

Future OS Learning Environments

Introduction

These notes have been produced as a result of a session held as part of the “Open Source VLEs: the next generation” event held in York St John’s College on 14th December 2005 as part of the HE Academy’s Innovations theme.

Jacquie Kelly, Senior Adviser at JISC infoNet introduced the session by welcoming the participants and giving a brief overview of JISC infoNet. JISC infoNet is a JISC funded advisory service that promotes effective strategic planning, implementation and management of information and learning technology to support the core activities of learning, teaching, research and business processes.

Jacquie explained that the session was being run collaboratively with OSS Watch, participants were re-introduced to Randy Metcalfe, Manager of OSS Watch who had given a presentation earlier in the day.

It was hoped that the session would generate open, frank and honest discussion. Jacquie explained that she would be facilitating the session rather than offering opinions.

A discussion of some of the issues

The discussion centred around 4 main areas:

- Cultural Change and Strategy
- Pedagogic Implications
- Technical and Support Considerations
- Sustainability

There was general agreement that colleges and universities need a step culture change in order for OSS (Open Source Software) to be more widely adopted. This will involve senior management, tutors, and support staff (including IT departments). In answer to the question ‘what do you think OS environments can offer learners that we can’t get from commercial products?’ delegates thought that although OS/Open standards enable tools to be added in order to meet the needs of academic staff, which can in turn enhance the learner experience, OSS is not learner centric as such. Those who had experience of using Moodle agreed that the tools provided encouraged an active learning approach to be adopted and that designing courses in Moodle is much easier than BlackBoard or WebCT. It appears that some senior managers believe that no technical support is required for implementation of OS systems. It was pointed out that technical support, especially for customisation, is required for OS learning environments in much the same way as for commercial systems and this is estimated as being half a developer. In order for OS learning environments to be developed and sustained, all users should join the communities that exist for this purpose and that expertise and knowledge should be more widely shared with the OS education community.

Cultural change and Strategy

Staff Attitudes

Whether moving from a commercial to an OS learning environment or being a first-time adopter, the biggest problem is getting academics to change their practice. To facilitate this change the key decisions on learning environment choice should be centred on usability - how easy the software is for staff to use.

There was general agreement that staff attitudes need to change; to be more open to new, innovative practice.

Many staff in IT departments are wary of OS believing that the code is dirty. However the code is clean as the OS developers pride themselves on the fact that their code is understandable and easy to change (this is part of the licensing agreements).

Senior management/institution issues

It was suggested that Senior Management Team perception is that “if we’re not paying for it, it can’t be right”. To move wholesale to OS software or to integrate it with commercial products requires a shift in philosophy and delegates were unsure as to how this would be dealt with in their institution.

In some institutions there is a culture of providing money for kit but not for people resource. This suggests that the technological aptitude of learners and staff has been over-estimated.

The Open University's Learning and Teaching Office has started a new programme worth nearly £5 million and this development will be the largest implementation of Moodle in the world – this is one to watch¹. There is major potential here for influencing others in the sector. The OU did not take a ‘whimsical’ decision; it undertook major research of the market in order to arrive at the best solution for them. The programme management were completely agnostic with regard to IT - the decision was to go for the best option for that job at that point. Thus the choice of OSS or commercial was not important to them.

22% of FE colleges use Moodle as opposed to 8% of HEIs² so it would appear that Moodle has had more of an effect on Further Education. Anecdotally, its use is increasing in universities, especially for cross-institution collaboration. FE’s involvement has been heavily influenced by monetary constraints. Does this imply that development costs have been swept under the carpet?

Is the wider community sufficiently in favour of OS to effect real change? How would our institutions deal with being part of the OS community – even putting more in than getting out to sustain – for wider benefit, common good? These are difficult questions to answer. Some people are openly sharing and letting go of some competitive aspects. One view is that Deputy VCs are there to exploit commercial opportunities and that Universities are being forced into this position in order to survive.

Costing

There is a development cost no matter what. ‘You need a robust plan! Follow the JISC infoNet infoKit³!’ recommended one delegate.

It was suggest that some customers feel guilty about not giving financial support to Moodle so to assuage their guilt pangs they sign up with Moodle.com for support! <http://moodle.com>

There isn’t only the cost of implementation and support – the design is also important enabling the needs of the institution to be met. There was the suggestion that most money should go on design and implementation.

¹ <http://www3.open.ac.uk/media/fullstory.aspx?id=7354>

² Study of Environments to Support e-Learning in UK Further and Higher Education. JISC 2005

³ <http://www.jiscinfonet.ac.uk/InfoKits/project-management/index.html>

Market

Is the market for small colleges and schools rather than universities? The software needs to be proven in terms of scalability and robustness; this is why universities will be keeping a close watch on the developments at The Open University.

Other

One participant spoke about an experience at a recent e-learning for publishers' event where publishers expressed horror at the notion of anytime, anywhere electronic presentation of materials. It may be a few years before we will be able to access subscription material. Some publishers appear to be holding back the development of e-materials.

