Answer the Strategic Questions Please

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Abstract
*This paper attempts to briefly review and foreground a
number of issues related to enterprise wide support within
universities for the use of technology in learning and teaching.
These issues include the need for advice which impacts
strategic planning, the skills set required by senior executives
to manage change within an increasingly corporate and
potentially hostile environment, the influence of government
policies and the role of academics and technologists who are
currently using the technologies to research, publish and
promote its appropriate use. The paper argues that this latter
group of university staff members have a limited opportunity
to control this issue, but the cost may be high in terms of their
time and indeed their incentives to do so.*

Senior Managers and Business Processes

The view that Higher Education in Australia is on the brink of a massive
change similar to that brought about in the early 90s by the Federal
Government's push for institutional amalgamation (the Dawkins
revolution) is not a new one. Coaldrake suggests that the influences on the
business sector – globalisation, technology innovations and the need to
customise products – will also influence universities along with "pressure
to adopt financial management reform" and that the sector "has no option
but to rework itself in order to function properly given the changed
circumstances" (Coaldrake: 2000:9). Regardless of the impact of these
factors on the sector itself, it is more than evident that they are influencing
the planning and policy decisions of individual institutions. While unmet
demand and the determinant of mass higher education were confronted in
the early 90s with what was perceived by government to be an elitist
response from the universities, resulting in forced change, the current

strategic direction that our universities appear to be embarking on will be generated internally, even if the influences are external. The increasing use of communications technologies in learning in higher education and the opportunities implied by the evaluation of its outcomes will bring about extensive internal reorganisation and corporatisation of institutions. In response, staff at the very senior levels of universities are acquiring a whole new set of skills. They build on diverse and decidedly non-academic skills that our executives have needed in the last decade.

While institutions were struggling with the aftermath of the Dawkins amalgamations serious negotiation skills and quality management processes were needed and acquired by senior executives or sourced through consultancies. Meanwhile, the mid 90s change of government meant that new policies occupied the thoughts of senior mangers. The effective withdrawal of funds by the Liberal government meant that they needed, in the later part of the 90s, to seriously consider alternative income generation strategies. An understanding of business management models and the adoption of corporate leadership styles were generally viewed as unwelcome by many university staff, but seen as necessary acquisitions by our senior executives, who were now outsourcing strategic planning processes through consultancies. Efficient financial and HR management processes were critical to business success along with student (client) record systems. Previous unsuccessful attempts to collaboratively resolve these issues through CASMAC meant that large amounts of funding were now being directed to the purchase of systems and network architecture for this purpose.

Similarly, Marginson notes that "government now welcomes the more direct and directive effects of market forces and corporate practices, not least because they soften the universities for further reductions in government funding" and further that government has fostered new systems and performance indicators with a very narrow economic bottom line. He suggests that these factors contribute to change in organizational structure including "the emergence of a new king of executive leardership in universities, with more power than before, and rather less room to manoeuvre" (Marginson:2000:30). It is clearly the case that our universities increasingly resemble corporations, with planning procedures that are much more embedded and which include KPIs and targets (DEETYA: 1998; McKinnon et al: 2000), performance measurement and changing management structures and to some extent changing core business.

Technology and its Business Impact

Meanwhile the early adopters of digital technologies quietly set the scene for a very different revolution. The early adopters contributed much of their personal time and intellectual effort to the embryonic culture of technological innovation, somewhat less in the way of structured research to the educational evaluation of their projects and significantly less to strategic planning for more widespread adoption of their teaching strategies and successful outcomes. When university Higher Education Development Units began to take an interest, both the cost and educational value of new technologies in education assumed more significance, but generally senior management was oblivious – these early projects were resourced by the faculties and were appropriately seen to be the responsibility of faculties. The money made available from central funds as small grants to innovative technology projects, was insignificant by comparison with the large scale back office systems being implemented and the projects attracted minimal interest from senior executives.

Meanwhile team based approaches were being successfully tried and CUTSD and DETYA's precursors were beginning to take an interest in the technology and the enormity of its potential in education. This prompted Shirley Alexander's watershed research on critical success factors for IT in education. This contributed markedly to the development of an interest by senior staff and the growth of successful projects.

The technology, in the form of the internet and other distributed learning delivery mechanisms, now provides the next challenge to the skill set of senior management, not because of its potential to change educational outcomes for students, but because it is the means by which international and private providers can drive major market shifts. Threatened with the market impact of globalisation and increasing national and international competition for students, along with an apparent interest by government in testing the capacity of institutions to collaborate and its growing interest in the concept of the knowledge economy, senior executives now need to make critical strategic decisions about learning technologies. These decisions will affect the internal structure, future brand image and both markets and income levels (and probably capacity to withstand corporate takeovers) of their organisations, not to mention government perceptions (and possibly funding) of the expected contribution of universities to the knowledge economy.

