

Identity, Control and Changing Reality

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*“You can find equally good reasons on both sides of any argument, the only wise course is to stop thinking and judge by appearances”
(Fernandez-Armesto 1998).*

Abstract

The current climate of technological change promises to have significant impact on many aspects of work, society and higher education. In relation to higher education, such claims are commonly associated with speculation about the survival of universities as we know them. Some projections sound wild and some well founded. It can be hard to delineate the two. It is clear that professional life has changed since the days when a career was for a lifetime and skills required would not alter significantly in that period. It is also clear that society is feeling the effects of technology in ways that take many people beyond the limits of their comfort zone. From the perspective of the audience at this conference, the impact on higher education is obvious, though the magnitude and direction of future change remains uncertain. What is clear is that the situation is not entirely new. Parallels are drawn with significant periods recorded in history; the shift from oral to literate culture circa 5 B.C, the advent of printing in the 15th century and the industrial revolution of the 19th Century. Although the use of analogy is limited by contextual differences, perhaps the most uncomfortable parallel is the defensive adherence of the dominant power to ‘the unquestionable’ benefits of existing models and methods and speculation about the ‘inherent’ dangers of the new and unknown. For example, speculation on the ills to humanity that would be caused by reading are laughable with hindsight, but the clergy who controlled knowledge up to that point undoubtedly believed it. The main objective of this paper is to examine the available evidence in an attempt to sort the wild from the reasonable aspects of the defences and speculations in relation to the future of higher education. With a basis in what is known and accepted in the traditional academic sense, and with due respect to the unreliability of prediction in relation to the impact of innovations, possible outcomes are explored. The basis of the analysis is not revolutionary – which lays it open to accusations of maintaining comfort in the familiar – it is evolutionary – based on responsiveness and acceptable evidence. The choice of approach is entirely subjective and reflects the beliefs of the author. No claims to objective truth are offered.

Introduction: Argument and Reasoning

There is no doubt that the current climate of change is impacting significantly on the concepts of knowledge, ownership and control and that speculation is rife about where the situation may lead. To sort the wild from the reasonable aspects of that speculation, examination of arguments is applied so more soundly based conclusions may be offered. In the words of Stephen Toulmin,

“An argument is like an organism. It has both a gross anatomical structure and a finer, as it were physiological one. When set out explicitly in full detail, it may be large and time consuming. Within the delivery time and space, one can distinguish the main phases marking the progress of the argument from initial statement of unsettled problem to final presentation of a conclusion”, (Toulmin 1958).

The formal definition of an argument involves claim and counterclaim, the grounds on which claims are based, warrants which provide the ‘bridge’ between grounds and claims, and backing which supports the validity and reliability of warrants. This definition is used as the basis for analysing common claims and examining the basis for speculation.

The Concept of Knowledge: Creation and Transmission

For the past 500 or so years, knowledge has been the domain of intellectuals, most notably the academic profession, and has been expressed in print, a conveniently tangible and tradable format. Prior to the 15th Century it was subject to narrow definition and control by the clergy. Transmission was limited both by ability and intention. Before the literate society emerged circa 5BC, knowledge was a form of consciousness that did not exist outside the individual. It was performed, recreated and transmitted through the stories and myths of oral culture. As each of these transformations occurred, the concepts of ownership and control of knowledge shifted completely. One area of popular speculation in the current context is that the ‘information age’ is driving a third major transformation, and that the 21st century academic is a modern incarnation of the 15th century monk, struggling to keep control of a dominant position that is already lost. However, regarding history as circular without recognizing key differences is as reductive as it is tempting, (Brent 1991), so degrees of similarity between the two situations cannot be quantified. While the creation and expression of knowledge in the Internet age have some recognizable similarities to the practices of ancient oral societies, i.e. the inability to separate the known from the knower, there are also a great many differences that make comparison impossible, or at best unreliable.

Technology is definitely facilitating a shift in the patterns of knowledge creation, transmission and ownership, and most academics view this as a positive development. In current, educational terms, four aspects of knowledge are identified, (Barnett and Hodson 2000(in press)).