Academics' 'use licence' in Australia – anything you hold paper copyright to you own electronic copyright to.

One participant expressed a personal feeling about the commercial sector – where there are constraints – they're like 'corsets' and they're going to burst! – 'democratisation' an issue.

Disruption – we wouldn't be surprised if within a year we'll be stunned by something produced – eg personal learning record. These developments could steal the march on the next generation of OS. There is a feeling that OS learning environments/tools are perhaps lagging behind some of the commercial developments, for example in the area of e-portfolios. This area is important given the emphasis on online portfolios by UK government.

There's a lot of hype surrounding OSS and it's early days – we need to think outside the box. A recent survey of HEIs showed that only 8% are using Moodle and 8% Bodington (this doesn't mean it's their only VLE!) – it's hardly a giant leap!

Are PLEs a pre-defined environment? Are PLEs and VLEs mutually exclusive? Can you have both and allow the learners a choice? Not all learners are mature enough to use a PLE – the vision seems to indicate that a level of learning maturity and independence is required.

Are we being forced down that path again?

Pedagogic Implications

OS/Open standards enable tools to be added to meet the needs of academic staff – this can enhance the learner experience but it's not learner enabled as such. We must remember that it's about learning design rather than a set of tools – it's about pedagogy. The design of the activity is the most important thing and the tools should support that.

One participant's institution offered Moodle as a second line assemblage – tools with additional functionality. He said Moodle make a learner centred claim but in fact they are no friendlier than other VLEs – there is nothing specific that comes out of OS that makes it better. However one benefit of Open Source is that it's a customisable interface – you can customise for staff and learners. But any interface needs to be intuitive – we should not make assumptions about staff and learner IT skills.

Delegates who had experience of Moodle claimed that the tools encourage active learning; also designing courses in Moodle is much easier than Blackboard/Web CT.

Any development should be approached from a non-technical pedagogic perspective – we need to control it from that angle.

Some academics may be reluctant to use an open source learning environment when there is burgeoning interest in OS rather than experience in it.

Technical and Support Considerations

Support

One university was moving from a home-grown VLE to a commercial or OS product and the level of support is a big issue. How is it handled for OS?

Moodle is out of the box – it doesn't need any more service support than anything else – experiences of Moodle and Web CT had been very similar in this respect.

It was suggested that for implementation of Moodle it would need half a developer for customisation and support.

For those institutions that do not have IT support, a hosting service may be an alternative. Some universities offer hosting support.

The Moodle.org community offers support including response from core developers.
<http://moodle.org/>

Upgrades

One institution had a customised version of Moodle that was so customised that the next update of Moodle probably won't fit! It's so far removed from the original Moodle – there are major potential sustainability problems. The designers within the institution were from a commercial company, others in the group asked if they were feeding developments back to Moodle and the response was no, probably not! It was suggested that customisation should always be modular so that they can be separated for updates, etc.

OS offers flexibility and ease of upgrade in comparison with commercial options. The general experience of new upgrades for Moodle has been click on a button and it works straight away – it's a good sign for OS.

IDs and passwords

The number of different IDs and passwords that we are required to have as part of or normal day to day working appears to be on the increase. This was of concern (and annoyance) to delegates. Many sites now ask for users to login perhaps as a mechanism for knowing who their customers are. How many passwords are you going to have to use? One participant estimated she personally had around 20 different log-ins and PINs. Another delegate has to use a notebook to contain all of hers; there are just too many to remember.

'What about giving everyone an e-learning PIN at birth?!' asked one delegate. In order to reduce fraudulent use, stronger passwords need to be adopted.

The adoption of Shibboleth should help alleviate this situation. (see http://www.jisc.ac.uk/index.cfm?name=jisc_athens_shibboleth_pos_news050804) for more information on Shibboleth)

Other

Moodle has a very small footprint and is amazingly flexible. There was a discussion about size – one participant explained he had an entire Moodle Server installation on a memory stick, another said he had a whole selection of OS software on a CD.

Web services were mentioned by one delegate as being important when discussing OSS. This was not discussed by the group but a definition and example are given here for those not familiar with the term. A definition of web services from Scott Wilson of CETIS states 'In a service-oriented world, we divide software into two types; applications and services. Applications are things that people interact with, and have some sort of visual interface. Services are things that Applications (and other services) interact with, and have an interface that is all about exchanging data. Web services allow web applications to 'talk' to each other which allows for integration. For example LAMS has announced a version that includes web services interfaces so as to allow integration with Moodle, BlackBoard etc.

Developers and users need to work together to produce intuitive interfaces – a role for the communities.

The frameworks and tools strand of the JISC e-learning programme has demonstrator projects that are testing such aspects as interoperability of the developed tools – further information is available from <http://www.elearning.ac.uk/frameworks>.

Sustainability

Sustainability and survival of OSS is dependent on building up of communities.

How we can sustain the system is important – providing for communities of practice. Users should own it and develop it.

Many of the issues surrounding sustainability are associated with changing practices and strategy and are included in the previous section.