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Lessons from distance education for the university of the future

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Introduction

In the knowledge society, there is increasing recognition among governments of the importance of investment in higher education. In many countries, this coincides with burgeoning fiscal pressures as politicians struggle to cope with mounting deficits and the realisation that the demand for services outstrips their ability to pay for them. In such a climate, government leaders are always on the lookout for panaceas and distance education has emerged as one of the latest. Superficially, distance education provides a ready response to the twin pressures of greater investment in higher education and fiscal responsibility. Using new communications technologies, distance learning institutions can deliver programmes and services to the learner in his or her own time and place. Through open admissions and recognition of prior learning, they provide greater access and support for previously disadvantaged students and, if the scale is large enough, in a cost-efficient way. It is no wonder that almost every country, rich or poor, is investing heavily in distance education in the 1990s.

There is considerable irony in this development, however. The same distance learning initiatives may perpetuate one-way, industrial modes of teaching or restrict access to those readily able to adapt to new technologies. Distance learning can be very isolating, and inadequate attention to course design, student counselling and support can yield poor completion rates and the worst aspects of one-way knowledge transmission. If this approach to distance education prevails, disillusionment will quickly follow.

Although politicians and some academics dream of utopian 'high tech' solutions, our central argument is that they will be better served by learning the 'softer', less technical lessons from distance education over the past few decades. The challenge, then, is to ensure that the lessons learned are the right ones: those that most directly affect the learning outcomes of students.

Contradictions and challenges in the modern university

There are many daunting contradictions and challenges facing the modern university in most Western countries. This section identifies four of the most current.

1 At a time when the modern university might reasonably be expected to be in the forefront of social and educational change, it is often seen as inflexible and unresponsive to emerging needs.

By all accounts, as the foremost institution in the knowledge business, the university should be thriving in today's society. Yet, many view it as an institution in crisis, too conservative and tradition-bound to adjust to rapid change and ironically less of what Senge (1990) calls a 'learning organisation' than might reasonably be anticipated.

Nonetheless, some resistance to change is a legitimate part of the university Tradition, given its roles to promote the understanding and preservation of culture and to serve as social critic, both of which require a certain arm's-length relationship with the primary social and political institutions. The conflicts and tensions between the roles of change agent and guardian of culture or social critic render university management more difficult and yield understandably confused public perceptions of its mandate.

Hence, universities can be portrayed as among the most liberal and conservative of public institutions at the same time! The challenge is to find ways to realise the expectations held for the modern university without sacrificing its academic freedom and integrity.

2 As higher education has been democratised, governments have played an increasing role in university funding. This has led to new challenges to their traditional autonomy in the form of pressures for accountability, performance indicators, and public ranking systems.

Nothing has challenged the autonomy of universities more than the changes in funding patterns since 1960. Small, private institutions which relied mainly on student tuition fees and alumni support have developed into major businesses where up to 80 per cent of the budget is paid by the taxpayer. As public funds get tighter, there are more calls for accountability in the form of performance indicators and more direct intervention by stakeholders in the governance and direction of universities.

It is not enough merely to demonstrate more accountability for fewer funds than in the past. Another factor impinging on the culture of universities is their increasing reliance on other funding sources, notably tuition fees and private sector support.

Rising fees have threatened to reverse recent trends to broaden participation in higher education by reducing access for the less affluent. They have also raised students' expectations and encouraged them to demand better programmes and services.

The stronger private sector role, with its emphasis on results and accountability, has also threatened traditional academic cultures and the autonomy of professors and departments. Many academics worry about the long-term impact of corporate language on the culture of the academy and decry threats to pure research where financial support is increasingly interventionist, directive and commercially oriented.

3 Although research still shows a university education to be a key factor in the employability and earning power of a graduate, there is growing student concern about the value of a university degree, while faculty worry about the impact of preparation for employment on the academic culture of the Institution

Within one of the greatest achievements of the modern university, its relative democratisation, lies a new challenge: that of living up to the expectations it has raised. If universities train leaders and everyone goes to university, can everyone be a leader? If they train for jobs and there are none, will a better education help the individual or simply increase his or her anger and frustration?

