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Virtual Learning Environments in Hospitality, Leisure, Tourism and Sport: A Review

Claire Haven and

David Botterill (dbotterill@uwic.ac.uk)

University of Wales Institute, Cardiff

Colchester Avenue, Cardiff, CF23 9XR, UK

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Abstract

This paper reports the qualitative results of a LTSN Hospitality, Leisure, Sport and Tourism pedagogic research project, which has reviewed the existing and potential exploitation of Virtual Learning Environments (VLEs) within hospitality, leisure, sport and tourism. The concepts of e-learning and VLEs as they are reflected in the generic pedagogic literature are reviewed. Extrinsic contextual factors relating to the growth of VLEs within UK higher education institutions are highlighted. A semi-structured questionnaire was used to gather data from LTSN Hospitality, Leisure, Sport and Tourism Institutional Partner representatives at subject-specific and institutional levels. The findings report variations in motivations for development and implementation of VLEs, barriers to adoption and potential areas for further development. In addition to the review of current application of VLEs, the paper contributes to the debates surrounding levels of comprehension regarding VLEs and whether virtual *learning* environments are being created, as opposed to virtual environments. The paper concludes with recommendations for various higher education stakeholders on the further application of VLEs.

Keywords: Virtual Learning Environments (VLEs), adoption, application, objectives, pedagogy

Introduction

The extent of understanding of Virtual Learning Environments (VLEs) and the practice of Communication and Information Technology (C&IT) learning in hospitality, leisure, sport and tourism is largely unknown to the subject communities. Prior to the establishment of the Learning and Teaching Support Network for Hospitality, Leisure, Sport and Tourism (LTSN HLST)

During the preparation of this article Claire was a Senior Research Associate in the Welsh School of Hospitality, Tourism and Leisure Management, University of Wales Institute, Cardiff. Her recently completed doctoral thesis considers attitudes towards tourism-related careers in Wales and her main research interests are tourism and hospitality employment issues. She has worked on a number of research projects for LTSN Hospitality, Leisure, Sport and Tourism.

David's research interests are in the application of the philosophies, concepts and methods of the social sciences to the study of tourism. His most recent publications deal with the epistemology of a set of PhD studies of tourism and the establishment of a Critical Realist Tourism Research agenda. David is a member of the LTSN Hospitality, Leisure, Sport and Tourism Steering Group.

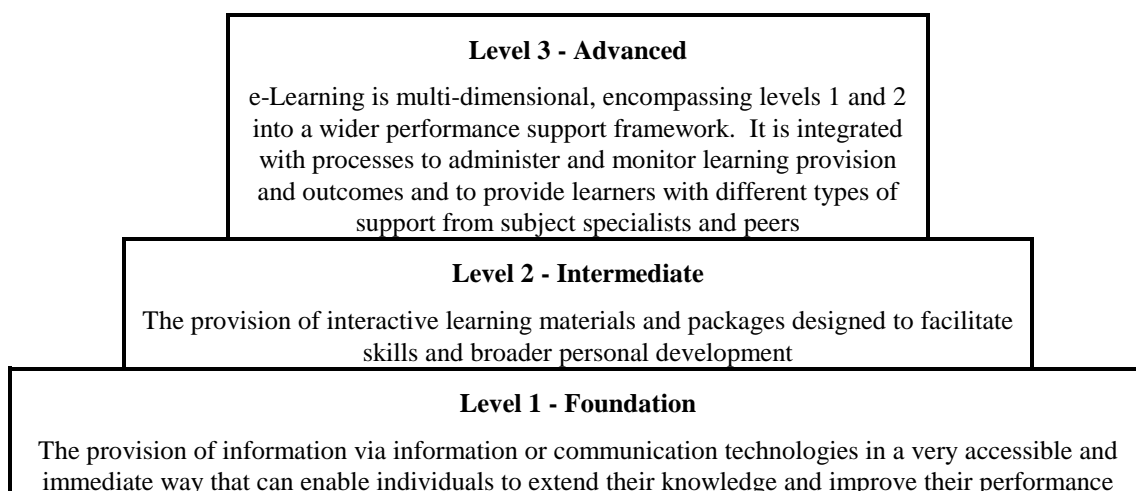
(<http://www.hlst.ltsn.ac.uk>), the subject areas were without centrally funded initiatives in C&IT. Consequently, developments in this field were as a result of self-funded university schemes or individual staff initiatives. Individual initiatives are, of course, to be applauded and can result in innovative work (see for example Batey, 2002; Hall, 2002). This piecemeal approach has not been so helpful, however, in finding a strategic, subject-based response to the opportunities of VLEs. Therefore, many tutors may still be unaware of the potential of such delivery mechanisms, university departments are generally unable to argue effectively for resources to release staff from conventional delivery in order to experiment with new technologies, and not enough is known about the available software and the pedagogic implications of its adoption. This paper reports the outcomes of a pedagogic research project funded by LTSN HLST that is intended to provide a broader, and more systematic, review of the current exploitation of VLEs in order to inform a more coherent response by LTSN HLST. The study provides evidence for the effectiveness of using C&IT and explains the varying ways in which it is used. The article builds upon previous contributions to JoHLSTE (Batey, 2002; Hall, 2002) that typify the different approaches to, and experiences of, VLEs in the subjects. The study reported here also provides guidelines for implementing such programmes in the future.

