

Introduction

Rationale and nature of work to be undertaken

As with many other FE institutions, Barnfield has a variety of technologies that we currently use to enhance learning. We are looking to invest and develop these technologies further to enhance their application to specific curriculum areas and ensure that the learning experiences are much more personalised. This will involve the enhancement to two of our existing technologies:-

WebCT our VLE – To be developed into a more interactive and personalised learning experience by the use of virtual classroom technology.

Cisco's IPTV, our video on demand application – To be developed by use of a newer system that will allow on demand videos to be more suited to individual needs by use of Metadata in archiving the media.

Length of project, start and end dates

We would look to run these systems for 3 years initially with annual reviews. Initial capital investment and development of tools would start from October 2006 with three HE curriculum areas. Full rollout throughout the college will take place for the September 2007 start and be sustained until the end of the academic year in 2009. We would anticipate that these technologies would be well embedded in the college's curriculum and therefore be sustainable after this date.

This project will contribute to the e-learning programme by:-

- Delivering more personalised learning experiences better suited to individuals' learning styles.
- Provide interactive and flexible approaches to e-learning including work based learning and assessment
- Implementation of technologies that will be supporting collaboration and presentation of achievements. Access to high quality and flexible learning technologies.

Project Description

The project looks to implement and develop two technologies in parallel that will enhance the college's e-learning systems. The use of Virtual Classroom technology alongside the college's VLE will give an added dimension to this resource. We are looking to enhance this with the use of 'On demand' video technology. The project has the following aims:-

1. To improve the uptake in the use of the Virtual Learning Environment (VLE) by developing a number of staff to actively improve the use by, and support of, learners in the actual or virtual classrooms across all areas of the college.
2. Incorporate a number of other available technologies - Live Classroom, On-demand Video
3. To provide an integrated and consistent approach to video generation and developments; to generate a pool of shared video resources.
4. Develop a curriculum delivery model to provide supported learning in the virtual classrooms in three skill/topic:- areas Beauty & Holistic Therapy, Computing & IT and Training & Professional Development..

Live Classroom is a Virtual Classroom technology designed to work alongside VLEs such as WebCT and Blackboard. This enhances and develops the interactive and collaboration tools used. Whilst many tools are available in any VLE, this offers the use of real-time interaction as a learner would experience in a classroom, but using a variety of learning styles. The key features of this product as seen at

<http://www.horizonwimba.com/products/liveclassroom/> are:-

Create Community	Create a sense of community among students and instructors who might not otherwise interact with one another.
Offer Anytime Access	Offer live classes, office hours, and group discussions at times that are convenient for instructors and students, not just when the physical facilities are available.
Ensure Comprehension	Ensure students understand their lessons by asking for immediate feedback, answering questions, and giving in-depth verbal explanations of complex material.
Appeal to Different Learning Styles	Enable students to meet their developmental objectives by appealing to different learning styles, as many students are auditory and visual learners.
Have Fun	Have fun: The best instructors and most memorable sessions invariably mix elements of education and entertainment, seeing, talking, laughing, and joking are all parts of the education process.
Public & private text chat	Some students are more comfortable writing than speaking, and our chat messaging allows the shy student to communicate textually so they can participate with their more talkative classmates.
Flexible content area	A Beauty Therapy class teaches very different information from a Computing class. A variety of content types can be viewed such as PowerPoint, Word, Excel, HTML, webpages, images, movie clips, PDF, Flash, CMS pages,

	and more.
Electronic whiteboard and polls, quizzes, and surveys	A best practice of live instruction is to regularly offer interactive exercises. By offering whiteboard exercises and asking polling questions, students will remain highly engaged.
Application sharing	You can create collaborative exercises or teach complicated software applications just as if your students were seated right next to you. Application sharing allows you to work on any application, as everyone logged-in will follow every action your cursor makes. You can even pass control so students can collaborate right along with you.
Archivable presentations	It would be great if you could study for an exam by going back in time to the original class. Now you can, as archives retain everything that happened — from voice, to chat, to content — during the live class, allowing all classes to be played back, verbatim.
Technology appropriate for Online Education	Student hardware, software, networks and IT skills vary enormously in FE. In order to accommodate as many students as possible, Live Classroom is designed to effectively operate in the most challenging user environments. Including a variety of platforms including AppleMAC (of which the college has a number). Whilst Barnfield's main networks are of high quality, the low bandwidth requirements will mean it can be used in the college's ICT centres that are located out in the community, which have slower links back to the main campuses.
Accessible to people with disabilities	Just because a student has a disability doesn't mean they shouldn't be able to attend your live, online class. Live and archived classes can be close-captioned for the hearing impaired while also reaching out to the visually impaired by offering numerous keyboard shortcut keys, hot keys and compatibility with most screen readers. These accessibility features will ensure this technology is inclusive to all.

