff, access has been provided to students via prominent links in myBU and from the Library website. Academics are also being encouraged to integrate this resource at unit level by providing a link to the relevant past exam paper from their myBU course areas. This makes the papers more visible and easily accessible to students. Results of the myBU Student Survey showed that 48% of students who responded were using past exam papers in myBU.

eReserves

The introduction of a CLA Scanning License in the summer of 2006 and the implementation of myBU has allowed revision of the way that printed materials in high demand can be managed and exploited more fully. Like many university libraries Bournemouth has a Short Loan Collection. This took a great deal of staff time to manage but could never deliver access to more than one student at a time. Like exam papers this made the collection prone to misuse and vandalism. One solution to this problem was to make use of eReserves on myBU. eReserves are located within the Library Content section of the Content Management System (CMS). The eReserves function on myBU, which creates a separate folder for each course, has enabled the Library to store book chapters and journal articles in electronic format. The documents are then linked to courses at unit level.

In 2006 journal articles stored in the Short Loan Collection were scanned and added to myBU. There are some frustrating limitations restricting scanning to single chapters or articles from UK published works held in print by the Library. The items have to be precisely assigned to the group of students who are to use the extract. This was where myBU was an essential and enabling component. Academic staff can point to the articles within the units of study either with timed release or for a whole term or year. Despite the limitations on

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what can be scanned, the decision to exploit the potential is already making a significant difference to access. Library staff control the process to ensure all scanning is within the terms of the license and appropriate records are kept.

The initial pilot has proved successful and use of eReserves is increasing steadily. Feedback from staff has indicated that the functionality of eReserves is a huge advantage in being able to deploy content in this manner. In the first three months 96 documents had been placed in eReserves folders. Our Institute of Health had over 50% of the articles giving testament to the opportunity for access on and off campus and simultaneously by the large numbers in nursing cohorts.

A benefit of the pilot was the opportunity to discover issues which needed to be resolved as the scanning increases. Scanning book chapters in particular resulted in large PDF files being created, reaching 13MG in some cases. This caused some problems for students trying to download the documents, particularly off-campus if the students did not have broadband.

Following consultation with the RNIB and the wider library community and Adobe, Adobe Professional Writer 8.0 was purchased and used successfully to reduce even large files to under 1MG.

However, although the problem of file size was solved, another issue arose regarding accessibility. Scanned documents produce image files, which are not accessible to visually impaired or dyslexic students who use screen-reader software. It was necessary to apply OCR to these documents, so that the images could be converted to text, ensuring they were accessible. Once again this resulted in increased file sizes which could not be reduced after the application of OCR. While the ultimate aim is to provide documents in eReserves which are both small enough to facilitate downloading and accessible, no solution to this has yet been found. Currently a workaround process is being developed whereby students with additional learning needs are made known to the library technology team who add materials to eReserves. The staff will then ensure an accessible version of the documents can be made available to these students, possibly by email. However research will continue to try to find a solution that meets all requirements and ensures compliance with the QAA Code of Practice for Students with Disabilities.

Future Developments

The second phase of the myBU implementation will give us even more exciting opportunities. More developments to myBU's CMS will include the use of the Institution Content area to facilitate the management and sharing of documents across the university. An Institution Content group has recommended the use of the Joint Academic Coding System (JACS) to

classify materials made available in the Institution Content area. JACS has been developed jointly by HESA and UCAS and is used by institutions including the Department for Education and Skills (DfES), HERCE and HESA. Four pilot areas will be created in the CMS: Biological Sciences, Physical Sciences, Business and Administrative Studies and Education. One potential area is to develop ways in which students can access and contribute to resources created by academics.

Further integration of learning resources at unit level can be facilitated with the use of Course Cartridges. Course cartridges provide text, interactive and multimedia content developed by publishers which relate to specific textbooks, and which is fully integrated into a Blackboard course. Three course cartridges have been installed in myBU courses in the 2006-2007 academic year; however it is expected that demand for these will increase and more will be implemented in the next academic year. Subject Librarians are in the process of scoping titles available within their subject area with the objective of promoting and advising academics on suitable course cartridges for their units. The academics want a solution to the problem of how to deliver course materials more effectively, the learning technologists have worked to find a way in which to deploy the technology and the librarians are tasked with helping to find out which course cartridges are available. Yet another example of how closely these three groups are working together.

In 2007, after taking part in the HEA e-benchmarking project, Bournemouth University made a successful bid for HEA Pathfinder Project funding. The award of funding recognises the depth of work already being undertaken in integrating learning resources into the VLE. The project aims to enhance the student learning experience by developing learning activities which utilise the e-resources chosen by academics to reside within the unit of study. The project funding will enable case studies to be documented that illustrate different pedagogies that may contribute to developing an e-reading strategy. Typical activities might include an individual learning from feedback from quizzes relating to e-resources to test their knowledge or encouraging students to develop critical thinking skills by comparing and contrasting e-resources. Whilst student activity may begin with directions to using, for example, scanned literature, it is anticipated that students will engage in a wide range of social learning and use different models for resource discovery. With the help of the learning technologists, it is intended to make available social bookmarking, federated searching and resources chosen by academics and librarians. The librarians will facilitate the development of e-literacy by expanding the scope of their information literacy activities. The project will also result in guidelines being produced that document the appropriate support required by academics from librarians, staff developers and learning technologists. The Pathfinder project entitled 'e-Res' enables the learning technologists, librarians and staff developers to develop new ways of

collaborating with each other, which in turn will offer more opportunities to exploit the potential of the VLE.

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Biographies
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