Objectives of the paper

- To review literature on the emergence of VLEs in higher education (HE).
- To illustrate the scale and scope of VLE application within the subject areas of hospitality, leisure, sport and tourism within LTSN HLST Institutional Partners within the UK.
- To provide qualitative data on the levels of understanding of VLEs and experiences of VLEs within the subject areas of hospitality, leisure, sport and tourism as represented by LTSN HLST Institutional Partners.
- To establish information on strategy, decision-making, staff training and assessments of VLEs within LTSN HLST Institutional Partners.
- To provide recommendations on the further application of VLEs within the LTSN HLST subject communities.

Background

E-learning involves the delivery and administration of learning opportunities and support via computer, networked and web-based technology, to help individual performance and development. It is not a new phenomenon, having existed for at least the past decade, however, its use is growing rapidly and a quarter of all learning is expected to take place electronically by 2006 (Pollard and Hillage, 2001). E-learning can be distinguished at three levels, as in Figure 1.



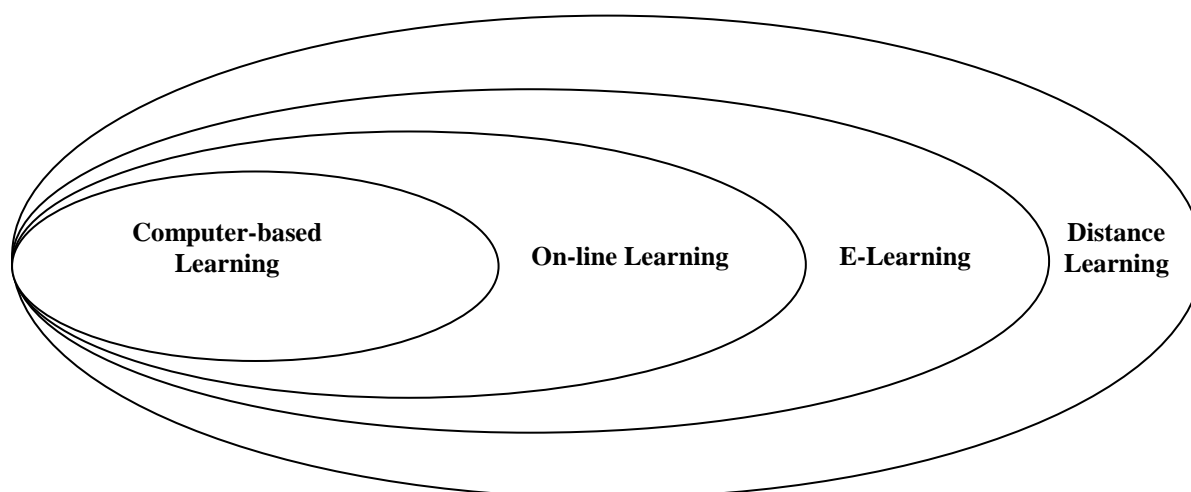
Source: adapted from Pollard and Hillage (2001:2)

Figure 1: Three levels of e-learning

Many use the term 'e-learning' to refer to the provision of learning opportunities in different ways, rather than the actual process of learning. Pollard and Hillage (2001) suggested that whilst those with a limited perspective associate e-learning with computer-based training, others view it as encompassing more than just the provision of learning via computer technology. Urdan and Weggen (2000) defined e-learning as:

“the delivery of learning materials, packages or opportunities (i.e. content) through various forms of electronic media, including the Internet, intranets, extranets, satellite broadcast, audio/video tape, interactive TV and CD-ROM.” (cited in Pollard and Hillage, 2001:7)

Hence, e-learning is seen to be synonymous with technology-based learning and as a subset of distance learning, of which online learning is one element, see Figure 2.



Source: Urdan and Weggen (2000), as cited in Pollard and Hillage (2001:8)

Figure 2: Spheres of Learning

The development of Virtual and Managed Learning Environments within the higher and further education sectors in the UK has been acknowledged as a crucial factor in the e-learning infrastructure (Brown, 2001) and there is widespread acceptance that there will be a considerable transition in education from traditional face-to-face delivery and paper-based distance learning, to online provision (Nelson, 2002). Mason (1998, cited in Britain and Liber, 1999) suggested that there are three basic models of current online courses:

1. **Content + Support Model:** a relatively static body of content provides the core of the course and is supplemented by tutorial support with a low level of interaction.
2. **Wrap-around Model:** course materials are 'wrapped' by activities, online discussions, etc. This is referred to as a '50/50' model, as online interactions and discussions occupy approximately half the students' time.
3. **Integrated Model:** a resource-based model, where the course is defined by collaborative activities, discussions and joint assignments. The course content is dynamic and is determined predominantly by individual needs and group activities. Participants and / or tutors make resource contributions as the course develops.

Pollard and Hillage (2001) suggested that the needs of e-learners (as shown in Table 1) can be addressed through the administrative element of e-learning, namely via portals and learning management systems. Portals are passive entry points to e-learning, which may be external (public environments) or internal (private, organisation-specific environments). Portals generally provide course brochures, e-learning products and links to other learning resources. Learning management systems are more active entry points and create the platform from which learning content is managed and deployed. Learning management systems are often referred to as course management systems (CMS) or VLEs.

What do e-learners want?
<ul style="list-style-type: none">• A single site access to all learning resources• The ability to preview courses / programmes• The ability to get detailed information on learning formats• To register for learning online• To build and view a learning portfolio• To get advice on the most appropriate programmes• To get access to online testing

Table 1: The needs of e-learners

Source: Masie, as cited in Epic (1999)

What is a Virtual Learning Environment?