- pedagogical context knowledge
- academic and research knowledge
- professional knowledge
- classroom knowledge

For speculation about shifting definitions of knowledge to be accepted, either the ability to transform each of these aspects into a discrete, saleable item must be considered, or the validity of the definition discredited.

Ownership of Knowledge

“Knowledge has been so closely tied to economics for so long that it may never be dislodged. Rather, the relationship between economics and knowledge will be rearranged into new formations”, (Brent 1991).

Some contemporary claims to ownership of knowledge may be more accurately described as attempts to control knowledge – often motivated by profit, though sometimes by genuine belief in the exclusive right and licence to comment on, use and develop knowledge in an area of expertise. The profit motive is clear and easy to justify. If not necessarily laudable, at least it does not defy explanation. On the contrary, the exclusive right case gives rise to accusations of perpetuating an outdated elitist system that is as open to criticism as financial gain as a motivating factor. It could also be said to defy justification by its own rules. Perry’s classification of learning maturity, (Perry 1970) suggests that those at the higher levels of cognitive development recognise the relative worth of different perspectives and the objective accuracy of none. Given that innovation is often the result of lateral thinking or creative effort from outside the ‘elite’ of a discipline, perhaps there may be a good case for opening the borders.

The Impact of Shifting Control

A summary of the shifting concepts of knowledge, ownership and control can be defined as follows. A significant component of knowledge acquisition relies on expression of information. Until recently, information was something that was produced at a given point in time, transmitted, sold and otherwise passed round in tangible form. This facilitated control in the form of editorial decisions about what would be published in what form, and at what price it would be made available. The forum for publication was largely influential in determining who could access the information and consequently, how it would be interpreted and embellished. Information and the knowledge base it contributed to was mainly a discipline specific matter accessible only to experts in the field. Scarcity determined cost. Copyright and intellectual property rights developed as a neatly manageable extension of this control mechanism and it was the particular expression of information that was protected since it was always accepted that no one could claim ownership of ideas.

The advent of the Internet is changing these rules as digital technology increasingly detaches information from the physical plane, (Barlow). It is no longer the exclusive domain of editorial decision and selective peer review processes to determine what is published. Anyone can publish anything on the Internet. There are of course quality issues associated with freedom of publication. However, the evolution of electronic journals, email discussion and other electronic forums suggest that the worthwhile aspects of what cynics may call censorship and elitism will be mirrored and improved by the addition of new technology while the less attractive aspects will become obsolete. Communities do have a reasonable record of regulating themselves if allowed to do so.

There is no reason to suggest that cyber communities will be any less capable, quite the contrary in fact, as popular on-line discussion areas such as IT Forum and research that suggests individuals are more willing to voice their opinion demonstrate. Quality has its own judges and regulators.

Knowledge, Information and Education

So where does this leave the relationship of information to knowledge and to experts and expertise? How will work such as authorship, expert teaching and production of good quality information be compensated if it is developed collaboratively and made freely available via the Internet? Another reasonable question is, how will the dependent relationship of information to knowledge be dealt with by the drivers of mass scale exploitation of discipline related information marketed as education for profit? The point being missed is that, only when relevant information interacts with prior knowledge, experience of application in meaningful contexts, exposure to multiple perspectives and guidance in some coherent form does it really become useful as a learning resource. The widely applied theory of constructivism (Jonassen 1998; Jonassen 1999) assumes that learning involves creation of personal meaning to better understand the world. Without exposure to ideas and information created by others, the learner would be left to re-create the entire world from scratch, “in the 'ghetto' of her or his own mind” as Hodson (Hodson and Hodson 1998) so eloquently described it. So for information to be transformed into knowledge in an educational sense, it is the process not the product that is marketable, the relationship rather than the ability to possess that holds value.

The ‘Dynamic’ Nature of Formal Education Systems

Although there are many who opine to the contrary, institutes of higher education have a significant dynamic aspect. In many respects, they have coped remarkably well with increasing numbers and diversity, decreasing funding, changing social and political contexts and shifting demands from commerce and industry. Some have responded more quickly than others, but the degrees of caution the sector displays may well be justified by those within it as being the period of reflection on the grounds, warrant and backing for the claims about the direction of change and proposed routes to development. The nature of academic work demands evidence of likely success before it will change what has previously and consistently been proved to work.

