Supporting staff using WebCT at the University of Birmingham in the UK

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Abstract: At the University of Birmingham, Information Services, together with the Staff Development Unit and the Learning Development Unit have been working together to set up a number of initiatives to support staff to use WebCT to underpin its learning and teaching strategy within a flexible framework. The framework seeks to invest in developing appropriate skills and training for University staff to ensure that the quality of the content and the communication tools within the WebCT environment are fully exploited to enhance the student learning experience. Developments include the establishment of an e-Learning module, team based projects from the Learning Development Unit and a WebCT training and support pathway.

1. Introduction

The JISC Managed Learning Environments Information Pack (1) suggests that

> *"the implementation of a VLE [Virtual Learning Environment] without significant investment in developing staff will almost certainly not produce good results".*

At the University of Birmingham these sentiments formed the basis upon which a Virtual Learning environment was implemented. The University had adopted WebCT as a tool underpinning the learning and teaching strategy and to support developments in e-Learning. Staff within Information Services, Staff Development Unit and the Learning Development Unit have been working together to invest in developing appropriate skills and training for University staff to ensure that the quality of the content and the communication tools within the WebCT environment were fully exploited to enhance the student learning experience. In order to move to this position a number of developments took place to ensure the benefits of e-Learning were fully realised. These developments included the establishment of an e-Learning module, team-based projects from the Learning Development Unit and a WebCT training and support pathway.

2. A University in the 21st century

The University of Birmingham was established by Royal Charter in 1900. It has approximately 24,000 registered students, which comprise undergraduates (c16,500), taught post graduates (c4500) and research postgraduates (c2500). The University undertakes teaching and research in 34 of the 42 subject disciplines as currently defined by the Quality Assurance Agency. The university is a research led institution with a national and international reputation reflected in its membership of organisations such as the Russell Group and Universitas 21. As a well-established campus based University, Birmingham has also developed standards of provision and quality of a learning environment well suited to the changing demands of students, whether these students are undertaking learning on a part time basis or from a variety of locations. As part of the University developing and adapting its provision in the light of the changing environment within Higher Education, consideration has been given to developing teaching and learning within flexible frameworks. The flexibility seeks to maintain and enhance the established strength of this civic University in order to respond to the challenges and opportunities represented by increasing student numbers, national plans for the expansion of Higher Education and the Life Long Learning Agenda. Entry of students into Higher Education via non-traditional routes, with different skills and prior qualifications underpins the benefits afforded by the technologies within the managed learning environment and the possibilities in learning and teaching.

Support for this development and integration of a more learner-centred approach to student learning is provided by Information Services at the University of Birmingham. Information Services is an amalgamation of library, computing and multimedia services to form a coherent whole to support the learning, teaching and research carried out at the University. Information Services is managed

through a number of Divisions including a Learning and Research Support Division which has a remit, amongst other things, to support developments and the changing basis of learning and teaching - such as e-Learning and WebCT. The Learning and Research Support Division also houses the Learning Development Unit which was at the forefront of pushing the e-Learning agenda.

After lengthy discussion across the University, it was agreed that the WebCT package would provide the necessary functionality and ease of use of a VLE for staff and students at the University. After several tests of the main products it was agreed that the University of Birmingham would provide support for, and standardise on WebCT. At the time of writing Version 3.6.3.8 is supported. WebCT was also the largest known product at the time and there were no CHEST deals (Higher Educational Community software) for any VLE. Subsequently, the package was specifically identified within the learning and teaching strategy of the University.

2.1   The Learning Development Unit (LDU)

The Learning Development Unit (LDU)(2), which was set up in September 2000 supports the University's Learning and Teaching Strategy. It aims to enhance the quality of learning and teaching using a number of approaches including:

- Working with the Staff Development Unit [SDU] to provide training in flexible learning methods for academic and support staff.
- Working with the SDU, the Academic office, Information Services and other interested parties to ensure that infrastructures are developed to support flexible ways of learning and teaching
- Ensuring collaboration, development and dissemination of effective practice in learning and teaching innovation.

The Staff Development Unit ensures that staff are able to acquire the skills, knowledge and expertise to carry out their duties. In order to achieve this, the LDU fund and support a number of team based projects to develop best practice in developing, implementing and supporting learning and teaching. A number of these projects involve developments in e-Learning and are discussed below.

