E I P

The Business
of Borderless Education

00/3

Stuart Cunningham
Yoni Ryan
Lawrence Stedman
Suellen Tapsall
Kerry Bagdon
Terry Flew
Peter Coaldrake

Contents

The Business of Borderless Education

Tables

Acknowledgments

This research would not have been possible without the assistance provided by many staff in the organisations we visited in the United States and in Australia. We are grateful for the time, materials and information, and in some cases, the meals and 'teaching talk' they shared with us.

The team also acknowledges with gratitude the advice and counsel provided by the members of the Advisory Committee established as part of this project:

- Peter Nicholson, Director, Education Developments and International Section, DETYA
- David McCann, Higher Education Division, DETYA
- Dr Tony Bates, Director, Distance Education and Technology, University of British Columbia
- Dr Michael Zastrocky, Research Director, Academic Strategies, GartnerGroup, USA
- Dr Tony Bruce, Director of Policy Development, Committee of Vice Chancellors and Principals of the Universities of the UK
- Prof. Robin Middlehurst, Director, Centre for Continuing Education, University of Surrey, UK
- Conor King, Director, Education Policy and Coordination, Australian Vice Chancellors' Committee
- Assoc. Prof. Shirley Alexander, Director, Institute for Interactive Multimedia, University of Technology Sydney

The research team for a parallel study by the Committee of Vice-Chancellors and Principals (UK) have also been helpful and responsive in sharing their findings; in particular we acknowledge the help of Richard Garrett of the University of Surrey.

At QUT, the research team acknowledges the support and input of Prof. Gail Hart, and Danna Dale, Trudy Stone, Pam Belbin and Jim Goodwin.

Finally, the research team recognises and thanks colleagues in the School of Media and Journalism (QUT), Teaching and Learning Support Services (TALSS) (QUT) and School of Media, Communication and Culture (Murdoch University). Their ongoing support made it possible for the team to combine this valuable research with daily teaching and administrative responsibilities.

Research Team

Prof. Stuart Cunningham is Head of the School of Media and Journalism, Queensland University of Technology, Brisbane.

Dr Yoni Ryan is Senior Lecturer in Higher Education, Teaching and Learning Development Unit, Queensland University of Technology, Brisbane.

Dr Lawrence Stedman is Principal Policy Advisor to the Deputy Vice-Chancellor at Queensland University of Technology, Brisbane.

Suellen Tapsall is Senior Lecturer in Journalism at Murdoch University, Perth.

Kerry Bagdon was Policy Advisor, Teaching and Learning Development Unit, Queensland University of Technology, Brisbane, during the period of the study.

Terry Flew is Director of the Centre for Media Policy and Practice, School of Media and Journalism, Queensland University of Technology, Brisbane.

Prof. Peter Coaldrake is Deputy Vice-Chancellor, Queensland University of Technology, Brisbane.

Abbreviations and acronyms

AAPL	Arthur Andersen Performance and Learning
AAUP	American Association of University Professors
ACE	American Council on Education
AFT	American Federation of Teachers
AT&T	American Telephone and Telegraph Company
AVCC	Australian Vice-Chancellors' Committee
CHE	Chronicle of Higher Education
CHEA	Council for Higher Education Accreditation
CI	Coles Institute
CITs	Communication and Information Technologies
CoL	Commonwealth of Learning
CPE	Continuing Professional Education
CQU	Central Queensland University
CR	Campus Review
CSU	Charles Sturt University
CUX	Corporate Universities Xchange
CVCP	Committee of Vice-Chancellors and Principals of the Universities of the UK
CVU	California Virtual University
DETYA	Department of Education, Training and Youth Affairs
EFTSU	Equivalent Full-Time Student Units
GATE	Global Alliance for Transnational Education
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GE	General Electric
HEA	US Higher Education Act 1992
HEC	Higher Education Council
HECS	Higher Education Contribution Scheme
HES	Higher Education Supplement (The Australian)
HR	Human Resources
IMS	(formerly) Instructional Management Systems project

IT	Information Technology
IP	Intellectual Property
JIT	Just-In-Time
JIU	Jones International University
KGSM	Keller Graduate School of Management
MU	Motorola University
MUP	Melbourne University Private
MVAC	Michigan Virtual Automotive College
MVU	Michigan Virtual University
NAFTA	North American Free Trade Association
NCACS	North Central Association of Colleges and Schools
NEA	National Education Association
NTU	National Technological University
NYU	New York University
OLA	Open Learning Australia
OPE	US Office of Post-Secondary Education
ROI	Return On Investment
RTO	Registered Training Organisation
SHEEO	State Higher Education Executive Officers
SME	Small and Medium Enterprises
TAFE	Technical and Further Education
TQM	Total Quality Management
TRADOC	Training and Doctrine Command
UCLA	University of California-Los Angeles
UKOU	United Kingdom Open University
UM	University of Melbourne
UMUC	University of Maryland University College
UOP	University of Phoenix
USAF	US Air Force
USOU	United States Open University
USQ	University of Southern Queensland
VET	Vocational Education and Training
WGU	Western Governors University
WTO	World Trade Organisation

Executive summary

The 1997 study New Media and Borderless Education surveyed alternative forms of higher education provision around the world, with particular attention to the activities of media companies. From that study a taxonomy of new providers was developed, and various scenarios were put forward for the future development of the sector. The rise of corporate universities and proprietary institutions of higher education was noted as a major feature of the changing environment, particularly in the United States. In this study, the research team was tasked with a brief to examine the activities of corporate, virtual and for-profit institutions offering educational and training programs that could be seen to impact on the traditional non-profit university sector, and to consider the implications this could have for Australian universities.

Unlike the earlier study, this research does not focus in detail on all the new forms of higher education, which have continued to evolve since 1997. There has been, for example, continued growth in commercial companies supporting the on-line infrastructure of universities, as well as announcements from some publishing companies of intentions to establish their own universities. Some education ventures have failed, or have been forced to re-brand and re-position themselves in a volatile market; others represent offshoots of the general environment of speculative investment surrounding the Internet. Most of these enterprises are relatively recent and most have yet to establish themselves as viable. Such activities have been noted but do not represent our main interest.

Findings

The factors driving the growth of the alternative education market in the US, and which are likely to be relevant to Australia, are as follows:

- the globalised economy, with a growing demand for standardised products, services and technical infrastructure, and sophisticated communication systems;

- the emergence of a post-industrial information age and the explosive growth and distributed nature of new knowledge;

- demands for greater access to tertiary education fuelled by rapid changes in the economy, the need to maintain and upgrade skills for employment, and industry's need for 'work-ready' graduates;

- growing reluctance on the part of governments to fund increasing demand for higher education;

- the increasing costs of higher education, and the growing importance of the 'earner-learner' market;
- the potential for communication and information technologies to reduce the fixed costs of education;
- rapid growth of technology-based distance education in a market traditionally strongly dominated by campus-based education; and
- dissatisfaction by industry with the responsiveness of traditional providers.

In response to the above forces, new forms of higher education provision are emerging in the US to serve the needs of corporations or to exploit market opportunities, notably those associated with professional and vocational education. The overwhelming focus of the new breed of providers is the working adult market which is demanding more practical, relevant qualifications delivered in a manner which takes account of the competing time and energy demands on adults. The new providers eschew many of the features usually associated with non-profit and publicly-funded education, specifically those of research, community service, a comprehensive curriculum and security of staff employment, all of which contribute to the costs of public education. In the for-profit organisations, disaggregation of the academic roles of curriculum developer, teacher, researcher, examiner and community service provider is proceeding apace, and even in the traditional higher education sector there is movement in this direction.

A strong feature of the new providers is their commitment to the professionalisation of teaching, including mandated teacher training, thorough evaluation of the teaching staff, and an emphasis on recruiting and supporting part-time staff with both practical and teaching expertise.

While campus-based education is likely to remain strongly attractive to students emerging directly from secondary school, lifelong learners increasingly will face choices between:

- shorter, often expensive, courses offered by new providers versus the more established reputation of traditional institutions;
- credit versus non-credit professional development education and training; and
- 'just-in-case' education versus 'just-in-time' training.

Notwithstanding the rapid growth of online delivery among the traditional and new providers of higher education, there is as yet little evidence of successful, established virtual institutions, either as Internet-based educational providers or as 'hollow' organisations which broker the programs of other educational operations. Most education providers indicate an intention to employ combinations of delivery mechanisms in the future, for example mixing face-to-face contact with online availability of programs.

While many of the factors driving the emergence of alternative higher education providers in the US also affect Australia, there are some systemic differences between Australia and the US which are likely to influence the potential for new providers to operate here. These differences include:

- demographic scale and economic size and diversity;

- the existence of widespread employer-sponsored tuition subsidies in the US;

- Australian higher education is more regulated than in the US in matters such as the use of the 'university' label, and US higher education quality assurance and accreditation systems are diverse and poorly coordinated in comparison to those in Australia;

- the industry-orientation and competency basis of the Australian vocational education and training system, which contrasts with the more autonomous and general education oriented community college system in the US; and

- greater levels of experience in Australia with distance education and part-time higher education students.

There is as yet no evidence of an imminent large-scale influx of any of new higher education providers into Australia. Even Australia's international market is unlikely to be affected in the near term; both new providers and not-for-profit institutions are in the early stages of seeking international markets and are aware of the many practical obstacles involved. Further consideration of this area would benefit from research into the actual student demand for new forms of higher education, to complement the widespread airing of assertions and predictions made by education and training suppliers.

Implications

This report should be used primarily as 'market intelligence' by each university according to its own mission and goals. Some institutions will prefer to pursue their teaching activities in local communities and seek limited commercial benefit from these. Others will pursue (and indeed are already doing so) the riskier strategy of offshore operations, and as yet embryonic international consortia arrangements. Still others will attempt to duplicate the activities of the new providers in attracting the corporate market. This is a market already targeted by major US universities, both traditional and alternative, and it may prove over-crowded. All will struggle with the dilemmas implicit in continuing to provide a 'traditional university experience' in the face of the commer-cialisation of education, and declining government funding.

For academics in Australian universities, the implications of this commercialisation are profound. The new providers are not bound by the

norms or ideals of traditional higher education such as collegial governance, linked research and teaching, or academic autonomy and control. Traditional universities have demonstrated that they can successfully operate in a limited part of the lifelong learning arena, that involving award courses and the offering of some short courses. However, new approaches may be needed to expand, particularly in responding to the needs of corporations for tailored education and training. The professional operations of the new providers, particularly in relation to teaching, may offer some valuable lessons.

The Federal Minister for Education, Dr Kemp, announced in December 1999 that an Australian University Quality Agency would be established in 2001 and proposed a new quality assurance framework. Those implementing this framework will need to consider the challenges posed by new providers to traditional criteria for accreditation and quality assurance in the light of national and international policies concerning the trade of educational services. Considerable care will be required to deal with the inevitable attempts by unproved or disreputable operators likely to exploit a newly emerging industry and individuals' educational aspirations.

For government, the key public policy questions concern quality assurance and accreditation, and the potential impact of the growth of new forms of higher education on access and equity for students. In the US, the for-profits do not seek to cater for lower-income students, who are instead left to the public system. Post-bachelor degree higher education in the US and Australia is moving to a full-fee basis, which has potentially serious consequences for the future development of lifelong learning, as lower-income groups and those without financial support from employers face access barriers to fee-paying programs.

1   The brief and methodology

1.1   The brief

The postsecondary learning environment has become increasingly competitive in the last decade, with the pre-eminence of traditional universities as the major providers of higher education being challenged by non-traditional organisations, such as corporate and virtual providers. A number of factors have driven these changes, including:

- the growth of the Information Society and the importance of knowledge-based rather than manipulative skills;

- the scope for communications and information technologies for 'disintermediation', or removal of a human intermediary in the teaching process, thus enhancing distance and cross-border course provision, and enabling the development of more flexible 'virtual' learning environments;

- growing demand for continuing professional education as an element of lifelong learning, and for off-campus (home, workplace) provision of courses to a growing population of time-pressed adults;

- employer demand for education and training which can be tailored to company needs and allow for continuous re-training of employees in order to remain internationally competitive, and to service the learning needs of employees in globalised businesses; and

- alliances between universities and private organisations in order to gain leverage through a combination of areas of strength, and to generate new forms of non-government income.

Of the various scenarios for change considered in our earlier report, *New Media and Borderless Education: A Review of the Convergence between Global Media Networks and Higher Education Provision* (Cunningham et al. 1998), corporate providers were considered to be one of the major emerging alternatives to the traditional higher education sector, able to capture profitable niche markets in lifelong learning and vocational training through their capacity to deliver more flexible and tailored programs, and their ability to generate future employment opportunities for their 'students'. The expansion and transformation of in-house corporate training provision to structured learning programs offered within the organisation, as credit transfers to universities, or in conjunction with for-profit private training institutions, have been widely noted in the specialty education press as well as in various scanning documents prepared by consultants such as Pricewaterhouse Coopers (then Coopers

and Lybrand 1998) and Merrill Lynch (reported in *Corporate Universities International* 5(4) 1999).

The previous study also recognised that significant opportunities existed in meeting the needs of the adult and lifelong learner market, as demand for postsecondary education grows, and as corporations recognise competitive advantages accruing from a highly skilled and flexible workforce, while looking to develop partnership and consortia models which do not directly involve them in the higher education sector.

Hence the brief for the present project, leading on from the broad-scale mapping of New Media and Borderless Education, has been to focus on an extensive analysis of the activities of some of the leading non-traditional providers of postsecondary education in the United States—the corporate, for-profit and virtual providers—and the extent to which they present threats to, and opportunities for, traditional universities both in that country and here in Australia.

1.2   Methodology

The first phase of the 'Business of Borderless Education' study involved identification of exemplar organisations which fell into the nominated categories. It utilised a grounded research approach, based on interviews with management, teachers, and (wherever possible) students, the outcome being case studies of the exemplar institutions. Literature and web searches were conducted to gain as much background information as possible on the targeted organisations.

The research team for the present study, which is largely the same as that which produced *New Media and Borderless Education*, has consistently argued the need to separate hype from reality in the discussion on the growth of technology-related education initiatives, and the threats posed by 'virtual' education organisations. Peter Drucker's (Forbes, 10 March 1997) prediction that the traditional universities would not survive the next thirty years has become something of a mantra for digital futurists, given his somewhat courageous assertion that 'already we are beginning to deliver more lectures and classes off-campus via satellite or two-way video at a fraction of the cost'.

The organisations that appear to pose the greatest threat to traditional education institutions are those targeting the expanding segment of the education market, namely, the adult working student. Both the University of Phoenix and Jones International University, for example, specifically restrict their enrolments to this market, recognising both that younger students in the

US are more likely to continue to want an 'on-campus experience' because it functions as socialisation into adulthood, and that adults are more likely to be focussed on achievement and 'persistence' in study, guaranteeing an income flow for the 'for-profit' institutions. (Gerald Heeger (New York University at the time of interview, now University of Maryland University College (UMUC)), for example, explains the popularity of Apollo Group as a stock investment by reference to the Group's guaranteed income stream for the two years of enrolment of any beginning cohort.) Such organisations can focus intently on achieving a specific outcome for their students, generally work-related, as interviewed students demonstrate.

In the US, the adult student market is bolstered by the fact that many adult students are able to offset the direct costs of their education through corporate employer support and tax breaks. However, a limitation on the market is the fact that Small and Medium Employers (SMEs) are generally unable to provide tuition reimbursement, and SMEs constitute the largest employer group.

The research team for this study therefore determined to select those institutions appealing to the working adult, recognising this as the fastest growing segment of the education/training market. This focus was underpinned by a conviction that the rhetoric of lifelong learning, common since the 1970s in education sectors, but increasing in volume in business circles in the 1990s, was beginning to translate into practice. Our interest lay in both degree and kind: to what extent was learning extending beyond the traditional school years and into other than formal education, and what was the nature of that post-formal learning?

1.2.1 Selection of interviewees

The team chose to examine categories of institutions that were recognised as servicing the working adult market or the education/training needs of large corporations, that were beginning to develop their own extensive training arms, or were entering alliances with education institutions. These institutions were:

- corporate universities;
- for-profit providers; or
- 'virtual' universities.

The institutions examined were to be recognised as highly successful in their practices within the industry and by their clients (whether students or corporations). They were to provide examples of the categories above, have an international reach and hence be already functioning in some sense as 'borderless' organisations; they were also to demonstrate quality approaches

to education and training. They should have relevance to Australia through a 'brand presence', such as McDonald's, or through applicability to the Australian context. Hence the US Services were identified because of the recent decision by the Australian Defence forces to outsource much of their education activity, and because there was growing evidence in the US that the Services were moving into a 'virtual' training model. Most importantly, they were to be organisations that recognised the critical importance of education and training to their business, and that had adopted a strategic and systematic approach to the professionalisation of education and training, that did more than pay lip service to the rhetoric of being 'a learning organisation'.

The team did not seek to examine in any detail the burgeoning distance education activities of traditional universities such as the University of Wisconsin, Stanford or Cornell, not did it examine the commercial activities of traditional universities in any intensive way; the focus was to be on new providers, not new activities within traditional providers.

Approaches were made to the following organisations:

- Air Force
- Army
- Arthur Andersen
- AT&T
- DeVry Institutes/Keller Graduate School of Management
- Disney
- Ford
- McDonald's
- Microsoft
- Motorola University
- Real Education (later re-constituted as eCollege.com)
- Sylvan Learning/Caliber
- University of Phoenix

Disney, AT&T, Motorola and Real Education declined to participate in the detailed interviews requested, leaving nine exemplar organisations.

The following table shows the taxonomies established by the research team in relation to the exemplar organisations.

Table 1   US Exemplar organisations

Corporate U	For Profit	Public
Ford (including FORDSTAR)	University of Phoenix	US Air Force Air University
Arthur Andersen Performance and Learning	DeVry Inc. (DeVry Institutes & Keller Graduate School of Management)	US Army Training and Doctrine Command
Microsoft	Sylvan Learning (including Caliber, Wall Street Institute and Canter)	
McDonald's Hamburger University		

A number of organisations were also the subject of contextual study, the purpose being to establish a wide range of perceptions of the 'business of education' in the US. Hence the team undertook a comparative examination of organisations which might illuminate claims and findings arising from the exemplar organisations, and which deal directly or indirectly with the exemplars as accrediting agencies, labour organisations, industry bodies, and corporations offering services to the tertiary sector or organisations which operate in the same or similar markets. For example, an interview was held with the Michigan Virtual Automotive College to complement the Ford study, and to gauge the success of the broker model in a specific industry setting.

Contextual organisations visited include:

- CHEA (Council of Higher Education Associations)
- Corporate Universities Xchange (interview and conference)
- Financial Times paper (education reporter)
- General Electric
- Jones International University
- NEA (National Education Association)
- Office of Post-Secondary Education (ie, the US Federal Education Department)
- SHEEO (State Higher Education Executive Officers)

The Business of Borderless Education

- Sun Microsystems
- University of Maryland University College
- Western Governors University

Table 2 shows the taxonomy established in relation to these contextual organisations.

Table 2   Contextual organisations

Corporate U	Regulatory/ Government	Corporatised Traditional	Virtual	Service
General Electric	American Council on Education	New York University	Western Governors University	Corporate University Xchange
Sun Microsystems	Council of Higher Education Associations	University of Maryland University College	Jones International University	Digital Education Systems
Sears University	State Higher Education Executive Officers		Christian Global Network	National Education Association
Motorola University	US Department of Education		Michigan Virtual University/ Michigan Virtual Automotive College	
Disney Institute			National Technological U	

A complete list of interviewees is attached at Appendix A.

1.2.2 Interview protocols

Interview protocols were constructed with a view to determining:

- types of learners targeted;
- use of technology in teaching and learning;
- governance and staffing issues;
- courses offered;
- curricular approaches (including content and structure);
- challenges faced by the organisation in meeting its educational and training mission; and
- plans for expansion, particularly into overseas markets.

The transcripts and documentation solicited directly or sought on the Web provided the basis for a series of Case Studies, attached at Appendix 2.

1.2.3 Timeline

Stage 1 of the study comprised:

1 the investigatory phase;

2 early liaison with the Committee of Vice-Chancellors and Principals (CVCP) UK research team undertaking a mapping project of commercial and online education activities in the UK, a parallel project to *New Media and Borderless Education (1998).* The CVCP project is intended to a) examine what responses UK higher education institutions have made to corporate and virtual competitors, b) the nature of that competition, and c) what policy advice might be useful to UK traditional providers represented by the CVCP;

3 preliminary analysis of the data collected;

4 an interim report presented at a two-day workshop at QUT in Brisbane, with an invited audience of 91 senior education, government and business personnel. Sectoral representatives were invited to present papers on the broad themes suggested by borderless education and the business of education, and the audience then developed some tentative policy responses; and

5. a website was established at www.bbe.webcentral.com.au. The web site disseminated information to the wider community and provided a collaborative workspace for our researchers-both in Australia and the UK-to share and work on documents. The media continued its strong interest in the project findings, and articles have appeared in *The Australian Higher Education Supplement, Campus Review,* and the UK *Times Higher Education Supplement.*

Stage 2 consisted of:

1 expansion of the initial findings into detailed case studies of the exemplar organisations;

2 continued investigation of the rapidly changing Australian tertiary education environment, including some examination of Melbourne University Private, and Deakin Australia's relationship with Coles Myer via the Coles Institute;

3 further environmental scans of the US situation; and

4 development of the policy implications relevant to the Australian context.

An opportunity to further refine the study with an organised tour of US corporate universities, 'Latest trends in corporate and workplace learning', was taken in late November 1999, because the itinerary included a Corporate Universities Conference and site visits to Motorola University, Disney Institute, and Sears University, as well as Hamburger University.

1.2.4   Dissemination

The Report and the case studies feed into the CVCP parallel project research.The launch of both reports is scheduled for March 2000,and opportunities will be taken for presentations and publicity in the education media as appropriate.

2 Corporate, for-profit and virtual universities and the emergence of the corporatised universities

2.1 Introduction

One of the most controversial elements of the entire debate regarding the emergence of corporate universities is the *discourse* of the debate, and the ideology that underpins it. The research team is conscious of the difficulty of discussing the issues involved in terms other than that of the marketplace, and it is worth acknowledging the unease many in the traditional academies feel about the language employed: see,for example, Kit Carson 'Bankrupt in a marketplace of ideology', *Higher Education Supplement*, November 10 1999 p. 32. Carson concludes his expression of dismay at the intrusion of the terminology of the market into the education sector, and the apparent capitulation of educators to the discourse (and hence to the ideology, in Carson's opinion): 'only a fool would deny the reality of the market; only an even greater fool would advance that discourse as the only language in which to debate our predicament'. Nevertheless, some use of the market terminology is necessary in the context of this investigation.

Sifting promise from achievement in any discussion of corporate, for-profit and virtual universities is difficult in the face of the barrage of press releases, announcements of Memoranda of Understanding, strategic alliances and partnerships, venture capital deals by established software, publishing and telecommunications companies, and a plethora of new entrants into electronic commerce. An information miasma in which hype abounds sometimes masks the reality that the postsecondary sector faces some very immediate challenges and opportunities.

Alongside the growth of corporate education there has been growth of activity in the provision of for-profit higher education, government-sponsored brokers to established universities such as Western Governors University (WGU), and on-line delivery. A further complication is that most universities have undergone organisational and management changes which strengthen their institutional corporate operations and identity, and many large organisations have adopted 'virtual' modes of operation which emphasise transient, project-based alliances to

tailor products and services to particular markets (GartnerGroup 1999). These developments add to confusion over the terms 'corporate university' and 'virtual university', as reflected in the many articles (eg, Dirr 1999; Marchese 1998; Council of Ministers of Education, Canada, 1998) which simply present a loosely organised list of new providers, and which do not distinguish the different types of provider or examine their operations in detail.

As well as identification of the challenges and opportunities confronting higher education in Australia, one of the purposes of this study is to clarify and establish workable definitions of new providers useful to the current debates about funding for postsecondary education, and about de-regulating the 'monopolies' enjoyed by traditional universities in Australia and, to a lesser extent, in the US.

Much of the alternative higher education activity is taking place in the US, and so this study concentrates largely on that country. The growth of commercial and industry-oriented education there is taking place alongside a pre-existing, diverse and complex system of higher education, and it is useful first to present a brief overview of the US system.

Postsecondary education in the United States encompasses a wide range of programs offered by universities and community or junior colleges, both public and private, as well as by proprietary (for-profit) organisations and, less formally, through a large number of community-based organisations. The colleges generally offer vocational training and/or the first two years of education and training at university level. Universities typically enrol students seeking a four-year undergraduate degree program as well as providing advanced degrees for research or professional purposes. As a consequence of an already highly privatised education market, funding of higher education in the US is complex. It is made up of a combination of student tuition fees (which may be paid via federal loans to the individual student), state (but not federal) subsidies, and often extraordinarily generous endowments and alumni gifts. Hence the 'sticker price' of fees is generally reduced by both government and private support for students.

Over the past decade, public subsidies for tuition have fallen, and internal cost pressures have grown, leading to significant increases in fees in almost all parts of the system. Between 1987–88 and 1997–98, prices at public colleges rose by 20 per cent in real terms, and prices at private colleges increased by 28 per cent (US Department of Education 1999, p. 189). There was a corresponding increase in loan defaults, which reached 22.4 per cent in 1990, although the rate dropped to 10.7 per cent in 1994 (US Department of Education Strategic Plan 1998–2002, 1997). Public reaction to these dramatic tuition increases led to generous federal tax credits and scholarships and a

means-tested 20 per cent Lifetime Learning tax credit, and to calls for greater public expenditure on higher education (The Rand Corporation 1997).

Data collated by the US Department of Education show that in 1996 there were 14.4 million students enrolled in degree-granting higher education institutions. The distribution of these enrolments by institutional type and size is shown in the following table.

Table 3   Degree-granting 2-year and 4-year institutions, by type, control, and size of enrolment (in thousands): Fall 1996

Enrolment range	ALL		UNIVERSITIES		OTHER 4-YEAR		2-YEAR	
	No. of insts.	No. of enrols	No. of insts.	No. of enrols	No. of insts.	No. of enrols	No. of insts.	No. of enrols
Public institutions								
<5 000	927	2 072	0	0	244	581	683	1 491
5 000 to 9 999	368	2 613	6	53	146	1 029	216	1 531
10 000–29 999	324	5 410	67	1 370	123	1 933	134	2 107
30 000 or more	26	1 025	21	803	1	36	4	186
ALL	1 645	11 120	94	2 227	514	3 580	1 037	5 314
Private non-profit institutions								
<5 000	1 502	1 667	5	21	1 324	1 578	173	68
5 000 to 9 999	87	592	22	166	64	418	1	8
10 000–29 999	42	616	33	503	9	113	0	0
30 000 or more	2	68	2	68	0	0	0	0
All Private Non-profit	1 633	2 943	62	758	1 397	2 109	174	75
Proprietary institutions								
<5 000	560	281	0	0	130	113	430	168
5 000 to 9 999	4	23	0	0	3	18	1	6
10 000–29 999	0	0	0	0	0	0	0	0
30 000 or more 0	0	0	0	0	0	0	0	
All proprietary	564	304	0	0	133	131	431	173

Table 3: Source: US Department of Education 1999

The above table makes clear that the proprietary component of the US degree-granting higher education system consists mainly of relatively small institutions, and accounts for only a small share (two per cent) of the total. The above data do not include enrolments at proprietary non-degree-granting organisations or at corporate universities. It should also be noted that

conventional universities are also major players in the key market of interest in this study, that is, the provision of higher education to professional working adults. It has been estimated that the total continuing education income in US universities is of the order of $US50 billion (Irby 1999) and several traditional universities generate significant revenue in this area. Harvard gains about $US150 million per year from continuing education classes, or around 10 per cent of its total annual budget; at the University of California at San Diego, continuing education classes generate about $US25 million in annual revenue.

