



Higher Education Research and Development Society of Australasia, Inc

Quality Conversations

Proceedings of the

25th HERDSA Annual Conference

7-10 July 2002

Perth, Western Australia

Deden, A. & Herrington, J. (2002) Strategic issues shaping online adoption in higher education, in *Quality Conversations, Proceedings of the 25th HERDSA Annual Conference, Perth, Western Australia, 7-10 July 2002: pp 184.*

Published 2002 by the
Higher Education Research and Development Society of Australasia, Inc
PO Box 27, Milperra, NSW 2214, Australia
www.herdsa.org.au

ISSN: 0155-6223

ISBN: 0 90 8557 51 5

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Strategic issues shaping online adoption in higher education



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***Abstract:** Universities worldwide are faced with enormous challenges as they decide on how the rapid changes in technology and the widespread availability of the Internet will impact upon their modes of operation. Many universities have embraced the challenge with enthusiasm totally restructuring their curriculum and course infrastructures to accommodate the change. Others have decided to opt out of online delivery altogether, preferring to focus on their established on-campus modes of delivery. This paper explores some of the issues and forces that are driving universities throughout Australia and overseas to consider their adoption of online delivery, many of which are economic and societal factors outside their control and traditional areas of expertise.*

***Keywords:** online learning, internet, technology adoption*

Introduction

The Internet has provided universities with a powerful new tool for unit and course delivery—a tool which is likely to transform teaching and learning practices irrevocably in the future (Bates, 2000). Universities attracted to Web-based delivery need well-defined policies and strategies in place that will give them the best chance of promoting effective learning, gaining market share, generating profits, and demonstrating leadership in the quality of the online learning experiences it offers.

In order to achieve such ends, a university must focus its efforts on quality, partner strategically, build its capacity wisely, and manage its online business commercially. This paper puts forward a number of considerations that can undergird strategic planning of a university's online presence. It takes into consideration the need for such ventures to contribute to the university's strategic outcomes, market positioning, and revenues while keeping costs and risks controlled.

What drives investment in online education?

Economics

The development of Web-based learning materials is currently proceeding at a frenetic pace in universities worldwide. From an economic perspective (e.g., Holt & Thomson, 1998), the thrust for this activity is based on the perception that:

- geography is no longer a barrier to competition
- high profile traditional universities and new commercial online universities are gaining global market share through online programs
- the opening of new markets for higher education, especially in areas of the developing world with large populations and increasing Internet access

Web-based courses have captured the imaginations of governments and some university administrators, who see the potential to provide low-cost teaching in times of cutbacks and reduced budgets (Zevenbergen, 1996) and as a means to provide less teacher-dependent modes of learning (Maslen, 1997).

Pedagogy

From the perspective of pedagogical quality, investment is being driven by a quest for more flexible and open learning settings that can provide more meaningful learning. Research and development work has focused on exploring the medium's increasing potential for building new, personalised and highly interactive learning experiences that challenge students to research, evaluate, and apply information to solve complex problems, but to date, little has been done to implement these approaches. Mioduser, Nachmias, Oren & Lahav (1999) reviewed 500 websites and evaluated aspects of the design and implementation. Their report described the current picture of Web-based learning as 'one step forward for the technology, two steps back for the pedagogy' (p. 753). It is insufficient to equip universities with appropriate technology to enable online learning. Courses must be designed to capitalise on the pedagogical advantages and affordances of the web—the emphasis must not only be on content but on learning processes.

Constructivist approaches to learning have placed a great deal of pressure on designers and teachers of online courses to ensure that pedagogical approaches rather than technological availability guide the instructional design and development of web-based units and courses. There is pressure to replace more teacher-centred courses with student-centred approaches (Black, Sileo, & Prater, 2000; Housego & Freeman, 2000), and to emphasise more authentic learning settings (Brown, Collins, & Duguid, 1989) (Barab, Squire, & Dueber, 2000; Cronin, 1993; Herrington & Oliver, 2000; Lebow & Wager, 1994), and problem-based learning tasks (Reeves & Laffey, 1999; Roschelle & Behrend, 1995; Savery & Duffy, 1996). The role of the teacher has changed from that of instructor to guide or coach (Cuban, 1993; Greenfield, 1984), assessment has a more fundamental place in the learning process (Reeves & Okey, 1996; Wiggins, 1990), and collaboration is acknowledged as an important element in student learning, both in face-to-face situations and online (Del Marie Rysavy & Sales, 1991; Jonassen, 1995; Oliver, Omari, & Herrington, 1998; Qin, Johnson, & Johnson, 1995). In adopting these approaches, the nature of the learning moves away from abstracted knowledge-based learning to learning that supports both authentic contexts and the completion of tasks that reflect the genuine practices of the professional (Herrington & Oliver, 2000).