Student disillusionment is understandable in economies where more and more graduates are unemployed. This has led to strong pressures on universities to make themselves more relevant to the job market, as students are becoming increasingly apprehensive about investing large sums of money in their own education if there is no guarantee of a payoff at the end.

For the first time in decades in the West the new Generation has lower expectations than its predecessor. The practice of overspending, relative to income levels, has produced massive government debts, the servicing of which has become the single biggest expense for many governments. We can no longer avoid massive cuts in welfare programmes, health care and education. Although necessary, these may discriminate against the younger Generation who had nothing to do with the debt accumulation in the first place. The consequent disillusionment and cynicism of youth may emerge as the biggest threat to the future of higher education.

The pressure for relevance and preparation for the job market is seen by many faculty members as a direct threat to the academic integrity and autonomy of their institutions. Many worry that the language of business is distorting the role and mission of the university. Pressures for public accountability also place a high premium on measurable outcomes: graduation and publication rates, earning power of graduates, reputational surveys. There is a common fear that a strong emphasis on these will gradually homogenise the university system to the detriment of the missions and mandates of individual institutions.

4 New technologies are often introduced without consideration of their impact on the organisational culture, with detrimental, unintended consequences for the university.

Many believe that the best response to the dilemma of trying to provide universal access to universities, and to respond to the expectations thus raised, rests in the application of new technologies. The development since about 1970 of distance education is one example of how new ways of learning can both extend accessibility and increase efficiency.

Much has been written in glowing terms about the future contributions of communications technologies to higher education. The Internet or electronic highway that is sweeping the world shrinks distances in ways that were not even contemplated a few decades ago. Interactive video, satellite television broadcasts, CD-ROMS, computer conferencing and innovative new software packages are being applied to learning systems all over the world. Academics and students can communicate instantly, at almost no cost, with their peers and colleagues in any country.

However, these same technological innovations are a significant threat to the continuing dominance of the university. Technologies change rapidly and, although costs are coming down quickly, the most sophisticated are often very expensive. This undermines the capacity of the educational system to respond, especially given its inability to meet the associated faculty and staff training requirements.

New technologies also encourage private sector competition for training money and may be associated with a blurring of distinctions between education and entertainment, so as to trivialise learning. The challenge is to find applications of technology that develop interaction rather than isolation, critical thinking over rote learning, and independent learning skills rather than passive dependency on one-way communications.

Although the university must be in the forefront of applying new technologies to research and teaching, a more fundamental concern is that it develop its capacity to understand and to interpret technology, so as to harness its strengths while remaining fully aware of and resistant to its dangers.

The four challenges previously cited illustrate the often contradictory pressures on today's universities in their struggle to adapt to new conditions. What lessons from distance education are most responsive to these concerns, and what is the likelihood that they will be heeded in the development of tomorrow's university?

Learning from the experience of distance education

When it is suggested that traditional universities can learn much from the recent experience of distance teaching institutions, there is a tendency to expect this to be focused on their use of such technologies as television, interactive video or computer-managed learning. Although such learning aids are central to educational change, technology in this narrower sense is not the main issue, and it will not be the major contribution of distance learning to the evolution of the university.

Instead, it is the 'softer' side of open learning and distance education that merits the most attention. Here, then, are several lessons from the experience of distance education that may help campus-based universities adjust to the overwhelming demands of the twenty-first century.

1 Adopting a 'critical' perspective

The early success of open universities owed much to the 'industrial model' (Peters, 1983) with its reliance on behaviourism in instructional design and linear course production systems. Longer-term experience, however, has exposed some of the shortcomings of the industrial approach. Not only have completion rates often been low, but a strong literature has developed criticising the one-way nature of the learning that ensues and urging a more 'critical' perspective (Evans and Nation, 1993; Harris, 1987). If nothing else is learned from recent experience with distance education, mainstream advocates of high technology would be well advised to pay attention to this literature to combat any tendency to perceive distance learning as a panacea for the ills of education today.