VLEs are learning management software systems that combine computer-mediated communications software and online delivery methods of course materials within a single software environment (Britain and Liber, 1999). The term 'Managed Learning Environments' (MLEs) is often used interchangeably with VLEs, but there is a clear distinction between the two. Whilst VLEs are the application of the online course materials and resources, MLEs incorporate the VLE, together with other administrative processes and procedures, such as student records and management information systems, hence creating a more holistic environment. An MLE is:

“a system that uses technology to enhance and make more effective the network of relationships between learners, teachers and organisers of learning through integrated support for richer communications and activities.” (Bent, 2001: online)

Therefore, a VLE may form part of an institution's MLE, providing 'a focus for student learning activities and their management and facilitation, along with provision of content and resources' (Bent, 2001: online).

VLEs support the learning and teaching process in a single software environment. A VLE should provide an integrated set of tools, in a consistent format, in order to facilitate a complete learning and teaching experience. These tools should encompass:

- communication tools for student-tutor and student-student;
- shared group work areas and information-sharing facilities;
- delivery of learning resources and materials;
- student support;
- management and tracking of students – individual and group profiling and statistics;
- self and summative assessment, as well as the submission of coursework and assignments;
- other student tools, such as electronic diaries and calendars.

A range of different VLE packages have been developed both from commercial agents and university-based projects, including: ARIADNE; Asymetrix Librarian; Blackboard; CoMentor; CoSE; CourseInfo; ELEN; FirstClass; Learning Landscapes; Learnwise; Lotus Domino; Lotus Learning Space; TopClass; Virtual-U; Web Course in a Box; WebCT (Britain and Liber, 1999; Jenkins et al., 2001).

Britain and Liber (1999) illustrated the elements that comprise a prototypical VLE, many of which are located within the aforementioned packages (see Table 2).

However, although such tools support course and module management, as well as providing access to resources, whether they constitute a 'learning environment' is another matter. 'Virtual learning is not

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- | | |
|------------------------------------|-----------------------------------|
| • Assessments / grade-book | • File upload area |
| • Assignments / quizzes | • Metadata |
| • Book marking | • Multimedia resources repository |
| • Calendar | • Navigation model |
| • Class list and student homepages | • Notice-board |
| • Conferences | • Search tools |
| • Course outline | • Synchronous collaboration tools |
| • Email tutor and other students | |
-

Source: adapted from Britain and Leiber (1999)

Table 2: Elements that comprise a prototypical VLE

a set of tools that provide access to information and space for discussion, just as learning is not a library and a lecture theatre' (Simpson, 2001: online). The literature emphasises that these software systems should not be seen as online substitutes for the classroom environment, but as alternative tools to facilitate the learning of individuals (Alexander and McKenzie, 1998). Alexander and Boud (2001) suggested that an online learning environment is basically another physical environment and a new space for learning and teaching, which facilitates certain activities and restricts others. This is supported by Salmon (2001) who asserted that networked technologies are not simply tools, but create whole new experiences and environments, which require changes to conventional teaching roles. Kaye asserted that computer-mediated communication will:

“ultimately emerge as a new educational paradigm, taking its place alongside both face-to-face and distance education. On-line education has unique attributes...and computer-mediated communication has the potential to provide a means for the weaving together of ideas and information from many peoples' minds, regardless of when and from where they contribute.” (1989:3)

The growth of Virtual Learning Environments in the context of UK higher education

It is widely understood that the development of VLEs mirrors a computer revolution that also started at about the same time as significant changes began to be experienced in UK universities. The unit of resource available to higher education started to be systematically reduced in 1989 (SSES, 1991). As a result, class sizes rose and mixed ability teaching became increasingly common. By 1999, the money spent on each student was barely 60 per cent of its 1989 level (CESC 2001; Thomson 2001). The Dearing Report (1997) asserted that over the next twenty years, higher education will gain in

strength through the pursuit of quality and a commitment to standards. Central to this is the development of the UK as a learning society, to which higher education will make a distinctive contribution. National needs and demands will create an expansion of student numbers that may not conform to traditional higher education attendance patterns. Changing demographics mean that the number of 'traditional' students is decreasing and, in order to achieve student recruitment targets, higher education institutions (HEIs) are having to attract 'non-traditional' student markets, such as mature and part-time markets, ethnic minorities and students with special needs. Sargeant identified a dramatic change in the pattern of HE in the UK; 'a plethora of different providers now exists, catering for an equally diverse population of students' (1999:200). All of these developments suggest that teachers and learners will need to adapt to a new learning environment and while these changes might have occurred anyway, they have provided a rich and supportive context for the emergence of VLEs.

A trend towards 'massification' has been suggested, with the ability to attain a higher education no longer a privilege. In 1963 the Robbins Report changed the nature and shape of HE, as it widened student choice and encouraged students to attend institutions away from home. The ending of the divide between universities and polytechnics in 1992 increased the number of universities to 93 (Sargeant, 1999). Levels of access into HE have been transformed, with high numbers of mature and part-time students:

"In the forty years since Robbins, numbers graduating have grown ten-fold. In 1999, over 250,000 graduated with a first degree and 115,000 more with sub-degree or postgraduate qualification."
(Pearson et al., 2000:2).

