



VLEs: Beyond the Fringe and into the Mainstream

Guidance on the mainstreaming of Virtual Learning Environments, drawn from the proceedings of the 2004 online conference from Becta's Ferl service

Report Published: July 2004
Author: Geoff Minshull, Direct Learn Training Ltd



INTRODUCTION AND BACKGROUND	3
<i>Content</i>	3
<i>Definition of a VLE</i>	4
<i>Acknowledgements</i>	4
CULTURAL CHANGE: MAINSTREAMING THE VLE.....	5
WHAT ARE THE PRACTICAL STEPS NEEDED TO MOVE FROM A PILOT TO THE MAINSTREAM?	7
STAFF DEVELOPMENT	10
<i>Skills needed</i>	10
<i>Other staff</i>	11
<i>Pedagogy</i>	11
<i>Approaches to training</i>	12
<i>A model for staff development</i>	14
VLES AND SCHOOLS.....	15
INTRANETS VERSUS VLES	18
SPECIFYING AND PURCHASING VLES	20
<i>Some of the features to consider when purchasing are:</i>	21
<i>The consortium approach</i>	21
<i>Open source and free solutions</i>	22
<i>Standards and interoperability</i>	23
CONTENT AND QUALITY CONTROL	25
<i>Quality control</i>	25
ENGAGING THE STUDENTS	26
ACCESSIBILITY	27
CONCLUSION	28
VLES – FURTHER RESOURCES	29

Introduction and background

At the beginning of 2004, Ferl ran a highly successful online conference, “VLEs – Beyond the fringe, and into the mainstream”. The conference brought together practitioners from all sectors of education, to discuss how to embed Virtual Learning Environments within an educational institution – to move them from small scale pilots, into the mainstream. The conference attracted over 260 delegates, mostly from FE and HE, but also from schools and Adult and Community Learning. There were 16 papers in all, plus a number of PowerPoint presentations. Online discussions took place around the papers. There were also various “Ask the expert” sessions, which were discussions on a particular topic (e.g. on accessibility), that were not backed up by a paper.

The conference was very busy over the eight days of its duration, and there were over 1600 postings. The papers and the discussions together resulted in about 190,000 words – enough for a reasonable sized novel! The conference brought together many of the foremost practitioners in VLEs from the UK and other countries, and the quality of the papers and discussions was extremely high, resulting in a huge amount of extremely useful debate, discussion, and information.

This publication seeks to distil the assembled expertise from the conference and make it available to a wider audience. It is a perspective on the key points arising out of the conference, together with additional information included where appropriate. This is therefore **not** a “proceedings of the conference” nor an evaluation of the conference. The purpose of the conference was not to draw a series of conclusions about particular aspects of VLE use; it was to facilitate discussion and provide a forum to share experiences.

This report, like the conference, aims to be a guide to institutions who want to move from the pilot stage into mainstreaming the VLE. It should be borne in mind that it is concerned with mainstreaming – and thus, for example, practices which might be considered acceptable in a pilot might not be considered reasonable on the larger scale required for mainstreaming. An example would be that in a pilot, it is perfectly acceptable for lecturers to set up individual user accounts for a small group of students; however, when a VLE is used throughout the institution, it is far more effective to employ a VLE administrator to carry out such tasks, or for it to be done automatically.

It would be wrong for readers of this paper to assume that any conclusions are those of the conference delegates or presenters. What is reflected here are the main points arising from discussions, and inevitably some contributions are not included. Indeed, in some cases our interpretation of the discussions may well differ from that of the participants. **Therefore the views expressed here, and any errors, are those of the author, and not necessarily those of Becta, the conference presenters or delegates.**

Geoff Minshull
11.05.04

Content

The discussions were very wide ranging, and often overlapped. So, rather than structure this paper in the same way the conference was structured – basically, as a series of discrete workshops – it’s done it in a topic based way.

The area of VLEs and Adult and Community Learning is not covered in this paper, even though it formed a part of the conference. This is because it is the subject of a major publication by JISC/NIACE, planned for Autumn 2004, specifically for the ACL sector. That publication will draw on, amongst other things, the VLE conference papers and proceedings. When published, it will be available from <http://www.aclearn.net/>

Throughout the document, the words lecturer, teacher, tutor are used interchangeably, as are student, pupil, and learner, unless the context makes the differences clear.

Definition of a VLE

The underlying assumption behind the organisation conference was that the definition of a VLE is that it is a single piece of software, which brings together a variety of different tools and functions, notably:

- Content management and delivery.
- Communications.
- Assessment.
- Tracking.
- Administrative tools, which may include links to other systems, notably Management Information Systems.

In that sense, it is just one particular type of learning platform, and not necessarily the most appropriate platform for every situation (as the discussion on VLEs and intranets, described in the main body of this report, illustrated).

Acknowledgements

Many hundreds of people contributed to making the conference a success, and it is hard to single out individuals. However, particular thanks go to the presenters. These were:

Lorna Campbell, CETIS
James Clay, Western Colleges Consortium
Grainne Conole, University of Southampton
Johannes Cronje, University of Pretoria
James Dalziel, Macquarie University
Sara Dunn, Consultant
Dave Egan, Greater Manchester Community Grid for Learning
Richard Everett, Oaklands College
Tom Franklin, Consultant
Claire Gill, Becta
Mandy Hayward, Hertford Regional College
Chris Kelland, Becta
Peter Kilcoyne, West Midlands Regional Support Centre (RSC)
Sarah Knight, JISC
Wilbert Kraan, CETIS
Harry McCarry, Belfast Institute
Alistair McNaught, Becta
Virendra Mistry, JISC
Lenore Ogilvy, East Midlands Regional Broadband Consortium
Lawrie Phipps, TechDis
Sarah Porter, JISC
Megan Robertson, Stoke Sixth Form College
Patricia Saunders, Belfast Institute
Simon Shaw, Becta
Clare Usher, East Midlands Regional Broadband Consortium

Cultural Change: mainstreaming the VLE

Many educational institutions (including schools) now have VLEs (or some similar form of learning platform). Some institutions are using these very successfully with large numbers of learners – many colleges and universities number the students actively using a VLE in the thousands¹. However, a greater number only make a small use of a VLE, often in separately funded pilots. The challenge that those organisations face is moving from the pilot – small numbers of staff and students, separate funding, easily manageable – to rolling out the VLE across the organisation, with all that that entails, both technically and organisationally. It requires a lot of resources, and significant cultural change within the institution. As Grainne Conole from the University of Southampton said in her keynote paper,

“Effective embedding of e-learning is frequently more about getting the associated organisational and human factors right, rather than the technologies per se ... But the reality is that e-learning is still marginal in the lives of most academics, with technology being used for little more than content repository and administration”.

Clearly, the work that teachers do, and the way they do it, is changing, and will change even more rapidly in the future. A phrase which has rapidly become a cliché is that the teacher is changing from being “the sage on the stage, to the guide on the side”. In other words, rather than being at the centre of the learning process, they become a facilitator, a moderator, an enabler. Now, that is certainly true up to a point, but the phrase can be seen to devalue, or underestimate, the role of the teacher in e-learning. In reality, in face to face sessions, a teacher/lecturer who only teaches didactically, who stands at the front and does nothing but talk, is always a bad teacher (or, possibly, a good teacher put in a bad situation where s/he has so many students there is no other way to handle the group!). A good teacher has always been a facilitator, a moderator, an enabler, even in face to face classes. As Grainne says:

“It is now recognised that the teacher’s role in terms of constructing, monitoring and facilitating the learning process [in e-learning] is vital; for example, just setting up a discussion board and hoping students will engage with it doesn’t work.”