Notwithstanding Rumble's (1995) legitimate concerns about the suitability of the label 'Fordist' in describing institutions like the Open University, it is hard to deny that many distance education practices share such industrial characteristics as the division of labour, the deskilling of workers, an assembly line approach to course development, and exposing all students to the same instructional design regardless of their individual differences.

It must be of concern that so many recent converts to distance education view it in Fordist terms as a low-cost, high-volume application of technology to the delivery of knowledge. Whatever the merits of the Fordist debate, it is no accident that experienced practitioners expected to extol the virtues of new technologies are more apt to surprise their audiences by focusing instead on course design, student support and a critical perspective. To do otherwise would be to ignore the lessons of the past three decades of distance education.

2 The management of technology

For all of their experience with innovative delivery systems, distance learning practitioners have contributed surprisingly little to the literature of technology and education (Paul, 1995, p. 132). Although innovative in the Organisation of learning, they have relied on simple technologies such as correspondence education supplemented by telephone tutoring or audio or video support. There is little evidence to suggest any change in the tendency for breakthroughs in the application of technology to learning to come from outside the distance education sector.

Distance education still offers valuable lessons, however. The work of David Wolfe (1990, p. 63) suggests that an organisation's ability to adapt to new technologies is its greatest determinant of success. The challenge is less the adaptation of a particular technology to learning than the management of the associated organisational change, recognising that technology is:

not a neutral tool but a value-laden culture that must both be understood and taken into account in any attempt to apply it to change in an organisation. (Paul, 1995, p. 140)

The implication is that changing the way we teach or expect students to learn will require us to change our universities in ways that may not be anticipated.

A key challenge is to learn to harness technology to integrate learners, not to isolate them, and to provide better personal support and motivation to students. The recent history of distance education teaches us to be particularly wary of those who zealously promote a particular technology as the answer to all educational needs and to pay more attention to those, like Bates (1991), who adopt a critical perspective in considering the suitability of a given technology and how it can be integrated into an institution.

3 The importance of developmental student support

Support for distance learners has evolved considerably from the time of correspondence study. When high attrition rates began to be of great concern, one response was to invest resources in such support services as tutoring, advising and counselling.

Such responses tended to reflect the industrial model of distance education, investing only in student support intended to directly facilitate course delivery, starting with enhanced tutoring services, advising and counselling. Introducing new services as 'add-ons' when there is disillusionment with the old models is an expensive and inadequate response. The lesson from open universities in particular is the importance of planning and integrating support services from the outset into the overall design of the institution.

With the evolution of distance education in both theory and practice, institutional research has shifted its focus to better understanding individuals: what and how they learn and how they can be encouraged to develop more independence. As a result, the vision of learners as passive and somewhat invisible receivers of knowledge has given way to one of learners as being much more actively involved in their own learning processes.

Within this dynamic, distance educators have been challenged to reconsider the role and purpose of support systems. There is growing recognition (Brindley, 1995a; Sewart, 1993; Sweet, 1993; Tait, 1988) of the central role of learner services in making distance education more responsive to individual learners. Several of the most important are discussed here.

The importance of context in developing a service model

There is no one set of services appropriate to all distance education settings. Services should be governed by the institutional mission and philosophy adapted to local learner characteristics, geography, resources and types of courses offered. Each service offered should have a clearly-stated purpose and be an integrated part of a contextually-defined service model.

Integration of services

As much as appropriate, services should be integrated so as to appear seamless to the student. This may mean 'flattening the Organisation' so that decisions are made closest to the learner or reducing specialisation. Sweet (1993), for example, presents a rationale for integrating tutoring and counselling which does not preclude having specialised experts as designers, developers, trainers, or researchers to guide service providers.

Importance of staff development

Some distance education institutions, through necessity, have become models of learning organisations. In many cases, staff development particular, to the needs of distance education was not readily available, and institutions had to develop their own training programmes, such as retraining front-line clerical staff as educational advisers, or producing specialised programmes on using technology in teaching.

