



# Virtual / Managed Learning Environments

This review is largely based on reports produced by the JISC (Joint Information Systems Committee) who are funded by the UK funding bodies for FE and HE, as well as working in partnership with the Research Councils. The JISC promote the development and innovative use of technology, part of which involves the commissioning of review reports into various technologies as they emerge.

## Background

A number of reports cited here refer to old reports about MLEs due to the ever changing and advances in technology. However, they do provide some useful background to MLEs which will give the reader a better understanding of the features of an MLE. There are a number of considerations for adopting an MLE and whilst many of them will be decided at institutional level, it is important for tutors to be aware of them to help inform their use of an MLE.

## MLE Information Pack

There is often some confusion between the use of the terms VLE (Virtual Learning Environment) and MLE (Managed Learning Environment). The JISC have produced an information pack clarifying these terms, together with a set of briefing papers covering most of the major issues relating to VLEs and MLEs. The information pack is available online but direct reference to some of the key briefing papers are made below.

<http://www.jisc.ac.uk/whatwedo/programmes/buildmlehefe/lifelonglearning/mlebriefingpack>

## MLEs and VLEs Explained

This paper gives a useful introduction to the concept of V/MLEs and lists the various issues which have a bearing on the use of such systems.

<http://www.jisc.ac.uk/whatwedo/programmes/buildmlehefe/lifelonglearning/mlebriefingpack/1>

## Managed Learning Environments in Education

Becta (British Educational Communications and Technology Agency) has a remit for supporting technology across a wide range of educational sectors, including schools and libraries. This paper is in a similar vein to the JISC briefing paper but perhaps is slightly more descriptive about what sort of questions one might ask when finding out about MLEs.

[http://foi.becta.org.uk/content\\_files/corporate/resources/technology\\_and\\_education\\_research/v\\_and\\_mle.pdf](http://foi.becta.org.uk/content_files/corporate/resources/technology_and_education_research/v_and_mle.pdf)

### What is a **TOOLKIT?**

A resource which brings together and provides links to:

- reports
- information
- resources
- downloads

for a particular topic.



## Virtual and personalised learning environments

MLEs have been around now for about a decade or so and their ethos was about building an enclosed learning environment for the student to provide their learning needs in one place. With more recent advances in technology, most notably the development of Web 2.0 technologies; this ethos is shifting to more open and personalised learning environments. Whilst MLEs are still the predominant delivery platform for teaching and learning resources in UK HE, virtual and personalised learning environments are becoming increasingly common. As technology develops there will arguably be a move away from 'static' MLEs to more dynamic environments that offer more interactivity for the user to access information and content and the ability to socialise more effectively for educational purposes.

Such environments provide the ability for the user to customise the environment to suit their own needs and to interact with other users in a variety of ways. One such environment is called Second Life where users create virtual representations of themselves, called 'avatars' to interact in a virtual world with various, social, commercial and educational environments. Other personalised learning environments use Web 2.0 technologies to allow students to customise their online environment to receive resources, information and interact in a way that better suits their needs, rather than a single interface for all. The JISC funded programme 'Users and Innovation' Programme has funded a number of projects that explore personalised learning environments.

### **Second life**

<http://secondlife.com/>

### **Users and Innovations Programme**

<http://www.jisc.ac.uk/whatwedo/programmes/usersandinnovation.aspx>

## Selecting a V/MLE

### **VLE procurement**

If there was one VLE that matched the requirements of all institutions for all of their needs, there would currently only be one product on the market. As one might expect, different institutions have different priorities and thus need to select a VLE according to their own specifications. Therefore, each institution must first decide which criteria are important to their needs and then select a VLE on this basis. This JISC briefing paper highlights the criteria which will be most important to each institution.

<http://www.jisc.ac.uk/whatwedo/programmes/buildmlehefe/lifelonglearning/mlebriefingpack/2>

## Choosing a V/MLE – technical considerations

Once an institution is clear about which technical criteria are most important for it in relation to the implementation and use of a V/MLE it can be difficult to compare different products based on the features each system offers. The MLE Information Pack contains a briefing about technical considerations but in reality will require institutional support. There are important technical issues to be addressed and so any technical requirements should be discussed with an institution's computing services.



## Choosing a V/MLE – pedagogical considerations

Whilst the technical specifications of a V/MLE are important, how such a tool will actually be used to support teaching and learning is, arguably, more paramount. In the same way that an institution must decide which criteria are important when choosing a V/MLE it must also be clear about how they expect to use the V/MLE to support staff and students alike. The briefing paper raises some common sense questions about choosing a product for the right pedagogical reasons.

<http://www.jisc.ac.uk/whatwedo/programmes/buildmlehefe/lifelonglearning/mlebriefingpack/5>

## Encouraging institutional collaboration

More often than not, the implementation of MLEs start out as pilot or local projects embedded in a small part of an institution. However, this means that there is very little (or no) collaboration and coordination of efforts on a wide scale for the effective implementation of technological support of teaching and learning. Therefore, in order to address these issues there has to be an institutional wide strategy for implementation. This throws up a variety of issues which are discussed in this paper.

[http://www.jisc.ac.uk/whatwedo/programmes/buildmlehefe/mle\\_lifelonglearning\\_info/mle\\_briefingpack/mle\\_briefings\\_6.aspx](http://www.jisc.ac.uk/whatwedo/programmes/buildmlehefe/mle_lifelonglearning_info/mle_briefingpack/mle_briefings_6.aspx)

## What is available

There are a plethora of commercially produced and home grown products available, probably too numerous to mention in one go. The following list of products is therefore just a sample of commonly used products or current market leaders in either FE and/or HE, in no particular order.

### COSE

Developed at Staffordshire University around sound pedagogical theory, this product is free.

<http://www.staffs.ac.uk/COSE/>

### Blackboard and WebCT

Blackboard is an American company that started around 1998 and is now one of the larger vendors of commercially developed MLEs. It offers different

levels of functionality depending on the type of licence purchased. WebCT was an independent company offering WebCT as an MLE but was bought out by Blackboard and although it continues to operate as an independent product, all enquiries are directed through Blackboard.  
<http://www.blackboard.com/>

#### Lotus LearningSpace

This product is another of the major commercial products available.  
<http://www-01.ibm.com/software/lotus/products/learning-management-system/>

#### Moodle

Moodle is an open source product which means it is free to use by anyone. Moodle is used a lot in schools and a significant number of UK Universities, as well as world wide use.  
<http://moodle.org/>

#### Sakai

Sakai is another open source product that is used predominantly in the USA but a number of UK Universities are now adopting it as their preferred MLE.  
<http://sakaiproject.org/portal>



## Publication Details

**This document is just one of a series of Toolkits from the Physical Sciences Centre all available to download from the website (see right). The Centre also produces other publications and resources in support of teaching and learning in higher education. This includes a newsletter and journal. To have these sent to you in hard copy format upon publication, visit our website and join the Centre mailing list.**

**Physical Sciences Centre  
Department of Chemistry  
University of Hull  
Hull HU6 7RX**

**Tel/Fax: 01482 465418  
email: [psc@hull.ac.uk](mailto:psc@hull.ac.uk)  
[www.heacademy.ac.uk/physsci](http://www.heacademy.ac.uk/physsci)**