Whilst the number of students participating in higher education may be increasing, this has not necessarily been matched with an increase in the number of teaching staff. Therefore, the pattern of learning and teaching is being transformed, with an increasing proportion of time spent on independent study and VLEs. Dearing (1997) estimated that up to 10 per cent of HE expenditure would be committed to C&IT, as technological developments can provide an opportunity to enhance the quality of learning in a period of diminishing staff to student ratios. Moreover, technology addresses issues such as flexibility and widening access by offering learning materials that were previously unavailable to many students:

"..we believe that the innovative application of...C&IT holds out much promise for improving the quality, flexibility and effectiveness of higher education. The potential benefits will extend to, and affect the practice of, learning and teaching and research." (Dearing, 1997:13.1)

In the main, universities perceive this to be an opportunity to widen access to their courses, whilst improving the quality of education, as well as being a future source of income (Barajas and Owen, 2000). However, institutional demands on lecturers to employ C&IT-led teaching methods and apply student-centred independent learning has subsequently created pressures for lecturers to acquire the skills necessary to utilise these methods effectively (Bennett, 2001). Hammond (1992) found that lecturers cited a lack of training as a major factor that deterred them from using C&IT in their teaching. Similarly, Eley and Eley (1995) found that few universities had implemented staff development programmes to address Information Technology (IT) skills shortages amongst academic staff. Forsyth et al. (1996) identified a fear of change and a fear of not possessing the skills and / or knowledge to cope with new methods as major causes of university lecturers' resistance to adopting new approaches to teaching. The challenge of changing learning and teaching culture and the exploration of resistance to change was central to Batey's (2002) case study exploration of web-based learning in sport psychology. A survey published by LTSN Business, Management and Accountancy (2001) found that staff within these subject areas recognised the need to integrate C&IT into learning, but had concerns as to how this could be achieved without additional funds, new models of e-learning, and training for staff and students. Barajas and Owen (2000) warned that the application of VLEs will only generate an educational improvement if elements related to teaching and institutional perspectives are considered.

The way in which VLEs are implemented within institutions is also an important aspect (Barajas and Owen, 2000). A 'top-down' approach to the implementation of VLEs within an institution emphasises standardisation, through a prescribed set of tools, which reduce the variety of pedagogical functions. A 'bottom-up' approach to implementation emphasises pedagogical variety and innovation but can lead to technical instability, incompatibility and a general lack of overall strategy in terms of VLE implementation. The 'middle-out' approach is an attempt to reconcile the previous two approaches by recognising the inherent didactical concepts within the VLE, which determine the scope of pedagogical functions, whilst promoting innovation and flexibility within the confines of the VLE. Hall (2002) provides an example of good practice with regard to the implementation of a VLE in the HLST subjects.

This paper now seeks to identify how the hospitality, leisure, sport and tourism subject communities are responding to VLEs in their particular institutional context. In so doing, the authors seek to provide a broader and more systematic review of the current exploitation of VLEs in the LTSN HLST subjects, to present the evidence for the effectiveness of using C&IT and explain the varying ways in which it is being used.

Research methodology

The strategy adopted in the research was informed by a number of factors. First, it was recognised that the previous 'piecemeal' pattern of development in the field would make it difficult to effectively sample from the population of academics in the subjects. Second, the type of data anticipated by the study's objectives was qualitative. Third, the resources available were limited. These factors combined to shape the research somewhat opportunistically. The sampling frame used was the LTSN HLST Institutional Partners and while this provides a cross-section of HEIs that satisfies a spread of subject, region and HEI-type criteria, it is inevitable that some practices in subject-based VLEs have not been captured in the study. Factors two and three led the researchers to an eclectic mix of interviewing techniques; telephone, email and face-to-face, in order to elicit responses from respondents within the sampling frame. The approach is best described as a survey of academic and institutional support staff involved in the VLE delivery of hospitality, leisure, sport and tourism subjects drawn from Institutional Partners of LTSN HLST. Data were gathered on the following key objectives:

1. To identify the current status of VLE application in the subject areas of hospitality, leisure, sport and tourism within LTSN HLST Institutional Partners.
2. To provide a statement on the scope for potential development of VLEs within the LTSN HLST subject centre.

Institutional Partners within LTSN HLST currently include:

- Bournemouth University
- Leeds Metropolitan University
- Loughborough University
- Queen Margaret University College, Edinburgh
- Sheffield Hallam University
- University of Brighton
- University of Gloucestershire
- University of Strathclyde
- University of Surrey
- University of Ulster
- University of Wales Institute, Cardiff

The qualitative research approach adopted was two-fold in relation to the Institutional Partners, in that data were sought at the subject-specific level, as well as the institutional level. Therefore, the

research questions were divided into generic, subject-specific and institutional categories as identified in Table 3.

A representative from each Institutional Partner was contacted in the first instance, in order to identify the most appropriate individual at an institutional level and a subject-specific level; a variation on the 'snowballing' technique (Babbie, 1979). The identified individuals were emailed a specific set of questions, depending on their role within the institution, and a description of the aims of the project. They either returned their responses by email or expressed a preference to participate in a telephone or face-to-face interview.

Response Rate

Of the eleven institutions, only one Institutional Partner did not respond at all to the request for information on VLEs within their institution, at both institutional and subject-specific levels. Of the remaining ten institutions, not all had individuals at both the institutional and subject-specific level, involved in the delivery and administration of VLEs. Table 4 illustrates the number of Institutional Partners where individuals were available and at what level, i.e. subject-specific and / or institutional. In the four cases where there was only one individual at a particular level from which to gather information, this was due to the non-existence of specific individuals at institutional or subject-specific levels, although one institution was in the process of recruiting a subject-specific individual with responsibility for their VLE.