The rise of for-profit and corporate education and training in the United States has nevertheless been dramatic. The much-cited finding of surveys conducted by Corporate Universities Xchange, that the number of corporate universities has risen from 400 in 1988 to over 1 600 in 1998, testifies to the growth of industry interest in education and training. Meanwhile, the establishment of and investment in education-related companies, many proposing to capitalise on the Internet, also has been remarkable. This rapid growth has introduced a significant level of dynamism and complexity to the higher education scene.

Examination of some of the commercial publications promoting corporate universities, such as Corporate Universities Xchange (CUX) newsletters and e-journals, and Jeanne Meister's Corporate Universities (1998), reveals a relatively undifferentiated notion of the corporate university as progressing along a continuum to the virtual or online organisation (Meister 1998, p. ix). Certainly corporations themselves promote their desire and ability to exploit the 'any time any place' potential of communication and information technologies (CITs) for their training and information agendas. Some have built those agendas on the back of their technical infrastructure (eg, Ford, which 'piggybacked' its FORDSTAR training program on its satellite data transmission system), while others have built (or more frequently, are building) the infrastructure to further their global training and information agendas (eg, Arthur Andersen).

However, at this stage in the evolution of postsecondary education and training, the following definitions can, and should, be distinguished.

2.2   The corporate university

While Meister (address to Corporate Universities Xchange Conference, May 1999) estimates that there are 1 600 corporate universities in North America, it is apparent that the term is used to describe a very diverse set of corporate training divisions. From our investigations, the corporate university is in

essence an umbrella term which covers two quite different manifestations of an organisation's education/training goals.

The first and more frequent manifestation of the corporate university is a 're-badged' human resources/internal information/training section of an organisation; little has changed except the name. Densford (1999) reports that 82 per cent of respondents to the Corporate University Review survey use their 'university' mainly to convey corporate culture; 95 per cent link its activities directly to business goals, and only 5 per cent claim to have a focus on lifelong learning for employees, although 42 per cent provide courses that could generate academic credit at some educational institutions. Marketing information figures prominently in the training of most 'speed-to-market' industries, and for obvious reasons: Caliber's Senior Vice President Bryan Polivka commented that one of their corporate clients estimated the company would lose $US8–10 million if a training 'event' was delayed by two months.

The second and more significant manifestation is a 're-visioned' HR/training/ information unit of an existing business, 'with the goal of achieving tighter control and ownership over the learning process by more clearly linking learning programs to real business goals and strategies' (Meister 1998, p. ix). Corporate Us articulate a belief in the value of the 'learning organisation'. This aligns with Peter Senge's (1992) popularisation of the notion. In Senge's view, such an organisation does not rely on the knowledge of its management to make strategic and efficiency decisions, but deliberately encourages all employees to pool their experience for the company's benefit. Employees' willingness to become involved in this enterprise, Senge argues (1992, p. 5), results from work becoming a 'sacred' rather than an 'instrumental' component of human identity; we no longer work simply to earn, but to confirm our humanity. Hence 'a learning organisation is a place where people are continually discovering how they can create their reality. And how they can change it' (Senge 1992, p. 13).

A more pragmatic vision is to produce a highly motivated and high quality workforce. Mills (1999) distinguishes here between a 'training culture' in which an organisation identifies skill needs and links these to business goals, and a 'learning culture' which is focussed on personal as well as company development, and allows employees to develop their own learning priorities. Corporations, Meister (1998) argues, use their training programs to encourage loyalty in a tight labour market through demonstrated investment in their workforce.

Subsequent to the notion of the learning organisation as a management strategy, Meister, whose name is synonymous with the corporate university movement, notes that 'the university has become a metaphor for learning'

(1998, p. 21). Corporations have adopted the term to 'provide the image of the grand intent of the initiative' (Meister 1998, p. 35). Richard Katz and Associates (1999, p. xiv) note that to validate and valorise their training agendas, corporate universities 'have begun to appropriate the linguistic icons of higher education', employing terms such as 'campus' for Microsoft's headquarters in Seattle, and McDonald's 'Bachelor of Hamburgerology'. Some institutions, such as insurance agency The Hartford Group, are taking this adoption of university badging to its conclusion, and re-defining basic, intermediate, advanced and expert-level training as the achievement of Associate, Bachelor, Masters and PhD status.

While the majority of corporate universities are focussed clearly on improving the competitive edge of their own companies through improved group and individual performance, some organisations have sought to capitalise on their own 'learnings' by making them a service product in their own right. For Meister (1998), the successful corporate university always seeks to leverage capital value from its internally generated knowledge by offering courses to suppliers or customers. Meister's 1999 CUX survey of 120 corporate Us indicates that some 25 per cent attract external revenue. A rival organisation, Corporate University Review, in its own 1998 survey found 28 per cent of corporate Us trained customers or suppliers, and only 19 per cent offered training to the general public, mostly managers of other organisations (Densford 1999). Motorola's assessment is that only seven to eight per cent of their corporate U revenue is generated externally, through participation in MU courses such as 'How to establish a corporate university'. Mastercard University is another example, charging non-Mastercard clients a premium to participate in its training. Such training may be offered to the public at large, as with Disney Institute, or to other corporations, as with Arthur Andersen Performance and Learning.

Several commentators have sought to distinguish gradations of the corporate university. Athey (1998, p. 6), for example, quotes Fresina (1997) in perceiving corporate university activities as operating at three levels: Level 1 provides training skills in 'operational excellence', an example being Hamburger University; Level 2 provides training in new ways of doing the company's business and managing change, with the example being Amoco; and Level 3 envisages education and training as 'a strategic mechanism for driving and shaping the corporation', the example given is General Electric. Motorola University is cited as an example of all three levels. Shields et al. (1999) develop a continuum of in-house corporate training organisations—training centre, leadership institute, learning centre, institute, and corporate university—and argue that each is designed to meet different training objectives. They argue that while the 'corporate university' is an increasingly attractive 'label' for the training division, it can create dangers, particularly for

organisations which have not had a strong history of dealing with change, where commitment from senior managers backed by medium-term resources is lacking, or where the corporation has not traditionally been a training leader. The term creates an expectation throughout the organisation about the availability of quality training, and failure to deliver may accentuate the organisation's problems. Shields et al. (1999) argue that a corporate university should be committed to:

- linking learning directly to business strategy and goals;
- capturing the 'hearts' as well as the 'minds' of employees;
- teaching individuals how to teach themselves;
- being a driver of cultural change in the organisation as well as the 'keeper' of corporate culture;
- driving a customer focus in the organisation; and
- focussing on the total work environment.

For Meister, key elements of successful corporate Us are a strong and visible commitment by senior management, extending to teaching into the program, an array of learning partners (more usually community colleges, but also universities), a gradual elimination of the classroom for desktop teaching and learning, and operation as a business unit within and external to the organisation. Meister's best practice organisations, Motorola, GE Crotonville, and Bank Montreal, tended to have their Chief Learning Officer reporting direct to the CEO rather than to HR, and their curriculum was tightly focussed on the corporation's 'values, beliefs and culture' (Meister 1998, pp. 38–40).

It is easy to dismiss the more extreme examples of corporate universities such as 'Suits U', a five-day orientation activity undertaken by a Californian menswear company. However, organisations which seriously invest in their corporate programs have much to offer the traditional education sector in the professionalism with which they approach their teaching and learning programs, and the funds expended on these activities.

2.3 The for-profit university

For-profit postsecondary educational institutions have existed in the US for over a century in what are commonly referred to as 'Mom and Pop trade shops' offering such courses as Beauty, and Diesel Mechanics. DeVry Inc. was initially a privately-owned technical college established in the 1930s which applied for degree-granting status in the 1970s. Along with the University of Phoenix (UoP), Education Management, and Strayer Education Inc., DeVry is now one of the largest for-profits in the US. (UoP is the largest at 65 000

students, and Strayer has 10 000). The for-profit university can be defined as an educational institution which has as its primary goal profit from selling education and training as a service, and which achieves this through strict business principles of operation: focus on a particular niche client group; developing a specific and limited range of education 'products' and, in Meister's (1998, p. 231) terms, focussing on 'convenience, self-service, and uniformity'. The major for-profits in the US are publicly listed on the stock exchange, though a large component may remain in private hands, as with DeVry.

2.4   The virtual university

Dolence and Norris (1995, p. 53) characterise virtual as 'existing in intent and not form'. Thus the virtual university may be conceived in two ways: as an educational institution which offers all conventional university services (including teaching) via communication and information technologies (CITs), *or* as a 'hollow' organisation which has unbundled services conventionally provided in-house in a university, and sub-contracted these services, perhaps including teaching, to other organisations. In their early manifestations, such organisations tended to be brokering agencies such as the Open Learning Agency of Australia (OLA); the California Virtual University, which until its demise in June 1999 provided a catalogue of Californian state education institutions; or the prototype Western Governors University (WGU), a 'shopping trolley' model, which extended its system to disaggregating assessment from the teaching role and sub-contracting competency-based assessment to Sylvan. More recent virtual universities include the commercial arms of traditional universities such as NYUonline or of for-profit organisations such as DeVry Inc., which have sub-contracted some or all aspects on their online programs to a commercial third party. USQ*Online* is an Australian example, in its association with NextEd (see Chapter 3).

There is little evidence from any part of the world of any organisation offering all the services of a traditional university via CITs. Rather, the use of CITs is generally restricted to administration, materials development and distribution, and communication between student and teacher, as well as student and administration (Farrell 1999, p. 3). Indeed, 'the development of virtual institutions is still experimental, rather unfocussed, and not necessarily matched to clientele learning needs' (Farrell 1999, p. 3). This type of virtual university remains embryonic, and for very good reasons, with even a technology giant such as IBM delivering 85 per cent of its training in face-to-face mode (*Corporate Universities International*, 5 (5) 1999, p. 5).

Since all of these varieties of corporate, for-profit and virtual universities seek to differentiate themselves deliberately from 'traditional' universities in their client base, convenience and relevance, it is also important to define what is commonly considered 'traditional'.

2.5   The traditional university

Australian and US commentators share somewhat different perceptions of the traditional university, although it is acknowledged that there are some common features. In the US, it is seen as a preparatory institution designed as much to provide a socialisation experience for a predominantly full-time school-leaver population, as it is to prepare a student for work. It also has a strong research orientation.

The traditional US university is often residential, and staffed by highly qualified academics who have research and community service obligations as well as teaching duties, or by graduate students aspiring to doctoral qualifications. Its focus is on the individual learner, in contrast to the corporate university's concentration on the group. It offers comprehensive programs spanning a variety of disciplines resourced with extensive physical libraries and extra-curricular facilities; it is a 'full-service' institution. Its governance is characterised as 'collegial' by its admirers, and 'anarchic' by its critics, who see the internal workings of the university as invariably ponderous and slow. Its teaching rhythms are often characterised as sedate, divided into extended semesters and terms to accommodate an accretive, developmental pedagogical model reliant on face-to-face classes. In reality of course, many of the 'traditional' universities in the US are small liberal arts colleges with restricted curricula, but the perception holds. Its characteristics are often idealised, and easily lampooned, but its values can perhaps be summarised in the words of Judith Eaton, President of the Council for Higher Education Accreditation, as the 'familiar and respected environment of campus-based education, the benefits of general education, the importance of degrees, the intellectual authority of faculty, and the centrality of the collegial community of learning' (*CHEA Annual Report 1998*, p. 5). Idealistically, it is a repository of critical judgement in all intellectual spheres, and the centre of knowledge as a public resource. If corporate universities represent 'communities of practice' (Meister 1998, p. 106), traditional universities have proudly represented 'communities of theory'. For Dolence and Norris (1995, p. 81) universities represent, paradoxically, 'an industry in denial' of the realities of the Information Age.

In Australia, the residential model has never had the same valence. Vocational programs begin earlier, eschew the general education component mandated in

US vocational programs, and thus reflect the more utilitarian attitude towards education in Australia. The private but not-for-profit institutions established early in US colonial history were not a major feature of the Australian system, notwithstanding the number of theological colleges with limited degree-granting status, such as the Melbourne College of Divinity and the distance education provider, Coolamon College in Brisbane. Despite some exceptions, such as those above, the 'traditional' Australian university has until recently had similar general characteristics in relation to student population and aspirations of collegiality and academic governance as those applying in the US.

2.6   The emergence of corporate and virtual universities

The popular press abounds with reports of the inadequacies of traditional universities in meeting the demands of today's businesses for well-prepared workers, and of tedious delays in developing new courses for emerging fields and cross-disciplinary areas caused by antiquated collegial methods and differing work cultures. Business schools have been a particular target. Dolence and Norris (1995, p. 2) warn in dire terms that traditional universities are in danger of being 'replaced or diminished by more nimble competitors' if they do not conform to the imperatives of the Information Age. A more extreme example of the call for all education to be privatised in the interests of efficiency and better preparation of citizens for immediate contribution to the workforce is Davis and Botkin's The Monster under the Bed (1994). The very title of Richard Katz and Associates' Dancing with the Devil (1999) inflames the debate; it argues for a paradigm shift to the full utilisation of CITs in education. A milder observation relates to the failure of the traditional college and university sector to respond to emergent needs in education and training, especially in relation to specific re-training for the new economy. 'The education sector is criticised not necessarily for failing to do its job, but for not teaching people that they need to learn throughout their careers—and for not providing this opportunity continuously' (Kull 1999, p. 13). Jaffee's (1998, p. 1) criticism is at organisational level:

> *The model of a learning organisation would … expect higher education to develop and deploy the capacity for continual assessment, reflection, self-transformation and quality improvement. In reality, however, institutions of higher education have failed to conform … Instead we often find inertia, defence of the status quo, denial, and opposition and resistance to change.*

In the US, where employer-sponsored tuition is relatively common in large enterprises, business is demanding recognition as a major stakeholder in formal education systems.

Beyond business criticism, there is a broad range of contextual factors which have led to the emergence of new education providers. Typically, commentators identify the following as major factors in the huge educational demand which characterises the turn of the century, and which is fuelling the growth of alternative education providers:

- **the globalised economy**, which has over the last 20 years led to global corporations with a need for standardised product and services in all their regional markets, and for technical infrastructure to support synchronous and asynchronous global communication;

- **advanced telecommunications** hardware and software, which has provided the means for global (or at least international) communication;

- **the emergence of a post-industrial Information Age**, which values the production of knowledge via 'knowledge-based workers' or 'symbolic analysts' whose knowledge is rendered redundant every two years, or even 12 months (Meister 1998, p. 11);

- **the** '**knowledge explosion**', which has seen exponential growth in specialised and increasingly large bodies of knowledge in established disciplines, leading to a belief that since it is no longer possible to 'know everything', even about one discipline, the aim of education must be'learning to learn'. Hence education can no longer be considered preparation for work, but must be lifelong: Sennett (1998) is one of many predicting that a two-year college graduate can expect to change jobs 11 times over a 40 year working life, and change his/her skill base three times. Labour flexibility and downsizing have led to the concept of 'portfolio careers' (Dudley 1998), as workers trade job security for learning, to ensure lifetime employability rather than lifetime employment (Baldwin 1997; Meister 1998). Further, knowledge is no longer concentrated in a closed community such as a university, but is widely distributed through many non-elite communities;

- **the increasing reluctance of governments of all persuasions to fund growing demand for further education**, which is increasingly considered more and more as a 'private good' funded on user-pays principles (Dudley 1998);

- **the notional potential of CITs to reduce the fixed costs of education**, such as real estate, library collections and labour, in the same way as they have reduced the fixed costs of banking and other 'service' industries;

- **demands for greater access to tertiary education** from adults who have not qualified under previous education regimes, or from those who recognise the need for ever-higher formal certification, the so-called 'credential creep'. Without doubt, one of the main drivers of the business of education

has been the demand for postsecondary qualifications from an increasing number of professions and vocations (Carnevale, A.P. 1999); and

- **shortages of skilled personnel**, particularly in the US, and the growing expectation among younger employees (so-called 'Generation Xers') that continuous training opportunities will be provided, and that evidence of education programs is a hallmark of an 'employer of choice'.

Merrill Lynch (reported in *Corporate Universities International* 5(4) 1999) has tabulated its view of the 21ˢᵗ century economy, drawing on some of these factors, and their implications for education. GartnerGroup (1999) expresses similar predictions.

Table 4: For-profit education view of the knowledge-based economy

Old Economy	New Economy
Four-year degree	Forty-year degree
Training as Cost Centre	Training as No 1 Source of Competitive Advantage
Learner Mobility	Content Mobility
Distance Education	Distributed Learning
Correspondence	High-Tech Media Centers and Video
One Size Fits All	Tailored Programs
Geographic Institutions	Brand Name Universities and Celebrity Professors
Just-in-Case	Just-in-Time
Isolated	Virtual Learning Communities

(quoted in Corporate Universities International 5 (4) 1999, p. 1)

Many of these trends are relevant to this report, and will be discussed further in Chapter 4. However, there are other, more complex forces that have converged to contribute to the rise of alternative providers of tertiary education.

One pressure is the increasing cost of higher education in the US and elsewhere in the developed world, which has necessitated the emergence of the 'learner-earner', the full-time student who is also employed. In 1995, 47 per cent of full-time students in US two- and four-year institutions had regular work (NCES 97–371). This has obvious implications for the rise of more flexible attendance patterns on-campus, and access to resources outside the physical confines of the library. More importantly, and under the pressures of credentialism, working adults are looking to 'fast-track' degree

study.Even though the for-profits charge higher fees than traditional universities, they compress the time required, and often have more generous credit transfer arrangements, including credit for experiential learning.

At a superficial level, industry's interest in education stems most obviously from 'ready to work' graduates; Rodriguez (1992) notes a general trend away from research in national economic development to an emphasis on preparation for the workforce. However, business has become more interested in education over the last two decades as a result of a changing political landscape in which privatisation of public systems has become a standard feature of Western economies. These economies are moving to knowledge-based rather than manufacturing-based institutions, where 'the technological revolution overhauls the workplace continuously, forcing workers to treat learning as part of their basic job description' (Block 1999). The issue of privatisation is canvassed elsewhere (Ralston Saul 1997, Marginson & Considine in press), but the concept of a knowledge-based economy is central to the idea of a corporate university, and has driven its exemplars, and so it is pertinent to consider it here.

GartnerGroup (1999 p. 8) predicts: 'by 2003, intellectual capital—delivered through the leverage of knowledge management and information management—will be the primary way businesses measure their value'. Prior to the emergence of knowledge economies, 'knowledge' had limited cachet, was restricted to an educated elite, and led to a limited range of professions, including teaching and research. A different and wider conception of knowledge as performative not content-based underpins the notion of the knowledge economy and the Information Age. 'Thinking' skills, teaming capacity, and communication skills are considered forms of knowledge.

Another factor, often overlooked by commercial interests, is the changing conception of learning itself as a cognitive activity. From the constructivist perspective, the individual makes his/her own 'meaning' from available information but within the 'frame' of both existing knowledge and contextual need. This has implications for teaching theory and practice, since it places more emphasis on the student as the primary meaning-maker. At its extreme, the constructivist view de-emphasises the power of the discipline (and hence 'content') and the role of the teacher as 'expert'. Hence it aligns with arguments that the knowledge explosion prevents anyone (even the 'expert') from knowing 'all there is to know' about a discipline, and emphasises the importance of 'learning to learn', lifelong learning, and learning 'processes' rather than 'content'. And this, in turn, may be contributing to a dilution of the status of the traditional university.

Public floats of three large education companies (Apollo, Sylvan, and DeVry Inc.) on US stock exchanges in the early 90s stimulated business interest in the sector, fuelling not only the usual individual stock analysis, but more general

prognostications on the place of educational trends in the 'knowledge-based economy'. Although the publicly-traded companies represent only 3 per cent of what is estimated as a $US700 billion education and training market, their influence on the not-for-profit and public institutions is estimated to be substantial in 'productivity and efficiency' (Herman, quoted in *Corporate Universities Xchange*, 19 October 1999, p. 2), because competition is stimulating change in the traditional education sector. An education analyst with Bank of America Securities, Howard Block (1999), cautions that the education sector is under-capitalised, and fragmented, but has good potential for cash flows because of growth and the regular cashflow generated by tuition, especially if institutions are accredited and thus qualify for federal student aid.

Employees are reported to be making career choices based on the opportunities provided for learning because iterative training is essential to their 'marketability' (Fenn 1999). This is particularly so in consulting and IT firms, with highly mobile workforces. However, even telephone call centres are turning to training to reduce staff turnover and labour costs. A California-based company, Unitel, established its university in 1997, and claims monthly labour turnover has dropped from 12 per cent to 6 per cent. Unitel University is open to employees after 90 days with the company, at which point they become 'freshmen'. Following several hours of classes, staff receive an 8 per cent pay rise if they pass the assessment; after another 90 days they are eligible for more training, and again if they pass, they receive another 8 per cent salary increase. Late arrival at work twice in any 90 day period means staff must start a course again (Fenn 1999). Of course, this approach also could reinforce old notions of education as a punitive system.

Further, lifelong learning as a laudable personal goal has been subsumed into the rhetoric of industry as it grapples with the implications of constantly changing work processes and products. The evolution of the concept of lifelong learning is of interest here: in 1972 UNESCO's *Learning to Be* endorsed an international manifesto for the place of education in life: its purpose was personal and social development, and work was to be interspersed with continuous 'learning episodes'. However, in 1988 OECD's *Lifelong Learning for All* re-interpreted lifelong learning as *continual* learning with the worker/student personally responsible for constant updating of his/her own employment skills (see also Lingard and Rizvi 1998, on the connection between OECD education reports and Australian government policy). This marks a shift away from encouraging higher levels of educational participation as a *social* policy goal, to encouraging work-related learning as a means of enhancing *national competitiveness*. This shift is also related to the potential of CITs for Just-In-Time training, and a sometimes coercive attitude by employers that workers should 'take personal responsibility for their skill development' (Luttrell, BORAL Construction Materials, Keynote speech to the QOLN International Open Learning Conference, Brisbane, 3 December 1998).

Another factor is the marketisation or commodification of knowledge (see Chapter 4 for a further discussion of this issue). Those 'hyping' the industry

often simply conflate the marketisation of education with the emergence of online education and training: Jeanne Meister of Corporate Universities Xchange, for example, argues that the new population of working adults want 'the same thing they want from their banks or supermarkets, the same thing that has impelled market forces in the culture-at-large to adapt to a population of busy, working people: education that is accessible, convenient, and on-demand' (*Corporate Universities Xchange*, 19 October 1999, p. 1). Terms like '24/7 access' and 'any time, any place, anywhere' learning have entered the education lexicon.

Further complicating the issue is the relatively recent 'discovery' of distance education in the US, using the new technologies, and the exponential growth in the number of accredited distance programs. NCES (1999) reports that 44 per cent of traditional universities were offering distance programs in 1997 compared to 33 per cent in 1995. For most education institutions, the ostensible reason for adding a distance capability is increasing student numbers and hence funding, by increasing access (Maitland and Rhoades 1999, p. 55). For corporations, distance education has the potential to reduce the ancillary costs of training, in travel and accommodation, as well as time off the job. Other drivers of corporate use of distance education methods are the need for speed-to-market with new products, and 'mergermania' (GartnerGroup 1999). The trend to larger conglomerates requires re-training for all staff in the practices of the new organisation and the construction of a new company culture. Although estimates vary, Marchese (1998) quotes a figure of $58 billion spent on industry training in 1998 in the US alone; and the use of distance education, he notes, is estimated to save business between 15–50 per cent of those costs.

The term 'corporate university' has thus gained currency in the 1990s as a motivational term to enthuse workers about the value of company training, and as an indicator of the seriousness with which corporations perceive their training strategies. However, in the last few years, some organisations have abandoned the use of the term 'university' as unduly suggestive of 'schooling', and negative connotations. These include telecommunications company Dell, which now uses the term 'Dell Learning'.

2.7   The corporatised university

Since the State proportion of funding to US universities is now at a national average of 35 per cent (*Chronicle of Higher Education*, April 30 1999, p. A35), compared to 52 per cent in Australia (excluding Higher Education Contribution Scheme (HECS) fees), non-state income is critical to public universities: they must meet shortfalls either from student income, from corporate funding in the form of gifts, research grants, sponsorship arrangements, or from party-to-party training contracts. This situation has forced even the most traditional of universities and two-year colleges into more commercial ventures as they chase the

corporate training dollar or full-fee individual tuition. Further, a trend to out-source non-core activities which has characterised the growth of specialist IT services within the university sector, as well as food and cleaning, has embed-ded partnership and alliance practices that are 'commercial' in nature, and that have encouraged universities to adopt corporate practices in other areas. Increasingly, consulting groups such as GartnerGroup, Pricewaterhouse Coopers, and Merrill Lynch are being asked to advise university managers on managerial matters, and business-like principles are being imported into the academy (Currie and Newson 1998). As Gross (1999, p. 32) notes: 'with each passing year, universities and the for-profit world are interacting in new and more complex ways, from striking exclusive deals with soda companies to out-sourcing the management of dormitories'.

A further influence has been the changing composition of postsecondary insti-tutional boards, with some commentators noting that managerial strategies such as Total Quality Management (TQM) and performance indicators are being imported into universities via governing boards increasingly populated by corporate officials (Zumeta 1998). Accrediting agencies in the US have also moved to increase their numbers of business representatives, as David Overbye (Keller Graduate School of Management) notes. The result is a ten-dency to accept non-traditional institutions if learning outcomes can still be demonstrated, and greater accommodation of for-profit institutions' demands regarding minimum standards. One example is the pressure the Arthur D. Little School of Business placed on accrediting agencies to drop the requirement that 80 per cent of the teaching staff of MBA programs must be full-time PhD qualified staff; this threshold was lowered (Meister 1998, p. 204), with the result that both University of Phoenix and Jones International University were able to gain accreditation.

Notwithstanding the criticism of traditional universities as non-responsive, the sector has in fact been quick to adopt many corporate practices, including appropriation of the discourse of business ('differentiated markets', 'marketing' of courses, 'stakeholders'), just as corporate universities have adopted 'the lin-guistic icons of learning'.

The rise of the 'corporatised university' is the clearest illustration of this responsiveness. Most universities in both the US and Australia have been obliged to respond to demands for greater accountability in relation to their financial situation, their core functions of teaching, research and community service and to document and report on these and other government policy imperatives, such as equity, minority representation, and ethical considerations. They have also adopted the notion of student as 'client' or 'customer'. As a result, their administrative functions have begun to look more like those of a corporation.

More significantly for this study, however, is that many traditional providers have launched a commercial arm to exploit their intellectual capital and credi-bility, often via a distance education program intended to increase market

share and the quantum of tuition fees, through the establishment of English language programs for overseas students, and even through the establishment of overseas campuses. Some do not target the individual student, traditionally the focus of universities; rather, they aim to cater for the education and training needs of large corporations, introducing a different 'client' into the teaching/learning relationship.

This study refers in passing to a number of such corporatised arms of traditional universities; their mission differs from that of their host institutions in that their intent is primarily commercial. If the traditional higher education sector is to learn from the practices of corporate and for-profit institutions, it is these corporatised arms which are most likely to be the first 'students'.