However, significant internal and external pressures are putting untenable stress on parts of the existing system. Hardly a week passes without reports in the press about the increased levels of stress associated with academic work. Technology is moving fast and management structures do not allow institutions to respond in a timely manner. Then there is the trend of economic rationalism that is trying to turn education into a commodity that will turn profits for the canny investor. The nature of that ‘beast’ articulated by renowned critic David Noble in the Digital Diploma Mills articles, (Noble 1998) may sound familiar:

- Speed up and routinization of work
- Greater discipline and managerial supervision
- Reduced autonomy

- Job insecurity
- Employer appropriation of the fruits of labour
- Insistent managerial pressure to reduce labour costs in order to turn profits
- Deprofessionalization of academic work

Reluctance to submissively accept these changes may be attributable to 'elitist self protection', as claimed by the proponents of free market models, or a number of other reasons such as genuine beliefs about standards and quality.

At a generic level, reactions to instability and change are defined by (Schon 1967), i.e.

- fear and disorientation, defensive behaviour and pointless non-compliance
- selective inattention, ignoring the threat, ritual adherence to established objectives, denial of obvious obsolescence or irrelevance to current circumstances
- perception of change as deterioration, lack of understanding and acceptance of positive aspects of progress, determination to return to old standards and methods
- revolt, rejection of present position with no alternatives offered
- acceptance of the dynamics of change, collaboration on development of meta-ethics, principles and structures for progress

A specific accusation was levelled by Rory McGreal, (McGreal 2000), in response to a report on on-line learning produced by faculty at the University of Illinois (REF). He suggests that arguments against massification, standardization and restructuring of universities to reflect current trends in other sectors are nothing more than internal attempts to protect an archaic system when the rest of society has moved on. The double edged sword of being a mature thinker in the discipline of education is being able to accept that the next person's perspective may be equally valid, even though it is possible to produce a well reasoned argument to the contrary. Not all writers on this subject seem prepared to accept the perspectives of others though, and, in the absence of a reliable crystal ball, there is no way of knowing whose arguments to accept– if any!

Within academia, there is a growing conviction that the intentions of the champions of technology driven globalization and mass education run the risk of dumbing down the system to the lowest common intelligence factor. Anyone who has experienced quality in flexible learning as a teacher knows it as a labour intensive process for which suitably qualified workers do not come cheap. The vision of mass markets for standard education products available across the globe is not accepted as realistic for a variety of reasons, some borne out of unfocused resistance, others more experientially grounded. Managing classes of thousands in on-line environments is simply not practical in most cases unless quality, interaction and constructivist principles are compromised. This model can only work with courses based on a didactic, transmission model with little need for student – tutor interaction. According to Bates, (Bates 2000), this type of course is rare and is most likely to have high set up and development costs. A more realistic figure for staff student ratios in interactive on-line environments is much smaller and hardly in the realm of what could be described as economies of scale.

There are also a range of cultural and contextual issues – too numerous and specific to explore here - that may render the proposition unrealistic. A significant risk is that the array of possible motives for promoting the use of technology in education and the threats perceived will mean academics fail to pick up the tools and lead the 'revolution'. The conviction that technology compromises quality can be argued on many grounds. However, by condemning technology in this way, its best-qualified critics may be

confusing technology itself with poor process using technology. As the history of technological development demonstrates, it is the absence of input from discipline experts that allows progress to compromise quality, not the presence of technology per se.

Quality in the Current Context

The issue of quality is one on which McGreal (op cit) makes some valid points, perhaps the most generally applicable being that decisions about flexible learning, technology and globalisation are often based on incomplete or inappropriate understanding and evidence. He also points out that face to face as much as on-line learning requires smaller student – staff ratios than is currently found in many cases, and that deprofessionalization is not just a product of recent developments, it has been going on for years. One of the real benefits of the expansion into on-line learning is that it has put quality issues at the top of the agenda and the same quality criteria can be applied to on-line and face to face education. Establishment of benchmarks can only improve the overall situation. An example produced by The Institute for Higher Education Policy in “Quality On The Line”, (Institute for Higher Education Policy 2000), distils the best strategies used by colleges and universities that are actively engaged in on-line learning ensuring quality for both students and staff. It includes benchmarks in the following areas:

- Institutional support - planning, quality of information, reliable delivery systems, infrastructure
- Course development - design and delivery, quality of learning outcomes, materials review
- Teaching and learning - interactivity, feedback, critical skills development
- Course structure - expectations, student capability, information, access to resources
- Student support - information, training, assistance, response to communications
- Staff support - assistance, training, transitional support, procedural guidelines
- Evaluation and assessment - evaluation procedures and standards, objective data, outcomes review

Further analysis identifies more and less powerful uses of technology and suggests that the ‘either’ (on-line), ‘or’ (in the classroom) division is not useful to the debate. Even the most powerful applications of technology can only complement a more comprehensive approach to learning design, (Alexander, McKenzie et al. 1998). They are just one set of learning tools among many, each of which may or may not add value to learning in a particular context. More powerful applications of technology are listed by Scott, (Scott 2000):

- Simulations
- Interactivity through various means
- Immediate access to sources of information, search and retrieval facilities
- Active learning, practice, assessment and coaching
- Electronic surveys, feedback, processing
- Animations
- On-line self assessment and testing
- On-line video with discussion
- Audio tapes and video recordings
- Teleconferences

Less powerful applications are:

- Provision of large amounts of information for reading on screen or downloading
- Infotainment
- Unmediated web discussion
- On-line learning that is not embedded in a broader learning system

From experience we can discern that quality issues may be described in generic terms but must be applied in a more context specific manner to become effective. Experience suggests that cost saving is not achievable in many contexts because of the necessary investment in technology, training, maintenance, materials development, and ongoing communication requirements. This is one of the major concerns of academia in the current competitive environment. Projections about cost efficiency and additional sources of fund raising through mass markets and on-line education run contrary to what experience shows can be achieved and how market demand responds to new developments. The assumption based on experience is that cost and quality tend to be opposing forces rather than complimentary ones. The motives of profit driven players in the market are therefore reasonably treated as suspect in terms of their intentions about quality standards. McGreal's concerns about academia can be turned 180 degrees and applied to commercial interests in higher education, i.e. that their decisions are based on incomplete or inappropriate understanding and evidence.

Vision and Reality

There are vast differences in the various stakeholders' visions for higher education in the 21st century. Economic rationalist forces have already driven reorganization of the majority of what were previously public service industries in western countries and are turning to higher education as the next target for restructuring and source of potential profit. Learning via the Internet is cited as the latest educational panacea (following on from radio and television). Headlines such as those featured in the Times Higher Education Supplement on June 16th this year are commonplace.

“The e-University will be all about brand....36 universities are among 50 HE providers bidding for a share of UK£10 million from LearnDirect (formerly known as University for Industry).....consultants Price Waterhouse-Coopers are deliberating over the preferred business model” (THES 16/6/00 p1)

The level of optimism is reminiscent of the days when governments and industry were extolling the virtues of private ownership and free market models in health services, public transport, telecommunications and power supply. The benefit of hindsight in these cases shows that while success has been significant, it not been uniform. As if the cracks in the argument are already beginning to show, another article on page 16 of the same edition suggests that all is not well in the pre-privatisation institutions.

“Our universities are in crisis suffering from chronic under funding...highlighting the danger to teaching and research from inability to recruit and retain staff” (THES 16/6/00 p16).

Higher education in the UK and Australasia clearly suffers from many of the negative characteristics of a nationalized industry, i.e.”

- An under funded mass system
- Top down regulation of subjects and student numbers
- Incessant and sometimes trivial intervention from government
- Under investment in necessary infrastructure – in this case libraries, labs and computer labs

Universities in these countries are faced with a serious conflict of interest between government objectives for significant increases in participation rates and funding levels that have been falling in real terms for the past 25 years. The trend towards formation of international consortia and commercial partnerships may not be the saving grace it is projected to be unless definitions of quality are high priority. Based on historical parallels with industries such as publishing and media, it is reasonable to assume that existing conflicts of interest between equity of access, cost and quality will be exacerbated by involvement of venture capital and profit motivated players such as Rupert Murdoch's News Corp in the market. Looking at the history of this organization it is hard to imagine how academic principles will maintain a dominant position.

