

1 Introduction

UWIC's origins go back to the merger of Cardiff College of Art, the College of Food Technology and Commerce, Cardiff College of Education and Llandaff College of Technology in 1976. They have built on their vocational education role by developing practice-based and professionally oriented programmes of study across nine Schools and four campus sites in Cardiff. 60% of UWIC's students are in some kind of employment concurrent with their studies; 30% - 35% of students have 'career jobs' and study part-time.

2 Current state of play

UWIC has had a functioning VLE (Blackboard) for 3-4 years and has now successfully integrated this with its student record system to enable online enrolment in courses and course development. The integrated system provides access via the UWIC network with one user password.

MLE development within UWIC is now a centralised process, under the management of a Learning Development Manager, head of a Learning and Teaching Support Unit (LTSU), who reports to the UWIC Learning and Teaching Board. This 'strategically managed process' has been instituted following a period, during the mid-1990s, in which one or two in-house VLE development initiatives were pursued at School level. Experience gained during this period led to the conclusion that 'DIY systems' could not be adequately supported by the institutional IT structure, and that UWIC would no longer support any 'home-grown' systems.

"There is a tension around purchasing an off-the-shelf product, with whatever limitations it has, and the development of tailor-made, bespoke systems which do exactly as required. The latter have inherent difficulties from the development perspective in terms of being able to sustain development; especially within a university context.....The history of in-house university development in the UK, outside MIS systems, is largely one of failure. The fault lies in the lack of appreciation of the complexity of the design and development life-cycle and ongoing development costs as well as keeping apace with technological change."¹

In 1999/2000 the Learning Environment Working Group recommended to the Learning and Teaching Board that a single VLE should be purchased, deployed and supported throughout the institution.

UWIC collaborated with the University of Glamorgan on the formal VLE specification and procurement, building on existing knowledge of Blackboard and other commercial alternatives. UWIC chose Blackboard (Level 2) with the intention of forcing consideration of MLE systems integration issues within the institution.

¹ Extract from *Virtual Learning Environments: interim report of the Learning Environment Working Group to the Learning and Teaching Board*. UWIC internal document, April 2000.

UWIC has been running an automated enrolment system for five years. The student record system was developed in-house by the Information Systems Division, with an underlying data-structure that is well understood. This has enabled very 'seamless' automated data exchanges between systems, 'without human editing'.

The IT infrastructure in UWIC was well-established in the early stages of MLE development, under the auspices of an Information Management Forum which controls any new IT development in the context of UWIC's Information Strategy.

UWIC has appointed an independent Business Systems Analyst, who reports directly to the Learning and Teaching Board, to support business process review during the planning and implementation process. Business process review and management was instrumental in the development of the Information Strategy, which, for example, the decision to use XML based on LMS standards.

UWIC has been careful to make sure that the underlying infrastructure is robust and functions well before allowing systems development and growth to meet people's expectations. Staff training in IT and systems use, to keep pace with development, has been a key factor.

UWIC has recognised that MLE development (i.e. the integration of various systems) sets up a series of dependencies resulting in high risk of error. From their experience, the keys to successful development are:

- High quality data, and effective monitoring of data quality in all systems; and
- Management of people's expectations and capabilities in systems development and use.

3 Drivers of MLE development

The very vocational mission of UWIC underpins the two key drivers of MLE development. The first is the need to deliver accessible and flexible learning experiences to a very high proportion of part-time students. UWIC wishes to be able to deliver access to learning and learning resources in the workplace; for instance, to provide UWIC notes, assessment and learning materials in a training franchise with Macdonald's.

Related to this, the second key driver has been to widen access to and participation in learning to all sorts of new communities. UWIC sees the value of the VLE in particular in retaining new students as well as in enrolments.

4 Consultation and strategy development – the process

Strategic issues

The Information Strategy and the Learning and Teaching Strategy (both finalised in 2000) are the key documents which underpin MLE development in UWIC.

A critical strategic issue in the early phases was whether to pilot the VLE or not. UWIC took a 'School equitable' approach and set low targets (indicative not accountable) to enable roll out across the whole university. In year one the target was to make some use of the VLE in 3 modules.

Now the VLE has rolled out across 300 modules. Learning Development Management had placed caps on growth, in order to ensure adequate support and the testing of IT infrastructure. However, in 2002 the Learning and Teaching Board took off the caps and allowed the VLE to 'go live' in any School.

Consultation and support

During the VLE specification and procurement stage, the Learning Environment Working Group managed a consultation exercise with staff and students via the Directors of Learning and Teaching in Schools and the Student Union. It was acknowledged, however, that it is difficult to assess requirement when staff and students may not have a full understanding of the capabilities of VLEs ('three years ago nobody really knew what a VLE was'). Demonstrations were used to try to address this, and efforts were focused on raising and changing awareness of VLE functionality and the merits of systems integration.

Post procurement responsibility for communication, awareness raising and induction rests the Directors of Learning and Teaching in each School. Some students and staff require more support and awareness raising efforts than others. While induction is currently left at School level, the Learning and Teaching Support Unit now feels that a more strategic approach to consultation and induction will be required as the VLE rolls out. It may need to link into a more general IT awareness and training initiative that encompasses the needs of the Library, the development of a student portal and the wider 'information management' issues.

UWIC joined the JISC 'VLE Champions' pilot project in 2001 which piloted a support strategy with a developmental path from central to local (School level) support through 'Blackboard Champions'. Subsequently the Learning and Teaching Board provided central funds to support Champions within Schools, however, the offer of funding was only taken up by one School, although two or three de facto 'champions' have emerged in other Schools. The Blackboard Champion is funded for 4 hours a week to support module development and quality assurance.

There is also a dedicated, institution-wide 'Blackboard Forum' which focuses on the same issues at institution level.

5 Implementation process

Strategic issues

Rolling out unlimited growth is proving to have some attendant problems, relating to

- the provision of adequate support;
- the capacity of technical infrastructure;
- quality and accessibility standards;
- functionality support;
- training, and
- timeliness and accuracy in 'module selection'.

Now the big issue is how to manage demand and make systems integration a 'holistic' package fitting, nonetheless, with the particular requirements of each School – that is, finding an appropriate and effective business model.

Using the VLE: views from some academic staff

- 1 To begin with I was just slapping existing material onto the VLE – now it is forcing me to think about how much, what kind of deliverables, a materials overview and how students learn.
- 2 I feel as though I have regained my module – students used to start out well then learn by rote – I can see a shift towards greater student responsibility in learning, not just taking handouts and notes.
- 3 There was an historical reluctance [in the School of Art and Design] to engage with the VLE because of the importance of studio-based, student teacher interactions. Tutors now see the real possibilities.
- 4 Discussion lists are a very positive aspect – sharing and communicating is valuable, but they need a lot of facilitation and work. There are real worries about managing the sheer volume of questions and postings when undergraduate classes are up to 110.
- 5 Some students just don't engage with the VLE – the key need is to get them to attend lectures and seminars and to give them printed handouts. Students don't know how to learn – can't generally make best use of a wealth of materials on a VLE.
- 6 The VLE strategy may be UWIC wide but it has not rolled out into tactics at School level – some Schools are much better equipped and supported than others. Teachers have to grapple with difficult IT skills which require time and inclination, while at the same time many have limited access to computers, some of which are old and many are shared, which makes formatting and saving styles a trial.
- 7 In future students will have increasing expectations of immediate access to quality materials and this will force change in teaching and organisational structures. Quality issues will be paramount.
- 8 Perhaps the role of staff will change – course materials will be expected to be delivered only through the VLE and staff will focus more on monitoring and counselling individual learners.