3.   Learning Development Projects

The HEFCE Teaching Quality Enhancement Fund funds the LDU and the projects it supports. The LDU aims 'to encourage pedagogic developments by funding projects that integrate flexible ways of learning and teaching into the mainstream curriculum'. The University originally envisaged that members of academic staff would be seconded to projects for up to half their time. However, in practice a team-based approach has been adopted. This involves a number of people who have been seconded for smaller amounts of time, to a total of up to maximum 0.5 of an FTE. Bob Hunter, the Director of the LDU, encourages this team-based approach and most projects involve a mixture of School and Information Services staff, right from the initial bidding stage.

Applications for funding are reviewed by the LDU Advisory Board. The criteria for funding include
- Approval by the Head of School and the Director of Learning and Teaching within the School, including a commitment to use some of the funding to provide cover for staff who are seconded to the project
- Evidence that the project will support the University's and the School's Learning and Teaching Strategies
- Evidence that staff development needs have been identified
- Strategies for evaluating the project and disseminating the lessons from the project
- An indication of how the innovation will become embedded within the work of the School
- Evidence that the lessons learnt from the project will be transferable to other Schools

The LDU also provides bookable office space for Project Leaders and members of project teams. This enables staff to get away from their own offices to a place where they can concentrate on project work with relatively few interruptions. It is also a place where people working on related projects can get together to share ideas and good practice. The PCs are equipped with a wide range of software, including the standard suite of MS Office software and a range of applications for producing web based learning materials. Such support ensures that staff at the University can be assisted in the management, development, implementation and, perhaps more importantly, appropriate evaluation of their projects.

3.1 Examples of LDU Projects

Since its inception in 2000 the Learning Development Unit has supported and developed in partnership with academic staff a number of projects to encourage pedagogic developments in the use of WebCT. Although these projects differ in terms of the Schools they emanate from, a number of common themes across the projects have emerged. By considering some key examples of projects supported it is hoped to provide a flavour for how WebCT is enhancing the learning experience of students at the University of Birmingham, as well as to produce more pointers for ensuring that the features of the managed learning environment employed (ie WebCT) are being fully exploited. Use was being made of WebCT to overcome some of the current challenges afforded Higher Education (identified in the introduction to this paper). It was also becoming clear as these projects began to be evaluated that staff felt that they did not always have the requisite skills to fully exploit the VLE tool or to develop their students within the online course. It was also felt that the project leaders for these LDU projects would become WebCT champions to raise the profile of the VL and to ensure that is it used effectively and widely. The projects could then become examples of good practice and encourage others to explore the different options.

3.2 Enhancing the Learning Experience of Off Campus Students

- On-line learning support for students on fieldwork placements

This project sought support for students on a Community, Play and Youth course. The main aim was to ensure that students were able to gain valuable experience from the placement element of their course. In particular, that students would not feel isolated when on placement as they would be able to use WebCT to facilitate better communication between students and their tutors and amongst the students themselves. WebCT was also used to administer the placements and deliver information to students about assessment requirements. The Project leader noted that "there has always been a danger that placement was regarded as "real life" and university as "academic life". For the LDU project it was decided to see if the introduction of "virtual life" could help bridge the two worlds. In evaluating the success of the project a key lesson came to the fore. That is, should one introduce new WebCT courses with new

students? First year students were happy to make use of the online support environment, as they knew no different. However, it was found that students who had experienced different forms of support (telephone calls from tutors, appointments with tutors) that there was "unanticipated active resistance" from the existing students. Further, the project leader felt that she was not all together clear how she had expected the students to make use of the communication facility. The suggestion was that the tutor needed more experience of managing the communication tool.

3.3 Developing learning communities

- Public Sector MBA

The use of the communication tools such as discussion boards and email has resulted, according to the feedback from students, in providing more confidence to these students to take part in face to face learning such as tutorials. Students also report a sense of "Class Culture" being developed online. By ensuring that the course content section was utilised fully students were provided with the opportunity for reflection on seminar material. Non-native English speakers, who were able to prepare more confidently for face-to-face seminars and use WebCT as a revision tool, especially welcomed this. The project leader, on reflection, suggested that there was more opportunity for developing collaboration with other tutors for integrating online resources of use to the students as part of their course and for revision purposes.