Generic Questions	
<ul style="list-style-type: none"> • What VLEs are being used? • Why was the specific VLE selected? • How long have they been in use? • What are the objectives surrounding the application of VLEs? • How are VLEs being integrated? • What future plans are there for VLEs? 	
Subject-specific Questions	Institutional Questions
<ul style="list-style-type: none"> • How are VLEs being used within the subject area? • What could they be used for? • Limitations of their use within the subject area? • Benefits for staff and students within the subject area? 	<ul style="list-style-type: none"> • Training provision? • Institutional self-evaluation regarding the application of VLEs? • Examples of current practice?

Table 3: The semi-structured survey questions

	Number of Institutional Partners
Institutional & Subject-specific Levels	6
Subject-specific Level only	2
Institutional Level only	2

Table 4: Responses

Data analysis was conducted using stages one and two of the constant comparison method as detailed in Lincoln and Guba (1985:344-351).

Analysis of results

The results of the study are reported in five sections: (1) an overview of VLE use and understanding of the concept; (2) strategy and decision-making; (3) staff development and training; (4) institutional self-evaluation of VLEs; (5) experiences of staff using VLEs.

Section 1: An overview of VLE use and understanding of the concept

Of the ten Institutional Partners that responded, four used WebCT, three used Blackboard and one used Lotus Learning Space (although this was under review). The two remaining Institutional Partners did not have a standard, university-wide VLE. In one of these institutions, some academics had developed their personal websites for learning and teaching purposes, which tended to include the provision of lecture notes, presentations, module information and web-links. In the other institution, individual schools had been allowed to develop their own VLEs, with a more integrated institutional approach only recently emerging. However, in both of these cases, the HEI had a statement relating to the incorporation and integration of VLEs at an institutional level. Some institutions also used subject specialist software packages, as well as the institution-wide VLE.

The length of time that Institutional Partners had been using VLEs ranged from six years to twelve months. One institution was currently piloting their VLE with a small number of modules, whilst others reported 50+ modules with a VLE presence. In many cases, individuals reported using a range of technologies prior to the implementation of an institutional VLE, such as file servers, web pages, web-based discussion tools and email. In the case where individual schools had been left to develop their own VLE, some individuals had been involved in their own VLE development for seven years. However, this had been in a rather disparate manner, as the institutional strategy had been to support pioneers and cascade outcomes, rather than to adopt a standardised programme. Table 5 illustrates the length of time that current VLE packages have been implemented, the estimated number of modules and students currently using VLEs within the subject areas of hospitality, leisure, sport and tourism, and the number of students registered on VLEs at institutional levels. These data suggest that VLEs are a relatively new area in LTSN HLST subjects; that development in the subjects is keeping pace with institutional initiatives but is, as yet, only minimally impacting upon the student learning experience.

Subject-specific Level*			Institutional Level*
Estimated number of students using VLEs	Number of modules with a VLE presence	Number of years	Estimated number of students currently registered on VLEs
500+	50+	6	5,000
700	11	1	2,020
200		18 months	1,000
-	4 (Pilots)	1	2,500
1450	35	5	
650	20	1	
		1	13,000

*Figures not available for all levels for all Institutional Partners

Table 5: Profile of VLE adoption in the sample institutions

Responses on the use of VLEs varied and depended upon the stage of VLE implementation and application that the institution was at. Currently, within the subject areas, these institutions are using VLEs to electronically deliver course documentation and distance learning courses, especially at Masters level, as well as providing student information and preparation for industrial work experience modules. They are also used for computer-mediated conferencing to supplement / replace small group tutorials and to provide multiple-choice assessments, problem-based learning, digital videos and assignment feedback to students. In some cases, VLEs are used to provide library access, research links and support for postgraduate research students.

The descriptions of VLEs provided by subject specialists varied, with some describing it as an online or computer-mediated environment, illustrating previous arguments (Alexander and Boud, 2001; Salmon, 2001), whilst others described VLEs as a collection of tools to facilitate learning and teaching. Respondents seldom referred to widening participation and accessibility within their descriptions, references to interaction were often lacking and some described it as a 'central resource store' which illustrates the need for clarity in terms of defining VLEs. It also illustrates a need to promote good practice; a need to share ideas; and a need to show how some teachers have embraced new technology and developed exciting learning spaces, which go beyond storing lectures and data. Responses from individuals at institutional level within the Institutional Partners tended to focus more on supporting and facilitating institutional learning and teaching in a range of contexts and the integration and collective participation of other departments and institutional functions, such as Management Information Systems (MIS) and Registry. The latter demonstrates the institutional perspective on VLEs, in terms of developing institutional MLEs. However, as with the subject-specialists, few mentioned interaction in terms of creating a 'learning environment' rather than just a 'virtual environment' (Simpson, 2001).

Section 2: Strategy and decision-making

The responses from individuals involved with VLEs at an institutional level within the Institutional Partners demonstrated that institutional Learning and Teaching Committees / Boards are heavily involved in leading the decision-making process, although their decisions may need to be endorsed at a higher level. This is encouraging in terms of the potential to focus upon the pedagogy of VLEs, rather than just the technological applications. One institution, in particular, described their decision making as 'very much bottom-up, led by the Faculty of Learning and Information Services, specifically the Learning Technology and Skills Support Team.' Other responses included: the Learning, Teaching and Assessment Committee; the Institute for Lifelong Learning with contributions from academic, library, MIS and infrastructure departments; Learning Technology Management Group with decisions endorsed by the Teaching and Policy Development Committee; the Centre for Learning and Teaching; and Directorate Information Services.