Student demand

The sector is experiencing a rapid increase in the number of adult students with significant learning needs and interests, but low ability to attend regularly scheduled classes or to attend university full time. These students, and particularly their employers, demonstrate a willingness to pay full fees for postgraduate coursework. This has been the experience of the Fuqua School of Business at Duke University and of Cardean University. As a result, these and the commercial for-profit virtual universities, such as University of Phoenix Online have focussed first on business subjects, and on the development of long-term relationships with

corporate clients (Morrison & Cox, 2002). Significant increases are also observed in enrolments for overseas fee paying students (Kemp, 2000). This increase is an indication of the trend towards lifelong learning through ongoing postgraduate study, which is seen by professional associations as a necessary requirement for maintaining community standing.

In parallel with the growth in enrolments has been an increased availability and access to computers and communication technologies worldwide resulting in a fundamental shift in the conception of higher education and its delivery. Recent research indicates that students' personal access to computers (through home or work) was high and that their levels of computer skills generally increase from first to third year (Oliver & Towers, 2000). It also appears that postgraduate students are generally more able to afford, and more willing to engage with, new communication technologies. Such students tend to value less the social interactions that on-campus study provides, and prefer the flexibility of choice that off-campus study affords.

What competitive factors influence universities' online strategies?

Branding and marketing

We do not yet know how the graduates of online programs will perform on the job, as compared to the graduates of classroom programs. Online learning is too new, changing, and unregulated to have any quality information available to students. As the CEO of Disney recently commented, in such a situation, 'brand recognition is everything.'

In this dot.com environment, marketing expertise and investment play leading roles, particularly if a commercial provider wants share values to go up. It is informative to consider new online providers such as the University of Phoenix and Jones University. Jones University started in 1995, offering only a few credits that would enable a student to complete an MBA started elsewhere. The University of Phoenix's early online presence was similarly minimal. Their graduates have yet to demonstrate the quality of their education. Nevertheless, these organisations received massive press coverage and are still considered to be sector leaders from the commercial side. They won their early brand recognition largely through marketing approaches better known to Web publishers and software providers than to traditional universities. Once generating revenue, they were able to add programs, obtain accreditation and invest in continual improvement of their online presence.

These early innovators have a head start on most traditional universities going online. That means the market to some extent looks to them to set the benchmark for competitive features and quality. They also have the advantage of less baggage: they are free of much of the government regulation, physical overhead, and union issues that can constrain traditional institutions. For traditional universities, the creation of online courses and units to date has represented a significant investment in both technology and intellectual property. Universities have made this investment in the expectation of not only improving student access to education, but also benefiting financially. However, as with other online business start-ups, the university sector has not yet developed powerful strategies for marketing online courses.

Cost and the urge to merge

The cost to put a course online varies greatly, depending on the degree of interactivity and personalisation provided. The further cost of providing a full-service Website or Portal for the university that enables students to enrol, pay fees, buy books, see their records, learn collaboratively, and get counselling and advice must also be factored in.

A number of technology providers market software that quickly translates print material into Web pages and forms. This enables a university to quickly enter the online arena, but with a low quality product: essentially, print distance education with a few point and click features. Bandwidth providers are another group searching for content that will help them get their technologies widely adopted around the world, especially in developing countries lacking a sophisticated communications infrastructure.

Both types of technology providers need content. They have surveyed the sector, and found that few universities have more than a few courses with combination of market relevance, easily adapted print or online materials. They therefore have led the drive for universities to form consortia that can provide the base and critical mass of courses they need to make their own technologies succeed.

Some universities, such as RMIT University, University of Southern Queensland, and the University of South Australia, are partnering with commercial courseware developers such as *NextEd* to deliver and market their online course offerings. It bears mentioning that the CEO of *NextEd*, in a speech given at the Australian e-Universities 2000 conference, stated that his company was ‘in the business of selling eyes.’ That is, they sell advertising space on their website, and the more students they attract, the more they are able to charge more for that service. Can quality learning outcomes be a priority when this is the case?

The consortium approach appeals to universities that lack the combination of marketing and product development resources and international brand recognition to go it alone on the Internet. They want to exploit the trend toward online learning, and recognise the value of getting into the market early even if their Web courses are not of the highest quality. A number of national and international universities, media organisations and consortia such as *Universitas 21* are developing courses for online delivery. In the near future, these developments will impact on the domestic and overseas enrolments of universities that do not offer a similar form of delivery (Herrington, Sparrow, & Herrington, 2000).

However, a consortium does not guarantee success. We marked the demise of PAGE in 2000, and have watched OLA struggle for a number of years. As a generalisation, one could say that a significant factor in the disappointing outcomes of these efforts has been the universities’ collective weaknesses in new business startups, especially online, and in marketing online learning. Other obstacles to success included cost of participation, issues of ownership and competition, provision for maintenance, and the cost to develop new units and courses.

Every option and partnership carries with it significant costs and risks—both of investing in new ventures and subsequently depriving other, more traditional university activities, as well as reputational risks. With limited financial resources, today's universities cannot afford speculative spending or succumb to existing high levels of hype. On the other hand, unfocused activity in the online arena also poses significant financial and reputational risks.

