Velvitt Project

Final report on National Usage of VLEs

At the outset of the VELVITT project, the participating countries completed an extensive survey of the current practices in the provision and usage of Virtual Learning Environments (VLEs) from a national perspective.

This survey found that there were major variations at national level between the policy contexts and institutional arrangements in each of the countries. In particular we found that mostly institutions had worked out their own solutions to adopting VLEs and were experimenting with what fitted their needs best. Funding of VLEs was mostly paid for by institutions, either by top slice (that is the university's own funds), or by special money set aside by the institution to cover innovative work. Central funding by government agencies of VLE initiatives was rare, although research and evaluation work, such as that undertaken in the UK by JISC (Joint Information Systems Committee), and in Portugal by the FCT (Science and Technology Foundation).

At the end of the project, we revisited this survey and participating countries completed the same instrument to reflect the changes which had happened in the three years of the project's life. We know already that technological advances are creating a rapid pace of change in the provision of virtual learning environments, and coupled with a fast moving policy context and institutions which need to move quickly in order to procure suitable provision for their students, we have concluded that much has changed in the three years of the project.

This survey has revealed that there is still no single platform of VLE in usage at national levels, and institutions are still therefore free to choose their own solution. We have found that solutions are dependent in some cases on the particular usage for which the VLE is put. A good example of this is The Netherlands where the use of Netschool is closely linked to a need for an electronic portfolio building device for student assessment. But often VLEs chosen at the institutional level are the result of the trade-off between commercial applicability, cost and the attitude to the institution. A major change has happened at Tampere Polytechnic who over the lifetime of the project has adopted Moodle in favour of their previous system; WebCT. A similar adoption of Moodle has been undertaken by Budapest Polytechnic, but in this case this is the first unified VLE for the institution. Huddersfield University has remained with Blackboard for the duration of the project.

The development of VLEs during the lifetime of the project has been characterised as one of gradual improvements rather than revolutionary changes. The basic features available on systems at the outset of the project have been refined and improved in most cases, but new dramatic additions to functionality have not been made. The period has been one of consolidation of

VLEs as basically data driven web page models requiring browser access and the occasional use of plug-ins such as Flash, Authorware and Java applets. During the three years of the projects, the growth of authoring applications such as Wikis and Blogs has driven the development of communication tools, particularly in the Open Source VLEs such as Moodle. Moodle now adopts a "wiki" style interface for its asynchronous communicative tools and we see this coming together of learning tools with wider tools for community and knowledge building on the web as set to continue. Indeed the powerful draw of these tools and the possibility of universality which they offer is one of the many ways in which Open Source tools are challenging commercial tools.

In general during the time of the project, we have found that integration with institutional databases and student record data has improved in all cases. In part this is the result of improved solutions in computer engineering and handling of information and a natural result of upgrades to systems. An Open Source solution such as Moodle, which originally did not have student record integration features, now has these features available and these are being implemented at Tampere Polytechnic through the use of the LDAP procedures.

In terms of usage across courses, it is not unsurprising that in all cases usage of VLEs has increased rapidly, and all institutions, including those in Hungary are now using VLEs, even if they were not involved directly at the outset of the project. Staff training has become more systematic and organised at all levels, and all predictions available from the survey data suggest that VLES will continue to grow in importance in the teacher training curriculum.

Conclusion

It is possible now, through the work of the VELVITT project, to delineate certain features of VLE development in the vocational teacher training curriculum. Although the VELVITT project has had an ostensible duration of three years, planning for the bid started before this time and the participating institutions were able to draw on experiences of virtual learning going back to at least the year 2000 and in the case of the UK and Portugal, even earlier than this. From a retrospective point of view, we can now see three broad phases of VLE development in relation to the vocational teacher training curriculum.

Phase 1: experimental beginnings

Phase 1 was characterised by the early adopter institutions conducting experimental projects in virtual learning. The University of Huddersfield school of Computing and Maths designed a system called "Workspace" which had many of the features of a contemporary VLE, but in some ways was limited (for instance by using FTP rather than web based uploading

procedures for files and content). Likewise, developments in Lisbon were centred on the creation of a VLE type environment authored by a tutor. These early experiments showed that some individuals within institutions were eager to explore the possibilities of virtual learning, and in the absence of fully developed commercial tools (or a lack of recognition on the part of the senior management of institutions which would lead to appropriate funding), they began with experiment and trials. These activities were useful in the broader context of the development of e-learning within an institution for two reasons. Firstly they allowed the institutions to try out systems in real situations and thereby create knowledge about what features were needed when they considered upgrading to commercial systems, and secondly it allowed them to build up examples of good practice in support student learning using online environments. The second point is applicable because the pedagogy of virtual learning environments is remarkably similar whatever the level of sophistication or functionality of the tool being used.

Phase 2: The emergence of commercial platforms

During phase 2, some of the institutions adopted newly developed commercial solutions for virtual learning environment, with typical platforms being Web CT and Blackboard. From 2000 to 2003 there was a rapid growth in the profile of these particular tools and for a while solutions which were commercial appeared to be the future. Commercial solutions such as Blackboard are characterised by a relatively high cost to the institution although this price comes with high quality technical support, standardisation of tools and functions, good levels of integration with existing student databases and records and limitations in terms of the customisation which can be undertaken by institutions (the branding and style of the platform is largely decided by the commercial provider). Some institutions in the project, faced with a difficult decision about whether to adopt one of these systems considering the high cost, decided to wait, a move which appears eminently sensible when the developments of phase 3 are taken into account.

Phase 3: Open Source

Phase 3 of VLE implementation is dominated by the Open Source tools, particularly the VLE called Moodle. This VLE is achieving dramatic penetration into the market and because the tool is open source, software and licensing costs are non-existent. Moodle has proved itself to match the functionality and usability of the commercial platforms and in many areas it has exceeded this. Development of Moodle continues as the OS philosophy draws developers into writing new features in and debugging and improving existing features. Faced with the choice between continuing with a commercial platform and adopting an open source solution, some institutions such as Tampere Polytechnic have moved to the OS tools whilst others such as the University of Huddersfield have decided, for the moment, to stay with their initial investment in Blackboard. Phase 3 is characterised by an

increasingly competitive market place for VLE provision, not just in terms of competition between various commercial providers, but also what is effectively a competition of paradigms between open source and commercial software, based as they are on radical different philosophies and conceptions of how software is sourced and paid for. We can conclude that this competition will be good for institutions and good for learners as the quality of products is driven up and the comparative cost is driven down. The differing models will also ensure no single entity can take control of the market and force a single vision of VLE design on users.