3.4 Development of Generic Skills

Students arriving at the University bring with them a wide variety of Information and Communication Technology skills making it quite difficult to deliver a suitable "one size fits all" ICT training. This is made even more difficult if the traditional delivery methods are used as there are basically too many students and not enough resources. As a result, a blended approach to ensuring that students have access to a variety of learning materials which support the development of their generic skills. The project is based on the Impetus training materials for Microsoft office applications, combined with locally produced materials, all of which are to be delivered using WebCT. Students can then make use of the available resources as they see fit, dependent upon their individual needs. Although this is not intended to replace face to face training for students who are complete beginners it is intended to help bring all students up to an acceptable level of ICT skills in order that they may complete the rest of their degree

programme adequately. The main difficulty for this project has been the lack of experience of the programme tutors in adding appropriate content and writing materials in a style required for this sort of environment.

3.5 Using ICT for Assessment

- Computer-based student centred learning and assessment resources – Highway Management & Engineering
- Physiotherapy

These projects looked to the WebCT environment to develop the assessment aspect for their modules. The courses sought to integrate a link between the written assignments or quizzes and the documentation or other media within WebCT. For example, the Physiotherapists use video clips on CDROM about how to examine for a particular scenario and this is then linked back into the WebCT environment for the students to answer specific questions which are then assessed. This is a useful blended approach using a mix of media to enhance the learning and teaching experience of the students. However, the project leaders felt that there was more scope for developing the assessment approach being supported in this environment which was not being fully exploited in this project.

It was becoming apparent, therefore, that more knowledge was required about the principles of E-Learning if staff across the university campus were to be fully supported in exploiting this developing environment. Further, if Information Services were to meet the challenge of supporting the University wide agenda of promoting a managed learning environment effectively then effort was required to set out a flexible framework of staff support. The difficulty facing the Learning Development Unit and Information Services was the range of staff with different needs. Some wanted help on writing materials for this environment whilst others on using new software.

The main area of concern for support staff centred on developing the principles and techniques of e-Learning pedagogy for staff to bring to bear on their projects and a deeper understanding that underpins current practice in online learning and teaching. Despite the fact that this was a fast developing area there appeared to be no course available (externally or internally), which met the needs of the staff at the University of Birmingham. Therefore an approach was made to two external consultants to work with the Staff Development Unit, the Learning Development Unit and Information Services to develop a module on e-Learning in Higher Education which would go some way to addressing the concerns rising out of the evaluation of some LDU projects.

The two external consultants had experience in promoting the use of flexible learning, had developed frameworks for accrediting key transferable skills and had been involved with e-Learning projects. The result was the creation of a module on e-Learning in Higher Education that sought to provide staff at the University with the knowledge and the theoretical content to undertake all aspects of online learning and teaching in Higher Education.

4. The learning outcomes of the e-Learning in Higher Education module

The course, created for the University of Birmingham, set out to develop knowledge and skills in e-Learning in Higher Education with the following specific learning outcomes:
- demonstrate knowledge of the underpinning theoretical content that currently informs online learning and teaching in Higher Education;
- critically evaluate online learning and teaching tools and resources within a managed learning environment;
- demonstrate good practice in supporting online learning and teaching;
- demonstrate good practice in developing online learning materials and programs including the use of online assessment tools;
- apply the processes of critical evaluation and reflection to your work.

It was aimed at anyone who had an interest in the delivery and support of e-Learning. At the University this meant that the participants were drawn from academic staff in a wide range of disciplines (Law, Political Science, Education); Information Services staff (Liaison Librarians responsible for liaison within Schools, Lab Managers and IT advisors) and Learning Development Unit staff.

This range of staff led to a very productive exchange of ideas and perspectives and helped reinforce the team approach to supporting E-Learning on campus.

The learning and teaching methods employed include:

- tutor led and student led online discussions and conferences;
- use of case studies and real life scenarios;
- project work involving working in one collaborative, one problem solving and two co-operative learning sets to produce specific reports or products (e.g: web-based learning resources or online assessment tools;
- Online seminars involving guest speakers;
- Open learning materials;
- Self, peer and tutor evaluation and feedback;
- Development of reflective practice using learning journals.