Therefore the role of the teacher is still vital in learning, and will be for the foreseeable future - and so the role of the teacher has to be central to any discussion about mainstreaming VLEs.

“True embedding and innovation is going to take time and require significant support”. (Grainne Conole, University of Southampton)

So, how have organisations successfully moved their VLEs from pilots to the mainstream? Virendra Mistry of the JISC identified seven key stages, described below in this edited extract from his conference paper:

1. The creation of a realistic vision for teaching and learning with a VLE.

Institutions need to consider what they would really like to see or happen within the context of their goals and purpose. What is the potential of a VLE for furthering these goals? It is necessary to embark on a vigorous awareness raising exercise, to consult widely and try to develop shared vision and goals. This also includes looking at the place of the VLE within the wider Managed Learning Environment (MLE) context². This means taking a longer term view, and, for example, looking at the implications developments have on other planning within the college, such as the accommodation strategy.

¹ For example, Sheffield Hallam University has 21,000 students using their VLE. Source: Coping, adapting, evolving: the student experience of e-learning, Moore, Kay and Aspden, Liz Library and Information Update 3 (4) April 2004, pp. 22-24 <http://www.cilip.org.uk/update/issues/april04/article2april.html>

² See <http://ferl.becta.org.uk/display.cfm?page=248> for an explanation of the VLE/MLE terms.

2. The implementation of strategies of inclusion and ownership.

Ensuring that there is ownership or buy-in by tutors in the preparation phase is critical. This may be achieved by ensuring that tutors are involved in the process of choosing a VLE – as they will be the ones delivering the courses. Once this has been achieved momentum has to be maintained. In recent years colleges have worked concertedly with enthusiasts – e.g. ILT Champions and Mentors. Library and information specialists also have a valuable role to play.

3. The encouragement to attain new competencies and skills.

This is discussed in much more detail elsewhere in this publication. However, a good staff development programme is absolutely critical to the success of mainstreaming.

4. The encouragement to explore new models of teaching.

Tutors must be encouraged to explore new models of teaching with a VLE, and institutions must provide staff with the time and space to experiment with a VLE.

5. The support for communities of practice.

Tutors can learn from experimentation, trial and error but they can also learn from the experiences of their peers. Communities of practice are groups of people who share a common concern, a set of problems or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis. There are numerous examples of such communities, including online conferences and the various mailing lists available for people working in education, such as the Ferl VLE list.

6. The utilisation of project management techniques.

The challenge for institutions is to encourage tutors to be innovative while at the same time maintaining quality control and cost-effectiveness in the delivery of teaching using VLEs.

7. The implementation of a programme of evaluation.

Institutions must evaluate learners' response to using VLEs and, in particular, what learners and tutors believe may be gained (or lost) in using the VLE. Senior management must also be prepared to evaluate which organisational constructs, settings and arrangements seem to work best for fostering the development and exploitation of a VLE.

What are the practical steps needed to move from a pilot to the mainstream?

Get the technology right. There is a necessary precondition for success, and that is that the technology works, and is easily accessible. By this, we mean that the VLE should be on a stable network, with the technology sufficiently widespread so that physical access to the VLE, including sufficient bandwidth, does not become a limiting issue. Consider having it externally hosted, especially if your in-house technical support is limited or already over-stretched.

Get the right VLE. Crucially, it should be easy to use. A VLE which is hard to use – however pedagogically sound or technically stable – will not be used. Teachers will walk away from it. Part of the ease of use will be configuring it as the staff and students want it, and, much of the time, this means keeping it simple, in the sense of it not having too many features available. Strip out the tools and functionality not required for a particular course.

Understand the costs and support needed. VLEs are a substantial investment, partly in the initial licensing costs, but more in the ongoing costs of staff development, content development and purchasing, technical support, etc. The true costs of ownership of a VLE are considerable, and should not be underestimated. However, against this must be set potential savings, e.g. photocopying costs (both the actual cost, and the lecturer's time to do it) through to increased income from improved retention rates – not to mention the educational benefits VLEs can confer. But, certainly in the short term, costs are likely to significantly outweigh financial benefits, and it is important that management understands this before making the investment. If they do not budget for these costs, it is much less likely that they will be able to successfully mainstream the VLE.

Decide how the VLE will be used. Will it be for blended learning, for distance learning, for content delivery, for collaborative learning, for assessment, for learning support, for differentiated learning or for some combination of these? This question is often not thought through sufficiently, but it is important for planning the implementation of staff development. How do you decide what training the staff need without being clear what you are training them for? Involve the whole of the learning community in the planning.

A supportive Senior Management Team (SMT) is essential, preferably with a member of the SMT having overall responsibility for ICT and e-learning, which should include VLE implementation. It may well be worth running a short training session for SMT, not so much in the practical use of the VLE, but more on its strategic implications, including the beneficial effect it can have on retention. Corporate planning should include the VLE, and relevant strategy documents should not be created in isolation, but should take into account the VLE.

“VLE usage, in my experience, is very effective in improving retention. Adults can hang in there during difficult phases by accessing lesson materials, completing and forwarding exercises and engaging in online debates.

Adult students who in the past would have dropped out after having missed two or three classes are able to pick up on the course again more easily – the gaps having been filled in, as far as possible, by way of online access”. (Patrick McCann, Belfast Institute)

“I recently conducted an informal survey of 45 part time students on my Built Environment courses and all reported that the levels of [VLE] support had influenced their decision to stay on the courses as they felt supported even when not at college, and this was a fundamental element in continuing and completing their studies (Lorraine Lavery, Belfast Institute)

The colleges are also now seeing the impact of the VLE on retention and achievement, which of course is impacting on funding”. (James Clay, Western Colleges Consortium)

The role of middle managers is also crucial. As one delegate said: “They are often so hard pressed with day to day stresses and strains that they cannot put in the commitment required to enable their staff to fully engage; and their own workload means that they do not necessarily understand the concepts of a VLE and what can be done with one. Where there is a curriculum manager who has an understanding of the usefulness of a VLE and can see its potential, you can find a dramatic difference in the use of the VLE in that curriculum area”. Senior managers say it will be done – middle managers make it happen!

Other key staff should be involved, notably the Learning Resource Centre (LRC) staff. They have an extremely valuable role in supporting the teachers using the VLE.

Make it easy for the teaching staff, and provide them with good support structures. Provide templates which they can use to create and structure courses (as in building the discussion groups, assisting with content upload, etc.). In this way teachers can avoid having to deal with the technical aspects of course creation, and focus on how to use the environment with students. Make sure the content is there and easily available, content such as that from the National Learning Network (NLN). Show them where they can find other content, and provide them with the tools to develop their own.

“The key for success is to ensure that utilising the VLE with students is a simple and easy process for all staff within the consortium. By keeping the process simple (and clear) you can ensure that staff grapple with the real issues of teaching and learning, and not on setting up a course on a VLE”. (James Clay, Western Colleges Consortium)

Show staff the advantages to them of using VLEs. How it makes it easier to distribute handouts (no more photocopying); how tests can be automatically marked; how the tracking can be used; how it's easier to manage resources; etc.