Meister (1998, p. 232) argues that higher education institutions must 'overhaul their methodologies, products, services and delivery vehicles. Essentially this means they will have to behave more like businesses'. There is mounting evidence that this advice is being heeded, both in the US and in Australia.

3 New providers

In Chapter 1, we outlined our rationale for selecting exemplar institutions for in-depth study. In these organisations, we interviewed senior managers, mid-managers, teaching staff, and students wherever possible. At organisations we considered more tangential to our interests, we interviewed senior and mid-managers. The following overview of these organisations is designed to provide a mosaic of the new forms of educational provision in the US and, to a limited extent, of Australian initiatives. We also include reference to some organisations that we did not visit or interview, but that are indicative of potential business activities or services moving online, or targeting a global education market.

3.1 Exemplar organisations

3.1.1 Corporate universities

McDonalds Hamburger University

Hamburger University is perhaps the best known corporate university in the world, and one of the first corporate players to use the university title, as well as being one of the most 'American' of brand names. Its inclusion in this study was made partly in light of the company's determination to retain the university title despite disparagement from traditional providers for its Bachelor of Hamburgerology (Crainer, 1999), partly because its range of educational and training activities is global in its focus, and partly because these activities span the divide between education and training. Since one-eighth of the American population has worked at McDonald's at some stage of their lives, the company can lay claim to being a bigger trainer than the US Army.

Training is critical to the company's goal of consistency of product and service, notwithstanding some regional differences in product because of culinary preferences. It is rendered more difficult, and more critical, because of high staff turnover, an average of 40 per cent per cent annually. However, as a 'mature' business in the US, with sales growth and expansion slowing, McDonald's must also re-invent itself, and the key to this is more strategic training and a more open response to its franchisees (Upbin 1999).

At the operator level, 'shoulder-to-shoulder training is best' ('Managing Crew Development' brochure) and it is thus conducted 'on the job' by McDonald's certified staff, who *must* have attended one of the corporate headquarters

training centres; Hamburger U itself, in Oak Brook, near Chicago, remains the Mecca for worldwide restaurant managers. The importance of physical place is emphasised in the splendid grounds and facilities. McDonald's use of technology is governed by its particular needs and its staff's job circumstances and prior learning skills. Hence it utilises print training manuals (the Operations Manual is over 600 pages), pictorial charts, video, and, in its headquarters, sophisticated simultaneous translation equipment because half of the students are from overseas. Taylorist production line processes characterise the restaurant workplace, and the strict systems design that governs the work routine extends to the development of curriculum and teaching, with specialists employed at each step of the process. Courses take from three to four months to develop, with a large group of subject matter experts, instructional designers and production staff: typically the model is 40 hours of development time to one hour of instruction. The curriculum is carefully aligned with particular job competencies, eg, those appropriate to restaurant manager, or training consultant. Teaching staff are typically ex-managers with a hands-on knowledge of the business; McDonald's therefore utilises the practitioner-participant model of teaching for its professional trainees at Oak Brook. Teachers are rigorously trained, follow a centrally developed curriculum or 'script', and their performance is constantly monitored.

In 1996, McDonald's acknowledged the strategic nature of its training operations, and appointed an outside training professional to the Vice President (Training) role. As in the other exemplar organisations, not all training is coordinated at the University: Executive Development is a separate unit within the Teaching, Learning and Development unit, and Corporate Staff Development is also separate. Local level managers have some independence in organising training. Like most of the organisations visited, McDonald's is unable to quantify its training expenditure: a manager's training costs are likely to be $10 000 over 18 months. Rafik Mankarious (Dean, Hamburger University) says 'we don't aggregate it; we've never had to say "is this worth it?" or had to measure it'.

Ignoring Meister's prescription for a successful corporate university, McDonald's does not on-sell its company training to suppliers or customers. Rather, it has sought school and trade/Vocational Education and Training (VET) level linkages and training benefits for school-aged operators. In Australia, McDonald's has certainly influenced the public education sector, via its arrangement with the Victorian and West Australian State education authorities to allow secondary students to apply their workplace learning at McDonald's to their secondary school certificates.

Ford

With 350 000 employees in 200 countries in the fiercely competitive automotive industry, and recent acquisitions of Jaguar, Volvo and Mazda making restructuring essential, Ford appears a prime candidate for a corporate university and the use of distance methods. In the early 1990s, Ford realised

that its workforce was mechanically oriented whereas its cars were increasingly computer-chip driven. Further, the company had an under-educated workforce whose literacy skills were not able to meet the challenge of print-based training. Like AAPL and McDonald's, it had a difficult 'workforce' outside the manufacturing plants: a franchised dealership network which was independent and averse to training.

FORDSTAR was conceived and promoted by Larry Conley, then Director of Training in Sales and Marketing, to overcome these problems via graphics-based video training, 'piggybacking' on the existing and under-utilised satellite capacity used for data transmission. Conley had to demonstrate a 35 per cent Return on Investment (ROI) for over a year before management was convinced video training would repay the large investment needed. Ford put $100 million into the FORDSTAR program alone, not including curriculum design costs, with dealers having to buy the equipment (satellite dish and video hardware, about $7 000 per dealer). Dealers also purchase a FORDSTAR 'basic value package' to participate in training. The result was the largest privately owned network in the world in the mid-90s (Thurman 1995); the satellite is now used for intra-company communication on new products and services, as well as training and data transmission. In early 2000, Ford has decided to outsource management of its dealership training function to Saba Learning Enterprise: Saba is to provide competency-based certification for all dealership staff, instead of only the repair/service staff currently taking certification. Distance training of existing sales and mechanical staff complements a comprehensive program with the Michigan state government and VET-level institutions to train apprentices for a new age of motor vehicles and customer service.

Ford has coercive capacity to compel training in a way that no public university has: it refuses warranty payments to dealers whose staff are not Ford-certified on the product, much as McDonald's insists that a McDonald's-certified manager be employed in each store. Even so, and in contrast to the pessimistic view of many interviewees that business interest in training will decline if the economy fades, Robert Cox (Manger, FORDSTAR Facilitators) argues that Ford is committed to training whatever the economic climate, and in any case, 'most times we react to the bad times with training' because 'when the dealers can't sell their used cars, then they are looking for us to hold seminars on used vehicle management'.

Yet Ford's education and training program, like AAPL's, does not encompass all training in the firm. It is not global in its reach, and Ford readily admits its activities are 'fragmented', since much training still occurs independently at business unit level, and also at individual level (Ford supports 6 000 of its employees in part-time degree programs worldwide). The central Education and Training division (separate from FORDSTAR, which operates out of Sales and Marketing) estimates that the company spends $440 million, or 2.5 per cent of payroll, on training, less than 'leading edge' companies, which typically spend 3.9 per cent of payroll ('Education and Training Overview' 1998).

However, Ford Education and Training manages only 25 per cent of the company's total education investment. In 1998, it outsourced 70 per cent of all its activities, and recouped approximately half of its expenditures, mainly through chargebacks, but also through selling courses outside the company. Like AAPL, it markets some (non-proprietary) programs to other corporate customers, and even has a public interest program open to employees and their families which includes languages and computer applications. Such activity is often not profitable when run in-house, even with tuition costs of $1 300–1 800 for a three day course, so Ford outsources teaching in this program where possible. A further inhibitor to the attainment of a global 'Ford University' is the recognition that national and regional cultural differences in approaches to training and governance clash with globally-structured business units. The Australian training operation at Broadmeadows is more limited in scope; however, it initiated an innovative apprenticeship program with then Broadmeadows Technical and Further Education (TAFE) Institute, and now runs a number of soft skills training courses in Management, Computer Technology and Systems Training, along with its arrangements with Deakin Australia for middle management education.

As an interesting comparison, rival car manufacturer General Motors has chosen to contract out the development of its dealership training, signing up Raytheon, for delivery on GM's ACCESS, a Web-based delivery system. Raytheon intends to utilise a hybrid teaching and learning approach, incorporating interactive video, computer-based training and face-to-face classes at the five GM training centres in the US. Ford followed suit after the Case Study was completed.

AAPL

Arthur Andersen Professional Learning is the quintessential corporate university; in 1998, AA again was nominated by university academics as the best staff trainer among the 'big five' (*Public Accounting Report* July 31 1998). As a division of Arthur Andersen, a worldwide consulting firm and one of the 'big five', whose business is now much broader than accounting, it serves a global community of elite companies of the Information Age. With a budget similar to that of the University of Virginia, AAPL trains over 70 000 staff and visitors a year in short courses at the St Charles facility; in addition, it develops training programs for other organisations, prepares training packages, and conducts customised training.

AA is a 'knowledge business' serving other knowledge businesses, relying on its own research and intelligence for its competitive edge; it thus has a research component, albeit tightly focussed on business trends. It is organised through a matrix structure similar to McDonald's, with the member firms being operated by owner-partners. As such, its training arm, AAPL, is considered critical to ensure speedy dissemination of 'lessons learned' from the unique

challenges posed by each consultancy, while maintaining a consistent culture and service. The statement 'that's not the way we do things at AA' (Jodi Aleck, Manager Business Consulting) underlines the strong company identity, developed through a thorough program of acculturation to the company way in the transition from 'degree knowledge' to 'career knowledge' within a 'cadre' of specialist professionals.

Because much of this training leads to proprietary knowledge, it is to be expected that AAPL generally relies on its 'practitioners' for developing and delivering courses. A considered pedagogical approach aligns the teaming needed for consultancy work with that needed for company culture, part-icularly because the high achieving 'new hires' tend to an individualistic rather than team ethic. KnowledgeSpace, based on Lotus Notes, is an intranet area established to provide both stable staff resources and a discussion forum for information sharing.

AAPL's focus 'has gradually shifted from training to education to continuous learning to performance enhancement' ('SHEEO Site Visit Report' 1998 p. 3), underlining the alignment of training to the improved business capacities of its staff. The particular vision of learning the Managing Director promotes is a three-phase sequence of preparation for training, 'the event', and application: the 'after' (application) 'is the difference between training and learning' (Jon Olson). 'Events', ie, face-to-face classes, remain central to AAPL's training methodology, whether at St Charles or the member firm offices. Yet because of the cachet associated with the St Charles facility, 'place' remains a core plat-form of AAPL strategy. Indeed, St Charles was designed as such: AA purchased a gracious college, St Dominic's, set in extensive grounds, in 1970; it now houses 180 professional trainers and support staff. Networking in a central, physical place is a core corporate learning strategy for engendering a 'cadre' identity.

AA plans to develop online just-in-time solutions for some of its company knowledge and computer application functions, but is grappling with the issue of what can effectively be taught via technology, plus staff resistance to learning online, given the attraction of St Charles. Separating learning from the work desk also ensures the learning 'gets done', since there is a strong temptation to concentrate on revenue generation at the workplace. For this reason AA 'has a strong instructor-led culture' ('SHEEO Site Visit Report', 1998 p. 5).

It is apparent in the AAPL training program that a global 'knowledge corporation' is not subject to many of the considerations troubling contemporary public universities, especially those hoping to use online delivery. AAPL can direct member firms to conform to standard platforms, and although bandwidth capacity varies across regions, all AA offices operate out of capital cities where infrastructure is less of a problem than, say, for a Ford dealership operating in a provincial town; its target group is relatively homogeneous, an elite student body of graduates of top universities.

Microsoft

Although the giant software company is the *bete noir* of many in the education sector, this is more a result of ideological objection to its dominance of the software market than any competition it potentially offers to established universities. After the failure of its online training venture, Microsoft Online Institute ('wine before its time' according to Barbara Howe, Worldwide Training Channel Manager) in the mid-1990s, Microsoft rejected direct involvement in education and training. It has opted for a franchise-type operation or 'partnering' with 1700 private training companies internationally, designated as Certified Technical Education Centres (CTECs), to undertake the teaching of Microsoft certified courses. Howe says these Centres are consolidating, 'buying off the mom and pop shops'. Microsoft, like McDonald's, ensures quality in this franchise arrangement through insistence on the employment at each site of two Microsoft Certified Professionals, and on use of the Microsoft Official Curriculum (MOC) in paper format. It is expected that the course will be tailored to customer needs. The company charges less for licensing of its curriculum to schools and community colleges—Authorised Academic Training Providers—who use the MOC but do not need Microsoft Certified trainers. Ironically, the CTECs see universities and colleges as competitors in training, primarily because Microsoft's discount to colleges allows them to offer a course to students at a cheaper price.

Microsoft denies any interest in accrediting its own courses, partly because of the expense and the constant need to update, then re-accredit, 200 courses. Further, the company does not want to enter the training market and deal with the million students who seek training on the company products: 'we're already making so much money we're being called names!' (LaBrie, Technical Training Manager, Course Development).

The company also appears unlikely to organise an internal corporate university: it has seven separate training divisions, all with different clients and revenue-generating potential. In another example of the alliances and partnerships now common across industries, the outsourcing of para-educational functions, and the detailed division of labour, all Certification exams are proctored under contract at Sylvan centres, although Microsoft has also entered an arrangement with Virtual University Enterprises, a division of National Computer Systems, to provide online testing services.

3.1.2   For-profit universities

University of Phoenix

Although it is popularly considered a virtual university, the University of Phoenix Online program attracted only 10 per cent of its student population in 1999. UoP is only one business unit of the giant Apollo Group; another arm is the College for Financial Planning, with over 22 000 non-credit students

(Marchese, 1998). UoP has been attacked by the traditional universities and critics of the for-profits, and variously labelled as a 'diploma mill' and as 'the McDonald's of education', although the latter comment is 'a compliment on consistency', according to North Central Association of Colleges and Schools Associate Director Stephen Spangehl (quoted in *CHE*, 16 October, 1999, p. A16).

Jackson (2000, p. 35) states that by some indicators, UoP's education quality is 'moderate' and by others, 'relatively low'; the American Assembly of Collegiate Schools of Business does not accredit UoP's College of Graduate Business (although Jackson concedes that the AACSB does not accredit two-thirds of US MBA Schools). Jackson also queries UoP's minimum admission scores, and the quality of its instructors, who are willing to work for half the average pay they would receive at other academic institutions. There is some faculty concern that even in proctored examinations, online students can use email facilities to cheat during examination (*Virtual University Gazette* 2 (3) 1999, pp. 8–10).

Nevertheless, UoP's phenomenal success has altered some of the negative opinion:

> *I spent my career in the 80s listening to my members complain about the UoP and how low quality it was and how we had to stop them, and in the 90s saying 'how can we get our institutions to be more like them?' That was some shift.*

(Mingle SHEEO)

One of the particular features of UoP's attractiveness to students is the compression of its courses: students spend less than 18 hours per unit in class, over a five to six week term, compared to 40–45 hours per unit in a traditional university, over a 14 week semester. To NEA's Rachel Hendrickson, 'that signals training, not education; education is when a faculty member diverges from the 15 minutes allocated for that topic'. UoP has 'borrowed' from the 30 year old Regents College (www.regents.edu) in allowing generous credits from other institutions and programs, in competency testing and in tailoring individual programs to minimise students' 'time to degree', all features which attract working students. The success of UoP stems from its recognition of an under-served market, its servicing of that market, and its 'no-frills' approach to the usual university physical environment, or, as Padilla (1999) says, 'the expensive inefficiencies that learning and nurturing demand'. It also makes a feature of free parking.

UoP has targeted the adult market in regional US with precision: it offers a limited range of courses or in Sir John Daniel's terms, 'just the low-hanging fruit … obvious vocational subjects like business studies and computing' (Interview, *CrossTalk* 7 (3) 1999 p. 3). This range of courses 'narrows the student profile' according to Jim Mingle (SHEEO) and 'skews the market', because these students in the main have their tuition paid by employers. About two-thirds of

revenue is consumed by 'instruction costs and services' (though this includes materials not just staff costs), and 12.5 per cent is spent on marketing (*1998 Annual Report*, p. 13).

Only in late 1998 did UoP seek to broach the Eastern states, notoriously more resistant to degree-granting start-up institutions than the Western states. In fact, in the 1970s, UoP 'failed' in its original application for accreditation, and relocated to Phoenix so it could come under the aegis of North Central Association, acknowledged as more lenient in certifying new providers, because of the deliberate appointment of business and industry representatives to the Board (David Overbye, KGSM). According to Judith Watkins (CHEA), North Central also advised UoP that it would not be able to recommend accreditation unless there were more full-time staff appointed, although 'they avoided putting a percentage on it' (Watkins, CHEA).

The American Association of University Professors continues to attack UoP for its use of part-time staff, lack of faculty contribution to governance, its inadequate protection of academic freedom, and lack of library facilities, as well as what it deems a lack of 'quality education'. It has also been criticised for its 'cookie cutter curriculum' (Watkins, CHEA). The NEA takes a more pragmatic approach: 'they're doing it right … people are going, so (as an educational institution) you need to think about whether what you're producing is meeting the needs of people' (Christine Maitland). Yet, as the case study in Appendix B reveals, the typical staff member will teach nine classes (of five-six weeks) per year; some staff report teaching 36 classes, at $1 000 per class, with no involvement in decision making: 'we come, we teach, we go' (quoted in Leatherman, 1998). To staff at traditional universities, this does not appear to be a recipe for good teaching, yet both students and staff, and UoP's own quality assurance processes, suggest otherwise. The concerns raised by critics of the university relate to the quality and commitment possible with part-time teaching staff, and the absence of 'educational' resources such as a library and computer labs. Notwithstanding UoP's self-declared success in relation to its virtual library, it continues to meet resistance regarding its accreditation in Eastern states like New Jersey because it does not have the required 50 000 library volumes deemed necessary for an accredited educational institution. UoP is reportedly (Padilla, 1999) lobbying accrediting agencies to drop the 'traditional standards' they have used to measure quality, and generally, deregulate the industry. In a reversal of the usual partnering/outsourcing of its online operation, UoP dropped Convene as its infrastructure supplier, deciding it now has the technical expertise in-house (Blumenstyk 1999).

Its short-cycle scheduling challenges federal regulations regarding what constitutes an aid-eligible load, since students often take a 'term' break. In late 1999, UoP settled a lawsuit brought by the federal Department of Education in relation to potentially fraudulent use of student aid monies and failing to report drop outs, who were continuing to appear on its books and thus receiving federal loans. UoP paid a $650 000 fine, and refunded individuals, lenders and

government, with interest. The Department found that UoP had failed to keep proper records and under-reported drop-out numbers. The two-year investigation has proved devastating to Apollo's stock price; it fell from $36.75 to $29.06 the day after the investigation commenced, and at end 1999, was just over $20, not much above its year-low, in a buoyant year for most stocks.

DeVry Inc. and Keller Graduate School of Management

As one of the oldest for-profits in the US, DeVry is well-placed to capitalise on the growing interest in adult degree education through its undergraduate arm, DeVry Institutes, and its postgraduate division, Keller Graduate School of Management. KGSM has moved cautiously and methodically into online education, propelled more by a perceived competitive need to be 'technologically current' (Request for Organizational Change, p. 7) than by demand from its students, who remain committed to the convenience of local outlets. In its application for accreditation of the online programs, which KGSM insisted be separately accredited rather than 'back door', KGSM points to the usual impetus for moving to online: changing demographics, increasing demand for higher education, the knowledge explosion, globalisation, increasing productivity and the bottom line, the new competitive environment which will 'erode the geographic hegemony of higher education' (Request for Institutional Change, p. 11), and a new definition of quality where students 'are likely to define quality in the language of the quality-improvement movement; that is, satisfaction of customer needs rather than in the traditional measures of quality represented by the size of libraries, student-faculty ratios, and the number and size of grants won by the faculty' (Request for Institutional Change, p. 11).

The organisation is positioning itself for better 'market signals' about the 21st century university; in the futurist visions, this is conceived as an asynchronous organisation, a response to the 'plug and play' generation, the needs of working lives, the lifelong learning push and the increasing trend to customer service. For the meantime, DeVry is expanding through acquisitions and new campuses, based on a proven method: small, personalised classes with enthusiastic part-time teachers and a restricted curriculum aimed squarely at employment opportunities.

KGSM, the postgraduate arm of the company, has refocussed on corporate education, leveraging off its strong brand name in the IT industry. It urges its corporate clients to eschew 'training' in favour of longer-term education programs. 'We're not just selling training to the trainers in the company; we're selling solutions to the managers with problems in the company', says Eric Munro, Director, Centre for Corporate Education, KGSM.

Sylvan Learning Systems Inc.

Sylvan Learning Systems Inc. is one of the world's leading providers of educational services to families, schools and industry. Its inclusion as an exemplar in the study was in recognition of its success in perceiving a market for particular services as both business and education 'unbundled' their activities, and outsourced. While the Caliber part of the business provides a network (infrastructure and physical centres) for interactive video training, Sylvan itself reportedly has seven times the market share of the next leading tutoring company in the US and nearly 90 per cent of market share in testing. It is the second largest English language training company in the world.

Continued strong growth is the hallmark of all parts of the business. Total revenues increased from more than $US94 million in the 1994 financial year to $440.3 million in 1998. In the same period net income grew from $3.9 million to $35.7 million (*1998 Annual Report*, p. 1). Despite this growth, the corporate conglomerate had a difficult year, with Sylvan share prices fluctuating from a high of more than $34 to a low of $10.69 in the 12 month period to the end of November 1999. Caliber, also publicly listed, has had a similarly weak showing in terms of share price.

In 1999, the company selected the high profile former head of the United States Information Agency, Dr Joseph Duffy, to head its new international university endeavour, with the purchase of Universidad Europa of Madrid, Spain. The for-profit institution caters for 7200 students, and Sylvan intends to operate it as a teaching-only institution. Sylvan was already a major player internationally, although not one whose name was probably immediately recognisable, even in countries in which it has a major presence.

Between them, the Sylvan and Caliber companies, which include the brand names Sylvan Learning Centers, Caliber Learning Network, Wall Street Institute, Sylvan Prometric, PACE, ASPECT and Canter, cover the entire education and training spectrum. In 1998 more than 1 800 Sylvan Learning Centres in North America and Europe serviced almost 180 000 students. An additional 900 centers, set up on public school premises in America as a result of contracts with state and local governments or school boards, serviced a further 65 000 students. Prometric administered 3.5 million tests in 25 languages in more than 150 countries through nearly 3 000 secure authorised testing centres. Subject areas are diverse, ranging from certification and licensure for accounting, medical, aviation and IT industries to English-language and academic testing. English language teaching was provided to 100 000 students and 60 000 working adults participated in some type of learning event at a Caliber centre.

In 1998, Sylvan was also awarded a five-year $125 million contract to deliver, from 2000, all drivers licence theory tests for England, Scotland and Wales. In late 1999, it was awarded the contract for Ireland as well. It provides tests, locations and proctors for Microsoft Certification examinations, and for Western Governors University.

Sylvan's educational 'partners' include the Wharton School of the University of Pennsylvania, Johns Hopkins University (medical), and the University of Southern California Marshall School of Business, although 'partnership' appears to have a singular meaning, since the company is a contract supplier of video infrastructure for four executive Business subjects taught by Wharton, and for a Graduate Certificate in Medical Business for Johns Hopkins; it also delivers a number of programs, including an Accounting degree, for Marshall School of Business. It is the satellite network that is Sylvan's contribution, as well as the marketing of courses (through direct mail, email and e-commerce facilities) and registration of students. Kevin Thibodeau, Vice President Academic Services, Caliber, says Caliber helps with development of content, but never initiates content. Notwithstanding these education clients, 75 per cent of the video studio business is for corporate clients in the 9am–5pm slot, and half of that time is for company marketing and urgent messages, not training.

Sylvan is an aggressive company that has broken up the industry into a variety of different segments. Stephen Hoffman, President, Sylvan Prometric, noted that the company:

> *sort of made our choices as to where we want to play. I guess most of those are visible at this point in time although there is always something else on the back burner and Sylvan is a very acquisitive company as well as one that is interested in the right situations for starting things just on our own or in joint ventures.*

Sylvan executives Doug Becker and Christopher Hoehn-Saric argue that through its growing network of testing, training and tutoring sites 'Sylvan is establishing a ubiquitous distribution channel for educational services around the globe' (*1998 Annual Report*, p. 3). The company, which mixes strong franchisee arms (for example 90 per cent of Sylvan learning centres are franchisee-owned and managed) with corporate controlled business, has been deliberately positioned as a partner and service provider to the education sector, government and industry, rather than a product provider. 'Partnership with the education establishment is one of the fundamental tenets of Sylvan's strategy' (Becker). Hoehn-Saric says industry analysts have been predicting that the education marketplace will produce multi-billion dollar companies and Sylvan's aim is to 'choose segments of the industry that will ensure that Sylvan is first among those multi-billion dollar companies' (*1998 Annual Report*, p. 4).

The design of Caliber's technology platform is predicated on a belief that traditional face-to-face teaching survives because students and teachers like the model. They have therefore analysed the impact and elements of face-to-face teaching and endeavoured to replicate technology to deliver an individually-satisfying distributed distance delivery network. The result is a three-tiered media approach, inter-weaving off-the-shelf technology products into a

Caliber interface that appears to meet the needs of learners, employers and teachers/presenters. Centres contain small group meeting rooms equipped with an integrated platform of Internet, PC computers and broadcast technologies. The result is two-way audio, two-way video (with ceiling mikes and mini-cameras) and with Internet and intranet in operation. Beyond Caliber, the group uses an eclectic mix of media technologies which appears more driven by what is appropriate for the individual business and its clients than any dictate to use one specific technology solution across all businesses. In brief:

- Canter, which delivers teacher education via distance, uses speaker phone and video tapes;

- Wall Street Institute uses a multimedia instructional program for language teaching—but then uses live classes to test the application of the knowledge gained through the multimedia study; and

- Prometric uses computer-based testing (with different software configurations depending on the exact subject being tested).

Despite its share price difficulties, Sylvan remains an important player to watch. Its ability to successfully identify and capture lucrative niche markets, and its willingness to fit into the 'seams' between government, industry and the education sector at all levels suggests it epitomises the most opportunistic and challenging elements of the corporatisation of the higher education business. More importantly, the failure of much of the sector to understand the power and international base of this corporation, largely because it has been content to target the tools of education rather than programs, situates it as somewhat of a sleeping giant in terms of future impact.

3.1.3 Public/corporate universities

USAF Air University

The significance of the Air University Case Study for this project lies not only in the fact that it is in effect a corporate learning organisation, but also in USAF's plan for a dramatic shift of training from an intensive face-to-face teaching model to distance education and therefore a more independent learning model. It is also evident that Air University expects to make significant savings in the peripheral costs of training, travel and *per diems*, as well as through a decrease in the amount of training 'hours', via the thorough revamp of curricula that a move into technology-based education demands. Its pedagogical approach depends heavily on the military-developed model of Instructional Systems Design, which ensures that curriculum is thoroughly standardised and centralised, and evaluation is rigorous. In these respects it can be compared with the for-profit universities using a 'distributed' learning mode. Indeed, Air University is an example of the trend toward a 'corporate

university', insofar as that might imply the gaining of accredited degree-granting status in its own right and in order to further the specific goals of the institution.

As a publicly-funded organisation with an equity imperative, Air University faces many of the issues faced by public universities and colleges. These include the implications of computer access for Reservists and lower levels of staff in the face of a large-scale move to computer-based learning. It also must deal with gaining acceptance and skills among its students. Unlike universities however, Air Force is not faced with a redefinition of its role, and its governance remains bureaucratic and top down, although it too must contend with diminishing public funding, and increased outsourcing of personnel. Its investment in the highly sophisticated technology of a 'reusable object' database is in the very early stages, but since Army and Arthur Andersen are also pursuing such research, it is potentially an important development for education purposes.

