

Title: **Avoiding the VLE trap**

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## Avoiding the VLE trap

### Introduction

A Virtual Learning Environment (VLE) is required to allow learning providers to deliver on-line teaching programmes to their students. VLEs are therefore seen as pivotal to the implementation of a distance-learning programme.

Choosing a VLE can be a very emotive issue within tertiary education institutions. The selection process often involves passionate advocacy for some, compromise for others, and possibly even total dissatisfaction for a few. Many love-hate relationships with particular products or implementation strategies have resulted from this process, and some institutions have failed to see the selection process through as a result.

Sometimes, concentrating excessively on the VLE technology can relegate the learning processes and innovation in learning into second place. Treating the choice of distance learning, blended learning or e-learning programme design as synonymous with the choice of VLE is a mistake.

### Transient technology: the trap

VLEs are transient technologies, and some people still debate whether a VLE is strictly necessary. However, without a VLE, institutions still need some form of communications and delivery platform, to ensure that their students get the best possible learning experience and that their expectations and requirements are met.

Many institutions run portals which link to multiple, independent, distributed information and administration services. These have the potential to act as a means of integrating the learning services required to support the needs of the students. However, something that is generally missing from VLEs is the latest service that staff are demanding – for example, in today's systems, a Wiki or Blog server, e-Portfolio system or other social software services. A formal VLE, particularly a proprietary system, may therefore restrict your ability to expand services to meet new requirements. So, how can a VLE become a friend, and how can an institution avoid being trapped by its choice of VLE?

### VLE defined

A VLE is effectively a web site that engages students in various learning activities. Generally there is a comprehensive set of management and delivery tools to allow on-line materials to be provided and consumed within a clear, organised structure. The overall environment provides students with easy access to course materials, on-line courseware, quizzes, self-assessment materials and communication tools.

VLEs may be an essential component of on-line distance education, but they can also support and enhance traditional methods of on-campus teaching. Indeed the VLE (or equivalent) has become an essential tool for universities, colleges and professional education providers. Learning and teaching on-line enables an institution to:

- Encourage self-directed student learning and provide enhanced student support in a cost-effective, efficient and flexible manner;
- Complement traditional group teaching;
- Relieve pressure on teaching space and other internal resources;
- Meet the needs of a more diverse student body.

There are many VLE systems available - including:

- Commercial offerings such as [Blackboard](#), [WebCT](#), [eCollege](#), [Giunti](#);
- Open source systems such as [Bodington](#), [Sakai](#), [Moodle](#).

Some institutions choose to develop their own VLE systems internally – a ploy that spawned many of the commercial and open source offerings that we see today. Doing this significantly improves an institution's ability to adapt and evolve the VLE, offering greater flexibility to improve the quality of the learning experience provided.

However, the cost of retaining such a development capability in-house is not insignificant - although it does have the strategic benefit of enabling the institution to remain independent of any single VLE vendor or system, as well as making it easier to integrate the VLE with the wider managed learning environment employed by the institution.

Having defined a VLE in fairly generic terms, it is worth noting that Blackboard Inc. has patented the VLE – even though there have been many independent implementations that seem to be covered by this patent. Blackboard has been issued a U.S. patent for certain technology used for internet-based education support systems and methods, covering core technology relating to certain systems and methods involved in offering online education, including course management systems and enterprise e-Learning systems. This is of concern to many educationalists as an EU patent is pending, and because Blackboard has used it to launch a law suit against its rival [Desire2Learn](#).

## Which VLE is right for us: the Great Debate?

Many institutions have either been through the process of choosing the 'right' VLE, or are doing so at this point in time. What's more, many will be going through this process again in a few years time as they learn more about their learning support requirements and as they become more ambitious and innovative in their teaching. Significant amounts of time and money is spent (and possibly wasted) on trying to decide which system is right, yet the decisions open to an institution are limited, as there are basically only three options:

1. Buy in a commercial system;
2. Adopt an open source offering;
3. Build your own.

Which is the best option? There is no single best option that suits all situations, otherwise all institutions would take that choice. However there are three bad approaches that must be avoided at all costs - specifically:

1. Whatever choice an institution makes it should be wholehearted about supporting that choice and making it a success – all options can be successful;
2. Developments must focus on the needs of the underlying learning processes, not be driven by the capabilities of the technology;
3. All materials should be developed outside the VLE (ideally using international standards such as XML), in order to offer as much future-proofing as possible and to ensure that materials are not tied to a particular product or media.