The structure of the course revolves around online participation by the participants within the managed learning environment (WebCT) based on four workshops. These workshops cover

- introduction to online learning and teaching;
- online tutoring;
- design of online learning programmes and resources;
- online assessment and evaluation of student learning.

On completion of the course participants obtain 20 academic credit points at M level towards the Postgraduate Certificate in Learning and Teaching in Higher Education and eligibility for the Associate membership of the Institute for Learning and Teaching.

Overall, the module covered the underpinning knowledge necessary for participants to undertake all aspects of online learning and teaching in Higher Education. This included coverage of underpinning theoretical content that currently informs online learning and teaching in Higher Education. Participants were able to develop their knowledge and skills in developing and using teaching tools and resources in a managed learning environment; online tutoring; design and development of online learning materials or programmes; assessment of online learning; The participants were encouraged to engage in and experience a number of different approaches to online learning, i.e collaborative problem solving and co-operative learning sets. Participants were encouraged to critically evaluate and reflect on the online work carried out.

Participants were expected to be online up to two hours per week but on reflection this was an underestimation of the need. There were a number of online activities - both individual and group centred work - which employed different learning styles from collaborative to co-operative. These online activities, often called e-tivities - helped to mobilise, engage and enable the participants to progress through the learning experience. The course also had guest speakers (experts in their field of study but drawn from a variety of locations - academics in Australia to researchers in Manchester) who contributed and added their valuable experience to the online discussions.

4.1 Support for participants

A key feature of the course, particularly given its online nature, is the role given to mentors to the participants. The mentor's role is really one of a confidential sounding board and critical friend. That is someone who can provide support and advice and help participants to adapt and adopt their ideas. The mentors were drawn from across the University and externally as well.

4.2 Assessment of the module

Assessment of the module has been on going since the start of the course and is based on a Portfolio of work.

4.3 Learning Journals

One aspect of assessment has been the use of learning journals to help chart progress, problems, challenges, thinking and development over the period of the course. The Learning Journal helps individual learners record developments and to reflect on the links between theory and practice. This journal has been kept since day one. It also forms part of the Portfolio of e-Learning Practice, which provides evidence of the satisfactory attainment of the Institute for Learning and Teaching learning outcomes and of adherence to the ILTs professional values, and thus fulfils the requirements for Associate membership of the ILT.

4.4 The Portfolio

The portfolio consists of examples of learning design and planning; learning support and the establishment of effective learning environments covering the defined learning outcomes of the module. The evidence in the portfolio demonstrates how the learning outcomes have been achieved through the process of critical evaluation and reflection. The examples in the portfolio are both descriptive and explanatory showing why certain pedagogical decisions were made and hence understood within the overall learning

context of e-Learning. The portfolio also shows how professional values have been integrated into the work as a supporter of learning. In particular it includes 30 hours in supporting learners online including 2 peer observations, 2 observations from the mentors and 2 tutor observations drawing upon the learning journal.

The pilot course started in November 2001 and has provided the participants with a better understanding of the theory and practice of e-Learning. This means that staff are more informed when extolling the theory and practice of e-Learning across campus offering practical suggestions and comments from real life experience. For example, having an appreciation for how group discussions may facilitate learning not just how to post a message within the environment!

At the time of writing, the pilot module is nearing completion. Feedback from participants and tutors has included two significant concerns about the course. Firstly, that there is too much material in the course and secondly that there was not enough time to devote to such a course. Despite the fact that material was taken out of the later units of the module in response to this problem, some participants still struggled to fit the coursework in around their work and other commitments. Some of the participants on the course also found that the latter half of the module, which concerns course design and content development, is not as relevant to their day to day work as the first half of the course. This is because many of the participants supported e-tutors and students on courses, which were created by someone else, and so have little control over the actual content.

5. E-Learning in Higher Education II

The next reiteration of the module has been modified to reflect this feedback. The next session will run as two 10-credit modules with the opportunity to apply for Associate Membership of the ILT on successful completion of the two modules. Each module will run for 10 weeks and assessment will be by portfolio.