US Army

As with Air Force, Army's interest for this study lies in its large-scale move to distance education as a means of ensuring 'work readiness' or, in Army terms, 'combat readiness'. As the case study in Appendix B reveals, the ability of Army to adopt this direction lies in its unique position as a public service with strong political support, its effective lobbying for massive funding increases to support the move to distance education, and its bureaucratic governance and culture, which allow imposition of a changed pedagogy to an extent unlikely in any other institution. Army also provides lessons in the application of technology for pedagogical purposes—it is used primarily for training, not soft skills learning, and classes have a coach/facilitator in attendance.

3.2   Contextual organisations

The research team decided to triangulate the exemplar organisations by less intensive interviews with a variety of organisations dealing either directly or indirectly with the primary organisations. These fall into the categories of corporatised arms of traditional universities, regulatory and government organisations, virtual universities, a labour organisation, and service companies as well as several corporate universities visited as part of the subsequent organised tour referred to in Chapter 1.

3.2.1   Corporatised arms of traditional universities

New York Universityonline

NYU's School of Continuing Education's 1999 Dean, Gerald Heeger, was featured by the *Chronicle of Higher Education* as leading the fightback of large public/old private institutions against the proprietary virtual universities being mooted or in train, with his proposal that NYU meet the competition head on. NYU was founded as a private institution with a practical orientation in 1831; it has long had a separate undergraduate degree for adults (defined as one year out of high school). All students have a counsellor assigned on enrolment for academic/course advice; all courses are at night or Saturday; costs are high, at around $3 000 per standard four credit point subject, 'four to five times what people might expect to pay', because of the 'location' costs in Manhattan. NYU's long-established School of Continuing Education had metamorphosed into the School of Continuing and Professional Studies in 1997, and encompassed four programs: Liberal Arts, Business, Health and Science (including Real Estate). These areas built on NYU's established strengths (in real estate and liberal arts, for example) for emerging areas such as direct marketing. Heeger used the SCPS to establish NYUonline in 1998, a marketing and distribution arm of the School. Most staff are marketers, with several technologists and instructional designers; subject specialists may or may not belong to the regular School faculty. NYUonline offers its first subjects in a Certificate in Management in January 2000, using click2learn's web-development system based on ToolBook II (also used by the USAF).

Heeger was accused by some NYU staff of 'prostituting' the university, a charge he denied in interview, although he readily conceded that the risk of moving into for-profit online courses was not inconsiderable: 'nobody is making any money on this (online), not Sylvan, not UCLA. They have 5 000 students, but they're not making any money. Nor is Johns Hopkins'. The University's governing body accepted the risk. However, Heeger was convinced that the 'brand name' of the University would be sufficient to attract a particular niche market, especially 'the intellectual capital of NYU in Finance and Arts'; he did not foresee a 'mass market', and hoped for corporate business, primarily in non-credit subjects.

Heeger predicts the emergence of sector-based universities, in the health industry for example, and these have begun to emerge in online form, such as Real Estate University (www.realestate.university.com), an organisation offering library resources, 300 hours of relevant training via online methods, and subjects priced at less than $50 each.

University of Maryland University College

University of Maryland University College (UMUC) is a relatively rare member of the higher education sector: a publicly funded institution established 52 years ago that illustrates what could become the face of postsecondary institutions in the near future. UMUC is the only degree-granting institution in Maryland that specialises in providing education programs, both face-to-face and at a distance, to working adults. UMUC offers Bachelor and Masters degree programs as well as conducting professional development courses. It has the largest enrolment of any degree-granting institution in the State of Maryland and delivers its programs on-campus, at the workplace (primarily on US military bases in Europe, the Middle East, Asia and the Pacific), and through its 'virtual university', which in 1998 offered five Masters degrees in specialised areas of management and technology, by totally online means.

UMUC's student demographics make it an essential study for those interested in the growth of the working adult market. In 1998, UMUC had a full-time-equivalent student body of almost 5 700 undergraduate students in the USA (1 500 graduate), 4 500 in Asia (46 graduate) and 6 600 in Europe (65 graduate). But due to the part-time status of many of these students, UMUC was actually teaching about four times that EFTSU figure. Of the US-based students, almost 85 per cent were employed full-time, 8.5 per cent were employed part-time, almost 4 per cent were unemployed but looking for work, and a further three per cent were not looking for work. The majority of students were aged 25–49 and studying part-time (more than 10 000) compared to a total full-time student cohort of just 1 500. Many of these are military staff and UMUC has enjoyed the status of 'preferred provider' to US overseas defence personnel.

UMUC's credit and non-credit courses are offered in the following main subject/ discipline areas:

- business and management;
- communications and journalism;
- computer science and information systems management;
- environmental studies;
- health;
- leadership training and development services; and
- paralegal studies.

While the institution is open about its willingness to custom-design or tailor-make programs, its subject areas are specifically targeted, for example, health programs are restricted to gerontology and health care management. In 1998, more than 60 per cent of undergraduates were enrolled in Business/Management and Computer/Maths program areas.

The Cooperative Education program allows undergraduates to earn credit for new learning acquired in the workplace, while prior learning can be

recognised, either through the passing of the final exam of a course (which bestows credit) or through the development of a portfolio that documents college-level learning gained through work and life.

Distance learning at UMUC is delivered through a combination of video, audio, text and computer-based media, with more than 6 000 students annually studying via 'non-classroom education'. In late 1999, Gerald Heeger, by then President of UMUC, announced plans to replicate his NYUonline start-up: UMUCOnline.com Inc. It intends to partner with technology companies to 'go global'; Heeger suggests he will float UMUCOnline 'in a few years' (*CHE* December 7 1999).

3.2.2   Regulatory and government organisation

The following group of organisations was selected for interview in order to grasp the complexity of the three-tiered (federal, regional and state) regulatory system in the US. Their separate roles are inter-related, yet uncoordinated in any systematic sense.

The US federal **Department of Education's Office of Post-Secondary Education** (www.ed.gov/offices/OPE/) has oversight of policy on higher education and includes a Policy, Planning and Innovation unit (www.ed.gov/offices/OPE/PPI/ppi.html), headed by Maureen McLaughlin, Deputy Assistant Secretary. OPE consumes 45 per cent of the Department's total funding, and the majority of this is dedicated to loans; it administers 75 per cent of all US student loans. It is mainly concerned with student financial aid programs and with the elimination of fraud; staff perceive OPE's role as 'consumer protection, protection of Federal taxes' (McLaughlin). Only institutions offering programs accredited by the regional accrediting authorities are eligible.

The dynamic growth of distance education and the use of CITs in education has caught the Department unprepared. Government's major initiative in the area of technology in education is the LAAP (Learning Anywhere Anytime Partnerships) where 25–30 projects have been funded from $US10 million for 1999; applications were accepted from both the education sector and from industry. Regarding online degree programs, the current attitude was to 'relax some assumptions' regarding accreditation and acceptability and 'see what happens' (McLaughlin). As one component of this move, the Distance Education Demonstration Program (DEDP) has been established: up to 15 institutions have been selected competitively to operate as pilots to demonstrate to the Department that distance education institutions *can* adhere to strict monitoring requirements as to student attendance (for the purposes of federal education loans), quality of program and processes, and learning outcomes.

The Higher Education Act (HEA) 1992 legislation was designed to prevent fraud. OPE had identified $90 million fraudulently obtained by distance

education institutions in what Watkins and Wright (quoted in Berge and Schrum 1998) call 'the scandal-ridden history of proprietary correspondence schools'. In recent years, OPE has withdrawn loan access from over 2 000 proprietary or for-profit education providers. The pilot distance program resulted from pressure applied by some new providers, particularly WGU, regarding student eligibility for loans: under existing laws, an institution which offered more than 50 per cent of its courses by distance, or had more than 50 per cent distance students, was deemed ineligible for loan receipt. The HEA legislation also deemed ineligible any institution in which the academic year is less than 30 weeks, and the vocational program less than 15 weeks, or 10 in certain circumstances. (Hence KGSM's 10 week program: UoP did not conform to this requirement.) The major cases of fraud in student loan programs detected by the federal Department have been at non-degree-granting for-profit institutions. The likelihood of individuals spuriously receiving loans, and of institutions unable to check authenticity in an online program, is a major concern regarding online programs.

One of the OPE's most instructive lessons in the changing world of higher education has been the realisation that their time-based measure of student enrolment, fall enrolment (the equivalent of the March Census Date in Australia), has failed to account for the continuous enrolment system employed by the new providers like UoP and hence has vastly underestimated the number of students now studying in US institutions (McLaughlin). OPE is struggling with the changing meaning of issues like learner completion and learner objectives in enrolment, eg, whether students enrol *intending* to get a qualification or simply to learn something about a particular subject. There are lessons here for Australian institutions regarding the census dates currently used to determine operating grant.

The **American Council on Education** (www.acenet.edu/) is an umbrella organisation with a membership of over 1 800 institutions. It has a major impact on most of the organisations studied here, since it has a policy advice role, particularly in relation to equity issues; it both commissions and develops higher education policy. However, the largest component of its work is to examine and notify transfer credits for specific subjects and courses at the invitation of any organisation. Often this is significant to the individual student, since transferring credit eliminates fees and time spent in a degree-granting institution. For this reason, ACE also offers a service to individuals wanting a register of credits and equivalents. ACE has also developed a role in promoting international education, both into and out of the US. While the number of training suppliers seeking ACE credits remained static for a long period at 180 per year, it has in the last couple of years increased to 300 (Susan Porter-Smith, ACE), indicating a large increase in the number of private providers. However, a number of organisations are chary of accepting ACE credit ratings because the organisation is not perceived to be as rigorous as regional accrediting bodies. ACE has a substantial publishing program in information handbooks and guides on various aspects of higher education,

from assessing the quality of external programs to improving the performance of governing boards.

The Council of Higher Education Accreditation (CHEA) (www.chea.org) is the umbrella body for the six regional accrediting bodies in the US and the four national accreditation bodies for 'special mission institutions' (theology, business colleges, proprietary trade schools and the Accreditation Council for Independent Colleges and Schools (ACICS)), as well as the Distance Education and Training Council. Its membership covers 3 100 individual colleges and universities. The purpose of studying CHEA's activities was to consider whether a self-regulatory national umbrella body offered a model for Australia. CHEA was established only in 1996 as 'the national policy centre and clearing-house on accreditation' (CHEA brochure); it claims to be:

> *the product of a struggle between higher education and the federal government—over the proper balance between the government's need to guarantee the effectiveness and integrity of its programs and higher education's desire to preserve institutional autonomy and self-regulation.*
>
> *(CHEA Annual Report 1998, p. 5)*

CHEA promotes self-regulation of the industry combined with peer assessment through the regional bodies ('not compliance review' (Eaton 1999)); the process is a 'self-study' (following a *pro forma* written submission) conducted by the institution, and three, five or 10 year visit-assessments from the regional accreditor. For Watkins (CHEA) the US accreditation system is 'a hodge-podge', 'there's probably only 100 people in the entire country who understand it'. However, when combined with two other planks of public accountability, regulation and the marketplace, CHEA itself believes that accreditation ensures the quality of the higher education system in the US: 'whereas regulation concentrates on the compliance (with government mandates), and competition on marketability, only accreditation focuses on the integrity of the academic program' (CHEA brochure).

The organisation is particularly sensitive to the problems of accreditation in a system as diverse as that of the US; it defends its refusal to dictate minimum standards for any aspect of institutional delivery as a response to institutional autonomy and different institutional purposes (Eaton 1999). It also acknowledges that its previous methods have been based on a narrow notion of assessing *resources* and *processes*, and that it is *now* necessary to accept a greater emphasis on outcomes, student *results*. Accreditation of new providers has proved vexing: 'for accreditors who have only experience in dealing with public universities this is a whole new universe. We have to rethink our assumptions, we've always assumed education happened in a non-corporate setting' (Watkins, CHEA).

For the last two years, CHEA has focussed particularly on the quality assurance issues associated with distance education programs and institutions; in 1998, it successfully lobbied the US Department of Education to drop proposals that would have led to a national standard for distance education programs. Instead, it proposed a 'Preliminary Review' of quality assurance, which might cover 'multinational institutions heavily reliant on distance education' (*CHEA Annual Report 1998* p. 14). It has also conducted a vigorous defence of the autonomy of higher education and its separation from 'the market', attacking the notion that students 'are consumers to be pleased rather than colleagues to be engaged in an exciting intellectual experience' (*CHEA Annual Report 1998* p. 6). Again, it is sensitive to arguments that students are not merely a 'product' of education, and that universities are 'about more than student learning; they are also about research and service' (Eaton, 1999, p. 2). Another major outcome of its activities was repeal of the more 'intrusive' legislative requirements of the 1992 federal Higher Education Act which required accrediting agencies to become compliance enforcers of the federal government in relation to default rates on loans, and tuition rises; educational institutions also complained of heavy compliance costs associated with accountability requirements. The 1998 HEA changes 'reaffirm, and in some cases strengthen, the views of Congress that voluntary accreditation, not federal regulation, will be the principal means of assuring quality in education programs receiving federal support' (Fusco 1998 p. 2). CHEA performs these functions on a budget of just over $US1.6 million.

The State Higher Education Executive Officers (SHEEO) (www.sheeo.org) is 'an organisation of organisations' (Mingle, Executive Director), the umbrella organisation for 49 state accreditation agencies' executive officers. As a non-profit 'consulting firm' and professional association, it prepares policy papers on broad education issues, such as its series on workforce development: see Rodriguez and Ruppert (1996), which urges lifelong learning and 'work-based learning opportunities, and placing learning content into work contexts' (p. 4). Among its other roles are the investigation and subsequent dissemination of emergent modes of study; hence it undertook a site visit and report on the use of technology in Air Force training ('Using technology in education', Site Visit Report, 19 October 1998). Mingle sees that his role as executive director has changed over 10 years from cutting back on unnecessary duplication and programs, to being 'more supportive of a growth agenda in higher education, from being regulators to being enablers'.

3.2.3   Virtual universities

Western Governors University

WGU (www.wgu.edu) has featured in almost every article written about virtual, global and for-profit higher education provision for the last five years, since it was proposed by its champion, Utah Governor Mike Leavitt, as an

initiative of the 18 western states. The initiative gained seed funding (and ongoing support) from AT&T to the tune of $1.25 million; Microsoft was invited to contribute but declined. California declined to join, opting instead for its own 'Virtual University' (see below).

This was a new model in the US (though not in Australia, where it is partly mirrored by OLA). It is a virtual or 'hollow' organisation in the sense that it brokers courses developed and delivered by over 30 participating institutions, including Novell, the software developer, which pay an 'entry' fee of $100 000, as does each participating state government. Assessment is contracted to Sylvan, and WGU has no teachers, no curriculum designers, no markers or tutors; in fact it is staffed by 20 people and 10 consultants. More radically, it departs from the conventional university pedagogical approach by promoting competency-based assessment, testing and credentialling *performative* knowledge rather than discursive and expository knowledge. It deliberately and systematically challenged the traditional university program as the only valid source of education and learning suitable for degree status, and deliberately and systematically challenged state and federal regulations, and the authority of regional accrediting organisations, asserting the power of CITs to break both policy barriers and state, federal and international borders. Hence it lobbied hard for dispensation from federal regulations regarding financial aid for students studying at an institution which did not meet 'the 50 per cent rule', to be eligible for loan rights. This is an important selling point for educational providers in the US, since an organisation had to offer no more than 50 per cent of its programs via distance, and no more than 50 per cent of its student body could be distance students. In 1999, WGU became an 'exception' beneficiary of the pilot DEDP operated by OPE (see above), and gained accreditation through a specially established cross-regional accrediting agency.

WGU's initial business plan was to focus on individual students over 16 years of age who wanted certification in the form of a degree via a distance program which respected and 'credited' their knowledge, however gained, without the paper-work associated with application for credit through the ACE (see above). Instead, they would take assessment to test their prior learning, incurring a test fee. It limited its courses to Associate Degrees in Arts, and a Masters in Learning and Technology, but no undergraduate degrees. It charged $30 per enrolment as a brokering fee, but as is now conceded, the plan badly overestimated the number of students attracted to the model: 'we have a major marketing problem getting people to accept competency-based education' (Robert Albrecht, Chancellor). Further, students were unhappy with the separate fees charged for organising tuition where they were unready to sit the examinations: WGU charges a $350 application fee for the preparation of a tailored Academic Action Plan by their 'advisor-mentors'. Hence Albrecht re-oriented the business plan to focus on corporations looking to outsource elements of their training, since corporations 'understand' competencies. WGU is also seeking a smaller number of providers, those which concentrate on

'freestanding courses … in the sense of no live instructor' (Albrecht), because of the difficulties of coordinating face-to-face classes on other institutions' facilities. WGU now takes 30 per cent of the tuition fee from participating universities to make their arrangement 'true partnership … by revenue sharing' (Terri Taylor Straut, Director, Customer and Provider Relations).

Although WGU has been attacked by critics who see its 'choose your own curriculum' as a 'shopping trolley' pedagogical approach without curriculum coherence, its staff defend the model, and argue that the institution's failure to meet announced enrolment targets is attributable to its novelty: 'we're the bleeding edge … haemorrhaging because we're just a little too far out there. And learning the lessons that other people can take and not make the same mistakes' (Taylor Straut). Among these 'lessons' are:

- outsourcing student enquiries to a call centre sponsored by AT&T, which failed because the operators were themselves poorly educated and could not answer student queries, and moreover, were tied to a work requirement which discouraged time on the telephone;

- a 25:1 ratio of students to advisor-mentors, which is not economically viable (compared to Regis, with 250:1); and

- a launch date of September 1998 dictated by political considerations rather than readiness: 'a lot of the functionality wasn't there … it's really hard to tell the Governor "it's not ready" ' (Taylor Straut).

More pertinently, the broker model itself is flawed: in the two years since its conception, electronic databases have made possible direct student access to provider institutions, and of its nature, the broker has no control 'over the content' (Taylor Straut) of the courses, and hence no way of ensuring that they align with designated competencies.

Albrecht conceded WGU was 'financially vulnerable' in April 1999; he departed the position mid-year, just before the collapse of yet another initiative, this one a venture with the private US arm of the UKOU, The Open University US. The intention was to form a Governors Open University System, to add traditional credit-based education to the competency-based program. However, after much fanfare and negotiation, the partnership proved unviable. In December 1999, WGU had fewer than 200 students (CHE December 17 1999), although its President, Robert Mendenhall, hoped to break even with 3 000 students by 2002.

National Technology University

One of the oldest virtuals in the US, NTU (www.ntu.edu) is of interest in this study because it is virtual in the sense of being a broker of courses, being a 'hollow' organisation, and delivering electronically, via satellite. Its total staff complement of fifty confirms this. It also has an Australian connection, via its relationship with Professional and Graduate Education (PAGE), now subsumed

into OLA. Late in 1998, NTU became of greater interest when, in response to flat and low enrolments (about 1 200 annually) it established a for-profit arm, NTU Corp., in a manner similar to Melbourne University's establishment of Melbourne University Private, and Deakin University's of Deakin Australia and now Deakin Global.

NTU was conceived in 1984 as a non-profit private university based in Colorado, catering primarily for engineers within large corporations such as IBM and Motorola, which remain major customers. The NTU mission was 'to enable technical professionals and managers to share premiere educational resources globally via telecommunications' (NTU brochure).The business plan was to sign up corporations to provide both students and a receiving classroom or site for satellite video courses (at $8 000 per one-channel receiver). Corporations were charged a site fee for receiving the programming, as well as a per person viewing fee for CPE courses. In 1995 it began brokering its Master of Science course in Engineering (accredited by North Central) for 15 participating universities, including the University of Southern California, and CPE courses from another 30 organisations, including Sun Microsystems, Novell, and Digital Education Systems (see below). Such CPE courses initially covered topics which engineers could credit to their registration requirements with their professional associations, but have increasingly tended to focus on more general topics such as 'Redesigning your website', a two-hour broadcast video course, costing $1 200 for the site fee, and $200 per person. NTU charges Masters students $585 per credit hour, with three credit hours being the norm for most subjects; the Masters thus costs about $18 000, with half the tuition going to the originating university, and instructors personally receiving $50 per student per course. Students are not permitted to bring more than six credits out of 33 from other institutions, though they are allowed 18 if these credits are from participating universities. For the universities concerned, the benefit is less the tuition rebate than the relationship with industry professionals. NTU's 'value adding' from a student perspective consists of the appointment of a study advisor who assists the student to construct a Program of Study Plan from the catalogue of subjects; the degree is awarded by NTU, unlike the OLA model in Australia. Advisors are paid on a per student basis.

The teaching model involves direct broadcast from a live classroom in the originating university; institutions may tape the videos for a limited viewing time after the broadcast, and some broadcasts are pretaped. There has been a gradual introduction of Internet-based courses. Typically, students (predominantly male and an average age of 39 (Baldwin 1997)) take courses from five to six universities. NTU has not become a large university by any means: in the years 1986–1998, it graduated only 1 200 Masters students, with class sizes generally under 10, with the majority of enrolments, about 3 500, being in continuing professional education. Student evaluation responses directly determine whether programs are offered again.

By 1997, the technology employed was obsolete, and there were insufficient reserves to replace it; a venture into the Asia-Pacific area in Malaysia had failed, and a planned European venture had not eventuated (Gross 1999). The non-credit programs were the most successful, with students often by-passing NTU to go direct to the participating universities for Masters studies; 'when we started 15 years ago we were unique and it's not true anymore' (Lionel Baldwin, NTU). The consequence has been a mid-1999 deal with the Business Channel by NTU's for-profit arm, NTU Corp.; the merged entity will specialise in video non-credit courses and Internet 'learning solutions', with a greater attention to home delivery rather than corporate sites. It will also provide technology support to NTU. The Business Channel, founded in 1989, and with an established market in business continuing education, is itself a subsidiary of the Public Broadcasting Service, a private non-profit media enterprise owned by US public television stations. The Business Channel parallels the for-profit arms of traditional not-for-profit universities, demonstrating that non-profit organisations are increasingly seeking augmentation of their traditional funding sources. Hence two for-profit arms of non-profit organisations have merged their business activities in the continuing professional education market. NTU retains the academic courses. The NTU hopes to retain a majority stake if the merged entity is floated, and anticipates the revenue generated will secure NTU's financial future. NTU sees no anomaly in this venture: Gross (1999 p. 36) quotes Vice President Academic Johnson: 'traditional universities are great big circles with little circles attached for profits. Our model is the university as a little circle with the great big circle attached to it for profits'.

Christian University GlobalNet

CUGN (www.cugn.org) was included in the supporting organisations as a result of its position as a client of Real Education (now eCollege) and its successful negotiations to bring down the price of Real Education's services. CUGN planned to use the Real Education framework, delivered at a bargain basement price, to bring together existing courses into a collaborative Worldwide Distance Learning initiative. Formed in early 1998 with a generous private donation of $US1.65 million, it is a non-profit sub-consortium of the institutions which constitute the Council for Christian Colleges and Universities. It has a global vision, although there is little evidence of attainment of that vision as yet. It offers both credit and non-credit certificate and personal enrichment courses, and has a publishing division (GlobalNet Publishers) which develops digitally-stored materials, and boasts of employing 'master teachers' to present its videoed classes, which can be broadcast on satellite and the Internet, and are also issued on CD-ROM and DVD. Chat rooms and asynchronous threaded discussions are also used. In effect, CUGN is a broker for its member organisations, although it plans to offer its own Certificate in Biblical Studies online. CUGN has also formed a strategic partnership with supply organisation Pearson Education (formerly Simon and Schuster Publishers).

Michigan Virtual/Michigan Virtual Automotive College

Michigan Virtual Automotive College (MVAC) reflects one apparent trend in the fragmentation of the postsecondary education market—the growth of specialist professional or vocational colleges. Equally importantly, MVAC aspires to be a virtual brokerage institution at a time when few successful examples of shining successes exist in either of the latter two categories. MVAC, established in 1996, has been brought into the fold of its 1998 'parent', Michigan Virtual University (MVU), which its creators hope will ultimately host a handful of similar specialty professional/vocational colleges. MVAC's virtual sibling—the Michigan Virtual Information Technology College—is due to be launched in 2000, following a $750 000 grant from Ameritech.

Like other organisations of this type, MVU was founded by a political champion, Michigan Governor John Engler, and the then Michigan Jobs Commission. It is a private, not-for-profit corporation, set up with $30 million funding over five years to broker courses and programs through Michigan's colleges, universities and private training providers; it is 'a company … it's called a university for marketing purposes' (Errol Koos, VP Marketing and Product Development). It will not grant degrees; instead, credentials will be granted by the organisation providing the courses.

MVAC, and parent MVU are aware of the difficulties that resulted in California Virtual University 'brokering their way out of business' (MVU Director of Research Trevor Thrall); a web page directing potential students to provider organisations is 'a big mistake' (Thrall). MVU is a broker focussing on workforce development, and to a lesser extent workforce assessment, that is, school-to-work programs and assessment programs. Koos says MVAC's purpose is to provide courseware for the automotive industry. Hence Ford may have developed certain programs that 'they would like to have brought forward more quickly, and … use for their employees … if it works well for Ford it will work well for General Motors, it will work well for Daimler Chrysler and the suppliers to those industries'.

Koos and Thrall have noted the 1999 change of strategy by WGU, but a clear direction for MVU/MVAC as a broker organisation is still under discussion; it appears to be an organisation in search of a clientele. Koos and Thrall suggest one of the most difficult elements in the planning of MVU and its seven planned virtual colleges (including one for the furniture industry) has been identifying the appropriate business model and strategy for success. At present, MVAC is seeking to 're-purpose' existing courseware to deliver via the web to the worker. Typically this will cost $100 000 and four to six months in time for a single subject. 'It is cheaper and faster for (an automotive company) to let us do it for them, because we are not going through the training department, this is the purchasing department that wants this done' (Koos). However, there would appear to be a difficulty in that companies like Ford already outsource their courseware development with well-established vendors; the model seems

to rely on Small and Medium Enterprises, traditionally not heavy investors in training.

Koos suggests the Michigan institution is more closely aligned with the learner, the individual.

We are using the company as a way to do the mass herding of those enrolments, in looking for the students and getting their sanctions so that we can actually get more enrolments. We are primarily interested in the learner, not in the corporation. The access into these corporations in many cases is through the training department or the university so-called. Because they're are not a university as fact, they are a training department. They provide training. They have some instructors, they do some certification, but they are not a certifying body if you will in most cases.

Thrall argues the business model demands that MVU goes to the company to reach the learner:

The model that has, we believe, been failing in record numbers around the world, if you hang it out there and expect that your market is the individuals, how do you make them pay for it? … The business model that we see anyway is that people all need it, but in the context of their job and they don't want to pay for it themselves, they want their company to pay for it. So you go through the company and sell it that way. Maybe if we get a certain head of steam up and maybe 10 years down the road, when several virtual universities have enough of a brand, image and reputation, that people start flocking to them, then you can imagine other models.

The role of government investment and political support is critical to MVU's success: 'if we fail it's just because it wasn't a time for this kind of thing to work (because) all the doors are open because the Governor has invested so heavily in it' (Thrall).

