IMPLEMENTING AND SUPPORTING VIRTUAL LEARNING ENVIRONMENTS (VLES)

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Abstract

This paper will highlight some of the headline findings from the recent UK focused Management and Implementation of Virtual Learning Environments (VLEs) survey conducted by the Learning and Teaching working group of UCISA (Universities and Colleges Information Systems Association). The full report is available at www.ucisa.ac.uk/TLIG/vle/VLEsurvey.pdf although the presentation will not assume that those attending will have read this document. The main focus of the paper will be to present key issues and questions from the survey. Key issues include; localised uptake of VLEs; low level of student support; how support is provided for staff and students. Key questions are; what are the key factors affecting the uptake by staff of these VLEs? What support do staff need at different stages of using VLEs? What is the role of the learning technologist?

Keywords

Virtual Learning Environments; Learning Technology; Staff/student Support

Introduction

Use of the internet, in particular the web and web-based virtual learning environments, to support teaching and learning in Higher Education has increased dramatically in recent years (Joliffe, Ritter & Stevens, 2001). Support for these environments is often provided by central IT Services. The Universities and Colleges Information Systems Association (UCISA) is a UK body representing nearly all HE central IT service providers. Within the UCISA community, issues of acquisition and deployment of VLEs have already been considered (UCISA, 2000).

UCISA was aware that a number of issues relating to VLEs were having a significant impact on Computing/Information services. They also represent cultural challenges for both academic staff and students in how they engage with their learning and teaching. Issues relate to choosing a VLE, its implementation, technical support and a range of support, training and pedagogic issues relating to its use.

The changing roles of the UCISA community had already been flagged in 1999 by another UCISA survey (UCISA, 1999). It explored the array and nature of support to achieve pedagogically effective integration of technology to support learning and teaching.

In order to gain an insight into how the issues of managing and implementing VLEs are being addressed in Higher Education, with particular reference to their impact on the UCISA community, UCISA commissioned the Teaching and Learning sub-group of UCISA-TLIG to conduct a UK-wide survey.

Survey Implementation

The definition of a VLE employed in the survey was'*learning management systems that synthesise the functionality of computer-mediated communications and on-line methods of delivering course materials*'(Britain & Liber, 1999).

The survey consisted of two questionnaires. Questionnaire one was sent to UCISA Directors to obtain an institutional overview. Questionnaire two targeted users and those providing local support for VLEs. A separate questionnaire was completed for each VLE in use by a department/institution. The final return rates were; questionnaire one 51%, 75 returns in total; questionnaire two, 89 returns from 67 institutions.

Key Issues

It is clear from the survey that the current use of VLEs is widespread in UK universities. Of those who returned questionnaire one, 81% responded positively that a VLE was in use in the institution. Perhaps of more interest is the number who are using more than one VLE within an institution, with 24% using two and 25% using three. Of the 39 institutions using more than one VLE, at least 23% provide central support for one and in some cases up to three VLE systems. It is also interesting to look at the change in uptake of VLEs over time. Four years ago, only a handful of institutions, around seven, were using a VLE at all, whereas the last 12 months has seen over 40 institutions joining the VLE ranks. The table below gives a breakdown of number of institutions using a VLE for different time spans.

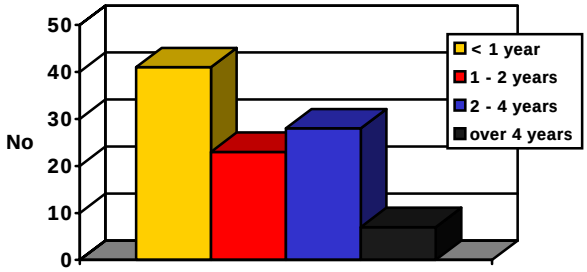

Fig 3.1: Uptake of VLEs over time

This recent growth may have something to do with critical mass i.e. as more institutions began to use these VLEs; other institutions felt that they needed to invest in this area also. There are also market forces that have led to a number of commercial suppliers entering the market at this time, all achieving high profiles at a number of national events, such as ALT-C, ALT Workshops, UCISA conferences etc.

The survey returns indicate that one VLE supplier shows more uptake than others and that is WebCT. After that, Blackboard and FirstClass show a similar 'market share'. This dominance of WebCT is also mirrored in the Universities Online survey (Bell, Bush, Nicholson, O'Brien & Tran,2002) of online courses provided by Australian Universities.

Uptake of VLEs

The survey found that use was not necessarily University-wide, even for centrally supported VLEs. Use was frequently localised, especially in older universities. The level of use was also surprisingly low, with 40% of institutions using VLEs with less than 500 students. Whilst it could be argued that level of usage will be affected by the size of an institution, this still seems to indicate less than widespread use of VLEs in many institutions. About 28% of institutions have large-scale use of VLEs (3000-5000+ students).

It also appears that the number of academics using a VLE is typically less than 30 in over 50% of cases. However 26% have 100+ using the system. This level of academic use closely mirrors that of the number of students using a system i.e. a peak at the low end and another peak at the higher end of the scale.

These levels of use beg the questions - what are the institutional incentives to using these environments? and to what extent are these allied to levels of use by academics and students? One can imagine that where the use of a VLE is tightly aligned with the Universities corporate plan and institutional goals, the use will be higher than in those institutions where its use is seen as less core to the University's mission.

Support provision

The survey confirms that the introduction of VLEs is a new development for many HE institutions in the UK. Their introduction is a cultural change for staff and students. The survey sought to establish the level of support provided for staff and students, the support mechanisms and the source of that support.