Use of technology

It is not easy to offer complex student support services at a distance and, each time a new one is mounted, a particular challenge is ensuring its availability to all students, regardless of their access to technology. Distance education practitioners have a wide experience of delivering such services as academic assessment, new student orientation, career counselling and study skill assistance through, both simple - (print-based materials) and complex (interactive video) methods. This, one of the most innovative areas of distance education, has received scant attention until recently but, according to Brindley (1995a), is a key to its future success.

Collaboration

Facing complex and expensive needs for service at a distance, support providers have provided models for collaboration with colleagues in other institutions and agencies. They have also looked outside of their own institutions for referral points for services for learners, developing a wealth of information about and relationships with other sources of support for their clientele. Distance learning centres are frequently housed within collaborating agencies and staff may be shared between institutions.

Importance of evaluation

Although much remains to be done in the evaluation of learner services (Brindley, 1995b; Thorpe, 1988), distance educators are increasingly questioning their role and purpose. Continuous evaluation allows support providers to articulate clearly the role which services play

in the learning process, to provide a constantly improving and valued service, and to develop a theoretical framework for their practice. Most importantly, continuous evaluation is a way systematically to challenge assumptions, beliefs and values upon which practice is based.

4 The reorganisation of teaching and learning

The rapid expansion of campus-based universities and their increasing reliance on technology has not appreciably changed the way teaching and learning are organised. The highly bureaucratized structure of a large, modern university, together with collective agreements which formalise processes and structures, combine to institutionalise resistance to change.

At the same time, the recent fiscal crises in most Western countries are forcing universities to consider radical reform of teaching and learning if new cost efficiencies are to be realised. Distance education has demonstrated that students can learn at home and in the workplace, that many quite simple technologies can support and enhance learning, and that faculty time can be freed up for research, course writing and tutoring by innovative approaches to the Organisation of academic work.

The pressures for change and greater efficiency in universities will inevitably focus on the role of the professor, given the huge investment that faculty salaries represent. There are many ways in which technology can free up faculty time by permitting students to take more responsibility for their own learning. If the response to shrinking resources is merely to increase teaching loads, this will detract further from research and undermine the quality of the institution. It follows that much more innovative approaches are required: ones that model many of the practices in open universities across the world.

5 Collaboration across institutions and agencies

There has been much resistance to notions of system in higher education as universities value their autonomy as the ultimate protection for academic freedom. Recent fiscal pressures have required mainstream universities to narrow their individual mandates, to focus on their strengths, and to look to collaboration with others to maximise their effectiveness.

Moran and Mugridge (1993) offer a useful collection of examples of collaboration in distance education, many of which could be applied to the mainstream university sector. It can be argued that, in the main, such ventures as shared course materials, enhanced transfer credits and national and international consortia have been realised, not at the expense of, but for the benefit of institutional autonomy by strengthening each collaborating institution in the process.

6 Stronger service orientation and the quality movement

It is no accident that open universities and other providers of distance education have been in the forefront of the quality movement in universities (Mills and Paul, 1993). Catering primarily to adult learners on an individualised basis, they have had to adopt more of a 'customer' focus than more traditional universities where students have been expected to adapt to the institution rather than vice versa.

The fit of quality and continuous improvement processes to universities has not been without its difficulties, given concerns about the appropriateness of a customer approach for students who are being evaluated and judged at the same time. Again, however, the debate that has taken place within distance education provides some useful lessons for how such initiatives can best be carried out in the university setting.

The outlook: The university of the future

Distance education in itself will not resolve the fundamental difficulties facing universities today, but the case has been presented that it has much to contribute to the university of the future. Although the prevailing outlook here is optimistic, there are countless grounds for pessimism, especially given tendencies to elevate technologies to deistic status. It is useful to contemplate the university of the future from both perspectives.

An optimistic vision for the future

In our optimistic scenario, the university of the future will be a much changed but strongly reaffirmed institution: one that makes little distinction between face-to-face and distance education. It will no longer cater primarily to fulltime, campus-based undergraduate students, but will be a lifelong learning institution with a great range and variety of programmes and educational delivery systems that cater to the needs of all citizens.