“To enlist the support of other teachers, you have to stress things like the sheer excitement of the technology, how once you put students in it can take unexpected and fascinating directions as well as how it can make life easier in terms of resource use, ease of distribution, tracking and so on. One of the main 'selling points' of the VLE is that people with a fairly basic level of computer literacy can be shown how to create and upload resources, and let loose on it for themselves. Great for that last minute idea for a lesson, and it means that your masterpiece doesn't go to the back of a long queue of stuff that the webmaster is working on”. (Megan Robertson, Stoke Sixth Form College)

Use champions (preferably non IT specialists) to spread the word, and provide an example of what can be done. Awareness raising is very important³. Part of this is being honest, and managing expectations. Don't overhype the possibilities, and don't underestimate the work!

Provide comprehensive and ongoing staff development, but at the same time, don't push the staff too hard too soon. It's a learning process for them too. (Staff development is covered in greater detail below).

³ See this report on awareness raising by ILT champions. This formed the basis of a JISC publication in 2001. A little old, but still relevant. http://www.directlearn.co.uk/downloads/jisc_Champs_aware.doc

Remember the VLE is valuable for the simple things too.

“One of the surprising things that students valued about the VLE were the things we wanted to go beyond; for example, using it as a resource bank. They appreciated how it was supporting their learning in more traditional settings e.g. putting lecture notes on prior to a session. Feedback was very positive for this even though we undervalued it as staff, and it wasn't the model we were aiming for, merely a foundation to build upon. But students valued being able to 'pre read' a session and then think about what was being said, rather than try to scribble notes”. (Arthur Kelly, Liverpool Hope University)

Don't underestimate the value of the communications tools. Whilst most staff will naturally start using the VLE for content delivery – and this is perfectly valid – the communications tools built into VLEs can provide a major contribution to learning, if the process is managed right, and they are treated as an integral part of the learning experience, providing many learning opportunities.

“Most VLEs offer a suite of communication tools most commonly including email, discussion boards and synchronous chat. I would argue that in many institutions these are very much underused. From the staff development side this is a shame as they are perhaps the easiest of all the tools to use”. (Peter Kilcoyne, West Midlands RSC)

Staff development

This was a major topic within the conference, addressed in a number of papers and discussions. Peter Kilcoyne of West Midlands Regional Support Centre produced a keynote paper for this, "Implementation and staff development"⁴. Staff development is fundamental to mainstreaming a VLE, and provides many challenges, not least of which is ensuring that the right staff development is delivered in the right ways, to meet the needs of the staff. There are four key messages which were raised during the various sessions:

- Staff will need more training than you think.
- The training will take longer than you think.
- Training is ongoing, not a one-off event.
- It will be about how to use the tools within the VLE in a technical sense, AND how to use them effectively in teaching and learning.

To an extent, these are generalisations, and also will depend on the particular VLE – the easier it is to use, the less training in the tools, at least, is likely to be required. Nevertheless, it does seem that many institutions do underestimate the need for training, or get it wrong in other ways.

"I think the fear factor is one of the variables that accounts for a lot of staff development in VLEs not being converted into real usage. Most experienced educators will feel very much at home and in control in the classroom environment, while the first excursions into the VLE will combine worries about both managing the technology and the learning process". (Peter Kilcoyne, West Midlands RSC)

Peter identified the different skills needed, and the different approaches to training, and the text below is an edited extract from his paper.

Skills needed

Content creation

At its most simple level this can be learning how to increase the interactivity of existing Word and PowerPoint files with such features as hyperlinks, pop up boxes and drop down forms, and adding media files such as sound, movies and images. The next step from here for staff who want to create more sophisticated content is using a specialist authoring tool. Some of the VLE suppliers have also developed WYSIWYG content writing software that looks and feels very much like Word but produces standards compliant learning material designed to be uploaded into a VLE. These, and other similar software programs which are produced by other suppliers, can, in principle, be used to create content that will work in any standards based VLE. In addition to this all staff should have some training to raise their awareness of accessibility issues when creating online learning materials.

Uploading content

Drag and drop functionality is starting to emerge. In many colleges this has been the main focus of staff development, which can have the effect of narrowing the use of VLEs to content delivery systems.

⁴ The full text of this paper is available on the Ferl web site, at <http://ferl.becta.org.uk/display.cfm?resID=7189>

Online communication

Most VLEs offer a suite of communication tools most commonly including email, discussion boards and synchronous chat. As well as learning the mechanics of using communication tools in a VLE, staff development should also focus on how and when it can be used to enhance the learning experience.

Online assessment

VLEs offer a range of assessment tools such as multiple choice, gap answer, mix and match and mathematical. In general, using these is a fairly straightforward skill to acquire. Teaching staff need to learn both how to use these tools and in some cases how to write good, appropriate questions for evaluating both online and classroom based learning.

Course building

This is perhaps one of the more difficult skills to learn. To learn how to build an online course or the online component of a blended learning course involves both technical VLE skills and making a number of important pedagogical decisions. On the technical side teachers need to be able to understand the functions of different VLE tools and how to select and perhaps sequence them into the course. Pedagogical decisions are more difficult. One approach to this is to look at the course and identify opportunities where more and/or different content, collaboration and assessment could be of benefit. Once these have been identified the appropriate tools can be selected and the course can be built.

Course management

VLEs have a number of different course management functions that teachers will need to master. These include tracking learner activities, mark books and the ability to add and remove learners from the course. The last function is often automated in many colleges by linking to the student record systems. The other skills are amongst the more straightforward to learn.

Other staff

Teaching staff will in most institutions be the ones who need to know the most about the VLE, but other groups of staff will also need some training and awareness raising.

- Support staff will need to be familiar with how learners use a VLE in order to help in supporting them.
- Technical staff need to be aware what a VLE does and how teaching staff are using it in order to make sure that the way that the college network and computers are set up supports, rather than hinders, usage.
- Management may not need to know too much about operating a VLE, but they do need to be aware of its potential for supporting teaching and learning, the financial demands that hardware, software and training will make in the long term, and the best ways to maximise its potential in any new developments that they are promoting, such as their ILT Strategy.

Pedagogy

Or, how to use the VLE in teaching and learning. For example, The Western Colleges Consortium runs introductory sessions, of two hours each. This is 15 minutes to learn the technical aspects of using a VLE, and the rest of the time spent working on learning how to use a VLE with students. They have attempted to remove the focus from the technology and onto the learning process. They also focus on planning and getting staff to identify how they will use the VLE with students, providing them with examples and case studies.

“Teaching online requires much more of a mindset change than just being able to do it - if the staff aren't thinking about how they will structure their teaching to match the environment, then they will require a lot of work from me later on to advance their use to be something more effective. We're just now running a series of sessions that are half 'how to – technical' and half 'why / good practice' - where staff are introduced to the technical aspects along with the pedagogical implications. And it is the latter that really requires the hard staff development work”.

(John Lee, University of Dundee)

Approaches to training

Colleges have developed a wide range of different approaches to developing staff skills in using a VLE with differing rates of success. These approaches are described below. Some institutions have focused on one of these whilst others have used a mix – this latter model generally seems to be more effective.

The blunderbuss

Some colleges have taken a "let's train everyone" approach. Generally this involves exposing all teaching staff to a half day or full day VLE training. Hopefully everyone comes away with some awareness of what a VLE is and what it may do and so may revisit it later. More importantly some staff are really enthused and start to use the VLE regularly. Often it's hard to predict who these people may be and the end product is that VLE activity is started in many different curriculum areas of the college.

However, this approach can be wasteful, and on its own is unlikely to be successful.

“For some, the intensity of large chunks of training is off-putting and overwhelming”.
(Clare Killen, Becta)

One way to make it more effective is to use it as a showcase, to show what can be done on a VLE, maybe even using examples from other colleges. Thus it becomes an awareness raising session – which could then be followed up with a training session, using one or more of the methods described below.

