

E-Learning in Australian universities: Opportunities and challenges

This whitepaper provides a perspective on the e-learning environment within Australian Universities and how that environment has developed and is developing. Looking at the past, the evolution of academic e-learning can be contrasted to that of corporate e-learning to provide some interesting insights that help explain the current digital content difficulties being faced by academic institutions.

Looking to the future, convergence of the e-learning models from the academic and corporate sectors can be identified and the consequences for universities are profound. Universities are identifying that their investments in learning technologies are not sufficient to deliver a coherent e-learning strategy. Content is king and universities are seeking external support to ensure quality and relevance in the digital learning content being delivered to their students.

Overview of e-learning

Electronic learning (e-learning) is the delivery of educational and training content over the internet and intranets. E-learning follows the same core educational and learning principles currently applied in any quality educational courseware. It may involve a blend of both online and offline activities, often called 'hybrid' or 'blended' learning.

E-learning does not mean that a whole course must be delivered electronically and it certainly does not mean the replacement of face-to-face instruction. Instead, it can be viewed as a powerful teaching tool that can be used to augment both classroom and distance teaching models in a similar way to textbooks - but with more features!

While a current technical constraint of e-learning is low bandwidth connections that limit delivery of intensive multimedia over the internet, its major weakness is that it is very susceptible to the effects of poor educational design. For the instructor, e-learning is a far less forgiving teaching environment than face-to-face instruction. Within the digital environment, an instructor cannot be under-prepared, and 'wing-it' on the strength of their knowledge of the subject. Quality e-learning resources require intensive preparation.

This weakness of e-learning is the strength on which Perdisco bases its business model. Perdisco's speciality is the creation of digital materials that instructors can use to support their e-learning courses in the same way that a paper textbook supports a face-to-face course. In this way we supply educational support materials, not the course itself.

The past, present and future of university e-learning

The past

The most important reason to look at the past is that it helps explain how strengths and weaknesses arise. To this end, the evolution of academic e-learning can be contrasted to that of corporate e-learning to provide interesting insights. These insights explain the digital content difficulties currently being faced by universities. The e-learning industry has evolved differently within the university and corporate markets:

- **Corporates:** Driven by the need to provide cost effective alternatives to face-to-face training, the corporate environment has a long computer based training (CBT) history with established providers. A number of these providers have recently reinvented their businesses into corporate e-learning and deliver libraries of vocational skilling titles (from computing to human resources) into corporates. As a function of its history, the corporate e-learning market is therefore **content**-focussed.
- **Universities:** The university environment does not have a CBT history. Instead, the emergence of e-learning has been driven by increasing class sizes and the need to seek income from sources such as distance education. Due to the specialised and academic nature of university content, e-learning initiatives have focussed on 'enabling technologies' such as Learning Content Management Systems (LCMS) to assist instructors put their courses online. LCMS software allows instructors to develop their own content and communicate with students. However, when first purchased, the software is devoid of its own content and relies on academic staff to fill the virtual classrooms that are created. As a function of its history, the university e-learning market is therefore **technology**-focussed. The vendors dominating the Australian and international university LCMS market are Blackboard and WebCT.

The emergence of 'empty virtual classrooms'

Having invested in a LCMS, universities are discovering that such systems are under-utilised by teaching staff. This trend can be explained by drawing an analogy between LCMS software and word processing software.

A word processing program is a piece of software that may help an author to write a book. However, the word processor is just a tool, and when it is opened for the first time it does not already contain the book! Instead, in order to write a successful book, the author needs to both master the technical features of the word processor itself and, most importantly, be a great writer who is able to write quality literature. A LCMS is just like an empty word processor - it is a great tool that provides support for online teaching, but when it is first opened, the 'virtual classrooms' that it creates are empty. The instructor must create their own electronic materials to provide compelling reasons for students to regularly visit the virtual classroom.

However, just as most academics do not write textbooks, those same academics do not want to, or do not have the skills to write quality e-learning content. As a result, quality electronic learning materials are generally not being created within the university environment, and any content that is being written follows a 'cottage industry' model in which unpaid academics take on electronic course creation in their spare time. As academics move on, get upset with their additional work volume, or as the technology changes, course-content deteriorates or is lost.

The current outcome is that most LCMS technology within universities is being used, at best as a distribution system for simple lecture notes and course outlines, and at worse as an expensive email communication tool. While this may save the university on printing costs, the possibilities for e-learning content to become a teaching tool are being missed. These trends are relevant to both Australia, and universities throughout the world.

The present

Convergence of the corporate **content**-focussed e-learning model and the university **technology**-focussed e-learning model is now occurring.

- **Convergence in corporates:** As corporate trainers begin to seek LCMS functionality, corporate vendors are recognising that there is value both in their content, and in their enabling technology. A number of large vendors, and many small ones, are swamping the market with proprietary e-learning technology, with or without 'off-the-shelf' content.
- **Convergence in universities:** Despite the need to fill 'empty virtual classrooms', many universities are being held back from purchasing third party electronic content because they are not identifying the difference between offering their course electronically, and the digital content supporting that course. Some universities feel that they must create their own electronic content in order to maintain the integrity of the courses they offer online. This view is at odds with the regular use of third party textbooks in classroom courses and such parallels are beginning to be appreciated. As a result, the content-based approach within university e-learning is being driven by the realisation that buying software alone is not sufficient to deliver a coherent e-learning strategy.

Vision for the near future

Today's technologies in digital ink, electronic paper, tablet PCs, and the wireless internet are blurring the boundaries between paper and digital media. Interactive 'digital paper' is the logical extension of the emerging 'tablet PC'. We can eventually expect to use material that not only looks and feels like paper but also has the processing and interactive power of a PC. A piece of paper with a 'start' button in the lower left corner!

In the near future, a university student will be able to read their electronic textbook, attend a real-time virtual lecture via two way video streaming and submit their assignments, from anywhere using electronic paper connected to the wireless internet.

We see electronic teaching tools, such as Perdisco's products, as offering the greatest immediate potential to harness the native interactivity of these emerging technologies in a meaningful way. The textbook, the PC, and the classroom itself are about to converge. When this convergence occurs, it will be quality learning content that will bring substance and purpose to these supporting technologies.

Conclusion

The trend towards content within the academic e-learning environment will have a profound impact on the ability of universities to capitalise on investments in e-learning technology. Quality, pedagogically designed courseware that has been published specifically for electronic delivery is required to make e-learning a successful experience for students, teachers and universities.

While university academics are well placed to teach courses using electronic content, they are not well placed to create it. This understanding is no different to that of the existing classroom and distance delivery models in which educational tools such as chalk, overhead projectors, textbooks, and now e-learning content, are not created by teachers, but are instead use jointly and severally to blend a total course offering.

Perdisco

Perdisco is an e-learning publisher based in Sydney, Australia. We specialise in developing and publishing adult education resources for business related topics. For more information, please visit www.perdisco.com.au or email info@perdisco.com.au.