A cautionary tale for mass market optimists comes from the same THES source. John Daniels from the UK Open University, one of the most successful, global institutions in the world today is quoted as saying:

“ we are not looking at gearing up the Open University bid (for LearnDirect contracts) immediately. When there is a playing field and the rules of the game have been established we will form a team and start to play”.

Reasonable analysis could interpret this as the same degree of caution exercised when everything was going online and into multimedia in other institutions and the OU was waiting, watching and investing in research to see what was actually worth implementing in its courses. A reasonable parallel might be waiting until early enthusiasts have identified all the bugs in a new release of software before upgrading. Not all users display this degree of caution though, as evidenced by the rush to join international consortia, do deals with commercial partners and serve up ‘any time, any place’ education through the internet. Before examining the claims, warrants and backing for the argument that this scenario is the way to an equitable, quality driven and profitable market, it may be useful to explore some of the motives behind current trend.

Motives: Colonial / Financial

Scott (Scott 2000), poses the question, “are commercial organizations and training providers really as capable as universities at delivering quality courses?” Their motives for being in the market are different, as are the principles that underpin their operations. The worst possible case would be the commodification of higher education in a similar manner to other consumer products. A commodity is something that is produced for exchange in the market place where the prevailing rules are neither objective nor particularly honest. In terms of education, this could result in distillation of the educational experience into discrete, saleable packages, separation of content from

context and process with the underlying objective of achieving high sales and turning a profit. The question may be better framed as, “will commercial organizations and training providers deliver quality courses when their primary motive is profit?” This prospect will be further examined through examples from the current context.

The UK Open University serves again as an example. It is neither a traditional university nor a recently formed organization with revolutionary intentions. It is one of the major providers of distance education world-wide, and like other players, it must continue to grow and develop in order to survive in an increasingly competitive market. The institutions motives were clearly demonstrated in a presentation by International Manager John Masterton to a conference in the US in 1999 – soon after the establishment of a formal presence in the US had been announced.

He described the evolution of the organization using a rather uncomfortable analogy of five stages of the rise of the British Empire.

- The age of the missionary – value in people and ownership of educational materials, focus on presentation of distance education, running courses, “educating the natives”
- The age of the trader – value in selling and licensing educational materials, focus on commercialization of product, ensuring quality
- The age of colonialism – value in brand image and reputation, focus on using product ‘as is’ in new markets
- The age of partnership – value in systems, focus on collaboration and support for local developments, partnership agreements, helping partners to evolve, “teaching the man to fish rather than giving him a fish”.
- The age of globalization – value in ‘family’ relationships and co-opetition, focus on new relationships and expanding into new markets in ways that suit local conditions

The evolution of the organization since 1971 has involved establishment of partnerships with, among other organizations, the BBC and major publishing houses so that highest quality can be assured in materials content, production and transmission. It has worked collaboratively with education departments in different countries as well as with governments. Recent figures showed:

- the OU has more than 200,000 enrolled students
- it employs +/- 7,000 associate faculty as well as a permanent staff including world authorities in many disciplines
- +/- \$10m a year is invested in staff training
- course development teams are entirely separate from tutors and support networks
- peer review and action on student feedback is used to assure quality
- development of the organization is demand driven, follows an evolutionary model and is adaptable to suit the different markets it serves

A point of note is that globalization was not a deliberate institutional strategy at the outset. Perhaps this is the scale of operation, investment and responsiveness to emerging markets that the new consortia intend to emulate in order to succeed. An important difference between the Open University and many of the recently formed organizations is that the OU clearly does not follow a ‘one size fits all policy’. The claim that a mere 25 courses packaged as instructional software would serve an estimated 80% of the undergraduate market in core courses (New York Times, 4/4/00), may not prove realistic. Nor does the OU number among the institutions rushing to apply untested technology to tried and true pedagogical approaches. New techniques are approached with caution while pedagogical approaches are rooted in research going back nearly a century, e.g.

(Dewey 1916; Dewey 1938), (Bruner 1957; Bruner 1961; Bruner 1964) as well as drawing on more recent experience, (Chickering and Ehrmann 1996), (Jonassen 1998; Jonassen 1999), (Koppi, Chaloupka et al. 1998). Finally, the OU does not seek to serve markets that do not yet exist preferring to gear up and expand to meet the needs of existing ones.