Senior managers of universities are not seeking advice on the use of technology in learning and teaching because they have a particular detailed interest at this time in how the core business of the institution is being conducted. As managers, that is something they have generally delegated to the teaching and research staff. Which is not to say that their general and continuing interest in fundamental university programs is in dispute, but rather that they hope to find opportunities for solving strategic and political problems. Like acquiring corporate and business management skills (and the accompanying IT literacy skills!), the challenges posed by the technology for executives in universities are more than the simple adoption of a procedure and method. The decisions are critical and impact on the long-term viability of institutions. Obviously, how those decisions are made and implemented will be underpinned by the planning processes of institutions. Strategic planning is both new (comparatively speaking) and not entirely accepted as a process for generating change, but is now embedded in the review process of most universities.

The Issue is Planning for Change

There are few models of institution-wide planning for technology use and IT Strategic Plans in universities are also new. Laurillard & Margetson (1997:4) suggest that "The problem faced by any university … is how to structure itself so that its central academic activity is facilitated, not undermined, by technological developments." Katz describes the decision making in Higher Education with regard to IT adoption as a 'morass' in which "investment requirements of unprecedented magnitude and risk" are needed and the information available to inform decisions is "often superfluous, self-aggrandizing, obtuse or contradictory." He goes on to suggest that interrelationships between campus community members, costs, technologies and practices "befuddles analysis and decision making" (1998:xiii). The recommendations of Alexander et al (1998:xiii-xv) appropriately relate to project funding and selection, staff development and support, project design and development and IP. Alignment with the strategic plans of the faculty or institution are recommended in relation to project funding, but this important study stops short of advising senior management about strategic planning for global use of technology in learning and teaching.

There is little advice available to define the issues and articulate the questions as we either concentrate on the pedagogical concerns or sink into the morass of larger survival issues. However, universities must

move the debate about enterprise wide technology and teaching strategies into the mainstream of academic and administrative staff thinking quite rapidly. Otherwise the strategies risk becoming entangled with and delayed by, rather than contributing to, decisions about the broader concerns of institutional change.

The Questions

A small number of institutions have already begun to make and implement enterprise wide decisions, but for most, including these early leaders, the strategies are still experimental. They are still relatively isolated projects, although they are making increasingly valuable contributions to educational theory and practice and providing a growing understanding of trans-national, flexible and individualised educational delivery. They are also increasingly contributing data on flexible learning approaches, statistics and data collection tools and models. However they do not contribute markedly at this stage to providing answers to critical strategic questions, which nonetheless relate to a perceived need to expand technology assisted learning. The questions are about:

- Aligning the development of networked, IT infrastructure and support systems and services to organisational strategic direction. This is particularly an issue for larger, multi campus or highly devolved institutions and is prompting the development of a plethora of IT Strategic Plans (where previously there have been only operational plans).
- Developing a client service orientation in an environment which requires that IT supports and does not drive the corporate educational enterprise, within a wilderness area of university sub-culture which until now has been relatively isolated and able to develop without the close scrutiny of senior management.
- Developing marketing plans, academic content and administrative services that inform a diverse, global and increasingly aware client base.
- Responding to government expectations and pressures, including data collection relating to flexible learning and the definitional requirements that are a prerequisite of informed response.

The technology itself is also prompting a series of challenging questions about strategic areas including:

- Organisational restructure and policy amendment to meet the demands for development and support, including:
    - Academic staff development and training from basic IT literacy to complex course management and content delivery systems and project management skills.
    - recruitment and retention of skilled IT technicians and advisers.
- work practices that enable near to 24x7x52 support and system up time.
    - Academic work and workload and ownership and publication of IP in the internet environment.
    - Site wide licensing and enterprise wide adoption of development and course management software. This may again be particularly problematic for larger or multi campus institutions.
    - Evaluation of emerging technologies such as satellite and WAP for educational use.
    - Access to appropriate, personalised and customisable information for students and staff. (Of note is the reduced concern about equitable access to hardware and software – it is generally accepted that access levels are now close to 90% as

students more readily use computers in work and community situations and personal ownership increases rapidly.)
- Outsourcing of relevant expertise and maintenance contracts while retaining control of systems and ongoing related decision making

Sourcing the Advice!

The growing critical relationship between IT and Learning and Teaching is however being explicated. A recent university IT Strategic Planning workshop identified the following issues:

- The benefits of using educational technology are not widely understood by academic staff and students
- Student centred learning outcomes are optimised by selecting and adapting appropriate technologies
- Levels of IT literacy amongst staff and students cover a very broad spectrum
- Initial uptake of technology supported learning is resource expensive
- IP issues are not well understood and impact on uptake
- There is an increasing need to teach from remote locations, nationally and globally
- Student learning outcomes are affected by the opportunities to participate in the broader university experience and can be facilitated by IT.

That these issues, which are very much learning and teaching issues, were seen as appropriate areas to be addressed in an IT Strategic Plan, is in itself an indication of the direction and extent of the thinking of senior managers.