- The first 10 credit module will focus on e-Tutoring and will be a pre-requisite to the second module;
- The second 10-credit module will focus on content design and delivery;
- The learning outcomes for both modules are very similar in nature to the overall E-Learning module with an emphasis on the

application of critical evaluation and reflection to the online work.

Both modules are aimed at different groups of staff that share a common interest in e-Learning: information services staff; academic staff; and school staff involved in the development of LDU and similar projects. Both modules run on-line and each are supported by two face-to-face workshops.

It is intended to run the first E-Tutoring Module from October 2002 to December 2002 with the E-Content Design & Development Module running from January 2003 to March 2003.

6. But what's it really like to be an E-Learner?

Staff at the University of Birmingham were, therefore, in a unique position to be developing their online skills whilst participating in an e-Learning environment. The participants were then able to come to understand and sympathise more fully with the student's potential online environment.

Formal evaluation of the course has not yet been completed, as the course only ended in November 2002. However, the Author carried out an email survey requesting responses to four questions only to help obtain some quantitative data for the purposes of this paper with the following results.

6.1 Overall experience

As with any course one enrols on the expectations and experiences of the participants are as far ranging as the participants! Therefore all participants were able to draw upon their learning journal in order to answer these simple yet informative questions about the participants experience of the module.

All the participants felt that they had benefited from taking part in the module and that the support they now provide for student learning and teaching is enhanced. The course itself entailed daily visits to WebCT with effort being expended on checking resources, contributing to the growing themed discussions and reviewing activities for the current workshop. Participants reflected the hybrid team approach (with participants pulled from areas reflecting the make up of the University) in comments such as:

"One of the most important learning outcomes for me has been a real/fuller

awareness of just how much so many specialists have to contribute in designing and delivering the e-Learning experience"

Throughout the course there was encouragement to pair up to facilitate sharing of ideas and expertise and to develop e-practice that is appropriate and satisfactory. The opportunity to make use of the WebCT environment, providing the participants with the direct experience of networked learning, was particularly welcomed. More specifically identifying how students might interact with electronic media from a practical and pedagogic perspective made the experience all the more real.

This exchange was probably the most useful aspect of the whole course and one that continues as the course comes to a formal end. The opportunity to work within a community of practice and engage in reflective practice of a new and developing area was welcomed by most participants.

Basically, it was realising that I was not alone in this job and that other people have the same problems and are benefiting from one another

For many the main difficulty with the course - was time. An example of this comes in the form of a response to the survey carried out which said

I find it extremely hard to manage my time and to get to grips with the demands of the Virtual Learning Environment

Several participants reported difficulties with actually using the VLE. Just because the environment is built around a web interface does not automatically translate to the participants being familiar with using the specific features of the environment in an interactive way. Age did not seem to be a significant factor here (some of the younger participants struggled more than the older ones) but more of a gender issue. Several individuals who struggled were female, but this may simply reflect the fact that more of the men on the course had prior experience of using WebCT than did the women. The introductory session to the environment over-estimated the skills levels of the participants and many left the introductory session feeling more frustrated than enthused about the product. It might have proved useful to provide

a basic follow up activity for these participants to overcome their fears early on rather than being launched straight into the first key assignment. Perhaps the introduction of a buddy system might have worked to encourage those who felt they never caught up with the initial difficulties of the system.

As the course developed and many of the participants were able to create their online roles there were some participants who rarely (if ever) participated. Some of the participants felt that the tutors could have done more to encourage and cajole those participants who were struggling. Further, that there was more scope for an e-Tutoring role to manage and enhance the online discussions which take place. The discussions would have also benefited from additional useful resources being added. This has been reflected in the e-Learning module II.

The experience has also provided more confidence for some of the support staff to provide appropriate guidance and advice on using VLEs. When support staff such as subject librarians or lab managers discuss with tutors how they might implement WebCT staff are able to provide positive suggestions and a real insight into how the structure might be perceived by their students. For example, how one might provide a reading list with links to the actual catalogue record so that students can see where the item is (given that not everything is available online) or how to theme the discussions so that students can opt to contribute to specific areas and not have to scroll through hundreds of emails first.