Generally speaking, claims about colonial motives may seem extravagant on first impression. However, there is something uncomfortably familiar about developed countries producing goods and services (of questionable quality) in order to profit from the growing needs of developing countries. There is also a certain dominant culture arrogance associated with the assumption that the needs of local markets are adequately understood and can be better served by external providers. The point is underlined by issues such as, for example, the USA, and other proponents of GATT trying to make membership dependent on adherence to culturally irrelevant and impossible to police copyright and intellectual property laws. Has the age of dominant powers and colonialism really passed?

Motives: Quality Enhancement / Needs Driven

Visions of quality enhanced higher education through distance and flexible learning may be no less visible but are rather less prominent in the press. The effects of increased stress levels in academic careers and a significant exodus of staff from the profession appear to be more newsworthy. There are however, many proponents of quality and equity enhancement visions, and most of them are well aware that the options do not come cheap by any measure.

Objectives listed by Bates, (Bates 2000), related to learning enhancement are:

- To improve the quality of learning
- To provide students with everyday information technology skills they need for work and life
- To widen access to education and training
- To respond to the 'technological imperative'

To this can be added meeting the demands of commerce and industry for lifelong learning and the needs of an increasingly large and diverse student population. Nothing new or surprising, but hard to reconcile with cost cutting initiatives and severely limited levels of investment in improved infrastructure and professional development.

Motives and Management

Some less generic visions have been offered by individual institutions in response to unpopular restructuring initiatives that undermine the value of academic expertise within organizations. It is debatable whether technological developments are de-skilling or upskilling the academic workforce, (Rhoades 1998). Theories of modern management value intellectual capital and expertise as an organization's number one asset, (Webb and Cleary 1994). The current trend in many universities is top-down, budget driven decision making. This style is more reminiscent of 1960s managerialism, and is a stark contrast to

the rhetoric that says 21st century management processes are being applied. It is easy to criticize, but viable alternatives must be offered.

“Philosophically, resistance to ‘harmful’ aspects of technological change should be embedded in an analysis – perhaps an ideology – that is morally informed, carefully articulated and widely shared – it must offer viable alternatives” (Sale 1996), p276.

The great shame of the academic sector as a whole is that, notable exceptions apart, it has never been so silent or apparently lacking in conviction to oppose economic rationalist pressures for change it does not support. Perhaps because the change is affecting the academic community itself rather than others it is prepared to stand up for. There is nothing so disempowering for human behaviour as being thrown into survival mode.

What seems abundantly clear is that the existing system is reaching the limits of its ability to function. Governments say it is too expensive to maintain, academics say it is too stressful to sustain, students say it is too expensive and does not guarantee employment, economic rationalists say it is not serving the needs of the market or moving with the times. One strand of development that seems consistently to fail to contribute anything worthwhile to an already difficult situation is the contrived demand model adopted by organizations such as Western Governor’s University on which \$Ms are currently being spent. Some evidence for this claim will now be examined.

The Evidence to Date: Historical Perspectives

With the caveat that those who forget history are condemned to repeat it in mind, a brief look at some relevant past experience gives perspective to the current situation.

David Noble is a controversial character with opinions that are considered extreme by some. Whichever way his stance is regarded, he brings some important claims to the debate. In *Digital Diploma Mills IV*, he produces evidence that this is not the first distance education ‘revolution’ to affect (or afflict!) the higher education sector. It is actually more of a rerun of earlier attempts at the commodification of higher education in which computer technology is merely the latest medium. The experience of US institutions (specifically Chicago and Columbia Universities), in the 1920s and 1930s are cited by way of example. Offers of personalised instruction, any time, any place at your own pace sound remarkably similar to current rhetoric. It must be hoped that the success rate of current offerings will exceed the poor record of the early incarnations. Reference to original sources reveal that some rather shameful practices were employed in pursuit of success, i.e.