Short, sharp sessions

A more useful approach seems to be lots of short training sessions, possibly on a tool by tool basis. This involves perhaps a rotating programme of one hour sessions on using tools such as email, discussion, uploading content, assessment etc.

“Once we moved to short training sessions, we saw a huge increase in the number of staff using the VLE with students”. (James Clay, Western Colleges Consortium)

The specialists

Some colleges have started their staff development implementation by bringing in specialist VLE trainers, usually those employed or certified by the suppliers of the software. This will normally provide high quality training by people who have a deep understanding of the software and a lot of experience in teaching people

how to use it. The down side is that it isn't cheap and so can only be provided to a very small number of staff. These staff are then often given the task of cascading what they have learned to colleagues.

Cascading

Some college have adopted a model of VLE Champions within each department to cascade good practice down through each department. Champions should be teachers who are not necessarily too techie and are respected by their colleagues as good practitioners on the basis of their ability to teach and support learners rather than their IT skills. As Patricia Saunders and Harry McCarry from the Belfast Institute said in their conference presentation:

“We used the respected peers, who are good practitioners, to carry the message – not in theoretical terms, or as managers, or flag bearers for organisational goals - BUT as people who had product to show to their peers. They were able to show how the VLE and ILT could enhance traditional delivery. The product they displayed was tangible, centred around use with students, and challenged traditional views of learning and teaching. It was not being forced upon staff but being used to illustrate complementary practice that would enhance the learning and teaching process. The use of the VLE also provided insight into how to use their basic ILT skills in creative ways”.

The carrot

A number of colleges have incentivised VLE usage either through remission or offering some financial gain. One example of this is a large college that offered TPI payments to all staff who had uploaded some content into a module they were teaching. This was combined with a blunderbuss training day. The effect of this was that very large numbers of staff achieved the uploading but many didn't really follow this up at all in the months after. However two years down the line, **and with a significant amount of follow up training**, this college now has a lot of staff actively using the VLE.

The surgery

This is a strategy that is usually combined with other VLE training. The surgery approach involves a VLE specialist being available for a number of hours a week for one to one guidance. While this is somewhat resource intensive it can be very effective. A lot can be gained by a novice VLE user talking with an expert about their work, and exploring ways in which they could use a VLE, and having personal training in the mechanics of doing so.

The course team

One approach that shows a lot of potential is course team based staff development. At best this can be very effective in engaging a course team setting up an online course identifying opportunities where a VLE could be effective and building skills within a team where people will continue to support each other over time. This curriculum based approach means that the training can be tailored so that examples are from the particular curriculum area, rather than being more general because trainees are from more than one curriculum area.

“The Belfast Institute set aside a fixed amount of money each year from 2000-2003 to support curriculum teams – including involvement of support staff, e.g. technicians. The college drew up a project pro forma and encouraged teams to make applications for support. All of these projects - 120 to date – were based around using the VLE”.
(Patricia Saunders, Harry McCarry, the Belfast Institute)

The newcomers

A lot of colleges have built VLE skills into new staff inductions and/or teacher training courses. This has proved to be a particularly successful approach. New staff are often more open to new ideas, younger staff

often (but not always) are more comfortable and familiar with web technologies, and staff new to an institution will often be keen to learn new skills in order to make a good first impression.

Use the VLE for CPD

This is particularly important to give staff the chance to experience a VLE from the students' point of view. An example of this approach is Bradford College⁵, where the VLE was used for the induction of twenty tutors as part of an e-moderator training programme. The induction module is taught and studied entirely online and extended over a four-week period. During this time tutors develop a range of e-learning skills, are introduced to the tools in the VLE, and consider issues such as netiquette, copyright and citation as well as providing appropriate support for e-learning students. A number of self-tests and assignments are also included in the programme. The aim of the induction process is to ensure all tutors have the basic skills and competencies to successfully commence an e-moderator training programme and to utilise the tools of the VLE. An initial evaluation of the induction programme indicated that tutors found the process valuable and had gained confidence in utilising a range of tools and processes required for e-learning.

Follow up

Whatever the approach, it is vital that there is ongoing support for staff after the training sessions, and that these are pro-active – e.g. staff attending training sessions are followed up after the event to see what progress they are making, if they need further help, what problems they have, etc.

Ongoing support can be expensive, but it is possible that much of it can be met by online support, including web publications, rather than face to face. Some colleges produce a series of written short “How to” guides, to backup other types of training – e.g., how do I upload content, how do I set up a multiple choice test, etc. These are available from the college web site, usually in HTML and PDF format. Most guides will originate from questions from staff. The guides tend to replace the official VLE manuals, which are usually too large and incomprehensible for the lecturers. The guides are often supported by a FAQ.

A model for staff development

In his keynote paper, Peter Kilcoyne proposed a model for good practice for implementing VLE staff development. This included:

- Run an annual VLE cross college training day with promotion of best practice, skills training and course team planning.
- Train all new staff to use the VLE as part of their induction.
- Provide regular tool based training with a strong pedagogical input and strong incentives to attend.
- Provide regular, drop in surgeries.
- Have a college requirement for all full time courses to be using the VLE by a specified date(s).
- In FE, make use of NLN subject mentors, Ferl Practitioners' Programme (FPP) and RSC training. Schools should work with their local Regional Broadband Consortium (RBC).
- Use the VLE for a variety of CPD.
- Make VLE usage an integral part of staff appraisal, schemes of work, lesson observation and inspection planning.
- Work on VLE staff development at the level of course teams as well as the individual member of staff.
- Provide differentiated training for different groups of staff.
- Keep it simple – VLEs have a lot of functionality, and it's usually better to start by training staff in some of the basic functions, let them get familiar with those, then they can decide if and when they want to learn more (or **need** to learn more – possibly the basic functions are all they require for their teaching). As one delegate said “From my experience, if you try and cover everything, it will either take too long, and cost too much money, or staff will find it intimidating⁶”.

⁵ Source: Paper presented at the conference by Norman Borrett, Principal Lecturer, Bradford College

⁶ James Clay, Western Colleges Consortium

VLEs and schools⁷

School use of VLEs is somewhat different from that of colleges and universities, not least since pupils are in full time, face to face classes. However, VLEs (and other learning platforms) do have an important role in schools, recognised by the Regional Broadband Consortia, a number of which have purchased or developed learning platforms (LPs) for schools.

Advantages for schools of VLEs can include:

- Improved communication tools between staff and pupils.
- Increased opportunity for parents to be involved.
- Minority subjects can be catered for remotely.
- Summative assessments.
- Easier for teachers to cover lessons.
- Extra support is easier to provide.
- Inter-school collaboration can be supported.
- Supporting rural secondary schools without access to specialist teaching resources.
- Providing education for pupils not in school.
- Providing education to pupils in very remote areas.

In spite of this, many learning platforms that have been implemented on behalf of schools have been under-utilised because:

- Teachers do not feel involved in the process.
- There is a lack of opportunity to develop a vision or expectation of how to use VLEs.
- There is a perception that new technology and additional work is being imposed.
- Teachers do not feel that their specific needs are addressed.

Even if substantial amounts of training are offered then these soft issues can act as real blocks to the adoption and embedding of VLE systems.

The above soft issues combine with the hard issues (of lack of broadband connectivity, unreliable internet access, lack of home system access to teachers and learners, shortfall in basic ICT skills of staff) that have been confronting schools over the last few years.

The combination of these factors has resulted in considerable dissatisfaction within some areas of the school educational community in what is currently being offered as a VLE solution, even though these solutions offer high levels of functionality, provide value for money and have not created a burden on schools for procurement and support.