The reasons for choice given by those at subject-specific levels tended to focus upon ease of use, security, interface and integration of the particular VLE, or on institutionally imposed decisions. This demonstrates the typical 'top-down' approach, with individuals within subject areas having no idea why a particular VLE package was selected, even though it impacts upon their teaching and the learning experiences of their students. Where there was no university-wide VLE and some personal websites had been developed by academics for teaching purposes, this was felt to be a result of ease of implementation, personal interests and limited financial resources to fund an institution-wide VLE implementation programme.

Responses from those at an institutional level illustrate a much broader overview in terms of the rationale for selecting particular VLE packages, with key factors being ease of use, cost, flexibility, functionality and range of features. Many of the Institutional Partners had carried out systematic reviews of all of the products currently in the marketplace before making their decision, but it is apparent that this process was not cascaded down to staff within subject areas. Only one respondent linked the choice of VLE with learning and teaching, in terms of its appropriateness to the particular

instance of e-learning. There were two cases where ‘bottom-up’ approaches were identified in the first instance, prior to the implementation of a university-wide VLE:

“our original packages were found to be too ‘old-fashioned’ and the VLE finally adopted was initially led by one particular School in the first instance.”

“the institution took a strategic decision to standardise an institutional VLE, as there had been a diverse ‘bottom-up’ approach and the institution needed to provide a more effective and efficient infrastructure.”

The importance of VLEs has been recognised within these institutions, as all respondents stated that VLEs are acknowledged within institutional strategy documents and target setting plans, even within institutions that do not yet have a university-wide VLE. The other most common documents cited included Learning and Teaching Strategy; Information Strategy; Institution Strategic Plan and the E-Learning Strategy. Generally, parts of these institutional strategy documents are then incorporated into school / departmental plans. Within such documents, VLE implementation and application tends to relate to supporting more flexible ranges of delivery in order to achieve key strategies, such as widening participation and addressing future developments in learning and teaching. In some cases, generic references to online learning and learning technology exist, rather than explicit references to VLEs.

However, as acknowledged by Jenkins et al. (2001), institutional recognition does not necessarily correspond with target setting for VLE use within Institutional Partners. Examples of subject specific ‘targets’ within Institutional Partners included having a web presence for each module taught from September 2002; to have flexible learning programmes by 2006 and to ensure that all distance learning (Masters level) modules are online by September 2002. Institutional ‘targets’ cited were broader in terms of ensuring all modules have a Blackboard presence by 2004 and that all schools were using enhanced intranets as soon as possible. In some institutions the policy was that departments set their own ‘targets’ as a gradual process.

At subject-specific and institutional levels, many stated that there were no specific targets in relation to the application of VLEs. Some institutional respondents contextualised this approach:

“we feel that this [targets] would be detrimental. It would not take into account that sometimes the use of VLEs is not appropriate – instead we encourage Schools to consider its use. We also prefer to bring staff on board by illustration of good practice, rather than targets.”

“we see the VLE as a means of achieving general teaching and learning, access and other institutional objectives, rather than having a specific target in place.”

Hence VLE targets within Institutional Partners are very broad and ill-defined. This supports the findings of Jenkins et al. (2001), that VLE use is highly localised in the majority of institutions.

Subject-specific objectives with regards to the use of VLEs tended to focus upon enhancing the quality of learning; supporting on-campus teaching; expanding flexible delivery – particularly for distance learning programmes; widening access; and developing technical and pedagogical expertise amongst staff. In some cases, there appeared to be a lack of clarity as to how the explicit institutional objectives were to be devolved to teaching units, whilst in other cases the school / departmental objectives were in line with the institutional objectives. Some respondents felt that the management perspective surrounding VLEs was that if VLE objectives were achieved this would provide cost reductions and free up staff time.

At institutional level, the objectives again tended to focus upon accessible and flexible learning and delivery, aimed at enhancing the quality of teaching and the student learning experience, as well as supporting strategic aims such as widening participation and skills development. The development of distance learning modules was also seen to be a key objective. However, there was also a much more strategic view in terms of collaboration with partner institutions, addressing space and time constraints in course delivery and the implications of external factors, such as disability legislation.

Section 3: Staff training

Institutional respondents were asked about staff training at a university-wide level, in terms of enabling academic staff to be 'transformed' into deliverers of material through VLEs. All provide training of some form, with some offering more advanced training than others. One institution opened the training beyond academic staff, in recognition that registry and technical staff will, at some point, require the skills and knowledge to be able to use the system. A key problem faced by many institutions is the lack of basic IT skills amongst academic staff, which often hinders the acceptance and adoption of the VLE by individuals and illustrates previous studies (Bennett, 2001; Bennett and Kottasz, 2001; Forsyth et al., 1996; Hammond, 1992). However, the varying levels of staff training in relation to VLEs found in this study illustrated disparities in terms of the provision of the new skills required by 'e-moderators'. Delivering modules / courses through VLEs demands a different approach to that of traditional face-to-face classroom delivery (Salmon, 2001). Barajas and Owen (2000) also stressed that teaching through VLEs becomes a much more complex process than traditional educational situations. Yet, only a minority of these institutions have held or are planning to hold more detailed staff training focused on online teaching.