- heavy handed sales techniques
- high profile advertizing
- a miniscule proportion of distance education budgets spent on materials development and teaching
- ultimate dependence on cheap, unqualified labour and high drop out rates for profit from the courses, (Flexner 1930)

Comfort for some may come from the fact that Flexner went on to say this level of superficiality and exploitation was peculiar to the US market and did not exist in Europe.

More recently, it has been claimed that the business of e-education in Europe is driven by educational content where in the US it is the result of an IT sector seeking new applications for technology, (THES 19/5/00). Although the situation in Australasia may be different again, the global nature of many initiatives holds potential to influence the best intentions. One can only speculate what strategies might emerge from international consortium players such as News Corp. Their history of employment relations and political manipulation would make painful extrapolation to the current context of global initiatives in higher education.

In terms of hard evidence of the profit potential of new on-line learning initiatives there is little. On April 4th 1999, the New York Times reported on a sample of institutions serving thousands of students in the distance education market. All but one were established universities that had developed on-line education as an adjunct to on campus courses. However, the varying degrees of success achieved suggest that projected demand fell far short of expectations in nearly all cases. Success was noted mainly in specialized areas and at postgraduate level. Even where significant numbers of enrolments had been noted, none had resulted in a significant level of return on investment. While the reporting did not cover all institutions, countries or organizations, it did signal some trends that make current levels of enthusiasm hard to justify:

The one case mentioned that did not involve an established institution is Western Governors' University. This organization offers existing courses from established institutions that are assessed on a competency basis. It received major sponsorship from commercial enterprises including Microsoft and AT&T. The strategy was speculative and dependent on creation of new markets rather than catering to existing ones. It seemed to be driven by technology and cost considerations. About a year after the widely reported launch it was reported that targets had not been met and enrolments were substantially lower than anticipated, at that time, about 120 rather than the projected thousands. It appeared that the organization had seriously misread its target market and speculated on demand that did not exist. Similarly, The California Virtual University ceased trading after low response from the market. California State University, UCLA and Universities of York and Washington had to reconsider objectives after meeting considered resistance from faculty who did not regard plans as realistic or fair. The pity is that this and similar speculative developments are attracting \$M, (Loose 2000), while educationally driven initiatives based on evolving demand are working on ever shrinking budgets.

Concluding Comments

Perhaps the most critical challenge to traditional universities is develop capacity to change. This calls for major restructuring, removal of unnecessary processes and streamlined administration procedures. Motivation to progress, change and develop is hard found in the current insecure climate. If institutions are unable to respond to these challenges their ability to survive may well be called into doubt. Based on available evidence though, the case for mass markets and standardized courses does not seem realistic at this point in time. Perhaps the intention is misguided, perhaps it is just premature. If projections about rising participation rates are accurate, there will be room in the market for many players with different strengths, organizational structures and type and quality of offerings. The challenge this raises is being able to exploit the resources of commercial interests while maintaining quality and standards of service as a priority area.

Ability to achieve the right balance between opposing forces of cost and quality without reducing education to the lowest common factor will be a powerful survival strategy.

Developments in technology will doubtless be a key feature of higher education in the future though probably not a principle driver. The potential to enhance educational models is great, but as a set of tools rather than a central medium. The shift in forms of communication and expression of knowledge will likely be significant. There is a shift towards a form of consciousness in which knowledge does not exist outside the knower. It may cease to be embodied in physical texts, and instead be communally developed and performed like the myths of oral society. This is one of the effects of the electronic discussion and writing space.

If there is one totally unambiguous result of the past 100 years of educational research is that quality in education requires interaction. This does imply a labour intensive process and investment in a qualified workforce whatever the medium of instruction. Many of today's proponents of distance education believe they are leading a revolution that will transform the educational landscape. They seem to be fixated on technology as the way of the future. These profit motivated prophets may inadvertently be serving a different master. By promoting the use of technology, facilitating collaboration between commercial and educational establishment and investing in infrastructure they are creating an environment for enhancing quality of learning and access. The one flaw in their projections is that these developments are yet to turn a profit. If this is poetic justice it is a beautiful verse, reflective of the sentiment that,

“...if the ‘edifice’ of technological development doesn’t crumble in the face of determined resistance it may do so as a result of its own accumulated excesses, instabilities and lack of anthropocentric motives”,
(Sale 1996), p276.

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