On the positive side there is increasing evidence of teachers and pupils in both primary and secondary schools making use of learning platform systems. Broadband and internet access provision is rapidly improving and most importantly VLEs are maturing to deliver a range of functionality more likely to meet individual and institutional requirements.

Examples of use include:

Lesson planning: within a VLE lesson plans can be linked to online resources, mapped to the National Curriculum and provided to supply teachers or pupils who have missed classes.

Classroom discussions: can be done asynchronously outside the normal classroom environment; they can also be done online within a classroom allowing a teacher to moderate a wide number of discussions happening simultaneously.

⁷ Much of this section is taken from the conference papers by Lenore Ogilvy and Clare Usher, "A regional strategy to use Learning Platforms for collaboration and communication in schools"; and Claire Gill and Simon Shaw, "Specifying & Purchasing VLEs: The School Perspective".

Online tests and assessments: can be automatically set and marked to provide formative and summative information about a pupil's progress.

Extending and reviewing lessons: simple tests can also be used to gauge levels of understanding across the class before teachers move on to new lessons.

Quality of teaching and learning: the main priority of schools is to deliver quality in teaching and learning to improve school and individual performance. Those with understanding and vision of the use of VLEs can easily make a case for the role a learning platform might play in complementing these strategies.

The real challenge for schools is not in specifying and purchasing a VLE but in supporting the realisation and adoption of these elearning platforms for school improvement. Here support is required for developing and deepening the vision schools have for applying ICT and in the change management process that is required to apply this vision.

"It is well recognised that change management is a difficult process within education where staff have well established and relatively independent professional roles that support long standing practices. Therefore, it is strongly recommended that a cross section of staff across the whole institution are involved in the specification of a system that will change and enhance their existing practices". (Claire Gill, Simon Shaw, Becta)

Lenore Ogilvy and Clare Usher described their experiences of VLEs, via their work for the East Midlands RBC (**embc**) , beginning by describing some of **embc**'s key requirements of a learning platform (LP), which should:

- inspire and facilitate the work of all users, both adult and children;
- act as the vehicle for exemplary practice in the application of both synchronous and asynchronous collaboration across the region and the delivery of online, broadband content with the aim of supporting school improvement;
- be flexible and versatile in its support for a student-centred approach to teaching and learning and be an enabler for both independent and group learning;
- support adult as well as school-age learning.

They note that in individual schools, teachers are beginning to appreciate and apply the opportunities the LP has to offer for enhancing teaching and learning. This ranges from simply searching for content on the LP confident that the search will return relevant results, to using the various tools on the LP, such as a content sequencing tool to present online materials safely and efficiently to their pupils.

Perhaps most importantly, students are confirming the contribution that the LP can make to their own needs in the use of relatively simply applications, such as the ability to easily transfer their work between home and school using their personal space on the LP.

Whilst the benefits of LPs and collaborating across such a wide area have been evident, the implementation has not been without its challenges. School take up of the LP has been slower than anticipated. There are many reasons for this, including unrealistic expectations, the time needed to undertake the change management process, delays by the suppliers, and limited resources in both schools and LEAs to develop and support practice.

Training raises particular challenges. When schools join the **embc** network they receive training for two members of staff on all aspects of the LP, which is intended to be cascaded to the whole staff in schools. Often, this training is not cascaded, either because of a lack of time in school, because the staff who are trained leave school or because the staff who are trained do not perceive any value in the LP and therefore don't share the training. There is also a need to provide update training, but difficulties in releasing teachers from schools and other resource issues mean that attendance at these can be low. In addition, persuading teachers of the pedagogical value of using a LP will often require subject-specific training sessions, which again require resources in terms of subject specialists that are frequently in short supply at LEA level.

Finally, take up of the LP is much more likely where it is embedded into school life. This means that implementation of the LP needs to be a part of the wider LEA strategy. Certainly at the start of the initiative, the use of a LP was regarded as belonging to the domain of “ICT” rather than learning, teaching and management. Without a wider strategy to support its implementation both at LEA and school level, the use of a LP is regarded as an ICT tool rather than a general pedagogical one with relevance to all areas of teaching and learning. It has become evident that the more progress the LEA has made in embedding the LP into their overall strategy, the greater the interest and take-up in schools.

Intranets versus VLEs

Although not specifically a conference topic, this arose during the discussions. Basically, the question is “Why should I bother buying an expensive VLE when I can provide the same sort of functionality on the college intranet (or by writing our own VLE using in-house or third party developers)?”

Clearly, it is possible to develop an intranet in such a way that it provides all the functionality found within the VLE, and there are usually three arguments put forward in support of using an intranet. These are:

- a) We already have an intranet in place, and are using it successfully for teaching and learning, so why should we bother replacing it with another system?
- b) The intranet costs us nothing to develop, whereas we have to pay for expensive licenses to buy a VLE.
- c) We can configure the intranet to appear as we want it, with the tools, access and functionality we need, whereas VLEs might be less flexible, or less user friendly.

The first point may well be valid, depending on your starting point. If a college already has devoted resources to developing an intranet, with which they are happy, then it is probably better to stick with that, at least in the short term.

However, the position is different if the intranet is not yet developed that far, and the considerations then need to take into account cost, time, etc. Whilst VLE licensing can be expensive, so is the cost of developing an intranet for teaching and learning. Web developers with the skills to do this are not cheap, and it could take a considerable amount of time. The costs might be hidden, perhaps because there is already an intranet developer in place, but they are nonetheless real. There are also considerations other than cost:

- The intranet would need to be developed taking into account accessibility, MIS interoperability, and other standards, and these are very difficult and time consuming to implement.
- If the intranet developer left, it would probably be harder to find and train a replacement for a bespoke intranet development than it would be to replace a VLE administrator.
- If the intranet is not developed with an inbuilt content management system (CMS), it makes it much harder for teaching staff to upload content themselves, possibly creating bottlenecks.
- Whilst the intranet can provide the same tools a VLE can, these would almost certainly not be as well integrated as in a VLE, and may well have a different look and feel.
- Most VLEs are very configurable, and unnecessary functionality can easily be removed from the user view. As one delegate⁸ said “I’d almost go so far as to say that we present different areas of the University with a different VLE (even though it’s the same product on every occasion) - because we choose to emphasise different aspects of it and different ways of integrating it with face to face (F2F) depending on the academics interest, level of expertise/confidence, approach to teaching the subject etc” .

Contrast developing an intranet for teaching and learning with installing a VLE. The time between making the decision to develop an intranet or buy a VLE, and being able to use the intranet/VLE for teaching, should be much shorter with a VLE because all the development work is done for you – all you need to do is install it, and not even that if you are using a hosted system. This means that your energies can be concentrated on the staff development and the pedagogy, rather than on the technical back end work – and this could be a saving of months or even years.

“We could tomorrow on our VLE provide ALL learners with access to ALL materials, but from our experiences this would not enhance the learning process for our learners and would provide more barriers than open up learning”. (James Clay, Western Colleges Consortium)

⁸ Nigel Curson, University of East Anglia

There is an argument for using an intranet on a small scale, where there is a good CMS usable by lecturers, where it is primarily for content only, and where you don't mind if everyone has access to all the content (though allowing everyone access to everything can be confusing, and can create navigational and organisational problems). However, for larger scale applications, where you are dealing with large numbers of students, in separate classes/cohorts, where you want to direct the content at particular groups and/or individuals, and have dedicated discussion areas for those groups, it becomes increasingly difficult to implement that on an intranet, whereas a VLE lends itself to precisely that sort of organisation and scale.