6.2 Features participants liked about the module

Participants were asked about features of the course they particularly liked. These included such features as an opportunity to develop an online voice. This was especially true of some of the support staff; developing skills in reading and following threads online which helped to sharpen their critical evaluation skills; being able to develop as a self motivated manager of the learning process; exchange of experience, ideas and topics from multiple perspectives (from academic staff to IT advisors to librarians); and greater equality of all participants regardless of age, gender or race. This was especially welcomed by staff where English is not their first language.

6.3 Features participants did not like about the module

Participants were then asked about one thing they did not like about the course. The responses which appeared more than once included too many messages within the themed discussion lists - particularly felt by participants who did not log on regularly enough and then felt overwhelmed when they did; not enough time with which to carry out the e-tivities given a range of other commitments as well (not particularly unique to the online environment!); changes in time management; impersonal nature of online communities and not having necessary technical skills to understand or take part in some of the activities outlined.

6.4 WebCT Training and Support pathway

The benefit of introducing WebCT to support e-Learning brought with it challenges relating to implementing support in a constructive and flexible framework. A number of skills were identified if WebCT was to be implemented appropriately including technical advisors, instructional designers, knowledge managers, complex content providers and academic content experts. WebCT finds favour in motivating many students to use a familiar environment and to promote the tutorial or discussion aspect of the learning process. However, many tutors who are enthusiastic about the package comment that it can be time consuming to put any material into the environment or to make appropriate use of the communication tools. Although WebCT works within a familiar environment, putting content in and managing the communication tools is not always straightforward (indicated above from the e-Learning participants).

Therefore a useful supporting framework is necessary if a) staff at the University of Birmingham are going to make effective use of it and b) academics at Birmingham who are not habitual users of IT are to make use of it. At Birmingham a " WebCT Training and Support Pathway" has been developed to bring together the range of WebCT related training materials already available into a coherent structure. This pathway provides a web-based support site, training courses and other information deemed appropriate to support staff in exploiting the WebCT environment.

6.5 WebLearn Web Site

The WebLearn website is the focal point for training materials, frequently asked questions and details of how to apply for courses. Groups of students are then assigned to courses using information from the centrally managed student record system held at the University. The site can be found at www.weblearn.bham.ac.uk It was created by a project team made up of liaison librarians, IT and learning advisors.

6.6 Training Pathway

The Training Pathway has developed a modular course structure including a "Getting Started with WebCT" course. This course, based on a template structure, is intended to be a "short, sharp, introduction to the benefits of WebCT as a learning package. Staff bring along their own content to be uploaded into WebCT. By the end of the session staff then have the basics of a course which a) has their content within, b) they can develop by attending other sessions and c) their students can use straight away. The intention is that this "taster", delivered by Liaison Librarians, will hook staff into WebCT and that, as they are developing their own courses pressure will come from students to continue the development.

IT Trainers then deliver the additional applications content within this modular structure which includes constructing and managing course content; using communication tools; using assessment tools and student management. This structure is underpinned by drop in sessions for academic staff to discuss and apply techniques in their own WebCT environment. To ensure that all WebCT features are exploited demands a lot of staff time and commitment.

Documentation from the pathway is available from the Weblearn WebSite, which provides further help, advice and examples of courses already running with WebCT. Although there are no formal courses to train undergraduates the subject librarians are being asked more and more to include an element of WebCT introduction in the general induction to library services. There is basic instruction on setting browsers to enable JavaScript and setting the cache to always reload a page to ensure the latest version on the WebLearn website which can be cumbersome - particularly when the access is from student clusters.

7. Conclusion

The E-Learning module, Learning Development Unit projects and the training and support pathways ensures that the University

of Birmingham has provided the necessary investment in developing staff so that the implementation of a VLE produces good results.

The approach adopted at Birmingham enables the interactive nature of WebCT to enhance the student learning experience and provides a useful tool in this respect. It is anticipated that WebCT as a learning environment will be well received. However, WebCT is only the tool and its effectiveness will depend on the quality of the content including the learning resources and the use made of the communication tools. Universities, including the staff, have to change if they are to survive. All aspects of developing an online environment need to be carefully monitored and evaluated to ensure that the student learning experience and the change in current education practice is enhanced and that the University and its staff are sustainable in the 21st century.

References

(1) JISC : Managed Leaning Environments :
     An Information Pack
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(2) Learning Development Unit
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