Staff Support

The question was asked 'Are academic staff allowed time for the development of courses using this VLE?' Just under 50% of institutional responses indicated that they allowed staff time to develop teaching using VLEs.

The survey also asked 'what units across the institution provide staff development and support for the use of VLEs?' and gave a list of support providers along with four areas of provision: Staff development for pedagogic uses of VLEs; Support in creating new courses; Support in adding content and maintaining courses; Support in creating and maintaining web pages.

It is clear from the returns that Central IT and specialized support units such as Learning Technology Support Units (LTSUs) and Educational Development Units (EDUs) are the most used, particularly in the pedagogy and development of new courses. The role of the learning technologist is key in bridging the gap between technical possibility and pedagogical requirements, working alongside academic staff in the development and implementation of VLE-based courses (Bloxham & Armitage, 1999). It has also been suggested that the most effective form of staff development in the use of VLEs, particularly e-moderating skills (Salmon, 2000), is itself through participation in an on-line course (Salmon, 2002). Again the learning technologist should be in a position to provide models of best practice on-line.

In summary, there is a need to provide academics with time, staff development and resources to develop pedagogically sound material. This may not be happening in the majority of institutions; this is supported further by evidence that most VLE use is supplementary to face-to-face courses (Jenkins, 2002).

Student Support

The returns indicate that some institutions provide more than one form of student support, for example user documentation, face-to-face training, web-based and help desk support. It is noticeable that a third of institutions provided no response to this question. This is a relatively high proportion of those responding to the survey and is supported by the data from questionnaire two.

What does this suggest? Firstly it suggests that students are being expected to make use of these new developments within their learning, but without a consistent training provision across the sector.

Secondly, it supports the perception that the focus of the impact of VLEs is currently on *staff* rather than *students*. Thirdly it reinforces that VLEs are still a very new development for which mature support mechanisms have yet to be developed. This matches the impression identified earlier, that VLEs are in many cases a local, rather than a central and strategic, development.

Looking at the overall data on support provision, central IT services are indicated as a major provider of student support. As might be expected, this is particularly apparent from questionnaire one. Support is provided in a number of ways with face-to-face support and printed guides appearing more common.

Comparing student support against time that a VLE has been used does not present a clear picture. There is some indication of increasing support with increased time; this is not consistent though and cannot be clearly disentangled from other criteria such as institution type. The data does suggest that more online and web page support is provided by pre 1992 universities, the more recent users of VLEs. There is some variation in how support is provided between institution types. For example, in terms of face-to-face

support it is interesting to note that in old universities the greatest proportion is delivered by central IT services; yet in new universities immediate users of VLEs provide the greatest proportion locally.

Conclusions

Virtual Learning Environments are widely recognised as an important component of an institutional strategy, but this is as yet poorly matched by delivery. Motivators range from efficiency to pedagogic reasons and increased flexibility. Their potential in distance learning is widely anticipated, but accessibility issues are as yet poorly considered.

The survey shows that central IT services have a primary role in the choice, funding, installation and maintenance of VLEs and their technical support. Support for the administration of courses, though highly visible within central support, is increasingly likely to be found from units such as LTSUs and EDUs. Pedagogic support is focused on LTSUs and EDUs, where learning technologists are often based.

There are some identifiable differences between pre- and post-1992 Universities, most notably in the areas of strategy, technical and administrative support. These are more likely to be located centrally, and student support more locally in the post-92 Universities. Post-92 Universities have a somewhat longer history of engagement. There is a discernable trend throughout the sector towards greater centralization, away from local support. VLEs are a new development for many institutions and, with a few exceptions, the level of staff and student engagement is correspondingly limited. Mature support mechanisms have yet to be comprehensively developed across the sector. This is not only a UK phenomenon however and strategies for dealing with such culture change are being shared at a global level (Jenkins, 2002).

References

Bell, M., Bush, D., Nicholson, P., O'Brien, D. & Tran, T. (2002). Universities Online. *A Survey of online education and services in Australia*, Commonwealth Department of Education Science and Training.

Bloxham, S. & Armitage, S. (1999). The Virtual Lawyer Partnership. In M. Jenkins & A. Rothery (Eds.), *Supporting Learning and Teaching through Collaboration.* (pp.5-10) Oxford: UCISA.

Britain, S. & Liber, O. (1999). *A Framework for Pedagogical Evaluation of Virtual Learning Environments*. Available: http://www.jtap.ac.uk/reports/htm/jtap-041.html [10th September 2002]

Jenkins, M. (2002). Implementing ICT: strategies for the support of e-learning. In *Keeping up with our Neighbours: e-learning in Australian Higher Education*, Manchester Metropolitan University, ALT Workshop.

Joliffe, A., Ritter, J. & Stevens, D. (2001). *The online learning handbook: Developing and using web-based learning*. London: KoganPage.

Salmon, G. (2000). *E-Moderating: The Key to Teaching and Learning Online*. London: KoganPage.

Salmon, G. (2002). Pedagogic Requirements for VLEs. Keynote at UCISA User Support Conference 2002, Leeds.

UCISA (1999), *Support for the use of Technology in Teaching and Learning*. Available: http://www.ucisa.ac.uk/TLIG/teach/docs/survey99/final.html [10th September 2002]

UCISA (2000), *User Support Conference*. Available: http://www.ucisa.ac.uk/TLIG/conf/tlig00/d2/ [10th September 2002]