Competition from new commercial ventures

Vertically integrated publishing/media/telecommunications companies, especially those owning significant intellectual property (course content), as well as emerging new corporate forms are creating a highly competitive online learning marketplace. A subset of this factor is competition from *industry/vendor certification programs*. The increasing value of vendor certification (e.g., Microsoft, Cisco, etc.) as opposed to a university degree in computing fields is a harbinger of things to come in many areas. Plus, these corporate competitors often

have the advantage of worldwide brand recognition, sales contracts that package training with product, and tremendous marketing savvy.

The cost to be competitive in two high-overhead businesses at the same time

Traditional universities have high overhead: physical infrastructures and must at least maintain these at a competitive level while trying to be competitive online as well. Right now, the performance results of graduates of online or mixed mode programs have not yet been established. The reputations of existing institutions still rest on the graduates of their on-campus programs and on their research. They cannot afford to abandon, or even loosen their grip on their traditional strengths. Many are now talking about opting out of online entirely, or utilising the internet only to enrich learning experiences for on-campus students.

A shortage of business focus and expertise in the tertiary sector

Most universities are run by (and, to a large extent still, for) academics. They are ambivalent at best, resistant at worst regarding online education—what it takes to do it well; what it takes to compete. Many universities appear to be trying to hedge their bets, attempting various institutional and corporate partnerships for content development, marketing, and delivery, hoping some will pan out, not sure what the benefits really will be. There is a long, steep learning curve to be climbed. Thrall (1999) finds that "few have discovered the winning business model for providing distributed learning on a large scale."

Institutional inertia

Universities have notoriously slow response times, ponderous decision making processes, and great resistance to change. It takes tremendous push by powerful players and tremendous capital investment to change the practices of academic staff. Yet, the popular press calibrates the rate of change in the Internet business environment as a three-month "Web year". The rapid pace of technological change, requires tremendous focus, funding, and flexibility—very strategic, change-comfortable organizations. As Diana Oblinger points out (Morrison and Oblinger, 2002), most universities are used to incremental change, unaccustomed to large IT expenditures, and functioning based on pre-technology definitions of their markets and services. All these factors impede the rate at which these institutions can change to make effective use of the potential benefits of IT. This is particular true with regard to the potential and much-needed benefits of fully integrated learning delivery, student records, services, and transactions.

The need to realign investments

Competitiveness in the Internet environment requires a heavy emphasis on technology, staff development, and new approaches to marketing (including various ways to package learning). The investments need to be highly strategic and must endure over enough years to make a difference. Certainly some will find sufficient funding only through corporate partnerships. However, finding the money is not enough. A lot is spent non-productively, such as on clumsy backshop systems that resist integration, on traditional marketing campaigns, on re-inventing yet another Web authoring tool, and perhaps on a single academic developing a costly, idiosyncratic multimedia extravaganza.

The need for seamless business system integration

Integrated backshop systems enable a full 'virtual campus' experience, dovetailing readily with existing enrolment, records, financial, and other systems. This, not the development of instructional materials, is an area that may, in the end, provide the biggest push and greatest gain for university collaborations/cooperatives—shared backshop operations—especially as

students want to take classes from an assortment of providers and have all of them count towards a degree.

Emerging changes in academic workstyles and motivators

Despite years of effort by the Carnegie Foundation and others, research still carries the greatest weight when it comes to promotion, especially at the more prestigious universities. The ‘scholarship of teaching’ one’s discipline, especially in new ways, is rarely quantified, credited or funded on the level of discipline-growing research.

Online learning provides academics the world over with the opportunity to teach for several institutions at the same time, from one location. Many are already enjoying this professional lifestyle. In such a world, professional affiliation and licensure may be more valued by academics than tenure and promotion in a single institution.

Why should a great web professor, who also consults, bother with promotions, join unions to work for small pay increases, and so on when she or he can make both a solid reputation and a good living working in a more entrepreneurial mode? What does the academic institution offer someone like that? Each university will have to decide how it is going to cope with this emerging scenario.

Conclusion

The growing need for courses and units for lifelong learning create many opportunities for professionally oriented post-graduate degrees. More widespread accessibility to appropriate forms of technology is making online and flexible modes of delivery a more realistic option; however access and equity issues remain for many students, and quality issues have not yet been addressed by the sector.

As documented in *The Business of Borderless Education* (Cunningham et al., 2000), the online learning economy is heating up. In their quest to maximise the revenue generated by their intellectual capital, universities want to respond to growing student expectations that courses will be available on the Web in a highly effective, efficient and maximally convenient way. Traditional universities are partnering with each other, with technology providers, and/or with publishers. Private for-profit online and mixed mode universities have successfully entered a once-exclusive market—more than accreditation, brand recognition is recognised as attracting enrolment. Today, a business strategy for online education is seen as vital to the economic viability of many universities.

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