This product offers a very flexible and inclusive method of delivery. It is hoped that this will encourage those students to learn which are excluded from normal modes of study; though it would be used to initially enhance their in classroom experiences, rather than replace them. The product demonstrates awareness of many different learning styles, as well as the ability of the student to select content that they feel easiest to learn from. This ensures that a personalised learning experience can be gained from the use of this system. The interactive and technological nature of the product should be engaging and entertaining for the students to use. HE study is sometimes stereotyped by didactic content delivery such as lectures. This would demonstrate that this does not necessarily have to be the case and serve as a vehicle in encouraging the student's progression onto HE.

Barnfield have worked with 'on demand video' streaming for a number of years. We are looking to embed this technology into the virtual

classroom/VLE with a newer solution. The 'on demand' nature of video means flexible delivery to the learner when they want it. However, we would like to enhance this by using Metadata with video to make content fully searchable. Videos could then be selected by the content they contain, for revision and enhancing their normal study. Hence this can give more personalised learning experiences for study based on criteria they select.

Video on demand will be a technology of which many learners will be aware. Similar technologies are used in the home entertainments industry such as 'Sky Box Office/Sky Multi-start'. These enable viewers to watch a programme or film when they want, not just when it is broadcast. Similarly, this technology will support students who would like to learn when they wish to through interactive video, not just when it is shown in a given session.

Video sources can be archived videos that have been made, and also live broadcasts used in line with 'Live Classroom'. This means that the application of this technology can be practically based using real work environments such as Beauty Therapy Salons. Our Training & Professional Development department are already looking to use some of this technology in Barnfield's new building for remote teaching observations on the Certificate of Education programme. Sessions could then be recorded with permission for quality purposes and as exemplars to other students. The session can then be played back with the observer so that direct personalised feedback can be given on what happened in the session, so it is a very powerful teaching tool.

The video content itself would have copyright issues associated with it, but not necessarily IPR issues. It is intended that the majority of the video will be captured in-house as short clips, no more than a few minutes long. This means the videos can be accessed from low speed connections from a student's home. The Art/Design & Media department at Barnfield has a recording studio that can be used in the development of video clips, though it is hoped many will be created in situ in the variety of real work and simulated work environments used at Barnfield using video cameras and video capturing software.

The project will be implemented during October 2006, this will ensure key staff are available after the college's main summer projects. It will initially be implemented in three Key curriculum areas that have a large number of HE students and HE progression:-

October 2006	Implementation and Rollout of Systems, Testing of Systems, Training of Key Staff
January 2007	Trial of systems within four key curriculum areas
June 2007	Review of trial, rollout to all college areas.
September 2007	Use of systems college wide
June 2009	End of project and review.

The college would look to time the project so that the most appropriate staff are available at the time of the project, rather than recruit additional posts that will incur additional costs later on. The college is already sustaining its current IPTV solution, so would continue to support the maintenance of a new system.

HE students are a large growth area for Barnfield. By the time the project will have to be sustained solely by Barnfield, the entire college will have its use, therefore spreading the cost across all curriculum areas. Additional licensing and support costs created are intended to be funded by increased retention, recruitment and achievement on HE programmes.

Barnfield has extensive experience of implementing technology based projects, many of which have been implemented throughout the college's 6 CoVEs.

Budget

Here is a summary of the costs throughout the project years, detailing those funded by Barnfield, and those by JISC.

	2006		2007		2008	
	Barnfield	JISC	Barnfield	JISC	Barnfield	JISC
Capital Hardware (Video Streaming)	2000	30000				
Hardware Maintenance		4000	4000		4000	
Software (Live Classroom, annual)		12000		12000	12000	
Staff Time						
Project Management Time		6000				
Technical Installation		4000				
Development of Products		12000				
Training and Dissemination		6000	3000		2000	
	2000	74000	7000	12000	18000	0
Total JISC			86000	Total Barnfield		27000

The main capital funding will come initially from JISC, then the ongoing costs in subsequent years will come from Barnfield to ensure long-term sustainability. Staff time will be allocated to current project posts where possible to prevent any issues with sustainability once the project has come to an end.

Evaluation of success

A sample of students will be analysed to accurately measure the success of this programme. The sample size will not be larger than two groups at each campus site. This is therefore expected to be approximately 120 learners. The learners will be chosen on the basis of their ability to meet a number of factors:

- Equipment requirements for access and the ability to work remotely that this study demands. It will also be essential to identify differences that may arise between the learning conducted inside and outside of the college.
- Studying on a programme appropriate to the learning packages that are being developed

Staff selection will include criteria that those chosen must display attitudes that show a keenness for this learning method. As this study is only on a small scale any likely bias needs to be identified in advance so that this can be minimised.