Why should the choice of a VLE be a potential trap? There are a few reasons.

1. Commercial companies do like to encourage their users to make maximum use of their solution, including offering product support for processes that are best conducted outside of the VLE - such as materials production, management and administration.
2. A poor choice of VLE can breed mediocrity, in that there is a tendency to develop only to the level that the tool readily allows.
3. A VLE is for life – considerable resource has to go into staffing, maintenance, training, user support, etc.

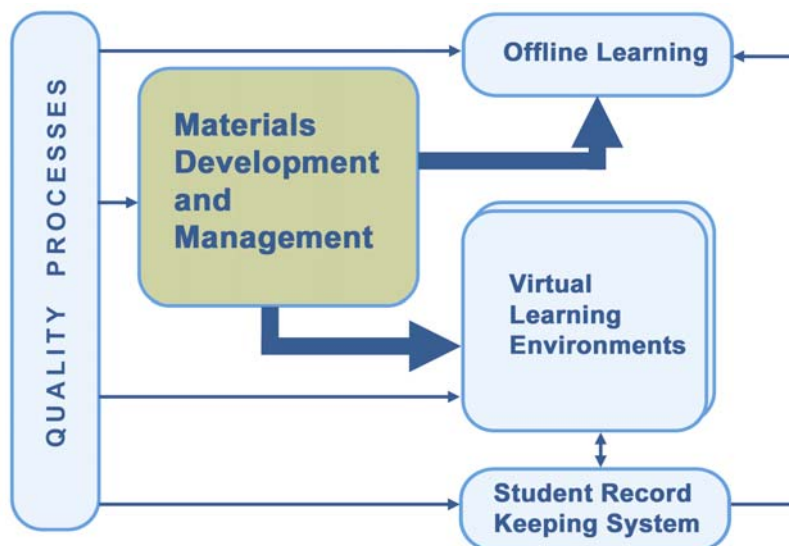
## Standards and interoperability

Without standards, life would be very difficult. It is because of standards that we can phone world-wide, enjoy the depth of information developed for the WWW and watch TV from around the globe. IT has lots of standards that make integration of information and systems seamless (at times) and it is when standards don't exist that problems arise. Standards are important in VLEs, particularly with respect to content and administration.

E-Learning content has been developed over many years now but little is still of use. What has survived has required a constant effort to re-write it or re-develop it for new formats. When developing for a VLE, it is vital to ensure that content produced is transferable between systems – current and future. In an ideal world, there should be a simple way of transferring content (courseware, assessments, multiple choice tests, discussions, etc.) from one VLE to another. In fact, for the bulk of content, there is a relatively simple way but only if standards have been adopted and followed.

The benefits of using standards extend well beyond reusing learning materials more easily however. They can also be used to support higher-level actions, so that the processes of production, search, discovery and acquisition can all be delivered in a more semantic manner.

Figure 1 illustrates an approach you can take to produce and manage your learning materials separately from your VLE and to reuse them in multiple online VLEs and off-line learning environments.



**Figure 1: Illustrating the benefit of separating materials production from your VLE**

VLEs also need to integrate successfully with an institution's management information systems, for student enrolment, building class lists, collating assessment results, etc. It is therefore important when choosing a VLE to be aware that it must play an important role in the overall managed learning environment being employed, along with the necessary materials production and administration components.

## Conclusion

In adopting a VLE, you should:

- commit to the choice;
- ensure that your VLE will allow you to rise above mediocrity;
- develop and manage your materials outside of it;
- use international standards where possible.

The UK's largest on-line programme of education is now being delivered from its third VLE system (two have been custom built; one was proprietary). Comprising some 20 million words of XML-formatted course materials in 4 languages, approximately 8,000 diagrams and sundry other media objects, adherence to international standards has allowed the porting between these 3 VLEs to proceed without problems. Indeed, not one single character of this extensive content base has had to change in order to allow these transitions, and a 10 year record of co-ordinated update management has been maintained.

Your learning content is of high value and will have a longer life span than your VLE. Remember this, and you can avoid the VLE trap.

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