Specifying and purchasing VLEs⁹

Following a pilot, a college may decide to purchase a different VLE. This part of the conference addressed some of the issues around that.

Buying a VLE is one of the most important decisions for an institution, one that has major implications for it, and should be seen as significant as buying a major new building. The choice of VLE will be significant across all areas of the institution and especially in the way in which teaching and learning are undertaken. It is therefore essential that the selection of the VLE and the way it is implemented are in close accordance with the institution's strategic plan.

All VLEs have an implicit pedagogy¹⁰ incorporated within them, and make some types of teaching and learning easier than others. Although it is possible to do almost any type of teaching in most VLEs, they do encourage particular forms of teaching, so that if an unsuitable VLE is bought it will constrain what is done. It might be thought that this does not matter because it is easy to replace one VLE with another. Unfortunately this is rarely the case. While in theory content (learning objects) can be moved from one system to another this is often difficult and the way that the material works may be changed in the new system.

A VLE isn't the only consideration in terms of pedagogy, especially in a blended learning situation. As Megan Robertson, from Stoke Sixth Form College, said: "Overall, the VLE is just another tool in the endless search to find ways of making learning a pleasure. It is the enthusiasm of the teacher that is paramount, the important things are the ideas, skills and ways of looking at things that you wish your students to develop over their time with you.... the VLE just provides another medium through which this can be shared..."

The first question that needs to be asked, and answered, is: "what is the reason for buying a VLE?". The proper implementation of a VLE is expensive and will take much planning and effort at levels throughout the college. It is important that the VLE and the way it is used are in line with the college's strategic plans if real benefits and value for money are to be realised.

You will need to consider how the VLE is to be used for teaching and the ways in which this constrains teaching, and teaching methods. As with a poor building you can find a "work around" for the problems, but these are usually not very satisfactory and frequently require additional resources (staff time or money).¹¹

The VLE, if it is to be cost effective, will be central to a considerable number of courses - it is therefore important that it is easy to use by **both** students and staff. If the system is not easy for the students then it gets in the way of learning rather than enhancing it, and if it is hard for the staff to use then they are less likely to put in the extra work required to get a meaningful course online.

Saving money on the capital (license) cost could be very expensive later in terms of staff time when they are struggling to use a system which does not meet their needs.

⁹ Much of this section is taken from the conference paper by Tom Franklin.

¹⁰ Evaluating a VLE with respect to its pedagogy is very complex – not least, because the pedagogical implications of them are far from fully understood. A good starting point for this is the JISC publication, "A Framework for the Pedagogical Evaluation of Virtual Learning Environments", by Sandy Britain and Oleg Liber, available at http://www.jisc.ac.uk/uploaded_documents/VLEFullReport08.doc. This is an updated version of their paper.

¹¹ Again, the Britain/Liber paper is relevant here, as is the work of James Dalziel, who has developed a system known as LAMS. See the Further Resources section.

But get it right, and this is what happens: “Learners at my previous institution were starting to complain when one of their teachers was making good use of a VLE, with materials online and good communications, whilst another was not making any use at all”. (Paul Brown, Becta – formerly City College, Birmingham)

Some of the features to consider when purchasing are:

Basic components:

- Content management.
- Discussion (synchronous and asynchronous).
- Assessment.
- Student only area(s).
- Annotation of content.
- Support for groups and groupwork.

Other possible components:

- Alternative, more sophisticated discussion tools, such as the ability to link postings, and comment on the links, and present this graphically.
- Discussion tools that are integrated with the content so that it is easy to show what you are referring to; and this should include the ability to annotate dynamic learning objects.
- More sophisticated support for groups and sub-groups including both teacher defined and student defined groups (which may exclude the teacher).
- Wider variety of student-only areas (these are important, just as having a discussion after a class in the refectory without the teacher is important).
- Alternative assessment tools.
- Tools that support linking ideas between units (there is a problem that VLEs tend to create silos, and one of the important parts of learning is to be able to link the ideas from different units together).
- Videoconferencing.

A detailed paper on the procurement process for a VLE for schools was produced for the conference by Claire Gill and Simon Shaw of Becta. Whilst schools oriented, this also provides very useful guidelines for other educational institutions. This is available at <http://ferl.becta.org.uk/display.cfm?resID=6898>.

The consortium approach

The point was made repeatedly by conference delegates and presenters that VLEs, when the total costs are taken into account, are expensive. In FE/HE, the majority of institutions have gone their own way, each installing its own VLE (or other learning platform). In schools, however, the approach has been different, and, more often than not, schools have worked together in a consortium to buy, install and maintain a common VLE. In the English schools sector there has been the establishment of the ten Regional Broadband Consortia, which have the aim of supporting and providing broadband services in schools. Most of these have provided, as part of this service, a VLE (or similar learning platform), usually tailored to meet the particular needs of schools (for example, by offering parent logins, something not found in VLEs in FE/HE). The East Midlands Broadband Consortium (**embc**) covers the nine LEAs in the East Midlands. According to Lenore Ogilvy and Clare Usher, in their conference paper:

“The benefits of using a single LP across seven LEAs, and collaborating with two other LEAs using their own LPs have proved considerable:

- The bulk purchase of licensing and centralised hosting has resulted in a more cost-effective deployment of a LP for many LEAs.
- The sharing of knowledge, ideas, materials and workload amongst all LEAs has saved valuable time and resources and has helped foster an understanding in the region that **embc** is working to common objectives for the benefit of all schools.
- Encouraging the take up and use of a LP is a process of change management that requires sustained energy. By working across LEAs, projects and emerging practice can be shared, creating a larger body of support and incentive than would be available to a single school or small collective”.

More than half the schools in England now have access to a VLE/LP through the RBC consortia.

In contrast, the consortium approach has not taken off in FE/HE, in spite of very clear benefits. In FE, the best established consortium is undoubtedly the Western Colleges Consortium, which has James Clay as its director. James also produced a paper for the conference¹², covering the administration of a VLE, as well as looking at the advantages and disadvantages of the consortium approach. His estimate of savings to the consortium was:

“approximately £3.5m, or £700,000 per college over the life of the WCC so far. In most cases the impact will be to reduce the costs to less than a quarter or a fifth of the total costs there would be if the institution was to go it alone. Of course there are other non-financial benefits in having a collaboration which are difficult to quantify, for example our work on IPR and Freedom of Information.”.

Savings come from only needing one VLE administrator, one support desk, savings on staff development, etc.

There are problems, of course, in a self managed consortium such as this (this model being different, managerially, from the centrally funded RBCs for schools, which are therefore independent from the schools, and not directly managed by them). One problem – or rather, issue to deal with - is the need for effective and precise communication across five colleges, which at least theoretically could be competing for the same students. A further issue is to ensure that the VLE can talk to each of the respective Management Information Systems, though the WCC has achieved this. It seems likely that the colleges which would work best in a consortium are those which already have some experience of working together previously.

“The question is not why do you have a consortium, but why don't you?” (James Clay, Western Colleges Consortium).

Open source and free solutions

There are various open source (and/or free) VLEs available now, e.g. Moodle, COSE, Colloquia, Boddington. The advantage of these is their apparent low cost, and, indeed, given that they do not have license fees, there can be a substantial saving over the costs of commercial products. But licensing costs are usually the smallest part of the cost of a VLE, compared with, for example, the cost of staff development, content purchase or development, administrator salaries, etc. (Though they can still be significant!).