Jones International University

JIU was established in 1995 as a subsidiary of Jones International, under the private ownership of Glenn Jones, a cable TV magnate, and was finally granted accreditation as the first entirely online degree-granting institution in mid-1999. This enabled the organisation to receive federal funding via student loans. The American Association of University Professors protested the decision to North Central Association of Colleges and Schools (www.aaup.org/319let.htm), arguing that teaching staff had no autonomy, since they taught to a fixed, contractor-developed curriculum, there were no

physical resources and the teaching force of 56 (at March) was almost entirely casual. North Central dismissed the protest. JIU staff are generally from other educational institutions; they are paid about $2 000 per subject. Terms are compressed into eight weeks. Class sizes are restricted to 25; there is an electronic library available to students.

It currently offers two degrees, Bachelors and Masters degrees in Business Communications, and certificate programs, with each subject costed at about $600 at Bachelor level, making a degree about $11 000, and $700 at Masters level ($19 000 total). Student numbers have been low to date, with only 10 students enrolled in the Bachelors program at March 1999, and 64 in the Masters. Officials do not anticipate making a profit until 2001, and expect to spend 'millions' in advertising (Pam Pease, *The Denver Business Journal*, March 12-18 1999, p. 29A). Curriculum development costs have been $US2.5 million to date (*CHE*, March 19, 1999, p. A27).

3.3   Labour organisation

The National Education Association

NEA is one of the three unions covering staff in community colleges, universities and Defence Department institutions, the others being the American Association of University Professors (AAUP), and the American Federation of Teachers; NEA and AFT have 100 000 members each with AAUP being much smaller with 49 000. There is speculation of a merger between AFT and NEA, but their somewhat different sector constituencies prevent easy resolution of their dividing issues. Where the AFT and AAUP have somewhat hysterically registered blanket opposition to distance and online education ('the AFT have taken out paid TV advertising slots to register their disapproval … they're hard core' (Hendrickson)), the NEA itself has taken a more considered line, emphasising the maintenance of quality: 'distance education can't be used as second class education: "if you can't afford to attend four year college, take d.e."We don't want to see that. Or have it replace faculty, or make university part-time' (Hendrickson).

There is more concern about 'the market-driven view of education' which NEA claims will deny access to those who cannot pay, and suspicion about the role of the regional agencies in accrediting new entrants, because of business appointments to the Boards: 'it's a corrupt system' (Maitland). There is also a deep concern about the increasing numbers of part-time staff. NEA calculate that 43 per cent of all US faculty in the organisations they cover (ie, excluding organisations like UoP and DeVry which are non-union employers) are part-time. Of these only 20-30 per cent want to work full-time; for the remainder, many female, part-time work is preferred. NEA's observation is that the biggest

growth in market share is at the community college level, particularly amongst adult minority groups.

3.4 Service companies

Corporate Universities Xchange

As President of CUX, Jeanne Meister has become synonymous with the corporate university movement through her prolific newsletters, consultancies, promotional events, annual surveys of training arms of corporations, and aggressive marketing style. CUX is located in a downtown New York office block and employs about 10 staff who follow and 'hype' trends in the corporate training arena, and distance and online courses. The organisation has become something of an 'event corporation', relying on conferences designed for the corporate market and for vendor displays and demonstrations.

Gartner Group

Gartner was founded in 1979 as an IT specialist consultancy firm, and now has a large client base in the education sector, including many Australian universities. Its Higher Education Technology Strategies group sets research agendas for the company; members pay an annual fee for analysis. Larger US research universities have had long-standing relationships with Gartner, but the company decided to provide an affordable service to smaller institutions: 'big companies will pay between $10 000–20 000 per (research) service … we provide 24 of those services electronically for $5 000–24 000 … there are times when even one call will save more than that'. Other advice includes reviewing IT vendor contracts. Academic Strategies Research Director Michael Zastrocky says one of the things institutions 'regularly use us for would be to review (strategic) plans'.

GartnerGroup propounds a strong globalisation agenda, and argues that learning has become 'any time, any where, any place, and any thing', the last being the most contentious in traditional education circles. The company made a brief foray into providing technology-based training to IT and corporate staff in the mid-90s, but the venture did not match their client base, and the division was sold to publisher Harcourt Brace. As one example of the linkages occurring between educational-oriented companies, GartnerGroup uses Caliber's video infrastructure for its own corporate communication across the US.

3.5   Corporate universities

Sears Universities

Sears University was established in 1994, as part of the larger response of CEO Arthur Martinez and Sears' top executives to the crisis of Sears, Roebuck and Co. in 1992–93, when the company had $43 billion in losses, closed 113 stores and laid off 50 000 staff. Establishment of the university was part of a three-pronged employee-customer-profit strategy based on the Total Performance Indicator (TPI) approach, with the goals of making Sears 'a compelling place to work,' 'a compelling place to shop,' and 'a compelling place to invest' (Rucci, Kirn and Quinn, 1998). It was found that the principal determinants of employee satisfaction for remaining staff, or finding Sears 'a compelling place to work,' were career advancement opportunities, the quality of management, and access to training and development opportunities.

Sears University aims to contribute to meeting TPI goals by: being an agent for cultural transformation within the organisation; developing a coherent process for management skills development; creating a climate of growth and learning within Sears; developing a common Sears 'message'; and creating a platform for change by engineering 'positive dissatisfaction' with existing ways of doing things. Sears University has a central campus at Hoffman Estates, Illinois, close to Hamburger University, KGSM and AAPL, and three satellite campuses; it employs 44 staff, who focus on management training. Sears makes extensive use of adjunct faculty, through well-known academics and instructors they have used previously, and have used 'off the shelf' learning packages where necessary. They have used distance learning technologies developed through the Sears Extension Institute, and have recently developed the Sears Online Campus for Internet -based training, in conjunction with Ziff-Davis, although printed workbooks, audio tapes and video remain the principal means of non-instructor-led training. Sears University has partnership relationships with universities and colleges in the Retail Institute, a consortium including the University of Arizona, Texas A&M, University of Florida, Indiana University, Brigham Young University, and Syracuse University.

In addition to management training and professional development through Sears University, there is also a highly developed program for technical training through the Sears Technological Institute (STI). Sears employs about 14 000 technicians nationwide, and observes that technical staff place a higher premium upon training than sales staff. They guarantee technical staff 100 hours of training a year, and the payroll budgeting system guarantees that

4.5 per cent of work hours are spent in training. STI has 126 satellite campuses throughout the US, but in order to make technical training cost-effective and available immediately, it has developed an elaborate array of regularly updated materials through its corporate intranet, accessed by technicians through satellite delivery via units in vehicles. The Sears Technological Institute is of value to Sears in encouraging technical staff to understand what they know through formal measures, and how it can be improved through identifiable skills sets; promoting a culture of learning by skill, rather than learning by repetition, and industry best practice; developing course curricula which could lead industry; and providing continuous education certifications which can then be used for exemptions to college courses. The competency-based, modularised approach to technical training developed by STI has enabled it to become a fully accredited educational institution by the Accrediting Council for Continuing Education and Training (ACCET), being the first corporate training division to achieve this distinction.

Disney University

Disney University was established in 1986 to deliver professional development programs to Disney staff (who are called 'cast members'). Disney is one of the largest entertainment/service industry employers in the United States, and Walt Disney World in Orlando, Florida is the largest single site employer in the US, with 55 000 employees on-site. Disney now operates two separate divisions: the Disney Institute, which offers courses to outside groups and organisations in people management, quality service, leadership, customer service, and creativity, and the Disney University, which undertakes in-house training and professional development courses for Disney staff. About 110 people are employed as instructors at the Disney University site at Orlando.

Disney places a strong emphasis upon the commitment of all of its employees to the corporate culture and values of the organisation, and the willingness of all staff to fit with the Disney team, uphold the Disney image, and continue Disney traditions of providing 'clean, friendly, fun' experiences to all of its visitors. It is estimated that there are 3.5 billion contacts between Disney 'guests' and 'cast members' in any year, and, since 68 per cent of business in the services sector is lost due to customer dissatisfaction with the quality of service, a premium is placed upon ensuring that Disney staff meet customer expectations. To this end, all new Disney employees undertake a one-day orientation course titled Disney Traditions, which provides an induction to Disney standards, values, heritage and culture, as well as emphasising 'working with integrity', and workplace safety. A strong element of Disney University's approach to training is that storytelling is an important element of learning, and that learning should be entertaining.

About 75 per cent of management positions at Disney occur through internal promotion, so Disney places a strong emphasis upon developing continuous training and professional development programs that enhance performance, promote excellence, and encourage continuous improvement throughout the organisation. Most courses are taught in-house by trained Disney instructors, and there is a structured pathway for leadership development, as well as courses focussed on the needs of particular divisions and the development of generic skills (eg, computer training). There is some use of CITs in training, but Disney does not emphasise Web-based courses, due to its stress on the transmission of corporate culture and values through the training and professional development process. Disney has also stressed outreach activities to school and higher education sectors on a non-profit basis, through the Disney American Teacher Awards it has offered since 1989, and its more recent Disney Learning Partnerships and Creative Learning Communities Grant Program (see disney.go.com/disneylearning/who_we_are/index.html).

General Electric

GE Crotonville remains a Holy Grail for many US organisations interested in corporate education, particularly executive education. As with AAPL, Ford and other major corporate conglomerates, much of the training is fragmented and controlled by individual organisation arms.

Crotonville has a fourfold mission:

- to provide leadership training for all GE employees;
- to help share the GE values across all the businesses, so the values are consistent from one business to another;
- to facilitate the sharing of best practices, which are considered to be critical to the successful operation of the corporation; and
- to work with the customers and partners of GE businesses and share the leadership development tools, techniques and best practices.

Jacqui Vierling and Mike Markovitz from the Crotonville Centre for Learning and Organizational Excellence at GE Capital are open about the purpose of GE's education and training programs: 'we're always interested in ensuring that the GE businesses meet their objectives—their financial or any kind of objectives. So the training for the individuals is all linked to achieving business objectives' (Vierling). As Markovitz puts it:

Said another way, I don't do anything unless it supports the business achieving its objectives. Now on my way to doing those things I end up doing a lot of skill development and knowledge acquisition for employees which is actually quite useful to them, both in their jobs—helping them

to achieve business objectives—but it also makes them more marketable employees to other companies, but that's a side effect, not one I'm trying to achieve.

Like other leading employers, GE executives understand the tension between upskilling employees and seeing those staff pirated, however they do not seem too concerned about the problem, instead preferring to concentrate on GE's attempts to make the environment and job rewards enticing enough so people will stay. Vierling suggests it is a constant issue for GE, because 'the more successful you are, the more you face that whole issue of people wanting to hire your employees. So GE faces it constantly.'

Proportionately, the training at Crotonville focusses more on soft skills—leadership, teamwork, conflict resolution, and strategy thinking—but the GE interviewees suggest technical skills, and recognised applicability of the learning to the workplace, are also of vital importance.

While internal certification and accreditation of GE courses is relatively limited, Vierling and Markovitz suggest there is genuine recognition of the power and credibility of Crotonville courses, and this extends far beyond the award of paper credentials. Markovitz says the opportunity for accrediting study is not necessarily appealing: 'many employees don't even bother to go through the certification process, even though they could'. Vierling says GE staff recognise that their learning in the corporation and attendance at GE courses are quantifiable attributes that can be listed on a resumé. Markovitz also notes that:

probably more for GE than some other companies, attendance at GE courses substitutes in some ways for an external degree. So the fact that people have been through some of the courses at Crotonville almost serves in lieu of an MBA on their resume because it's the GE-ised version of some of that learning.

GE prides itself on its development as a learning organisation, with a far-reaching learning culture, that situates formal education and training courses as just one part of a total learning package. As Vierling points out:

the delivery of courses, for example is only one piece of what we consider the developmental experience, and often training is only a small part. People get the opportunity to participate on key projects, or key teams, or get assignments that develop them. So when we look at employee development we look at a much broader range of options as we look at what do they need to be successful, and training is only one piece of that. As an employee works through each year they do an annual performance appraisal review. One of the dialogues an employee has

with their manager is what are the experiences I'm going to get in the coming year that will enable me to upgrade my talents and capabilities and skills. Now that might include some courses in the business, that might include some Crotonville courses, but it will also include some specific work assignments or projects or teams that both the manager and employee agree would be beneficial to the employee.

And Markovitz comments:

I think one of the things that GE has done is created, and it's a little bit of an overused phrase these days, but more of a learning culture that extends beyond what happens in a classroom kind of setting to encourage people to try new things, share those learnings through a process we call sharing of best practices or sharing of lessons learned. So learning in some ways permeates our culture in a bigger way than just what we've talked about in terms of what happens from a training and education program standpoint.

Sun Microsystems Educational Services

Sun typifies the model of internal/external focussed training in many global organisations. It has clearly defined and distinct arms operating to deliver training to its own employees and to external clients. Since its inception in 1982, Sun Microsystems (www.sun.com) has had a singular vision—The Network Is The Computer™. As an example of a 'speed to market' industry, and the need for staff training, it is noteworthy that 90 per cent of product shipped is less than one year old.

Sun's Educational Services section supports both staff, and external users of Sun products: 'we are a full scope corporate U in that we do all kinds of teaching from soft skills to new employee orientation, to work station skills training, to team effectiveness training, to management, sales, and engineering' (Jim Moore, Director of Workforce and Planning). Externally, it provides training and certification courses in Java technology and Solaris, systems administration, network Internet & security, enterprise systems, hardware maintenance and object-oriented programming (suned.sun.com/). Like Motorola, the SES section had to re-work its business model in the mid-90s, and in consequence cut 45 per cent of its courses 'to be more focussed and strategic' because the courses proved 'not very effective, and (were) very expensive' (Bill Richardson, SES Enterprise Services Vice President).

There are nearly 160 training centres in 58 countries to cater for these external clients; teaching staff for these courses are often full-time ex-mathematics teachers. Unlike Microsoft, 'Sun-badged employees' undertake most external

training, although the company also franchises its courses, and will contract out to trainers. About 100 000 students are trained each year, 93 per cent of whom are Sun customers. The result is that the $280 million turnover in education and training (including $28 million on internal chargeback training) is largely self-funded, with about $56 million spent internally on education. Moore believes that the chargeback policy is important: 'in other corporate universities, it's free and it isn't valued'. Its internal training unit has centres in eight countries and employs 77 staff. Internally, training revolves around 'Sun kinds of things, Sun culture and style', 'our language'; 'there are not that many generic off-the-shelf kind of classes' (Moore). Typically, these are five-day courses, instructor-led, and cost in the order of $US250 a day, with different prices for different countries.

Flagging a greater reliance on online training, Sun plans to use the web for information components, and retain face-to-face classes for social interaction, moving to a hybrid model. Online courses have a variety of different pricing structures depending on the course structure and content. Course development is 'unbundled' into specific roles in a standard instructional design process. Since internal clients are free to go elsewhere for training, Sun Educational Services is highly focussed on service quality. Each component of the student experience is evaluated, including registration facilities: 'we get paid, I get paid, on those quality metrics, so Sun thinks quality is very important' (Richardson).

Although Sun programs are industry-accredited (by the Association of Computing Machines, ACM and the International Electronics and Engineers), the company had not, at mid-1999, sought any general credits, through ACE for example, for courses in the US, although it has sought such credit in some regional areas, such as Singapore. Sun is adamant that its industry-accreditation process is the correct one. As Richardson comments:

> If it's a Sun-specific thing, or a Microsoft-specific thing it's OK if that's the role you're applying for. But if you're outside that role it has virtually no meaning. So what you really want is more industry-specific accreditation than a company-specific or a regional, geographic, or academic.

If this represents a common perception in the IT industry, it would suggest a greater role for the professional associations in determining curriculum, and delivery modes.

Sun interviewees best articulate a major difference between corporate and traditional universities in underlying educational approaches: the focus on the group rather than the individual. As Moore observes:

we believe that much education is more useful if delivered to a group of people who are working together and who will apply that education … if you learn (quality assurance) and go back to a group who don't know those same skills, you'll never apply it.

Digital Education Systems

Digital Education Systems (DigitalEd, www.digitaled.com) is a Denver-based organisation founded in 1998 to deliver web-based courseware. It was formed to meet what was seen to be the dearth of low bandwidth, accessible and cost-efficient training in business-related continuing education programs in the areas of information technology and human resources. Its corporate customers include IBM, Cisco, Sun, and Hewlett-Packard.

DigitalEd has used strategic partnering to complement the development and delivery of its product; its courses are developed in conjunction with a partner, O'Reilly & Associates, a publisher of IT books. To bolster its marketing outlets, DigitalEd has partnered with two portal sites, www.barnes&noble.com, the online presence of the large US booksellers, and hungryminds.com, a new portal site for online education services. Other partners include WestNet Learning Technologies and Jones International Ltd, which owns Jones International University (see above).

Motorola University

MU (mu.motorola.com) may no longer be the epitome of Meister's 'corporate universities' but remains an important model for corporate training and development. Motorola University was established under that rubric in 1989, and has functioned as a large-scale vehicle for skills development, knowledge management and cultural change within the organisation; it reports to HR. Motorola gained prominence because of its mandated training program, with every salaried employee being required to take at least 40 hours of training per year, and engineers, consultants and management 100–120 hours a year. Motorola University's mission is 'to be Motorola's global education solution and services provider as the preferred choice for educational content, services and support'. It commercialised its own training model by selling courses to external organisations, as well as to its business units, partners, suppliers and customers, and currently derives 6–8 per cent of revenue, or about $US8–10 million from courses delivered externally.

All salaried employees at Motorola are enrolled in their first year of service in courses in quality control (the 'Six Sigma' system), cycle time reduction, total customer satisfaction, Individual Dignity Entitlement (IDE), and Motorola history, culture and values. At management level, courses focus on developing technological competence, leadership excellence, business acumen, and global effectiveness. As an organisation with 50 per cent of its 150 000 employees

outside of the US, and with 99 MU sites in 22 countries, there is a strong emphasis upon developing transcultural competencies, as well as providing a consistent Motorola 'message' worldwide. Motorola University has an annual budget of $150m, conducted 350 000 days of training in 1998, and employs 700 people worldwide excluding contract instructors. It is claimed to be 'the best-known and most widely benchmarked corporate university in the world (Densford 1999). Motorola has developed a highly rigorous process for curriculum development and instructor training, with the latter involving 360-degree feedback from students, peers and master instructors before an instructor is certified.

In 1996, the then-President of Motorola University, Bill Wiggenhorn acknowledged:

> *we were falling behind in using technology to provide embedded training in the offices and homes of our associates … we had accomplished little in the area of knowledge and intellectual management … and while we once had a state-of-the-art World Wide Web presence, we failed to maintain it.*
>
> *(quoted in Densford, 1999, p. 1)*

Motorola re-engineered its physical infrastructure in 1997, and in 1998 began re-structuring in recognition of the fact that its focus had wavered. Wiggenhorn blames the decline of the corporate university on the fact that it was initially a highly centralised organisation within the company when the operation started in 1981 as the Training and Education Centre. By 1985, however, training had become decentralised. As is also evident from the Ford Case Study, Motorola's training energies and structures were increasingly fragmented: Wiggenhorn stated that 'we need to standardise and coordinate our [operations] in order to increase our ability to talk to each other' (quoted in Densford, 1999, p. 2) because only 40 per cent of Motorola's training actually fell under the MU umbrella. Part of the difficulty was that business divisions had set up their own development and training functions, and both external and internal clients were unsure whom they were to deal with. Over the last two years, MU has been in the process of cutting back its course offerings from about 6 000 in 1998, to about 1 000 by 2 000, and integrating its courses much more closely with Motorola's overall business strategy. This has seen a reduction in MU staff from 1 200 to 700, and in the number of compulsory courses directly related to Motorola business strategy (as distinct from electives) increase from 30 per cent in 1998 to 70 per cent in 1999. Yet it still does not coordinate all training activities within the larger entity, since both the business sectors and HR have education and training responsibilities. Rather it sees its mission as being 'the agent of change'.

Wiggenhorn's analysis of the difficulties faced by MU in the mid-1990s echoes the complaints made by some business leaders and analysts of the traditional university sector: 'some [staff] didn't anticipate what their people needed to

know'. Another difficulty was that MU measured its success in questionable terms, a direct correlation between training dollars spent and sales and quality targets. It has moved away from use of Level 4 Kirkpatrick evaluation (measuring return on investment), instead recognising that people want training in order to succeed, and that Motorola is sought as an employer of choice by motivated people, who expect a commitment to training on Motorola's part. In future, the University intends to measure against curriculum outcomes for functional areas. MU has established a number of 'colleges', such as the College of Leadership and Transcultural Studies, part of which is the Augusta Institutes. The latter offers two week course 'akin to a mini-MBA', to prepare staff for global work. A variety of technologies is employed, including the MU intranet, the intention being to move progressively into distance online modes, utilising an object database to deliver five-minute learning 'chunks', the approach also planned at Arthur Andersen, Air Force and Army. However, MU acknowledges challenges, not least of which is the difficulty posed by technology-based delivery in developing countries. Vice President Jim Austgen says corporate universities can learn from MU's experience: 'Think of yourself in these terms: I am a service provider. I am here not to serve my needs, but those of my customer. I am here only to provide the highest-quality service, in the best cycle time, at the lowest possible price' (quoted in Densford 1999, p. 7).

Motorola maintains linkages with selected higher education institutions including Purdue University, Forest Lake School of Management, Illinois Institute of Technology, Arizona State University, Peking University, and universities in Scotland and India. It maintains a 'Community Connection' program in the United States, with a particular emphasis upon the quality of maths and science education. It is designed to 'create systemic transformation of teaching and learning' through 'global alliances with preK-16 school systems, the private sector, and not-for-profit organisations committed to lifelong learning' (mu.motorola.com/CC/index.html) (accessed 2/11/1999). According to Wiggenhorn, there will be no move into for-profit education in the wider community: 'we'll serve the outside world as is in our interest, but we're in the radio business' (quoted in Densford 1999, p. 5).

3.6   Other US developments in corporate, for-profit and distance education

There are other organisations, not the subject of detailed treatment in this study, that nevertheless deserve mention here to flesh out the context of the business of borderless education in the US.

The much publicised entry of the **United Kingdom Open University** (UKOU) into the US has not been without difficulties. A special issue of *National Crosstalk*, 7 (3) 1999, the journal of the National Centre for Public Policy and Higher Education (www.highereducation.org/), reports that UKOU has been

forced into entrepreneurial activity through declining government funding as a result of competition in the distance education market in the UK (Marcus, 1999). Yet its expansion in the US has been hampered by the exponential growth of distance education by traditional universities in North America, and rejection of OU-developed materials by Florida State University and California State University as too 'British': 'these videos don't look like our classrooms, these students don't look like our students' (Mingle, SHEEO). Sir John Daniel, President of the USOU, acknowledges the difficulty of convincing Americans that a foreign degree/perspective is useful: 'America is such a huge place and, although it is easy for us outside to say how parochial it is, it is a very big parish. It's quite difficult for Americans to think outside that box' (Interview, CrossTalk, 7 (3) 1999, pp. 2–3). Negotiations with Western Governors University in a partnership with the United States Open University, as UKOU designates its US operations, have also broken down (Trombley 1999), and the USOU was still unaccredited in late 1999. Cultural clashes appear to be inevitable even where collaboration occurs between those within the education sector: one staff member at Florida State complained: 'I think they saw us as a client and we saw them as a partner' (Trombley 1999, p. 7).

USOU has begun with carefully targeted courses where it might be seen to have an edge: Computing, International Studies, European Studies and Combined Studies. Additional degree programs to be launched in 2000 include the Masters of Business Administration and Masters in Computing. It has also entered at the low cost end of the market, its fees substantially lower than even those of a state public university, at $200 per hour compared to nearly $300 per hour at a California public university.

California Virtual University was an extraordinary local project consequent on California's rejection of an invitation to join the Western Governors Association. While the California government accepted the logic of technology-delivered education to accommodate an anticipated 450 000 additional college-age students over the period 1996–2006, and the potential of an international student market, CVU rejected the competency-based approach of WGU, and decided to broker its own institutions. The State advanced CVU $US6.1 million with another $8 million for other distance education activities; private funding was secured (see below) and the participating colleges and universities also paid an annual $1 million fee for listing.

CVU collapsed in mid-1999. Some reasons for the failure of the broker model, essentially an online catalogue in the case of CVU, have been advanced (see Berg 1998). Local conditions prevailed in the California situation, where political shifts accounted for some reluctance from private benefactors, and financial constraints deterred educational institutions; Albrecht (WGU) maintains 'it was politically flawed from the beginning'. Enthusiasm for the CVU was dampened by strong community reaction against another proposed university-corporate alliance, the California Education Technology Initiative (CETI), which California State University brokered with Microsoft, Fujitsu, GTE, and Hughes Electronic Corporation to provide technology and infrastructure to

California State University campuses, and the threat of legal proceedings because a public university was using taxpayer funding to profit from its faculty expertise (Berg 1998). Initial contributions of the private companies associated with the CVU start-up (Oracle, Sun Microsystems, Cisco Systems, Bell Pacific and International Thompson Publishing) amounted to only $75 000 each, and no allowance was made in state budgets for university contributions or maintenance. Several subsidiary ventures mooted by CVU fell through, including book sales and overseas expansion. The California Postsecondary Education Commission believed that part of the problem was that the Virtual University's name was misleading. The Commission favours negotiations with WGU on the issue, but in late 1999 there was no resolution (Irving 1999).

3.6.1   Auxilliary organisations

A plethora of auxiliary organisations has sprung up to cater to the burgeoning interest in corporate, for-profit and distance education. One such is the *Online Courses Newsletter* (emapey@adinet.com.uy), which in mid-1999 boasted 3 900+ subscribers (Issue 16, accessed 9 August 1999), and gives contact details for formal and informal courses available via online application; courses are not vetted in any way, and some are apparently amateur, such as www.mimf.com/smallguitar.htm, 'How to build guitars'. Another is the Virtual University Gazette, published by geteducated.com (www.geteducated.com), seemingly a single person gateway for 'entrepreneurs, executives and consultants who are building and supplying Internet-enabled, FOR-PROFIT educational enterprises for the adult market' VUG 2 (8) 1999; accessed 1/8/1999). With the inevitable arrival of commercial directory pages in the form of portals, the business of online education has seen the emergence of the so-called 'learning portals' or 'eyeball aggregators': www.hungryminds.com is one example, billing itself as 'the people's u'. Exemplifying the convergence of content and infrastructure, hungryminds is eliciting 'experts' to write material for its 'Guided Learning Experiences', 'somewhere between an article and a mini-course', in an eclectic range of subjects. In what has become a controversial business deal in the university community, hungryminds directs visitors of its front page to the commercial distance education division of the University of Maryland University College (UMUC), and UMUC pays the corporation for any enrolment which eventuates. Hungryminds also promotes such courses as 'How to buy cheap airline tickets', so it will be of some interest to track whether UMUC profits from the deal, and whether its image changes and its student base broadens as a result. The University of California Berkeley is another client, and chose hungryminds because it does not want to become involved in marketing (wired.com/news/print/0,1294,32474,00.html).