Section 4: Self-evaluation of VLEs

Few Institutional Partners had carried out detailed university-wide evaluations of staff and student reactions to the use of VLEs, although some institutions were in the process of doing so. Generally comments from institutional respondents about staff reactions were that most staff are positive, but on a small-scale, particularly as VLEs demand a high learning curve. Issues of 'payback' were raised, in terms of offsetting the time and training required against the benefits of using a VLE, as well as issues related to student numbers and methods of contact. Similarly, comments regarding student reactions were positive, particularly in terms of formative assignments, accessibility and availability of information. However, there were issues related to IT support for students and variations in the learning experience, especially for those on different modes of study, such as on-campus and distance learners.

Only one Institutional Partner had carried out a detailed university-wide evaluation of staff and student reactions. The outcomes are summarised in Table 6.

Staff Reactions to the use of VLE	Student Reactions to the use of VLE
<ul style="list-style-type: none">• A need for online staff development	<ul style="list-style-type: none">• Helps research skills
<ul style="list-style-type: none">• Problems of slow network speed	<ul style="list-style-type: none">• Helps IT skills
<ul style="list-style-type: none">• Need institutional recognition for using VLE	<ul style="list-style-type: none">• Access from home
<ul style="list-style-type: none">• Need VLE support area for designers	<ul style="list-style-type: none">• Communication with other students and tutor
<ul style="list-style-type: none">• A need for cases studies and pedagogic staff development	<ul style="list-style-type: none">• Access to other information and lecture support material
<ul style="list-style-type: none">• A need for training on the use of video through VLE	<ul style="list-style-type: none">• Provides module and assignment support• Problems with speed of access

- Problems logging in
- Lack of access to PC in university
- Lack of access to PC at home
- Lack of face-to-face communication with tutor
- Lack of training

Table 6: The results of one institution's self-evaluation of e-learning

It is apparent that from a staff perspective, further and more advanced staff training is required in relation to the application of VLEs, particularly in terms of the pedagogical aspects. Technological and network issues appear to be more of an issue from the student perspective, where reported problems include logging on, access and the speed of networks. The issue relating to the variations in student learning experiences is a key factor and needs to be addressed in relation to the changing role of conventional teaching, in particular to the new skills required by 'e-moderators'.

Section 5: Experiences of HLST academic staff that have used VLEs

Accessibility, flexibility, interaction and personal reflection were seen to be key benefits, as illustrated in Table 7.

Benefits for Staff	Benefits for Students
<ul style="list-style-type: none"> • Personal reflection • Quality of work improves for those who participate • More flexibility in terms of organising workloads • Quality of discussions can be improved due to reflective interaction • Staff development • Ability to reach a large number of students • Ability to track coursework submissions • More assured communication channels with students • Control groupwork and progress or facilitate student centred learning • Avoid time and place limitations for teaching and learning participation 	<ul style="list-style-type: none"> • Flexible delivery • Clarity of teaching and learning activities + assessment support = better marks for those that engage • The environment can provide a direct link between content and assessment • Convenience • Accessibility • Computer mediated conferencing (CMC) promotes reflective interaction • CMC narrative can be recorded and turned into a resource • Provision of support, regardless of the location of the student • Current material • Interactive • Monitored and structured environment • Avoid time and place limitations for teaching and learning participation

Table 7: Summary of respondents' views of the benefits of VLEs

Subject-specific individuals were asked about any limitations they had experienced through the use of VLEs. Typically, these centred upon technical problems; training and time issues; colleague and student resistance; limitations of VLE functionality; and immediacy of the response demanded by students. In addition, the problem of building relationships with students when no social interaction exists was highlighted. Salmon (2001) identified this latter aspect as a key issue within online learning and teaching. Specifically, those who support online learners need a much wider range of skills than classroom-based colleagues. Salmon stressed that developing e-learning processes demands the availability of e-moderators in order to support online learners, which requires a completely new set of skills:

“A face-to-face facilitator can often ascertain from body language why a learner is listening rather than contributing. E-moderators cannot look at their audiences and determine their reaction in the same way...E-moderators need to provide support and counselling via e-mail, motivate and promote on-line socialisation and information-sharing.” (2001:35)

As deliverers, or potential deliverers of material, through VLEs, subject-specific individuals were asked what they would like to be able to do with VLEs within their particular subject area. Innovative assessment processes and practices were very high on the list, as well as the use of advanced software to provide a more engaging environment. Some respondents were also keen to develop the potential of students in the area of reflective learning and personal development, in addition to fostering collaborative and constructive practices in order to develop intellectual growth.

Discussion

Selection of the most appropriate VLE and the process of decision-making are essential factors in VLE adoption by subject-specialist staff. Furthermore, compromises need to be made in terms of the type of decision-making approach selected. A ‘middle-out’ approach retains didactic concepts and pedagogic barriers (Barajas and Owen, 2000), but it offers more integration than a diverse ‘bottom-up’ approach and more room for innovation than a typical ‘top-down’ approach. These findings from the Institutional Partners are at odds with those of Jenkins et al. (2001), who identified that central IT services take primary responsibility for the choice, funding, installation and maintenance of VLEs and their technical support. This may be an indicator that emphasis on the centrality of IT to VLEs is being replaced by educational interests, although it should be remembered that the sample of ten Institutional Partners is a much smaller sample size than that used by Jenkins et al. (2001).