For the question “Should I get an open source or free VLE?” there is no right or wrong answer, but there are further issues to consider:

- There's no such thing as a free, or even cheap, VLE. Costs are significant, even if there are no purchase or license costs.
- Free or cheap doesn't mean better (nor, of course, does expensive mean better!). A more important consideration than cost is whether or not the product does the job, e.g. is it easy to use, is it stable, etc. A free product which is so hard to use that no-one bothers with it is, in reality, more costly than a commercial product which teachers do in fact use with their students.

¹² “The centralised management and support of a common VLE across five colleges”, James Clay, WCC. The full text of this paper is available on the Ferl web site, at <http://ferl.becta.org.uk/display.cfm?resID=7033>

- In general, commercial VLEs (at least the better established ones) are likely to have better support, a larger user base, a development programme, a better long term future. (Clearly, there are exceptions to this.). Free VLEs are likely to be dependent on smaller teams of people, or even individuals, and it could be argued that their long term future is less secure, and so a college using one of these might end up with no support, and a product that is no longer being upgraded. Of course, this can apply to commercial companies too, if they go bankrupt, or pull out of the VLE market. But paying a fair price for a product does mean that the company can generate profits, and possibly be more sustainable. And certainly, before opting for a free VLE, the college would need to consider the issue of sustainability and updating very carefully.
- The above arguments don't apply in quite the same way to open source products. Moodle, for example, is open source, but has a large user base, and, precisely because it is open source, is not dependent on the skills of one developer.
- Installation and set-up costs should also be taken into account. These can be significant – for example, one LEA which used a free, open source product spent some months grappling with its installation. The cost of this in terms of staff time was highly significant. A much better solution would have been to pay a third party provider, one which specialises in supporting that particular product, to host it. This would have meant the LEA could then concentrate on staff development, rather than waste months on technical issues.

It is probably worth pointing out that, following on from the argument that the true cost of using a VLE is not the cost of purchase or development, it is the cost of running and managing it, it is arguable that if the institution sees the license cost as so significant it dictates its choice of product, it is quite likely that it will not be able to afford all the other costs associated with running a VLE. VLE solutions are not cheap (or at least not in the short term¹³).

“Four to five years back Liverpool Hope developed its own VLE. This development was undertaken by a psychology lecturer who had very good IT skills. Over the last 18 months we've implemented Learnwise as our new VLE. Why?

Firstly, in-house developed products often have an over-reliance on a single person and problems start to develop when they move on or retire. Secondly, in-house developed products often fail to comply to standards. Thirdly, it's very difficult to keep in-house developed products 'modern'. But with commercial products, there are often newer, improved versions in the pipeline as soon as you install any given version. Basically for an institution of our size, commercially available products give us the best product to meet our current needs. The in-house developed product was a great start, but, using a simple analogy, we now need to be 'running Windows XP not Windows 3.10' “. (Stephen McKinnell, Liverpool Hope University)

Standards and interoperability

A VLE is not an isolated tool, it has to work in conjunction with other parts of the college's IT infrastructure in order to create what has become known as a managed learning environment or MLE. There are two key interactions that will be essential from the start. These are:

- the ability to transfer student enrolments from the student record system (SRS) (or management information system) to the VLE;
- the ability to return results from the VLE automatically.

As well as this, it is important to address the issue of e-learning standards as applied to content. The conference hosted an expert session by Lorna Campbell and Wilbert Kraan of CETIS. The standards debate is, to most people, highly abstract and esoteric, full of obscure acronyms. However, in essence, it can be said that there are various standards emerging around e-learning, and that these standards are important in the same way that other standards in computing – or elsewhere – are important. Standardising on a

¹³ Though there is a powerful argument that if your VLE improves retention, as it should do, this will increase the income of the institution significantly, and may even cover the true costs of the VLE.

particular electricity voltage is clearly essential within a particular country – it would be very inconvenient (and very expensive) if the voltage varied from town to town, meaning that electrical appliances had to be different in different towns to cope with the different voltages. In the same way, standards which facilitate content being moved from one brand of VLE to another are very important, saving time and money. There are various standards – or specifications, which are on their way to becoming standards – which are relevant to e-learning and VLEs. At this time, there are possibly three important lessons to take forward:

- When purchasing a VLE, it is important that managers look for a product which, as far as possible, complies with the standards/specifications. However, standards compliance alone is not a reason for buying a product. Whilst all shortlisted products should be standards compliant, the final decision on which to buy should rest on other considerations, primarily those to do with teaching and learning. Compliance, therefore, should be a pre-condition for a product being shortlisted – but not a sufficient condition for making the final choice of which VLE to buy.
- Teachers and lecturers do not need knowledge of these standards, which should be invisible to them. All they need to do is to be able to use the tools, such as a VLE, which are compliant with the standards.
- However, it is important to realise that standards are still being developed, and the input of “ordinary” lecturers is important to ensure that the standards are developed to meet the real needs of the practitioners.

“It's crucial for senior managers to be aware of standards at the strategic level so they can make informed decisions when investing in tools and software for their organisations. Interoperability standards should ensure that institutions don't become 'locked in' to a particular vendor or solution”. (Lorna Campbell, CETIS)

Much more information on standards is available for those interested. See the section on Further Resources.

Content and quality control

Compared with even a few years ago, there is now a huge range of content available for VLEs, including:

- the high quality NLN produced content, free to FE, ACL, etc.;
- the content produced by third party suppliers, usually at a cost;
- the many resources available free from the internet;
- content produced by teachers themselves.

The most common way for courses to be created in VLEs is by assembling content from a variety of resources. So, typically, a lecturer will take some content from the NLN, or a third party supplier, and use it in a course, linking it together, and putting it into context, using lecturer created content, which can range from simple Word files, up to more sophisticated content created in HTML editors or authoring tools. This process is logically the same as is used in face to face classes, where the lecturer might have a text book for the students, photocopied pages from other sources, and their own handouts. It's important to use the ready made resources which are available – this frees the time of the lecturer, and means they don't have to spend many hours creating their own content.

A number of different approaches to content development are emerging. Amongst the most common is the use of home made and perhaps repurposed Word documents and PowerPoint presentations. Some colleges are starting to make use of WYSIWYG authoring tools, often based around a Word or a Word type interface. Some colleges are employing specialist content developers using a range of more powerful authoring tools to produce high quality interactive standards compliant learning objects.

It's also important to share resources with colleagues. Properly managed this can save huge amounts of time. Sharing across an institution can save time, sharing regionally or nationally can save even more time!

Resources should be put on the VLE (both lesson content, and support materials such as schemes of work). VLEs are (usually) good at doubling as content management systems, and students who need additional copies or who have missed lessons will go there rather than make you stand at a photocopier – which, taking into account staff time and copy costs, can result in really big savings for the college. Use administrators to put the resources on the VLE and that can save even more time.

Quality control

Both in the face to face and the virtual classes, there is an issue of quality control for the self produced content. However, there is a danger of too much quality control killing participation – as Peter Kilcoyne said, “Something I've seen at a number of institutions which I feel has pretty much killed off their VLE development is too much quality control, which in some cases goes as far as saying that nothing goes onto the VLE unless it's been checked out first”. The most appropriate way for implementing quality control seems to be that if the materials are to be used by others, staff who use those resources must have trust and confidence in those materials, and they need to be able to understand what the learning outcomes are if they use those materials. Hence those materials need to be produced to a standard format (in the sense of, say, always having the learning outcomes clearly defined). However, if someone is producing materials solely for their own use, they should use the same quality control procedures as they would use if producing a handout for a face to face classroom session.¹⁴

¹⁴ The issue of quality control, and of other mistakes institutions make when introducing a VLE, are covered in “VLE mistakes: how to get it all wrong!”. See Further References.