One interesting example of the entrepreneurial possibilities for web-based content is the number of small electronic firms that pay students at prestigious schools to take class notes, post them on the web, and then charge students to view the materials. UCLA and UC-Berkeley are threatening to sue such

companies, but the latter maintain there is nothing illegal or unethical in the practice (Edupage, 8 October, 1999). Another is exemplified in the following report:

STUDENTS CAN OFFER COLLEGE TUITION BIDS ONLINE

Students can now offer online bids for college tuition using a service launched in November called eCollegebid.org. The service lets students post the amount of tuition they can pay as well as information such as test scores and grades. Students can post information for free, but colleges must pay a $2 000 yearly fee for admissions officials to have access to the applicants. So far, 841 students and six colleges have signed up with eCollegebid, says the site's founder Tedd Kelly, who is also the president of Consultants for Educational Resources and Research. The service is controversial because some school officials believe pricing should not be the main focus of the admissions process. However, proponents such as Catholic University admissions director John Dolan say the service benefits small colleges that want to increase enrolment. Catholic University uses eCollegebid to recruit students for its nursing and engineering majors, which often have vacancies.

(Philadelphia Inquirer Online, 6 Jan 2000)

In *New Media and Borderless Education*, the research team suggested that publishing companies, already 'content providers', might prove well-placed to compete in the higher education market. They have subsequently moved rapidly, eg, Harcourt subsidiary **NETg** develops and on-sells its IT and business skills courses to corporate clients, and also to **click2learn.com**, formerly Asymetrix Learning Systems (www.click2learn.com). This company is now a software developer, wholesaler and retailer of IT and business web-courses, and a portal to other online education products. In 1999, it earned more from its service functions than from its software products (Press Release October 20 1999). Click2learn also has a partnership with Macmillan to on-sell its own IT courses. **Pearson Education** (www.pearsoned-ema.com/, accessed 4/10/1999) is considered by the CVCP project team as a competitive threat to the UK university sector; it was reconstituted in late 1998 as an amalgam of the Financial Times, Simon and Schuster, Addison Wesley Longman (already a conglomerate of former educational independent publishers) to become 'the world's largest educational publisher'. In early 2000, its subsidiary FT Knowledge announced an agreement with Regents College, a major distance education provider (see Cunningham et al. 1998), for support and marketing of international degrees in IT, business and management (*Corporate Universities International Webletter* 2 (2) 2000, p. 5). Pearson Education operates directly in 40 countries.

Unext.com is another aggressive entrant to Internet education, targeting corporate education via its Cardean consortium of universities including

Stanford, Carnegie Mellon, Columbia, University of Chicago, and the London School of Economics. IBM is a registered customer, although the first courses are yet to be developed. Courses will be delivered through IBM's Lotus LearningSpace. Initially, the content will be Just-In-Time short courses in specialist middle management areas, with mentors to answer questions, facilitate student-to-student contact, and monitor progress. These mentors will be Unext, not faculty staff. The company intends to work slowly towards an accredited MBA program delivered globally.

Real Education, re-branded as eCollege (www.ecollege.com/), has become a major player in online education. It is 49 per cent owned by its founder Robert Helmick, with a large holding by MediaOne Group. A full 20 per cent of its revenue derives from one university, the University of Colorado, a close physical neighbour. In 1998, like most other online companies, it made a loss, and had liabilities of $US22.2 million (www.hoovers.com/annuals/4/0,2168,59864,00 .html). What is of interest is that it has partnered extensively: it is the platform of choice for KGSM (see DeVry Case Study), has a staff of over 30 instructional designers and 100 computer graphics and technical support staff, and it was the first of many e-organisations to partner with Pearson Education (see above) for full text publication online. eCollege partners Microsoft Solutions for online registration and marketing (not teaching) of Microsoft Certified courses, and also has an arrangement with Harvard Business School Publishing, for online distribution of their materials. Like many other US institutions, it has benefited from special grants: in 1998, it received nearly $US2 million from the federal Department of Commerce to develop a Real Adaptive Intelligent Learning System (RAILS), the objective being a template for cost-effective and interactive online materials that can be used by non-programmers. To promote e-education, it offers scholarships to individuals to undertake online subjects.

One aggressively-marketed organisation offering turnkey solutions (Web-based course management systems) is **Blackboard Inc**. (www.Blackboard.net and also see company.blackboard.net/Company/partners.htm, accessed 22/10/1999), a private company formed by staff from KPMG's higher education consulting arm, and based in Washington DC. KPMG is now working with Blackboard to offer a suite of business planning services to assist universities prepare for and support academic computing. Current traditional university clients of Blackboard include Cornell and University of Pittsburgh. Staff numbers have grown from seven early in 1999 to over 100 in September of the same year.

Blackboard was appointed as primary technical contractor to the IMS standards project (www.imsproject.org). Other partners include Microsoft, Sylvan Learning Systems, and GEO Interactive, a specialist in bringing lecture video, automated demonstrations and other multimedia to the virtual classroom environment. The company also has links with PeopleSoft (and Universal Learning Technology) to offer integrated administrative/learning uses of the Web, and has a non-exclusive agreement with Houghton Mifflin

(www.hmco.com), a large textbook publisher, in an arrangement whereby teachers can customise HM's texts and multimedia to dovetail with their own materials. Competitors in this environment are eCollege, WebCT and WBT Systems. Blackboard.netTM provides a platform for three 'free classes' for academic content; clients pay for the course administration software and server hardware, as well as additional student support services. The company's strategy is to capture both the institutional and the individual market for a Web-based platform; hence it offers a three-tiered service: a free hosting platform for single courses aimed at individuals who want to distribute a 'course' free or for-profit (Blackboard.com); multiple course Websites (Blackboard CourseInfoTM); and 'online campuses' (Blackboard CampusTM). It has signed up over 3000 individuals marketing their personal courses. Its CEO, Louis Pugliese, was formerly Vice-President of Turner Educational Services. The company was not profitable in 1998 (www.redherring.com/cgi-bin/pci-query.p; accessed 22/10/1999).

Blackboard has a 'strategic licensing agreement' with **NextEd**, formerly e-education, to use the Blackboard CampusTM software platform on its server network. NextEd is a partially owned (25 per cent) company of University of Southern Queensland's commercial arm INDELTA Pty Ltd, for delivery of USQOnline course material. It is headed by Terry Hilsberg, and registered in Hong Kong, with USQ's Deputy Vice-Chancellor as Director of the company.

NextEd (www.nexted.com) offers 'project management, course conversion, online teaching assistance support, marketing, distribution, e-commerce and customer support', and receives fees based on enrolments and the level of service provided to students. It promotes an unbundled service, where students can access unit materials with add-on fees for tutorials and assessment. It has 24 hour helpdesk support seven days a week, and recruits and trains online tutors for the institutions it services.

The company is in aggressive expansion mode, with a large hiring program in the second half of 1999, aiming at technical and experienced computer science teaching staff, and has added Stanford University, as well as La Trobe's Nursing School, and the Australian Catholic University to its client base. Its focus is on emerging economies in the Asian market, and its web-site (accessed 5/10/1999) promises 'assistance with securing government approvals, authentication and testing in local test centers'.

While business seeks to take advantage of the opportunities offered by new technologies and modes of education, the role of established institutions in responding to the same developments cannot be ignored. One particular regional accreditor in the US has changed the shape of education, **North Central Association of Colleges and Schools**. It is no coincidence that most of the non-traditional providers examined in this study have gained accreditation through this body, rather than the more traditional Eastern regional bodies. The regional accrediting bodies have two main functions: to quality assure institutions *and* programs, and act as a guide to institutional improvement via

recommendations. Notwithstanding CHEA's assertion that accrediting bodies abjure specifying lowest denominator standards, it is apparent that a minimal standard, not ideal quality, is the pragmatic method adopted for quality assurance. North Central's Associate Director Stephen Spangehl has been quoted as saying 'we do a minimum level of quality assurance; we don't claim that all institutions we accredit are of equal quality' (*CHEA*, October 16 1999, p. A16). One of their accreditation requirements is that there be a full-time faculty member for every major taught in a college, a requirement which annoys UoP for example, but which has forced UoP to increase the full-time complement of academics, who nevertheless do little teaching.

By contrast, the more conservative *Distance Education and Training Council* (www.detc.org) has taken some time to accommodate online possibilities. It is one of the major accrediting organisations in the US that deals specifically with external courses; it has always focussed on reviewing and accrediting vocational programs up to Masters level, but is currently preparing a process document for doctoral level studies; 'Proposed Standards for Doctoral Degree Programs' may be accessed by emailing detc@detc.org.

The Global Alliance for Transnational Education (GATE) (www.edugate.org) was founded in 1995 to develop a certification process for international educational programs, and a database of such programs at the tertiary level. It is a natural extension of Glenn Jones' passion for promoting and delivering international education via the Jones International University and Apollo Group, as well as UoP Online. Jones International University was one of the first organisations to be certified by GATE. The organisation is a non-profit alliance of business, higher education institutions and government. GATE certification is offered to individual institutions as a quality assurance mechanism, but is also directed at the individual student seeking credit for prior study (via a credit bank), and at national governments concerned about the quality of programs offered into a country, ie, 'export education'. The organisation keeps a registry of external reviewers, experts in higher education, who visit and review various facets of institutional performance including student support, physical and financial resources, enrolments and admissions processes, and legal and ethical issues. GATE has extended its operations in Australia with Professor Leo West of CQU becoming a member of the Board of Directors, and being influential in establishing the Australian/Southeast Asian GATE Business Advisory Council in early 1999. Monash has gained certification for its off-shore programs, and CQU is also certified in this area.

As a lobby group for global education services, GATE was also involved in preparations for the World Trade Organisation (WTO) Ministerial meeting in Seattle, promoting National Treatment (no trade limitations, no exclusive public subsidies) for service providers, including education providers, seeking to operate out-of-country. *GATE News 3* (1) lists the barriers GATE has identified to global education trade.

Other organisations are also entering the arena of international equivalence and quality assurance, including the **Commonwealth of Learning** (www.col.org). CoL is a Vancouver-based pan-Commonwealth institute devoted to the promotion of distance education as a mechanism for the development of emerging economies; research in distance education; and the exchange of education materials. In conjunction with several organisations such as the Commonwealth Higher Education Management Service (a UK institute which is also a partner with the CVCP in the parallel study to the present project), CoL is currently developing guidelines for *consumers*, rather than providers, of education materials and courses, as a form of customer protection in the growing trade in global education.

3.7   Australian organisations investigated

It is clear that some Australian universities have responded innovatively to the challenging financial environment of higher education. Among the more prominent entrepreneurial universities are some which have expanded their activities beyond their traditional 'geographic catchment' areas, such as RMIT and Monash, with their overseas campuses. The latter has global ambitions. Others, particularly those with former Distance Education Centres such as Charles Sturt, University of Southern Queensland and Central Queensland University, are building on their external capacities, while also entering new forms of partnerships in commercial arenas, such as CQU's business relationship with Campus Management Services, to provide both accommodation services and contract teaching at foundation and early degree level for international students. Two emerging examples of the entrepreneurial activity of Australian universities were examined as part of this study, to contrast their approach to commercial activities with that of the US exemplars, and to gain first-hand evidence of Australian moves to attract the corporate market.

Coles Institute

Coles Institute (CI) was established in early 1999 as a partnership organisation, a 'co-branding', between Deakin Australia and Coles supermarket division to provide a full range of certificate, diploma and degree courses for over 52 000 supermarket staff. 'We've been careful to call it "institute"', not university (Lindsay Mackay, Pro-Vice-Chancellor, Deakin University), to avoid regulatory difficulties and to reflect the broad spectrum of training provided.

For Coles, the impetus came from a decision to 'de-casualise' its workforce, necessitating better training and a more coherent career path for employees; a recognition that current training is 'disorganised and dispersed' at the state

level; a conviction that the creation of a separate national training division would give training more 'credibility'; and an existing relationship with Deakin Australia for graduate certificate and degree programs. Deakin Australia's ability to organise a distributed learning model was also a major factor, since existing programs tend to be face-to-face, incurring significant travel costs and significant costs for withdrawing staff from the workplace. Following Meister's (1998) recommendations regarding the establishment of an advisory board and strong commitment from senior management, CI has a Management Board chaired by the CEO of Coles. The Board includes Coles HR manager, the CEO of Deakin Australia, Mackay representing Deakin University; heading CI is a former Deakin Australia manager, who was also a former Coles employee, a strategic appointment to maximise communication.

For Deakin Australia, the deal is a coup, but not without risk: 'people were twitching about it' (Mackay). Part of the reason was the perception by some that Deakin University was 'prostituting itself' to TAFE, yet Deakin, unlike many other Victorian universities, has not 'merged' with a TAFE college. In effect, Deakin Australia is both 'the preferred supplier' of all training, and consultant, not 'project manager', 'because we see ourselves as contributing from inside, not coming in as experts" (Mackay). Their role will be to coordinate what will be a curriculum spanning VET certificate level courses which will ultimately articulate into Deakin University programs. The Management Board expects to have some input into the curriculum, and while this may not be troublesome with VET level courses (in food hygiene for example), since Coles is already an RTO, the relationship is already causing 'tensions' in the University's faculties, even though Deakin Australia may 'not necessarily' utilise only University staff. 'Our role will be to quality assure the qualifications and competence of any staff developing and teaching the program.' The testamur will name both CI and Deakin Australia as the authorising bodies for the degree; this is perhaps one of the most contentious aspects of the partnership.

Notwithstanding excited press releases in early 1999, neither curriculum, nor VET partners, nor even national analysis of existing training or a needs analysis have been finalised, and Mackay expects that these details will take 'a substantial period of time', with a Strategic Plan expected in late 2000, and some years for a joint program to be fully operational. Technology is not expected to be a significant feature of delivery in many programs for some years.

Programs will be run exclusively for Coles staff, at Coles insistence. Deakin Australia is sanguine about this specification: it has had to institute a system of 'Chinese walls' in other programs because it has contracts with all major Australian banks, each of which wants to maintain its commercially confidential information, used by students for their assignments. Deakin Australia has advised CI that *some* training could be conducted in the workplace with in-house mentors, but the integrity of the program cannot be compromised. What is 'not negotiable' is assessment, which is to be controlled by the University at the faculty level. Deakin Australia is also acutely sensitive to the difficulties

posed by articulating VET programs into degree programs because of VET competency-based assessment.

Deakin Australia is Australia's earliest, best-known, and most established of the corporate arms of domestic universities. Lindsay characterises it as a 'wholesale' arm selling tailored training courses to corporations and professional associations, while the faculties direct their marketing to individual students. Its strength is to 'value add' through employing professional staff as 'client managers' who work with faculty liaison officers *and* corporate clients, allowing faculty staff to concentrate on their research and teaching, not sales and negotiation. Although Deakin Australia is a division of Deakin University, it maintains separation from the rest of Deakin University in some matters, eg, through two distinct instructional design groups. However, the boundaries are not rigid. A recent initiative, Deakin Global, is intended to extend the reach of the organisation and its potential market.

Melbourne University Private

Melbourne University Private is the other major example of the corporatised university in Australia in the late 1990s. It was established in 1998 in response to 'what a lot of the commercial enterprises and in-house corporate universities recognised, and that is the paradigm for higher education is changing (because of) the sluggishness of the public university in the face of the changing needs of the marketplace: career-long education, corporate-based, customised, modularised, bankable, flexible' (Barry Sheehan, CEO of MUP, September 1999).

Faced with the reality that Australian universities could not expect higher levels of government funding, and the lack of a substantial philanthropic base in Australia, the parent University of Melbourne decided on a 'fairly novel business approach' targeting corporations, governments at national and state levels, and national and international bodies, guaranteeing 'a nimble response' to client needs (MUP brochure). The object was to elicit private sector equity in a private arm of the public university through a two-tiered structure: MUP Ltd is a non-profit company wholly owned by UM, and linking to MUP Services Pty Ltd which will operate commercially to deliver a variety of educational services. Sheehan stresses that MUP is a university in its own right. This is important because it takes MUP outside of the regime of federal government 'control', or, as Gluyas (1999 p. 38) has it, it removes MUP 'from the mercy of policy-makers'. MUP has a 'strategic alliance' with the University of Melbourne, but 'everything is done on competitive neutrality principles'. The university awards its own degrees, unlike Deakin Australia for example, and these degrees will be certified by the Academic Board of UM. So, while MUP has elements that resemble organisations from Deakin Australia through to the University of Phoenix, it is a 'peculiar Australian adaptation where a

private university, corporately funded, hangs off a major public university in terms of quality control and operates on a very lean fixed cost basis'. As such, once a valuation for the brand name 'Melbourne' and 'University' has been established by a commercial brand name assessor, MUP will be charged a royalty fee for accreditation of courses, and a licensing fee for use of the terms 'Melbourne' and 'University'.

The MUP board is unique ('companies in Australia would give their eye teeth to be on my board', says Sheehan). It consists of former CEOs from a wide range of Australian industry. It also has an advisory board of high ranking academics. However, the shareholding partners—those who hold a minimum of A$0.5 million equity in the principally bricks and mortar investment of $160 million for the substantial development on Grattan Street, which draws the 'knowledge precinct' based around the University of Melbourne closer to the CBD—are commercial-in-confidence. There are no shareholders on the board, in order to substantiate the board's independence.

While the bricks and mortar investment is substantial, MUP is underpinned by private sector equity in property owned by UM itself, which then leases access to Melbourne University Private. The model, with its lean fixed cost structure, is 'more a downtown consulting enterprise', where the relevant expertise and other inputs are 'plugged in', than a traditional university. 'You don't need bricks and mortar'. The lean cost structure extends also to staffing. In September 1999 there were some 15 employees, all on performance-based contracts. There has been some high level recruitment from major established universities.

MUP has three schools—a School of Energy and Environment, a School of Communications, Multimedia and Information Technology and a Graduate School of Journalism. At this stage, while the heads of the first two schools have been appointed, the Journalism program is taking more time to develop, but is also focussed on executive education for high fliers in the media industries.

MUP, like Deakin Australia, operates as a broker, bringing together and managing teams to develop course curricula and delivery—'we seek the best people from wherever they are'. The supply chain, while including staff and organisations outside the University of Melbourne, nevertheless relies on the connection to the 'parent' university, with whom MUP has a contract for delivery of services. MUP does not contract with individual academics or with departments-'we are assured of the supply chain (of staff) through the expertise of the University of Melbourne', but not on the whim of individual academics to delay or deny supply. In any case, Sheehan's perception is that the best teachers are not found inside universities but are found in a variety of walks of professional life.

One of the keys to the operation of MUP in relation to both the University of Melbourne and the wider higher education sector is that it does not compete

for undergraduates or for HECS-liable postgraduates. Also, all programs are targeted at corporate clients rather than at individuals, although it is possible that MUP may expand into undergraduate offerings—there has been an approach from DETYA to offer IT skills coursework. However, Sheehan concedes 'we can only make it profitable if we are not competing with a public university'. MUP is currently a 'purer' private institution than, say Bond University or Notre Dame which have been attempting to access aspects of the publicly-funded higher education system, even as an organisation like MUP has been attempting to distance itself completely from it. This is possible because MUP is attempting to provide top-drawer corporate executive education, trading off the prestige of its parent university. Students will be guaranteed 'core' educational facilities, but will be offered access to additional facilities at additional cost.

A major contract is with the Department of Defence, where a Masters in Strategic Studies has been developed out of participation by the Politics Department at the University of Melbourne, but also by other Australian and international suppliers. This degree is essentially an executive program tailored to the needs of senior personnel in the military. Specifically tailored from an interdisciplinary range of inputs that didn't 'just pick up the business school model', it was developed in very close consultation with Defence force personnel. The delivery and the production of courseware by and large are separate in this model.

Other examples of current business include an 'international greenhouse partnership' which has evolved from an international short course to a three-year program teaching mostly bureaucrats from the East Asian arc about control of greenhouse emissions. The program was brokered and sourced from the University of Melbourne, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and Energetics, a Melbourne environmental firm. Another contract is with the Defence Science Technology Organisation, which focusses on the training of defence scientists to manage research.

While the Commonwealth owns the intellectual property on the Master of Strategic Studies, and MUP is licensed to use it, the greenhouse program is owned by MUP and therefore MUP can market it in a variety of ways. Barry Sheehan is upbeat about MUP also taking a significant role in contract research, thus cementing its identity as a university in its own right.

4 Trends and issues in higher education

This chapter comprises three parts. The first provides a summary of major trends relevant to this project. This includes discussion of the growth of new providers of higher education, the context and causes of this growth having been outlined in Chapter 2.

The second part distils the major findings of this study concerning the operations of the new providers, focussing on five key areas, some of which offer points of differentiation from traditional universities. The five areas are mission and purpose; governance and culture; curriculum and content; student cohorts and staffing; and technology.

The third part draws out some of the general issues for the higher education sector arising from the preceding findings. More detailed consideration of policy issues for the Australian sector is undertaken in Chapter 5.

4.1 Major trends

4.1.1 The business of education

Education and training indisputably now constitute a business sector in Western economies, however distasteful that notion is to supporters of the traditional university concept. Indeed, to the extent that it has itself corporatised, the traditional university cannot be said to be above economic considerations:

> *John Sperling (founder of University of Phoenix) used to say the only difference between us and non-profit, whether it's Harvard or a religiously affiliated school is that we're honest: we call it the profit, they call it the surplus, but in the end we're all judged based on the way we manage our budgets and the value we get for it.*

> (Kurt Slobodzian, University of Phoenix)

There are wildly divergent figures of the total education and training business in the US. Herman (quoted in *Corporate Universities Xchange* (19 October 1999, p. 2) estimates $700 billion; Arthur Andersen quotes a 1998 figure of $61 billion for company training alone, a 21 per cent increase in the last four years; Marchese's (1998) estimate is $300 billion. Heyneman (1999) claims the

sector is the second largest in the US, at 10 per cent of GDP, but his figure includes pre-Kindergarten to personal development materials and hardware. Munro (KGSM) accounts in other terms, arguing that company training is moving from 40 to 80 hours a year, with all that implies for lost time and direct costs. Yet such training is an 'imperative' in a business world where re-engineering within firms is seemingly continual.

The education business is generally taken to include products and services ranging from self-improvement texts and videos, two-hour online courses in 'selling your house', infotainment of various sorts, beauty schools, infrastructure companies, education portal services, and corporate Us, right through to doctoral-level tuition fees. Definitive figures on the size and growth of the industry are not available. Heeger (NYU), eschewing statistics, simply describes the sector as 'a momentum industry', but Merrill Lynch (reported in *Corporate Universities International* 5(4) 1999) point to the fact that 38 Initial Public Offerings (IPOs) in the education sector have been floated on US stock exchanges between 1995-1999, raising $3.4 billion in equity, supporting Microsoft's Powell's comment: 'it's a feeding frenzy out there'. It should be noted at this point that the majority of those start-ups have been in the educational services area: technology companies seeking to exploit the tendencies to outsource infrastructure, and to buy in commercial software applications for administration and online services. The business of education has even spawned a university research centre, the Centre for the Analysis of Commercialism in Education at the University of Wisconsin-Milwaukee (www.uwm.edu/Dept/CACE), although this group currently restricts its interests to the compulsory school level.

Whatever the size of the market, the contemporary imperative of further education and training, and the learning and development needs of adults have stimulated a new education and training market during the last 15 years. There is however, a growing concern that the market, particularly in online/distance services, is being whipped along by vendors, rather than by consumers, that it is a supply-driven rather than demand-driven phenomenon (Blumenstyk 1999). It was certainly unclear in this study whether many of the new providers were genuinely responding to a demand by students for new forms of higher education, or whether they were speculating and assuming that such demand would emerge as an inevitable consequence of changes to the economy and in the workplace.

For this study, the questions are whether corporate, virtual or for-profit universities are denting the capacity of the traditional university sector to meet its obligations to the individual, to discipline study, and to the community at large, and whether the emergence of non-traditional institutions and wider learning needs provide opportunities which the university can exploit.

Richardson (Sun) clearly paints the opportunities for the university sector in the US, although it should be noted that his scenario implies mergers/alliances which reflect the gigantism currently consuming the corporate world.

*What companies are finding is a plethora of training and education
needs and solutions (and) they're really looking for some way to contract
with a few prime providers. They want maybe five, maybe fewer,
training, education, school, intellectual capital developers … that they
have to deal with. Oft-times they want to do it on a global basis. If it's
a large company, they want to know they're getting the same thing in
Guatemala as they're getting in Sri Lanka, so they're looking for bigger
organisations or global organisations who can do that. (…) From a
curriculum perspective they want one place they can come to.*

Coopers and Lybrand (1998) argue that the higher education sector is ripe for
rationalisation and conglomeration, just as the health care industry, once the
haven of the individual, has become corporatised via Health Management
Organisations (HMOs). (The Coopers and Lybrand report also argues that
HMOs have driven down the cost of health care in the US by using tech-
nology, a finding that would astound most Americans.) Some consulting
groups make more dramatic predictions, with Alley suggesting that in the US:

*commodity (core) courses will contract to the lowest level available
among a few branded institutions with high volume and low overhead,
resulting in the following provider mix:*

- *10 medallion brand institutions*
- *100 dominant provider institutions*
- *1 000 consortia collaborators*
- *2 000 consumer institutions*

- *10 000 for-profit vendors.*

(quoted in Barone & Luker 1999 p. 73)

4.1.2   The borderlessness of education

Although the corporate Us and other organisations investigated in the course
of this study are often close to global in their reach, their actual education
and training activities rarely match their market penetration. Education and
training are in the main focussed on a physical corporate headquarters in the
US, as with Arthur Andersen and McDonald's, despite their well-organised
distributed learning systems and regional training centres. In some cases, as
with Ford and Arthur Andersen, education and training functions are
fragmented across the company's operational divisions, despite company
policy to centralise and integrate the education program. As companies
become larger and more 'global' through mergers and acquisitions, the need
for centrally coordinated and directed training becomes more critical for
company survival, but ironically becomes more difficult. Hence FORDSTAR
for example, operates predominantly in the NAFTA area, although it has the

capacity to broadcast into Europe, which is 'resisting' its training approach, as is Japan (Larry Conley, FORDSTAR). Microsoft has best accommodated its global brand presence by abandoning its early 1990s attempt to establish an online education arm, Microsoft On Line Institute (MOLI), and now franchises training in Microsoft products to independent providers, colleges and universities. Army and Air Force, though developing their capacity to offer education globally, have limited interest in education beyond their own staff.

In summary, the majority of corporate Us operate mainly in the North American domain, even though the multinationals typically draw from wherever their employees may work, and none of the virtuals has as yet moved offshore in any significant way, with NTU's lack of success in Malaysia a good case in point. UoP has cachet thus far mostly with North Americans (although it has established a presence in Rotterdam and is contemplating moving into Spain), and UKOU is struggling to establish a foothold in the US. For the time being, the for-profits, and the corporatised universities, are cautious about overseas moves.

In her assessment of the state of globalised education, Mason (1998 p. 11) argues that she found not 'a single institution' which met all her criteria for a truly global enterprise: students from more than two continents communicating with each other, an express intention on the part of the teacher or organisation to attract international students, transnational course content, global support structures, more than one program or curriculum area, and more than 100 students in more than one program. None of the organisations examined in the course of this study met those criteria, although UMUC would appear to come closest in its arrangement with the Services, especially Army, although the students in this case are all US citizens serving overseas.

At the present stage, the organisations examined were still overcoming the problems of borders *within* the US, Canada and Mexico, and by various means: exception accreditation for Western Governors University, multiple region and state accreditation by UoP and DeVry. With no need for accreditation, corporate universities are more likely to be concerned about the cultural differences, student readiness for moves to independent learning, and US-centric language and social issues associated with moves to internationalise.