There are however, more questions than answers and seeking the answers seems to meet with resistance! Jonathon Katz makes the sage observation that

"Many of us in higher education now wish we could push the information technology genie back into the bottle, as this technology is raising cultural, organizational economic and even survival issues for which the questions greatly outweigh the answers." (Katz et al:1999:xii)

Meanwhile Alexander reports that one high profile project leader returned unanswered, a questionnaire seeking information on the outcomes of a technology assisted learning project, with the somewhat enlightening comment that

"I've had more requests for information, seminars etc. because of [the project] than is desirable – as if developing educational materials is all I do. … I don't want to be followed up on my project please." (Alexander et al:1998:26)

As advice is needed and sources not easily found, Chief Information Officers (CIOs) at universities are increasingly using the services of

corporate support companies such as Gartner Group, who have a primary focus on the use of technology in corporate development and include an educational support division, which modifies information aimed at for profit corporate structures, to suit educational institutions. The North American technology and education information services organisation Educause, is also increasingly used by CIOs in universities, to guide the planning decisions which are intended to support the educational core business of their institutions. Advice to senior managers about content development for global distribution also comes increasingly from corporate support consultants in these and similar consultant companies, not from internal academic, or administrative staff who are either not interested in providing the needed advice or are perceived as unskilled as change agents. The external advice is frequently focussed on outsourcing, and business partnerships. For example, many multimedia development companies offer high quality production services more cheaply than internal units. For global development, remote location service contracts may be better managed externally As a consequence, specialised in-house skills development is increasingly seen as a luxury, which is no longer affordable if we are to increase student choices and markets.

Nunan et al discuss change in university organisations, noting that there is "no doubt that universities are being reworked by the forces that shape a consumer culture" the defining factor of which is "its construction of choice and the resulting uncertainty and competition to capture demand" (2000:97). Calling our students 'clients' or 'customers' was dismissed just a few short years ago as inappropriate jargon in universities (James & Westfield:1996), but we now write into our strategic plans, the need for client service orientations in student services areas.

That students are consumers of educational products is undeniable, even if we prefer to describe this process differently and ignore the fact that they are much more aware of competition for their dollar. They also believe that they pay for the education they gain and have well informed expectations of what they will receive. In a consumer culture, the market drives product development and life cycle. In the educational context the product is the academic content and its packaging and delivery and, as with multimedia development expertise, specialised content experts may also be a luxury that is no longer affordable. As institutions and their individual faculties or divisions attempt to address the funding shortfalls by establishing income focussed spin off companies and partnerships with commercial providers of related or needed services, models are now

available, which successfully use outsourced content and online delivery for short non-accredited courses. The models are easily transferable.

Issues at the Learner Interface

Many of the early adopters and newer practitioners and their technical supporters and team members have their own set of questions and issues, which require the decisions of senior staff for both implementation and budget allocation. These include, among many others

- Course Management Systems – these are rapidly evolving and present diverse business models; their enterprise wide acceptance and implementation requires high level planning and support; interfaces with corporate business systems are required to efficiently populate and support them.
- Content Development – collaborative development requires funding resolution and generates almost insurmountable IP issues in many instances; workload, publication and promotional criteria are not established; team and project management skills are needed; technical expertise is expensive.
- Pedagogy – research funding is needed to investigate student needs, learning styles and evaluation methods.
- Support – 24x7x52 support generates work practice and best practice issues; networks, helpdesk and call centre concerns must be met; IT literacy is not evaluated, planning is not integrated.
- Research – is also becoming a team practice requiring support of a different kind, which also needs to be planned and integrated.
- Library – services must account for the convergence of digital media; knowledge is distributed as digital representations over worldwide networks, which are accessible to anyone.

Conclusion

The dearth of advice is not such that it is overwhelming and prevents debate. Although many gaps are evident, related research such as Alexander's, contributes to and stimulates interest and progress and there is at least one 'bible' that provides guidance. Tony Bates for example (2000:1-6 and 210-216), offers some sound advice about technology planning and reminds us that it is learning needs that drive teaching. Technology can play a very supportive role, but cannot be allowed to dominate. He also notes that there may be a role for institutions which chose not to take the technology path. There is also a salient note (pg 215) about the unique features of traditional learning and teaching practice and about university culture that we must consider and probably protect. So, where do those of us who have a responsibility to advise senior executives seek the answers? Should it be from within the institutions we serve, or is the advice and the strategic planning process more appropriately sought

from external consultants and researchers? Should the change that Vice Chancellors are now committed to deliver be generated and controlled from within their institutions or should universities be propelled into the corporate sector by external forces? Katz quotes Machiavelli:

> "there is no more delicate matter to take in hand, nor more dangerous to conduct, nor more doubtful of success, than to step up as a leader in the introduction of change. For he who innovates will have for his enemies all those who are well off under the existing order of things, and only lukewarm support in those who might be better off under the new" Machiavelli:1950:21

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