Engaging the students

Getting the staff involved is one side of the equation – though likely to be the most difficult. The other side is getting the students to use the system.

As with staff, the most important thing is that the system is easy to use. However, beyond that, there has to be good reason for a VLE to be used, and those reasons are likely to be different in the different sectors of education, depending on the primary use of the VLE (content, communications, assessment), and where it is used/accessed within the class/institution, e.g. to deliver assessments as part of a face to face class, or accessed externally (to provide supplementary content, use the communications for group work, etc.). Whatever the case, the VLE has to add something to the learning experience for the student, and not just be used for the sake of it. If it doesn't offer something more than the students already get within their classes, then there is no point in them using it. The value added can be in a number of areas, e.g.

- Access to content outside timetabled hours.
- Ability to catch up on missed classes.
- Communications with peers (and tutors).
- Self testing.
- High quality multi media content.
- More student centred learning.
- More student control over the learning process.
- Allows students with poor organisational skills to have all their resources in one place.

But, as always, the key to this is having enthusiastic teachers.

“Overall, the VLE is just another tool in the endless search to find ways of making learning a pleasure. It is the enthusiasm of the teacher that is paramount, the VLE just provides another medium through which this can be shared”. (Megan Robertson, Stoke Sixth Form College)

Accessibility

There are really two issues related to accessibility – accessibility of the learning platform itself; and accessibility of the content inside it. It is an institutional responsibility to ensure that the VLE itself is accessible - the accessibility requirements are likely to be the joint responsibility of ICT staff and ILT staff, and the VLE should be included in the institution's inclusive teaching and widening participation strategies, as well as its teaching and learning strategy and its ICT strategy. So, an important part of selecting a VLE is assessing its accessibility.

Responsibility for the accessibility of VLE content developed by teaching staff lies jointly with the teaching staff and with managers. Teaching staff, as part of their CPD, will need to be increasingly able to create and deliver online learning, and knowledge of the accessibility issues should be embedded in this. As part of a wider “reasonable adjustment” for an institutional strategy to support disabled students, the inclusion of specific staff development activities around the issue of accessible online learning would be appropriate.

Managers need to ensure that accessibility is recognised as a strategic and policy issue across the institution, and, perhaps most critically, ensure that teachers are given the time and the technical assistance to best implement accessibility.

For more information on accessibility, see the Further Resources section.

Conclusion

What is the key message of the conference?

Moving from a pilot to the mainstream requires a big commitment on the part of the institution, and it is important not to underestimate this. It takes time, there is no quick fix. And the real cost of a VLE is much more than just the cost of a license – staff development, VLE administration, technical support, etc. all need to be taken into account. However, there are significant savings which can be set against costs, e.g. administrative savings, income due to improved retention, etc.; and, more importantly, the benefits to teaching and learning of a well implemented VLE can be huge.

Educational institutions which do not take e-learning seriously (and by extension, VLEs, or other learning platforms) will, in the long term, lose out to those institutions which have made a commitment, and which have managed to move from the fringes, into the mainstream.

VLEs – further resources

This is a list of some resources which support and complement the content of this paper. It is not meant to be a comprehensive listing of everything related to VLEs.

CETIS, the centre for educational technology interoperability standards. The authoritative source of information on current learning standards. <http://www.cetis.ac.uk>

Coping, adapting, evolving: the student experience of e-learning, Moore, Kay and Aspden, Liz Library and Information Update 3 (4) April 2004, pp. 22-24
<http://www.cilip.org.uk/update/issues/april04/article2april.html>

Ferl focus are on VLEs: this contains much useful background information, case studies, definitions, etc. A good starting point for information on VLEs. <http://ferl.becta.org.uk/display.cfm?page=76>

Embedding VLEs: Shifting from Virtual to Valued: Virendra Mistry, conference paper:
<http://ferl.becta.org.uk/display.cfm?resID=7091>

A Framework for the Pedagogical Evaluation of Virtual Learning Environments: Sandy Britain and Oleg Liber, available at http://www.jisc.ac.uk/uploaded_documents/VLEFullReport08.doc

FPP materials on learning standards. These resources are from the Ferl Practitioners' Programme. One is an information sheet on learning standards, available from <http://www.directlearn.co.uk/vleconf/ISstand.doc> The other is a PowerPoint file on interoperability, from: <http://www.directlearn.co.uk/vleconf/PRintrop.ppt> This is best downloaded, and viewed with the notes pages.

ILT Champions and awareness raising: Geoff Minshull. This was the basis of a JISC publication.
http://www.directlearn.co.uk/downloads/jisc_Champs_aware.doc

Implementation and staff development: Peter Kilcoyne, keynote conference paper:
<http://ferl.becta.org.uk/display.cfm?resID=7189>

Implementing learning design: the Learning Activity Management System (LAMS). James Dalziel. James ran an expert session on this at the conference. This paper gives an overview of LAMS.
<http://www.melcoe.mq.edu.au/documents/ASCILITE2003%20Dalziel%20Final.pdf>

Implementing Virtual Learning Environments: Looking for Holistic Approach: Mario Barajas, University of Barcelona and Martin Owen, University of Wales. The authors summarise here major issues and questions on the implementation of VLEs in traditional educational institutions:
http://ifets.ieee.org/periodical/vol_3_2000/barajas.html

Learning Environments and Pedagogy. 14 case studies from seven universities looking at how different pedagogies are being employed across different VLEs.
<http://www.ltsn.ac.uk/genericcentre/index.asp?id=17729>

Learning platform accessibility. This is the ninth leaflet in a series of 13 which form the Ferl/TechDis/JISC RSCs publication, 'Inclusive Learning and Teaching: ILT for Disabled Learners'. This leaflet describes some simple steps, based on the Web Accessibility Initiative W3C guidelines, which colleges should follow when evaluating the accessibility of their learning platform. <http://ferl.becta.org.uk/display.cfm?resID=5445>

Return to SENDA? Implementing accessibility for disabled students in virtual learning environments in UK further and higher education, Sara Dunn. <http://www.saradunn.net/VLEproject/index.html>

Review of literature on VLEs. Becta: <http://www.becta.org.uk/research/research.cfm?section=1&id=545>

Specifying & Purchasing VLEs: The School Perspective: Claire Gill and Simon Shaw, conference paper:
<http://ferl.becta.org.uk/display.cfm?resID=6898>

The centralised management and support of a common VLE across five colleges: James Clay, conference paper: <http://ferl.becta.org.uk/display.cfm?resID=7033>

VLE list. Ferl manage the VLE Jiscmail list. For information on joining this see: <http://ferl.becta.org.uk/display.cfm?page=380>

VLE mistakes - how to get it all wrong! Geoff Minshull, 2001: http://www.directlearn.co.uk/downloads/cs_mistakes_dlt.doc

VLE Surveys - A longitudinal perspective between March 2001 and March 2003 for Higher Education in the United Kingdom. This is a report which records the results from a survey conducted by JISC and UCISA in March 2003 amongst Higher Education Universities and Colleges regarding their use of Virtual Learning Environments. It complements a similar 2001 survey: <http://www.ucisa.ac.uk/groups/tlig/vle/index.html>

Western Colleges Consortium web site. This is an extremely good example of a support web site for a VLE implementation. See also <http://www.fairenough.ac.uk/> which is a related JISC funded project looking at access to institutional resources. The sites contain case studies, guidance for staff, information on quality control, staff development, etc. <http://www.westerncc.ac.uk/>