There is a need for forward planning to ensure that sufficient computing power is available, so that students are not disadvantaged in terms of being unable to access computer facilities. It is also essential to consider technical support systems. All costs, including the hidden cost of time, should be fully appreciated. Time has financial implications, as staff that interact with staff and students on a technical level may have more demands placed on them, due to the increased use of VLEs. Similarly, the more staff wishing to put their module(s) online, the greater the number of queries for technical and VLE support staff. Not only does training take time, but also putting material online may be more time-consuming than traditional methods of delivery, especially for those with limited IT abilities. Furthermore, students may expect more online support from tutors than previously, as the tutor may be seen to be more accessible.

The full extent of cultural change confronting staff and students must not be underestimated. Change agents, whether subject specialist staff or institutional support managers, should appreciate how the introduction of VLEs changes the ‘dynamics’ of the relations between staff, students and learning. In particular there is an urgent and explicit need to re-orientate the VLE debate from a concentration on procurement, strategy and technology to an emphasis on pedagogy. For example, VLEs should not displace face-to-face interaction, as the human factor is still an important element and consideration needs to be given to how this can be developed within a VLE. It is suggested by the respondents in this study that VLEs should be used to integrate learning, rather than put it at a distance. However,

staff need new competencies and robust electronic platforms if they are to implement interactive learning and assessment with conventional teaching methods (LTSN Business, Management and Accountancy, 2001). A strong message from subject academic respondents is that VLEs need to be developed alongside changes in the overall learning culture, in order to ensure student acceptance.

There is a need to raise awareness amongst staff of the benefits of VLEs, whilst emphasising that VLEs are only one tool in terms of learning and teaching. Cultural issues may create constraints that need to be addressed. Resistance to change and ‘technophobia’ (Bennett and Kottasz, 2001; Forsyth et al., 1996; Morgan et al., 2000) on the part of lecturers may act as a barrier to the implementation of VLEs. As there are new skills and a completely different way of teaching to learn, training requires investment if VLEs are to have any impact on the enhancement of teaching quality and learning experiences. If teaching occurs at international and inter-cultural level there are other aspects to be considered, particularly in relation to the organisation of communication, such as basic language and cultural specifics (Barajas and Owen, 2000).

“The most successful learning and teaching [institutions] will be those that understand, recruit, train and support their e-moderators, giving them free creative rein while also addressing the natural fears of traditional classroom [teachers] that there will be a loss of power and perceived quality.” (Salmon, 2001:36)

The study also suggests that current practice in the subjects seldom makes explicit the link between innovations in VLEs, and both government and institutional, widening access and participation agendas.

Recommendations on the further application of VLEs in hospitality, leisure, sport and tourism

A distinction should be drawn between the generic VLE learning needs of the subject communities, which can be addressed by LTSN HLST, such as pedagogical issues and computer-aided assessment; the more individual learning needs which should be addressed at institutional level, such as basic IT skills and introductory VLE courses; and the wider pedagogical debates that sit with the LTSN Generic Centre. Therefore, recommendations are made for each of these stakeholder groups.

LTSN HLST with the hospitality, leisure, sport and tourism subject communities

- There is a need for communication and dissemination throughout the subject communities in relation to examples of the application and implementation of VLEs, supplemented by examples from outside the hospitality, leisure, sport and tourism subject communities.
- A VLE focus within national conferences and / or regional workshops that address innovations in learning, teaching and assessment, by networking across LTSN subject centres to develop subject communities within LTSN HLST, so that a range of VLE applications can be demonstrated. Key issues that could be covered include: pedagogical issues; computer-aided assessment; and increasing interactivity.
- Regional workshops / seminars could also focus on the challenges of ‘transforming’ academics into deliverers of electronic material and the role of the e-moderator. Speakers from other subject areas or organisations that have made developments in this field could be invited, such as the Open University.
- Assist the subject communities in linking innovation in learning and teaching with widening access and participation agendas.

LTSN HLST and LTSN Generic Centre

- Addressing the pedagogical issues of VLEs is essential. The effective implementation of VLEs requires the explicit recognition of the extent of cultural change involved (Batey, 2002). The concept of double-loop learning (Argyris and Schon, 1978), which challenges and redefines the basic requirements of a job and how it should be undertaken, is suggested as useful in this respect.

Institutions offering hospitality, leisure, sport and tourism

- In terms of staff training, serious consideration should be given by institutions to the implementation of a diagnostic skill audit to ensure that training, from the perspective of the institution and the participant, is appropriately targeted. Those with less developed IT skills should be required to reach a specific standard before embarking on VLE training.
- Training at the early stages of VLE implementation may best be restricted to those seriously considering putting modules online. In this way 'experts' or 'champions' with a sound knowledge of both VLEs and the subject area could be developed within schools / departments.
- Additionally, institutions need to acknowledge that cultural barriers may hinder the acceptance and adoption of VLEs and similar problems may occur with overseas partners, although VLEs have many benefits in relation to developing and maintaining links internationally.
- Recognition of the hidden costs of developing modules for VLEs is a serious aspect that management within institutions need to address. This relates to the training, development, maintenance and response times. Furthermore, if VLEs are used in addition to traditional learning environments, rather than as a replacement, students will demand online and face-to-face support, and both types of learning material need to be delivered. Reducing the physical presence of an individual in the classroom does not necessarily mean that they have extra time on their timetable.
- More evaluations need to be conducted at institutional level in order to establish staff and student reactions to the use of VLEs. This will highlight key benefits with regards to the use of VLEs, as well as identify problem areas that, if rectified, should enhance the learning and teaching experience.

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