Rather than technology destroying borders, the tendency seems to be to establish 'traditional' international campuses. Massachusetts Institute of Technology is partnering with two Singapore universities to set up a branch campus, and several of Australia's universities, especially Monash and RMIT, have also pursued this approach. Other institutions combine distance education with block teaching as the basis of their international efforts. This strategy may be considered high risk for all but a few brand name universities.

Nevertheless, there are some estimates that the number of online higher education subjects available worldwide will be more than a million within a few years (Hibbs 1999). Indeed, the US Education Department's America's Learning Exchange already lists nearly one million online subjects. The 1999 Campus Computing Survey of 557 two- and four-year colleges and universities shows that the percentage of college courses using Web resources in the syllabus rose from 10.9 per cent in 1995 to 33.1 per cent in 1998 and 38.9 per cent in 1999, and that more than one quarter of all college courses (28.1 per cent) have a Web page, compared to 22.5 per cent in 1998 and 9.2 per cent in 1996 (Green 1999). Harvard University now spends $US8 million per year to maintain the online delivery of programs in its Business School alone (MacColl 1999). Various US-based web sites exist, with names implying global reach, such as the Globewide Network Academy and the World Lecture Hall, providing gateways to many online college and university subjects. However, Web pages are not subjects, and subjects are not coherent courses.Many of these online subjects are only accessible to students enrolled in the particular institution.

Nevertheless, these early signs of globalisation have rendered some form of international credit equivalence increasingly urgent. GATE is attempting this, and UoP has begun to establish a database which compares grading standards and institutions. At the time of interview this database had information on seven countries. University of Phoenix aims eventually at a three-week turnaround for international applications from individual students, at significantly less cost than the $150 ACE charge for credit assessment.

4.1.3   The rise of new providers

Corporate universities

Of Meister's 1 600 'corporate universities', perhaps 200 can realistically claim their education and training activities constitute more than corporate communication and acculturating HR units (Heeger, NYU; Baldwin, NTU). That is, the majority offer no programs which can be said to compete directly with degree programs, or even with the non-credit programs offered by universities, or more frequently, their corporatised Extension or Continuing Professional Education arms or their Department/Faculty-based professional programs. None offer a degree in their own right, although many negotiate credit towards a degree for their employees' participation in company programs. Relatively few offer external programs. Motorola University, one of the best-known, attracts only seven to eight per cent of total revenues from students external to the company. Many are adamant that their focus is on internal training. Sun's Educational Services looks both inward and outward, but its CEO Jim Moore says:

> *I don't allow anybody at Sun to even* think *about selling this externally (*
> *…) I don't think you can be a strategic corporate university and a for-*
> *profit organisation at the same time … IBM spun off their training group*
> *and it crashed and burned. I just think that makes them take their eye*
> *off the ball.*

Few assess their employees' learning according to educational criteria,
although business outcomes are certainly tracked, for instance, a rise in sales
and quality of products or a drop in accidents. And they have little capacity or
desire to enter the education arena: 'American business does not see education
and training as a primary function, and they'd just as rather outsource it'
(Mingle, SHEEO). Indeed, outsourcing, and buying access to online resources,
are amongst the strategies that corporates are using to accommodate their
educational needs. Nevertheless, some corporate universities have threatened
to withdraw all their employees from university courses and to undertake their
own training unless the curriculum is more responsive to business needs.

The global organisations that Sun's Richardson describes as wanting a single
large educational organisation that can deliver training internationally represent,
however, a relatively small part of the business sector. Small and Medium
Enterprises (SMEs) constitute the majority of US businesses, as in Australia, and
as both Baldwin (NTU) and Watkins (CHEA) point out, this sector spends little
on education and training; what they *do* spend is cut first in a recession. What
must be noted however, is that large corporations, unlike SMEs, are most likely
to be able to need and afford training units, or to offer tuition support for staff.
The employee of an SME is most likely to pay for his/her own education, and
depending on whether the influencing factors are convenience, price or
prestige, may choose a traditional, or for-profit provider. Both the trend to
outsource, and the situation in SMEs would seem to point to a major
opportunity for educational institutions. However, as Mingle (SHEEO) points
out 'everybody but the liberal arts colleges and the premier research institutions
is going after the adult market, the same direction that University of Phoenix is
at'. Even the premier research institutions are in the market for adult students,
as the activities of Harvard Business School demonstrate.

Of particular interest for this study is the narrowness of programs which the
corporate university offers its staff. As noted above, Motorola cut its courses
savagely over 1998/99, and the 'cafeteria of courses' approach is being wound
back (McCarty 1999). In the late 1990s, Sun's corporate university cut 45 per
cent of its courses to re-focus on strategic training activities.

Densford (1999 p. 1) claims that manufacturing and financial services 'have
traditionally been a stronghold for corporate universities'; however, this
investigation has found that corporate universities were widely represented in
all industry sectors. As might be inferred from the industries examined,
corporate education/training units were more evident in industries that relied
on speed to market of new products and in growth industries, such as
telecommunications, electronics, and software, where sales personnel must

have information about new product lines. Training therefore is often 'information about' a particular item, rather than analytical or strategic knowledge.

The extent of technology use varies across corporate universities, with many having a strong preference for instructor-led training, although Intel University and AT&T indicate that they will move towards a 70:30 online:instructor-led model in the near future. The use of technology is widely seen as best suited to the provision of 'right now' information—skills, facts and information rather than soft skills, managerial or attitudinal material. Yet most corporate universities, even in the IT sector, are only slowly moving into online training.

No corporate universities yet offer degree programs, as already noted. The time, effort and complexity of accrediting their programs is generally not commercially worthwhile: Olson (AAPL) comments, 'it would cost us $250 000 to get one course accredited'. Corporates have the option, should they want their staff to gain an accredited qualification, to partner accredited providers and still negotiate an input to the course, though most are still in the process of considering those institutions they might partner. Alternatively, they can offer the attraction of an acknowledged 'brand' in an industry area which does not rely on a formal qualification, as in the Microsoft instance. It should be noted, as is clear in the Microsoft Case Study, that Microsoft has chosen not to be a direct provider of its own courses, but to effectively 'franchise' the teaching. Further, for most large corporations, especially those in the 'knowledge industries', there is little to be gained in persuading universities to offer course credits towards a degree for internal company training: 'it wouldn't add any appeal to the classes we deliver … because almost everyone here has a college degree already' (Moore, Sun).

There is no question that some corporations are making a huge investment in their training activities. Yet a number of interviewees are sceptical of the expenditure: Thibodeau (Caliber) says 'billions and billions are spent but some corporations still pay lipservice to the quality of education and training'. Bryan Polivka (Caliber) agrees:

> *even at the more forward thinking companies (education is) something that's taking away from your productivity … individuals at corporations are looking for something quick … they want it to be delivered to them almost painlessly … if they could plug it in at night, that is what they would do … from the academic side it's different.*

The fragmented nature of corporate training/education initiatives makes it impossible to quantify the extent of such training activities, or to cost them accurately. For example, Arthur Andersen's annual education and training budget is $382 million, but CEO Olson suggests the organisation's actual investment would be at least 'double that', and would amount to 6 per cent of payroll, and results in an average training time of 133 hours per year per

professional in the firm (Arthur Andersen brochure, 1997). McDonald's estimates their figure at 7-8 per cent, because different levels of the company are responsible for training, down to the individual store. Each McDonald's store, region and division bears part of its education and training costs; individual businesses fund the training of 'crew members' and pay travel and associated costs for management staff attending operations courses.

Virtual universities

The research team has found no robust examples of a total virtual system, defined as an online operation with all services, including teaching, provided online. Rather it found many examples, in both the US and Australia, of various components of the tertiary education value chain which were available solely or partially online. NTU, the earliest of the broker-virtuals, has been forced to re-structure in the face of low enrolments and an over-crowded market: 'There's 1 001 providers, it's totally unstructured, other than a business bureau for charlatans; there's no control whatever in the training area. There's low entry cost so there's a hugely splintered market at the moment. The academic market is similarly split' (Baldwin, NTU). Our investigations found Western Governors University to be in re-structuring mode, following its failure to attract early enrolments. Even the USOU, the private arm of one of the undisputed world leaders, UKOU, has faced difficulties in persuading US institutions to adopt its methods and materials. Michigan Virtual University has a limited foundation budget, and is struggling to find an appropriate business model, and Koos (MVU) readily admits it 'puts a business focus on the courseware before it puts the educational focus on it … how many enrolments do we think we will have over a period of two years? What is the pricing model for that?'

As Mingle (SHEEO) says: 'The virtual universities were sort of like the first wave. They assumed the traditional campuses would not respond. (They) have. The University of Colorado Denver has more Internet enrolments than Western Governors University', though almost all of these are also on-campus students (Griffiths and Gatien 1999).

The research reveals an emerging trend to virtual universities formed by professional associations such as Michigan Virtual Automotive College and CUGN (see Chapter 3), but found no evidence that these were yet established or 'mature businesses'. Koos (MVU) says 'the struggle of a virtual is if you don't certify (and you really don't certify), you don't produce any courseware, then what value do you bring?'. For Michigan Virtual, the business model has to change from 'virtual-as-broker' to educational developer, 're-purposing' existing generic courseware to Web-courses pitched at the individual worker. Baldwin (NTU) is sceptical of the ability of such organisations to 'stand up';

NTU itself can be seen as such a specialty institution, since its clientele primarily comprises engineers whose registration relies on annual CPE credits and, as indicated, it is struggling.

However, Mills (1999) notes the success of an industry association which has a 50-year history of success in training, the American Hotel and Motel Association and its Educational Institute. The latter uses multiple media and face-to-face teaching and certifies Association employees. It intends to develop more online materials, and its success in this area may be greater because it is not a 'start-up' in new technologies. The limitation of industry virtual brokers may be that not all professional associations mandate CPE, and as is evident from Chapter 3, the broker model has no record of success in the US.

For-profit universities

The threat posed to conventional universities by the for-profit institutions is a different matter. University of Phoenix in particular, and DeVry, are meeting the needs of a niche market of adult students wanting convenient times and places for gaining degrees in vocational programs in minimal time. Being 'early to market', they have established and substantiated their position. In this, they have been assisted by the common practice of larger US companies to pay generous tuition fees in job-related degree programs, in tax breaks for some study programs, and in relatively recent moves to allow federal loans for part-time study. Nevertheless, as noted in Chapter 2, Marchese (1999 p. 2) estimates that the new providers, including distance educators, comprise only 2 per cent of the postsecondary market.

The question of whether the for-profits have taken market share from the traditional university sector or have arisen to meet a new market need will be considered further in a later discussion of student cohorts. However, there is no doubt that competition from the for-profits has stimulated changed practice in the traditional university sector. Mingle (SHEEO) says:

> We used to say 'The Russians are coming, the Russians are coming'. Now it's 'the University of Phoenix, the University of Phoenix, and you'd better get with it. What's this? Everything's offered from 10-2 on Monday through Thursday? Well, how about we open 24 hours a day, 7 days a week'. So people are using it as a lever internally for change.

One of the major observations to be made in relation to the business of education is the hectic activity in seeking partnerships, alliances, outsourcing of services and 'content', particularly between educational providers and technology companies. Amongst the institutions examined in this study, for

example, Keller Graduate School of Management contracts with eCollege for technical infrastructure, Andersen uses the vendor NetG for supply of 200 'technology-based' self-help courses in software applications. Western Governors University and Microsoft contract with Sylvan for testing services. Beyond the organisations examined here, any number of examples could be submitted as evidence; one example is the October 1999 strategic alliance between Pensare (www.pensare.com), a software and educational services firm, and Duke University's Fuqua School of Business. Fuqua already has a prestigious Executive MBA offered partially online (see Cunningham et al. 1998). Duke, in giving Pensare exclusive rights to develop and deliver a new MBA to its own corporate clients and to on-sell to other business schools, is presumably aiming to retain its right to recruit prospective customers through its capacity to examine and accredit the program.

Nevertheless, as Baldwin (NTU) notes, 'it's a crowded market'. He also notes that in all new providers, 'traditional training is still at least 85 per cent of what is going on; technology is by no means the centre of gravity of what's going on'.

4.2   Operations of the new providers

There are important lessons to be learned from the activities of the new providers, as well as the corporatised universities, although many of these lessons may not be transferable to the traditional university. So many socio-economic forces, including ideological pressures, now impinge on higher education that it is difficult to distinguish one from another. Teasing out these trends risks ignoring their inter-relationships and convergence. Nevertheless, we attempt here to analyse some summary trends.

The major differentiating factors between the new providers of education and training and the traditional universities are their:

- mission and purpose;
- governance and culture;
- curriculum and content; and
- student cohorts and staffing.

A fifth factor, technology, is differentially employed by each organisation according to its finances, the sort of 'knowledge' it seeks to convey, and its student cohort, but the kinds of technology employed tend to be similar.

4.2.1   Mission and purpose

Without exception, corporate universities see education and training as critical to their *business* success. There is no question that education and training has

to contribute to the 'bottom line' 'or we wouldn't be doing it' (Conley, FORDSTAR). Notwithstanding corporate commitment to learning, demonstrated in various ways through generous funding, direct reporting of the training arm to the CEO, or the rhetoric of company brochures, training and education remain subsidiary to the core business of the corporates.

In the for-profits such as DeVry and UoP, the mission is more directly 'education as a business', with business principles dictating every aspect of the relationship with the client-student, the object of exchange being a qualification/product. Hence business principles dictate a focus upon an under-served or neglected market, the adult student with a healthy disposable income, limited leisure, a need for convenience of time and place, and a need for personal attention.

Because the for-profits and the corporate universities which have an external client focus are attentive to their 'students' as 'customers', *professionalisation* of operations is one of their striking features. By this, we suggest that an organisation's approach to the education/training enterprise reflects its approaches to other parts of its business. These are corporations with global businesses and missions, making billions of dollars a year—or servicing those who work in such sectors. Considerable time, money and effort are invested into making as seamless a transition as possible between the work environment and the classroom. Thus, working adults studying at UoP or KGSM will walk into surroundings similar to their workplace; classrooms are located in office buildings, business parks, industrial estates and hotels. When staff from Arthur Andersen or McDonald's go to their corporations' training centres in St Charles and Oak Brook, Illinois, they are required to wear smart casual business dress. At UoP, the customer focus is evident in positions like Vice President of University Services, which includes the Office of the Registrar, Admissions and the Prior Learning Assessment Centre, which evaluates corporate training programs for credit to UoP, as well as individual's transfer requests. This client focus aims to facilitate the worker-student involvement in education and training. Attention is paid to a wide range of auxiliary or supplementary details in order to reflect this—whether streamlined enrolment and admission proc-edures, unlimited coffee, tea, coke and snacks at Arthur Andersen or McDonald's, or free lifetime access to the Internet, online library and online databases at UoP.

The for-profits' focus on 'student-as-customer' underlines their selling points of service provision, timeliness and convenience. KGSM finds a willing market on these very points, and there is little doubt that traditional universities have not been strong in administrative service to students in areas such as enrolment, counselling, resource provision, and, in the US context, financial aid/student loan organisation. Customer services consume a large proportion of the staffing budgets of most for-profit educational organisations. At DeVry Institutes, the proportion of equivalent full-time non-teaching to teaching staff is 40:60, based on 175 full-time employees and 750 part-time teachers, although it should be noted that at least in the KGSM arm, many admin-istrative staff are substantially involved in the teaching process via their own

part-time teaching, or as curriculum managers. Traditional universities in the US designate teaching staff as academic counsellors; at KGSM and DeVry Institutes, counselling is a specialised role, and staff are available 8am–8pm for advice and assistance in everything from course choice, financial advice, and housing (at the undergraduate arm, DeVry Institutes) to photocopying. Since almost all faculty are part-time, they are in any case unavailable for anything other than instruction.

Professionalisation of the education enterprise extends to the corporate investment in education and in resources, including technical staff support and physical facilities and resources. Quality Assurance processes are built into every step of the education experience from first inquiry to graduation. The education/training enterprise is also systematically structured and designed to be evaluated, with clearly defined processes, objectives and expected outcomes.

More significantly for the public sector, *all* exemplars, including the US Army and Air Force, are committed to small class sizes. Where used, large group lectures (for example at McDonald's, where they constitute only 20 per cent of class contact) are linked with small group workshops, team exercises, and self-study (the latter being approximately 50 per cent of learning time). Average class sizes at the University of Phoenix are 14–15 in the face-to-face program, with 8–11 students in online classes.

The exemplar for-profits, UoP and DeVry, operate on a distributed learning model: teaching is intensive, and conducted in a near equivalent to small retail outlets catering to 400 or so students per centre, with each centre fully staffed with learning advisors, but with few other facilities. Some public universities in the US are beginning to follow this model, using broadcast video or face-to-face classes, with the Washington State University having over 80 'branch campuses' (Albrecht, WGU). A similar small-scale Australian operation is Central Queensland University's outlets in capital cities, conducted via their partner Campus Management Services.

As late 20th century businesses, the corporates and for-profits have enthusiastically adopted management principles such as quality assurance and demonstrable ROI on all investment, including that in training. Quality assurance of the teaching and learning process is evident in:

- mandated teacher training (often unpaid), from 12 hours to 4 weeks in duration in the for-profits;

- centrally developed and mandated curricula and teaching 'scripts' that teachers are required to use—with limited degrees of interpreta-tion allowed to ensure consistency and standardisation of 'product'; and

- the constant monitoring of performance. Sometimes this is quite overt, as at KGSM where Centre Directors sit in on classes once a term; and at McDonald's where one-way mirrors are used in the face-to-face classrooms;

while at UoP transcripts of online classes can be reviewed if students complain that they have not received 'value for money'.

Corporates, for-profits and the Services undertake rigorous evaluation of their every process, from student admissions processes to teacher performance and adherence to the curriculum and lesson plan. With the increasing focus on the student as client, and the importance in the US of demonstrating QA processes to ensure (re)accreditation, the evaluation of teaching performance has become critical. At the University of Phoenix, 'if it moves, it's measured'. All for-profits require student evaluations for each subject taught. Yet, except in our exemplar organisations, the major type of evaluation performed across sectors is at the lower level of 'smile sheets', on-the-spot reactions to a training session.

Keller Graduate School of Management argues that its non-re-employment of a teacher would not result simply from a poor student evaluation, and that other considerations such as the student group itself, or the instructor's personal situation, would be taken into account. Nevertheless, Keller has a strict screening process in hiring staff to ensure a basis of competence in the first instance.

There is, however, in all exemplar institutions a clear nexus between the provision of compulsory instructor training and the acceptance by staff of evaluation as a function of continued employment.If training is provided for staff to fulfil the requirements of the job, then measurement of performance in the job is axiomatic.

4.2.2   Governance and culture

Coaldrake and Stedman (1999 p. 12) quote McNay (1995) as arguing that there are four basic management models:

the collegium, with loose policy and loose organisational control; the bureaucracy, with tight organisational control but weak policy direction; the corporation, with tight central control and relatively intrusive policy direction; and the enterprise, where firm policy directions are set, but organisational control is loosened to allow local organisational areas and individuals freedom to respond to opportunities in line with the overall policy objectives.

The present research found the for-profits strongly following a corporation model, and found Army and Air Force notionally bureaucratic, although Army displays strong policy direction in relation to its education activities. The corporate universities appear to waver between features of the corporation and the enterprise, with evidence of a commitment to intrusive policy direction in

education, but an inability to enforce it in the face of a culture of local decision making.

The US investigation makes clear the potential impact of organisational structure on operations and corporate culture, and the ability of hierarchical and bureaucratic organisations to coerce or compel continuous learning amongst their 'student body', and thus provide a strong motivation to participate in education activities. As indicated in Table 5, the exemplars fit into three distinct structural categories. UoP, Keller, Sylvan and Microsoft represent traditional hierarchical corporate organisations, the first three in the business of education; they therefore abjure one of the traditions of the conventional university, shared governance, which is a 'non-issue at UoP; they are employees for hire' (Mingle, SHEEO). McDonald's, Arthur Andersen and Ford are corporate organisations with a matrix structure or, in McNay's terms, they incline towards enterprise form. The latter have central business units which interact with owner-operators (McDonald's and Ford) or partner/member groups (Arthur Andersen). Such a structure poses its own complexities for training: Ford training staff suggest one of the difficulties they confront is that the corporate business is manufacturing, while the owner-operators are in the sales business. While this makes education/training from the centre an imperative in terms of attaining consistency of product/service, it also works against the easy imposition of a centralised training agenda, and a consistent quality assurance system.

The US Army and Air Force are both public bureaucracies, with a strong hierarchical structure which classically supports a centralised and consistent approach; in fact, because of the complex and diverse range of education/training activities undertaken, small 'fiefdoms' have emerged which complicate a 'whole of organisation' approach to, say, the introduction of technology-based delivery modes, at least in USAF.

Table 5: Organisational structure

Hierarchical Corporate	Matrix Corporate	Public Bureaucracy
UoP	Arthur Andersen	US Army
DeVry/KGSM	McDonald's	US Air Force
Microsoft	Ford	
Sylvan		

As Table 5 might suggest, organisational structure impacts on various parts of the education/training enterprise. Due to the top-down nature of the hierarchical corporate and public bureaucracy structure, it is possible to compel staff to undertake certain training activities or to control the timing and nature of curriculum. Thus, higher levels of curriculum control are evident in the hierarchical organisations. The positioning of—and responsibility for—education and training is more complicated in the matrix corporate organisations. McDonald's staff attending a course at Hamburger U during our

visit suggested those consultants working with owner-operators had to tread more diplomatically, for example, when it came to approaching training-related issues, than their colleagues working with McOpCo (corporate-owned) restaurants. The extent and quality of training/education programs in franchisee or partner businesses is to a large extent dependent on the local operator. As a result, corporations are likely to provide incentives to induce staff to attend training courses. Ford does not pay warranty service claims to dealers unless the servicing mechanic has completed a certain number of courses; and every McDonald's restaurant *must* employ at least one graduate of the Advanced Operations Course.

Meister (1998) argues that a characteristic of the exemplar organisation is a 'top-down' commitment by senior executives. Certainly the strength of, and corporate commitment to, education and training is linked to visible and vocal 'champions' of the education enterprise. McDonald's CEO Jack Greenberg is himself a graduate of Hamburger U, and usually attempts to address each group of students that comes into the Oak Brook facility. At General Electric, Arthur Andersen and Ford, senior executives are expected to share the lessons they have learnt with less experienced colleagues. The personal commitment of the CEO and senior management is critical since a corporate university is a medium-term strategic investment, whereas corporate cultures and reward structures are frequently oriented (particularly in the US) towards short-term results. In those organisations with long-standing training commitments, there has been a shift away from undertaking simplistic ROI calculations. Steve Kirn (Vice-President Innovation, Learning and Development, Sears University) notes that corporate universities are now embedded in organisations with a strong change orientation, and the need to micro-manage learning activities signals a lack of senior commitment. One recalls Mankarious' (Hamburger University) statement that he is not asked for ROI calculations.

Notwithstanding the impressive service approach of these organisations in their education activities, there is clear evidence of a fragmented approach to training in the corporates and even the public bureaucracies, if not the for-profits. Not surprisingly, considering the global reach and multi-billion dollar nature of corporates, training activities are functionally fragmented. Training remains linked to business and regional/geographic units in spite of the best efforts of centralised training arms. This is a consequence of the establishment of a central unit or division to develop, in the words of McDonald's, 'global core curricula' that would then be added to, or augmented by, point-of-need training identified locally or by individual businesses. The central unit would also be responsible for activities which would build corporate culture. However, Ford, Arthur Andersen, and McDonald's acknowledge that they cannot control, oversee or meet local training demands in their entirety.

4.2.3   Curriculum and content

The most significant aspect of the emergence of for-profit and corporate providers is the restricted curriculum offered compared to that of the typical traditional university.

With a few minor exceptions such as language programs (as at Ford and NTU), none of the exemplar corporate universities offer programs unrelated to the company's business activities except Motorola, now facing a reduction of courses from 6 000 to 1 000, as it reins in its corporate university in order to focus on core business programs. The for-profits focus on areas of strong job demand: popular programs are information technology, business, management, nursing, teacher education (in some states such as California, because of particular shortages), telecommunications and engineering. As Mingle (SHEEO) comments: 'the market won't support research, except in the most applied way, the arts and sciences, small institutions, programs and fields, and students who can't pay full price—low income students'.

Albrecht (WGU) observes that this reflects a more general trend 'away from arts as the goal of higher education to career … 'I want to walk away from college with something and a career'.

Accreditation in the US involves providing a certain quantity of study resources deemed necessary to support the relevant level of qualification, particularly in the area of library materials. This has deterred some for-profits from offering other than a limited range of programs. By restricting themselves to high demand courses in new disciplines such as IT and telecommunications, for-profits are able to meet market demand and avoid the high costs associated with establishing a library of texts. UoP offers an extensive electronic journal full-text database which meets most of the needs of its student cohort for relevant, focussed and recent materials. Electronic publishers have concentrated on these disciplines because they are high-demand areas and, because they are recent disciplines, there is little in the way of historical resources which students would need to access. There are also fewer of the copyright difficulties associated with earlier published materials. Hence narrow curriculum providers have (relatively) low costs of provision for library services.

Both curriculum and content are increasingly determined by the limited time availability of the 'earner-learner' and the 'learner-earner'. In meeting the needs of their adult worker students with domestic, work and community responsibilities, for-profit providers are accommodating a part-time student market with an instrumentalist, vocational approach to their learning needs. 'Learn tonight, apply tomorrow' was a comment heard constantly at KGSM, from both managers, teachers, and students themselves. Baldwin (NTU) agrees: 'many people want something that just helps tomorrow'. Students wanted a minimalist program: one attending UoP said: 'we don't want to waste a lot of time in fluff—or Humanities'.

There is a strong trend to the 'modularisation' of content via resources that students can access on demand, and accumulate towards a longer program. At its extreme, this is expressed in Ford's rubric of 'bumper-sticker sized bits of information', 'chunks' of learning, 'adult-learning sized bites' (Conley, Ford). GartnerGroup detects a move to envision learning provision as 'any time, any where, any place, any thing'. This implies (at least in the developed economies) the use of asynchronous media, in outlets convenient to the client, including shopping malls, aeroplanes, offices, homes, hotels, cars, and in domestic or international locations. It also implies that 'learning' no longer only connotes 'education' as a formal process, encompassing an established curriculum, but the continuum of learning activities from personal growth activities, through certificates or informal continuing education programs to doctoral level attainment, and in no pre-determined or hierarchical order.

A further strong curriculum trend in all sectors (including business corporations) stresses the acquisition of what is described (semi-apologetically because it is recognised as a poor term), as 'soft skills', generally described as teaming skills, problem-solving, communication and presentation skills, leadership, and strategic thinking. These of course are the very skills once considered 'generic' to the graduate, the attributes of the 'educated person', but they are also the skills identified by business as crucial to gaining the competitive edge, and recognition of this means that they are integral to every internal training program offered in corporations, and in the credit and non-credit programs of for-profit and not-for-profit educational organisations. Increasingly then, the 'Unique Selling Point' of the traditional university degree is being offered elsewhere, and in 'chunks' that can accommodate the 'time-poor' and the vocationally-oriented.