A qualitative questionnaire will be used to elicit the view of the learners and staff both before and during the study. The use of a group discussion board will also be monitored for learner views that have not been identified by other methods. The usage data, progress data, tutor support hours data and comments will be taken from the information provided by the VLE/Liveclassroom and used to give a set of quantitative data to aid this evaluation process. This will allow for the production of a report.

The reporting process will be in two stages:

1. Production of a preliminary report showing that the aims have been met and the perceptions of learners in the study
 - a. This will include details of how the process has been conducted to meet each of the aims and identify how the study may be repeated and shared with colleagues.
 - b. The differences between the feelings of learners both before and during the study
2. A final report that evaluates what has been learnt, what impact measures have been attributed to the study and a set of recommendations for transferable usage both inside and outside the organisation.

The evaluation of this programme, regardless of positive or negative outcomes will be made available to JISC and other HE/FE institutions.

Key Personnel

Project Manager

Lynn Thackway – Campus Director – New Bedford Road Campus, (Member of the Senior Management Team). Lynn will be responsible for the overall management of the project. Lynn has very recent experience of managing e-learning projects in her previous job at Sheffield College. These include: Award Winning GCSE English On-Line; Literacy Through Technology Blended Learning Project - Young People Speak Out; AS and A2 English On-Line and GCSE Psychology development, as well as substantial DfES funded research into e-learning technologies .

Technical Implementation

Jon Wilson – Network Manager. Jon will be responsible for the technical installation of the hardware and software during the project and already carries out all other IT projects within Barnfield. He line manages the technical support staff which will provide ongoing maintenance of the new systems. Jon has rolled out previous IT systems including WebCT and Cisco's IPTV (previous video streaming product).

Curriculum Managers and Personnel

Computing and IT

This department runs a number of foundation degree programmes progressing to full degrees in conjunction with the University of Luton. It also works closely with the Open University delivering on parts of their programme and providing remote access to networking lab equipment.

Terry Salt – Head of Department. Terry holds a Masters of Arts in Education and has a good background in various forms of educational research with Computing in both Further and Higher education. The department of Computing & IT will provide two members of staff and Terry Salt will manage their academic rigour.

Training and Professional Development

As well as having FE/HE students, this department is responsible for the delivery of the Certificate of Education at Barnfield in conjunction with the University of Luton. As with previous implementations of technology, the use of these systems has been embedded in these programmes. This has direct benefits to the learners on the programme, whilst demonstrating good practice to our Tutors that are completing this qualification. This department would also be responsible for directing the initial training required by staff. All staff delivering on the current Cert Ed programme would be involved in the project.

Beauty and Holistic Therapy

This department runs a number of foundation degree programmes progressing to full degrees, in conjunction with the University of Luton.

Sharon Hunt – Head of Department Beauty & Holistic Therapy. Sharon line manages Course Team Leaders (CTLs) for 3 Foundation Degrees. Specialist Make Up has been selected to most readily benefit from this project. The department has been part of a recent EEDA project to develop working links and opportunities for non accredited training opportunities .

Lara Maciejewska – Beauty & Holistic Therapy, ICT part-time tutor delivering Key Skills for NVQ groups, ICT for the FD programmes and involved with digital imaging to support the curriculum. Lara has considerable experience within the areas of TV media filming, sound and video editing

Sarah Ball – ALP (Advanced Learning Practitioner) for Beauty & Holistic Therapy and CTL for FD Specialist Make Up. Sarah recently concluded work with the first cohort of FD students and assisted in the development of a new e-learning portfolio system which the students have successfully piloted with the University of Luton. Sarah established Specialist Make Up within the department, commencing with Theatrical & Media Make Up and developing a progression route to Foundation Degree. To assist this programme Sarah has knowledge within C&G Photography.

Supporting letter from the senior management.

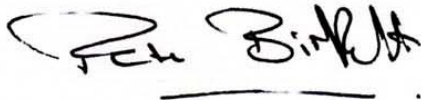
20 June 2006

Dear Sir / Madam

Re: Proposed E -Learning Project - The use of virtual classroom and video streaming technologies to promote personalised learning alongside existing technologies.

Please find enclosed the project bid from Barnfield College. This has been discussed and has the full support of the Senior Management Team. It is our intention that it will be incorporated into plans for our Centre of Excellence in Teaching and Learning at our new York Street Campus which opens in January 2007.

Yours sincerely



Pete Birkett
Principal and Chief Executive

(pb107)