Computers, interactive video and international databases will be so readily available that formal learning opportunities will be accessible to all. Every member of society will be able to design his or her own learning programmes with strong support from families, businesses, labour unions and formal educational institutions. Learning will increasingly be valued for its own sake and every institution and agency in the community will have a role to play, often in partnership arrangements. National boundaries will be far less significant to learning. An expert in Beijing or New York will be able to 'teach' students in any country through interactive technologies using a multimediated approach.

Opportunities for information will be so pervasive that students unequipped to deal with them will be seriously disadvantaged. This emphasises the importance of incorporating basic skills development into teaching to facilitate the ability of students to pursue their own learning needs independently. It involves openness to changes in personal values and attitudes (self-confidence and self-motivation), as well as the development of new skills such as time management, study and research competences, problem conceptualisation and analysis, critical and lateral thinking, and the ability to integrate learning into one's everyday life. A quest never completely fulfilled, it is a process central to our concept of a university.

Taped lectures and computer-assisted learning will free faculty from the traditional knowledge-transfer role and permit them to focus on personal and tutorial support for students and the pursuit of their own research interests. Specialised training will continue, but learning how to learn and how to cope with change will be much more important than any specific technical skill. Whether in the classroom or via distance education, the development of independent learning does not just happen. University faculty are seldom trained as teachers and it is no mean task to lead students to discover the joys of learning and to develop their own learning skills. It also

does not necessarily follow that distance education develops independent learners just because students are on their own. Careful and tailor-made course design, strong student support and library services, and an emphasis on interactive learning are all fundamental to such an approach. Without such care, student drop-out rates are sufficiently high in distance education as to belie its supposed advantages in cost and convenience.

Hence, in this utopian vision, the university degree of the future will be a formal attestation that the graduate has mastered the skills of the independent learner and is an imminently trainable and adaptable citizen, well prepared for a world of constant and dramatic change. He or she will be served by an accountable, lifelong learning institution, very much like the best of our open universities.

The pessimistic side

It is not difficult to take the same sorts of objectives and environmental contexts and envision much more pessimistic scenarios. For example:

- The pace of change will be so rapid and discontinuous that the relatively cumbersome universities will not be able to keep up. Their functions may or may not be taken up by government or private agencies, but, in any event, the integrity of the autonomous university will be lost.
- Too many distance education proponents will place the highest premium on technological toys without first determining the learning needs of -the students, the challenges of the particular discipline and how a given technology can address these directly. The means to learning will become ends in themselves and some of the most important lessons of distance education will be lost in the rush to use fancy hardware and impressive graphics.
- As has too often been the experience of distance education, technologies such as satellite television can easily be misused for one-way learning and indoctrination. There is tremendous scope for tyranny here (Tait, 1989) through manipulation of the system for corporate or political ends that are contrary to libertarian ideals of education. Hence, learning may become indoctrination, and diversion may increasingly supplant genuine enquiry and debate as technology becomes a form of drug to keep the masses blissfully preoccupied and conformist.
- We will not be able to afford the dream. Spiralling costs and debts will force us to cut back so much and so quickly that we will revert to more elitist times where only the privileged had access to higher learning. This will exacerbate the conflict of generations and lead to major confrontations and even violence within our individual societies.

One could go on at great length. We offer the pessimistic side mainly to emphasise how difficult change is, and how much is at stake. Our purpose is not to overestimate the role of the university as an institution, but to make sure that we don't underestimate the importance of lifelong learning

Finding the way through

Is there a middle-range view of all this? Without creating Utopia on earth, can we avoid Armageddon? Can a single institution even dream of achieving all of the higher-order goals that we have set out?

It is difficult to preview how our universities will evolve, but their core value systems of openness and the search for truth must be preserved at all costs. Strong leadership is critical, but it must exemplify the very values that universities espouse through what Badaracco and Ellsworth (1989) have termed 'value-driven leadership' (Paul, 1990). The challenges will be great, but the effective new university will be one that has benefited greatly from the recent lessons of distance education and open learning.

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