Formal education/training is increasingly perceived as one 'set' of more general learning strategies that encompass coaching, mentoring and exper-iential learning. For Arthur Andersen, the value of their programs at St Charles is the provision of a real working environment, a real team, and a real problem, which they could tackle with their respective individual skills. Staff are being taught to consider mentoring as part of their work responsibilities. Just as the universities are grappling with the diversity of their student popu-lation in a mass system, so are the corporates. Faced with wide variations in age, culture, educational preparation and experience, McDonald's have adopted the practitioner-teacher method to accommodate these differences, since their instructional designers believe that full-time teachers are unable to adapt mentally to a more diverse student group: 'We were teaching to a middle that doesn't exist. When you present to a middle that isn't there, you're going to miss the target every time' (Karen Tancrede, McDonalds). The practitioner trained in a pragmatic and facilitative teaching approach is seen as more likely to succeed in allowing students to learn experientially and from other students, and to accommodate the heterogeneity which increasingly characterises the corporation's employees.

Partly because the exemplar organisations are national (and some global) in their reach, and partly because they are so focussed on providing a quality assured outcome for their students, a predictable, consistent and 'standard' curriculum is the norm. This is variously described by critics as 'remote-controlled curriculum', 'pre-packaged' and 'scripted'. Keller was unapologetic was about this standardisation: the curriculum design process was meticulous, consultative (and included teaching staff), and highly responsive to end-client (industry-employer) and student needs. Indeed, corporate clients demand an input into the curriculum, a move resisted by the traditional universities; it is of some concern to Keller, but is enthusiastically embraced by University of Pheonix. Keller's practitioner teachers are allowed a 20 per cent deviation from the curriculum in their lesson plans in order to incorporate their own experience and their personal approaches to teaching, but they must cover all the curriculum. For KGSM and UoP students, this standardised curriculum is a great attraction because it allows them to move between campuses as they move house or work, without seeking credits or meeting 'time-in-institution' requirements.

A notable trend is the blurring of distinctions between education and training, except in the public bureaucracies. Indeed, most interviewees were perplexed at the question. Air Force and Army maintain a strong distinction, as do representatives of the traditional university sector, while for others, it is a non-issue, a division not worth maintaining because curriculum now contains such a high proportion of 'soft skills'. (It is worth noting here that soft skills such as analytical and problem solving abilities in fact feature as higher-order skills in Bloom's taxonomy of cognitive skills, and therefore lie on the 'education' rather than 'training' end of the spectrum.) For the most traditional of the for-profits, Keller, there is a distinction between education and training, but it is to do with breadth of curriculum. All interviewees claim that their own organisations offer both. Sears (University of Phoenix) puts the argument at its extreme:

> That appears to me to be a hangup that we in higher education have but people outside higher education don't really care. You could sit down and talk with deans of corporate universities 'what's education and what's training?' and 95 per cent of them will say 'who cares?' Their focus is real-ly on what does the workforce at xyz corporation need to be able to do to promote and enhance our global competitiveness in the next five to ten years. That's all they care about. Whether that's training or education in the traditional sense of education doesn't really matter to them. What skills do you have? What processes are you familiar with? What contribu-tion can you (make)? I think their view is maximising what they get out of the academic experience. It matters little to them if you go off and take an accounting course from Harvard or from Queens Community College. What matters to them is what you can do when you get back to the job … Was it worth what we paid for it? So the challenge

becomes how do we measure and how do we evaluate what value you brought back to the corporation for the money that we spent.

Hence for the corporate universities, and some of the not-for-profit virtuals such as Western Governors University in particular, but also University of Phoenix, the emphasis in curriculum is the acquisition of job competencies. Western Governors University's Chancellor Albrecht argues that competencies are what matter to employers.

Another trend, at least at the large corporation employing graduates, such as Arthur Andersen, is a belief that the undergraduate degree serves 'a sorting purpose', 'a licence to play' as an adult worker. Many corporates are more comfortable with the notion that they are best placed to provide postgraduate-as-acculturation programs, even specific vocational programs. Ideally, the graduate comes as a well-rounded individual with a proven capacity to learn, and can be 'trained' in particular vocational skills, whether accountancy or auditing (Olson, Arthur Andersen). This might in itself suggest that corporate education *within* the organisation will become a more prominent form of further education, since corporate education is tailored to proprietary knowledge.

Perhaps the strongest trend in the IT industry in particular is the elevation of certification programs such as the Microsoft Certified Engineer program, or Certified Novell Engineer, as an industry 'currency' of more significance than a postgraduate qualification. For General Electric and Microsoft, their own programs are the preferred qualification, but they are also portable within the industry and 'accredited' across national boundaries in a product which is rapidly becoming a standard global application. In this sense, they challenge the universal portability of a degree, albeit within one industry sector.

Our general observation is that much of the training provided by corporate universities is at the trade school/VET level. Watkins from CHEA noted that:

there is a major focus on employer-useful training, but at present it's mostly at the college level. It's done through partnership deals with com-munity colleges and that leads to arguments about who owns the cur-riculum … Novell and Microsoft develop curriculum that they lease to the community college to deliver. The colleges are suckers for the equipment. If they're smart, they get new, not end-of-the-line equipment. Plus they get faculty training. It's a good deal they think.

4.2.4   Students and staffing

Increasing access and demand, and the for-profit response to the business of education have dramatically changed both student and staff profiles across the whole spectrum of education and training activities.

Students

One of the most significant factors driving the changes in postsecondary education has been a shift in the age range of US students during the 1980s and 1990s: 'the traditional higher education age group's not traditional if traditional means majority' (McLaughlin, Office of Post Secondary Education). The adult student is the predominant target market of the corporates and the for-profits; UoP mandates that its students be working and over 25, and this is also Keller Graduate School of Management's target market. Both characteristics are correlated with moderate success in part-time study, if the program is related to career progression. And cost increasingly matters to school-leavers: this cohort ia also pressured financially.

We have categorised the two groups as 'earner-learners' or 'learner-earners'. An earner-learner is typically an older student in full-time employment, undertaking study either to create new job opportunities or for promotion. A learner-earner is a school leaver, aged 18–24, studying full-time and working part-time to pay for living and tuition fees. Both groups of students are, as a result of time pressures, demanding more convenience in terms of delivery place and time. Further, high tuition costs dictate that adult learners are more likely to envisage their educational expenditure as discretionary spending: 'the adult is a consumer: you're *buying* education' (Tim Ricordati, KGSM).

Hence a major shift is occurring in the *place* of delivery in for-profit organisations, with classrooms in industrial parks, business office complexes and rented premises in numerous locations in the same city and the suburbs to ensure that students do not have to travel far. Classes are offered between 6–9.30 p.m., in three-four hour blocks. At Keller Graduate School of Management and University of Phoenix, recently introduced distance delivery modes take this convenience aspect a stage further, with video transmission from a central site, or online courses being made available for the working travelling professional. Teaching terms are compressed: at KGSM there is a ten-week model, two-thirds the conventional university length, but terms are continuous through the year; at UoP, terms are five-six weeks. For the students, term compression and the hours of classes are a real attraction: 'they're time efficient', in the words of one UoP student. Equally attractive is the distributed system which allows transfer from one campus to another. At least in the case of UoP, another attraction to students is ease of credit transfer: 95 per cent of University of Phoenix students are transferring credits from another institution, and have accumulated an average of five prior learning documents, or 40 credits out of the required 120. These are not novice students, but nor are they necessarily successful students; the drop-out rate at KGSM was relatively high at 60 per cent, as students found it 'rigorous'. KGSM staff also believe the drop-out rate is linked to some students' need for non-credit short courses for job purposes, since the institution does not permit non-degree enrolment in its accredited programs. Students thus enrol for an accredited course, with no intention of completing the qualification.

As noted above, adult students in the US commonly have tuition paid (often on the basis on their grades per subject) as an employee benefit if their enterprise is a large organisation, and some tax concessions are available. In any event, University of Phoenix students in particular are convinced of the financial payback on their time and tuition investment: one stated that 'a huge percentage of people make a lot of money, a lot MORE money, after a year or two in this program'. Students' decision to undertake a formal qualification is a carefully considered one: a degree is worth more than training offered through their internal company programs because of its transferability.

Adult students at the for-profits appreciate studying with a similar cohort of working professionals, not full-time younger students 'just going to school on Mum and Dad's money' (Sharon Hulsey, Keller Graduate School of Management student). They also appreciated what they could learn from exposure to the companies other students represented: as one student pointed out, 'it's almost like working for these other companies because you learn so much about them. Best practices, what works and what doesn't … So it's almost like getting a 20 year career in a year'. Students, as adult working learners, are acknowledged as having valuable experiences to bring to class, and the teaching emphasis is on facilitating these experiences, rather than on the notion of the teacher 'owning' or espousing expertise. Hence the student becomes a 'participant' in a group learning process. Indeed, one trend in pedagogical approach is the greater emphasis placed on exploiting the worth of 'social learning' as the amount of staff contact declines where technology is employed or students are studying part-time: UoP promotes its class cohort approach to student learning and teaming, and a number of other online programs also promote this concept of group responsibility as a key feature of persistence for part-time students (see, for example, Advance Learning Network, administrator@advancelearn.net).

Earner-learners have the added advantage of maturity and a consciousness of their role as 'customer'. They demand 'value for money'. University of Phoenix staff consider them demanding because they stretch teachers to be relevant and skilful. They are self-motivated: one UoP student argued that the teaching staff 'need to set an objective and get out of our way … to tap into the positive sides of group think and really tap the brilliance of the 15 people sitting there'.

Staffing

The staffing profile of corporate, virtual and for-profit organisations differs markedly from that of traditional institutions, though it is similar to that of the US community college (Lee and Harmon, 1999).Two distinct groups of staff can be observed in the exemplar organisations: the professional trainer, often styled 'Vice-President of Learning and Professional Development', 'Director, Learning and Leadership' of 'Chief Learning Officer', and curriculum designers, and the larger group of part-time teachers. Arthur Andersen's schema of the personnel needed for successful learning lists only the following, with the term

'mentor' replacing 'teacher' or 'instructor': user/learner, project manager, project sponsor, instructional designer, content expert, graphic designer, programmer, media producer, evaluator, and coach. In the corporate universities, there is an increasing tendency to *import* professional trainers, as at McDonald's, where once trainers in HR units were promoted from inside the organisation, a practice which remains in force at Ford.

In relation to staffing, the trend to part-time teachers is related to the corporate and for-profit institutional mission for relevance to their students' vocational needs as much as to the business need for flexibility of labour. The practitioner-as-teacher model is characteristic of the exemplar organisations, including USAF and Army. Teachers are generally full-time practising professionals with Masters qualifications who bring their expertise to the classroom in a part-time teaching capacity. KGSM and University of Phoenix faculty are casual-contract working practitioners who are experts in their field rather than tenured or longer-term contracted university lecturers. Staff express satisfaction at being able to impart knowledge drawn from their experience, and students similarly express support for their teachers' practical approach: ' … like the fact that faculty members work in the fields that they teach (in) so I'm not at some other university where it's a graduate student teaching me who's never worked a day in their life and (who is) a professional student' (University of Phoenix student). The teacher-student relationship is a practitioner-participant model, with faculty viewed by students (and perceiving themselves) as 'facilitators' rather than 'instructors'.

Disaggregation or 'unbundling' of the teaching process is a common feature of all the new providers, as it has been of the public trainers like Army and Air Force since the introduction of Instructional Systems Design in the 1950s. This 'unbundling' of the teaching process into curriculum development, delivery of training, and evaluation of the teaching process, supports the practice of part-time teacher employment. Those who develop the curriculum and prepare the scripts are more likely to be full-time in the organisation, and might undertake limited teaching, but their main role is curriculum design and development, and the coordination of part-time teachers. In addition, their role is to validate the institution in the case of the for-profits, where a percentage of full-time qualified staff is required for accreditation purposes.Data on teaching staff turnover were not available.However, the unbundling of faculty responsibilities ensures that continuity of teaching staff is less significant than in a traditional university; in situations where the syllabus is centrally constructed and mandated, where qualifications are mid-level (Masters) and research is not required, teaching staff are likely to be relatively easily replaceable.

4.2.5   Technology

New providers, like traditional universities, still utilise new technologies primarily for securing administrative efficiencies; at University of Phoenix for example, 42 per cent of admissions decisions based on credit transfer are now

made automatically by University of Phoenix-developed software, the Online Reuse Database, which UoP may commercialise.

Levels of technology integration differ widely among the various exemplar organisations, as could be expected considering the diverse nature of the various businesses. Three different approaches to the integration of technology in training/education programs, and the choice of technology, seem to be emerging:

Content. What is the content I am trying to teach and what technology best suits the delivery of this content? For Ford, mechanical/electronic servicing, warranty issues and updates are crucial to its businesses, which are widely distributed in major towns throughout the US. Interactive voice and one-way graphics capability are required for this type of instruction. Therefore, its FORDSTAR one-way video two-way audio satellite service has become a major component of its education and training program.

Learning objectives. Some organisations start with their learning objectives and match these with a technological approach. Arthur Andersen has invested millions of dollars in a Disney-like step into the future. The organisation brings entire tax teams into its Tax Works theatre for strategic visioning exercises. The day-long process begins with the equivalent of a 'magical mystery tour' which confronts the participants with a presentation that shows them the way their business is changing and includes frequent glimpses of the world of a corporate tax manager, and the way his or her business interactions change. Eventually they see the manager in about 2011 leaving and interacting in a highly-technological world; telecommuting, with video-conferencing and synchronous up-to-the minute information about the company's tax obligations (and the Internal Revenue Service's equally up-to-the minute expectations of its obligations). At the end of the presentation, the teams are asked to consider what parts of the presentation they think are relevant (or otherwise). Many suggest the technological picture presented is the least relevant part of the presentation. They are then taken into an adjoining room, where all the technology featured in the future scenario is available for use.

Attempts to replicate face-to-face experience. Sylvan has extensively surveyed students, asking them what they like about the face-to-face learning experience and then applied those technologies which enable the students to best replicate elements of the classroom. The company is committed to interactive video in a classroom setting where students can learn together.

At the for-profits, the urge to replicate the classroom experience has resulted in a very low staff:student ratio. At University of Phoenix it is 1:9 students, at DeVry 1:20. Ironically, given the drive to reduce costs, this has increased the labour component of the business of education: 'it's a killer ratio as far as money goes. Most institutions are telling the public that they're putting more and more faculty effort into distance education' (Albrecht, WGU). Thus far, it would seem the productivity gains of disintermediation in higher education are

elusive; a recent University of Illinois seminar has found the same results, with successful online programs having low student to faculty ratios (*CHE* chronicle.com/cgi2-bin/printable.cgi, accessed 11/02/2000).

There is no evidence at the exemplar organisations that digital technology will become the sole delivery mode, notwithstanding the rhetoric of 'any time, any place'. The catalogue of offerings at Western Governors University contains only 40 per cent online subjects, and 40 per cent of those emanate from provider institutions; the majority are print and video (Taylor Straut, WGU). The majority of exemplar organisations report that technology-enabled delivery is best suited to technical content and that face-to-face classes are essential for the delivery of 'soft skills'-related courses. Face-to-face classes are also considered vital to promote the corporate culture and provide networking opportunities. McDonald's staff suggest that for many of its entry-level managers, a trip to Hamburger U in Illinois may be the first—and only—time they leave their home countries. Arthur Andersen similarly emphasises the importance of the St Charles experience for global networking. Sylvan, Keller and University of Phoenix students suggest the opportunity to work in small groups with presenters and participants employed at similar levels in local corporations, is one of the most valuable elements of their learning experience; they communicate frequently by email between classes, but would not sacrifice the face-to-face experience for asynchronous learning.

However, there are some noticeable patterns in technology-mediated delivery across the exemplar organisations, with an emphasis on 'distributed' delivery via 'mini-campuses', as noted earlier, and small-group learning, rather than the conventional distance education model of a solitary student using print resources. Even in the Army's new model, students are required to gather in a meeting room at a specific time and then participate in a learning experience, video or online, delivered from a central location. Often, a technical facilitator is on hand at the location to provide additional face-to-face assistance and to ensure the technology works. Interactivity is provided through the use of two-way audio and/or video capabilities. Technology-based but distributed delivery methods are employed by Ford Motor Company, Army, Air Force and Caliber, as well as at Western Governors University. University of Phoenix and DeVry 'distribute' learning through mini-campuses without much technology assistance.

Pat Mayers, Vice-President of Academic Affairs at DeVry Institutes and formerly with the Keller Graduate School of Management, sees his organisation as probably moving down a path familiar to many in established universities, that is, a mix of face-to-face and technology-based education.

> *We wouldn't be pulling out of face-to-face; that's part of the Keller experi-ence. The greatest interest is from people who want to be both, one course on campus and one at their convenience. There's more value in that than just jumping on the bandwagon of distance education. Traditional uni-versities are dead, we're told, but it's not true. I enrolled*

*in an online chat room, but it's not satisfactory compared with good
teaching. Why would I give up the dynamism of good teaching?*

Although most interviewees acknowledged that a mix of technologies and
face-to-face classes provides the optimum learning experience, several were
wedded to one or another form of technology, with Ford convinced that one-
way video/two-way audio via satellite would provide 'all the capacity we need
for the next five years'. 'Satellites are ideal for data broadcasting; you can send
giant files, I can send one with one stroke, you can't do that on the Internet.'
NTU is also convinced that satellite video 'remains the most efficient way to
deliver live, high quality, full motion courseware to technical professionals at
their work sites' (NTU brochure). Army, however, is equally convinced that the
Web will become their dominant delivery mechanism, while never replacing
the face-to-face initial or advanced training.

There is some evidence that particular industry groups incline to particular
technologies. The professional associations appear to prefer a didactic and
one-way delivery mode via satellite video, for example, the private and loss-
making LawyersTV provides courses to law firms and individuals to satisfy a
(mandated) 15 hours per year of continuing legal education. The majority of
major distance education courses within universities are also video-based,
sometimes with two-way video (though this is expensive), more often with
one-way video two-way audio, as at California State University and the
University of Southern California. The Lewis et al. (1997) report indicated that
a large proportion (39 per cent) of video-based delivery was directed at other
campus locations within a university system, and though their data dated from
1995, there is evidence that this tendency has persisted in the US. Hence video
is still the most common technology used to deliver content to remote
students—or by an organisation such as McDonald's which is in the sales and
service business and does not have staff at computers. McDonald's had tried to
deliver via satellite, but found time zone differences and working patterns
favoured the use of asynchronous videotapes. Hence the medium is largely
replicating the classroom, 'distributing' a didactic model of teaching and
learning.

There is also some speculation (McConnell, 1999) that US government
regulators may allow even for-profit distance education programs to qualify as
'public interest programming', in the interests of meeting the Cable and
Telecommunications Act requirement that satellite operators must reserve
4–7 per cent of their programming time for the public good. This could well
entrench video delivery as a standard distance education medium.

Nevertheless there is wide agreement that integrated multiple platform
delivery, rather than reliance on a single medium like the Internet or satellite,
will become the norm, if that goal is not fully achievable at present. For
example, Caliber and the US Army use systems which integrate broadcast

delivery, video-conferencing and online technologies to deliver learning to the distributed locations.

All organisations continue to report the high costs of developing and delivering technology-mediated content, higher than the delivery and development of face-to-face content. 'I've never seen technology come cheap, not good technology' (Watkins, CHEA). Coopers and Lybrand's 1998 observation was that projected costs of one web-based subject would be $US3 million, with $500 000 maintenance costs per year. Koos says MVU is working on 18-24 months as the maximum life cycle of a subject in the automotive and IT areas. Further, constant technical changes in software applications also entail high upgrading costs 'and most virtual universities haven't cottoned on to this yet'.

The corporates balance these costs against reductions in ancillary costs— reduced accommodation and travel expenses, as fewer staff need to travel to central locations, and greater convenience for earner-learners who, at Arthur Andersen, and Ford, do not lose revenue-generating potential by leaving their offices and workplaces. Staff at both corporates and for-profits report that management is driving a strong technology agenda to deliver cost efficiencies or, as at DeVry, to 'position' the organisation strategically.

There are undoubted benefits in this agenda: where organisations exhibit a genuine commitment to improving education through the use of communication and information technologies, the design and development process entailed enables a rethinking of the structure and format of courses, with a rationalisation of course content (see Army and Air Force Case Studies), and content-rich information moved into independent study materials. Face-to-face 'learning events' are shorter (for example, one month in residence reduced to one week) and it is generally planned that face-to-face sessions will be situated between technology-enabled delivery and independent study modules. Students are therefore expected to have worked through a certain amount of the material before the face-to-face learning event (as in conventional university programs) and to continue learning back in the workplace.

Corporations have an obvious advantage when it comes to supplying or requiring standard platforms, costly computer programs and Internet access— unless, like McDonald's, they are in a service business which does not require computer usage. For example, the cost of Ford's educational satellite service, FORDSTAR, while significant, is not an issue, because the company's motor dealers had previously utilised video satellite for data transferral and communication—and the educational service 'leveraged' the satellite investment to provide a value-added product. All dealers have the required platform, and usually have one or two televisions on their premises—in a lunchroom and meeting room for example—so staff can easily access the regular programming.

As noted earlier, there is a heavy reliance on contractors for the development of tools and technology-based content, and a tendency to contract in expertise

as well as purchase proprietary commercial packages supported by a reliable vendor, rather than develop templates in-house. Partly this is a result of what GartnerGroup sees as a concern with ROI, especially in relation to communication and information technologies, previously an unquestioned expense in many businesses. Zastrocky (GartnerGroup) argues that 50 per cent of decision-making criteria about an IT product are 'tied to the vendor's ability to stay in business and keep you going', with only 10-15 per cent criteria being the cost of the product or service, and the same for functionality. The choice of reliable vendors has tended to standardise platforms further, and benefit early entrants like Blackboard and Lotus. A further trend is the strong move to alliances and partnerships between educational institutions and technology companies. For some educational organisations, particularly those that are very focussed on their core business, such as Keller Graduate School of Management, outsourcing the technology was vital. 'We're not a software company; we're an education company' (Ricordati, KGSM). Their decision was a pragmatic response to technical hitches in a pilot: 'We learned very quickly that owning our own technology was not the best approach to delivering courses online' (*Request for Institutional Change*, p. 14). The KGSM/eCollege partnership is a turnkey solution, in that eCollege provides instructional design, instructor and student support as well as all technical infrastructure and student evaluations of the delivery mode.

Notwithstanding their enthusiasm for online delivery, what is clear from our investigations is that virtual, corporate or for-profit institutions have no more mastered the potential of technologies to change their educational model than have traditional universities. As Sennett (1998 p. 96) notes: 'it takes institutions a long time to digest the technologies they ingest'.

4.3   Issues

4.3.1   The business of education

One of the most interesting issues to emerge in the course of this study is the massive investment corporations are prepared to make in terms of time, staffing and funding in curriculum design and materials development. Marchese (1998) cites Michigan Virtual Automotive College as budgeting $10 000–12 000 per class hour to design and build a course; for Arthur Andersen, the per hour budget was $80 000 in 1998, and a full 45 hour course had a budget of $4 million. Few individual universities can commit such a level of funding to a course, notwithstanding the large amounts garnered from benevolent foundations in the US where, for example, the Alfred P. Sloan Foundation has gifted $15 million to 40 campus projects to develop asynchronous learning networks (Marchese, 1998), a donation inconceivable in Australia.

It was difficult to glean costs per student from any of the organisations investigated, since this would reveal profit per student, but Ruch (1999) argues that DeVry spends $6 940 to educate a student over two terms, whereas a public state university spends $17 026. The cost difference stems from provision of libraries, full-time staffing, technical infrastructure costs, research and community activities. It is evident that the costs of supporting a traditional comprehensive institution within existing expectations are high indeed. The questions for government and the public then are whether the comprehensive university provides a unique service that the for-profits will not, and the extent to which the public purse should support that service.

Many issues arise from the growth of education and training as a business, and the converging interests of business and the use of communication and information technologies for education and training purposes. It is outside the scope of this study to consider these issues in any detail, except to note that opinions are polarising around the philosophy of education, and the meanings of 'university' and 'degree'. There is a clear understanding of what is driving the growth, but scepticism among some in the education sector:

> *The sleaze bag operators are selling hope, security, protection, because people know no job is for life, and they're asking 'how can I protect myself?'. So we have become credential happy; the pressure is for certifica-tion, to put a piece of paper on the table that says 'I've done more than the next guy'.*

> *(Watkins, CHEA)*

Tom Reeves (1999), one of the foremost pioneers of educational technology, has also become a sceptic, arguing that corporate interests simply 'want to catch the teacher in the box; they say "don't change your message; change your medium"', without considering how best to use communication and information technologies in education.

That caveat aside, one of the conundrums for the corporatised university seeking to exploit demand for the vocational subjects targeted by the corporate universities and dot.com educational service companies, is that these companies, with their commercial exposure and their ability to bundle IT software courses at competitive rates, are likely to prove more appealing than universities to corporate and individual clients. Most adults undertaking such courses appear not to want credit; they are 'JIT learners'. 'How to use' courses may provide bread and butter for the community college/VET sector, but are unlikely to do so at university level.

Another issue which is pertinent to the business of education is the extent to which a mass global education provider might appeal in an economic environment in which mass markets are supposedly fragmenting and becoming 'more volatile' (Edwards, quoted in Mason 1998 p. 7). While modern technology offers the potential of tailoring courses to meet individual learning

styles (Coopers and Lybrand 1998), mass global commercial enterprises have until very recently profited through standardisation of product. Although Ford and McDonald's hope to customise cars and hamburgers in their new business models, this strategy comes at a cost to the consumer, and has not yet been proven as a global business strategy. 'One size fits all' produces economies of scale, but the potential of online technologies is customisation to individual needs. The high development costs of education materials suggest that the former will prevail at for-profit organisations.

4.3.2   Borderless education

While the globalisation of the economy might suggest an inexorable progression to globalisation of higher education, concentration of 'enterprise education' into global companies with the reach and brand recognition of Disney or Microsoft appears unlikely in the mid-term (10–15 years). However, Gibbons (1998b, p. 73) suggests another avenue for global reach of the traditional universities: the growth of alliances and networks through standardised curriculum. Gibbons argues that the universities are in any case being absorbed 'into a distributed knowledge production system' in relation to teaching, where previously this global activity had been confined to research and discipline knowledge. It is notable that globalisation appears to have developed two quite distinct meanings in relation to education: for Scott (1998) and many of his contributors, the term connotes internationalisation of the curriculum and the student body. However, the term may be used, and is used here, with its economic and social implications of a free-trade system. Hence more relevant literature for the purposes of the present study may be found in the (somewhat partisan) publications of Currie and Newson (1998) and Marginson (1998), and in the work of Alexander and Blight (1996) and Mason (1998).

There is no shortage of predictions that education will become a 'distanced' activity within five to ten years. Oracle CEO Larry Ellison repeatedly argues that 'a few superior superstar professors' will 'teach millions and millions of people' worldwide (CNET NEWS.com, 1/6/98). Zastrocky (GartnerGroup) lists five constraints to the fulfilment of such predictions:

- current tenure and salaries structures;
- inadequate technical support;
- fear of change by staff and students;
- intellectual property and content 'are not readily available or easy to find'; and
- leadership problems.

However, several commentators see early signs of borderless education: 'the most globalised sub-sector is fee-based training, centred on the North American universities, producing credentials with global currency … the early stages of a global university system (is) in formation' (Marginson 1998). Some of the for-profit providers that are examined in this study mention global reach, pointing to numbers of international students enrolled. As noted earlier, in no case were these numbers substantial, indeed they were considerably fewer than the international enrolments of many conventional higher education institutions. In these respects the situation was little advanced from our 1998 study, which noted a number of impediments to the globalisation, or even internationalisation, of higher education. These impediments, further to those identified by Zastrocky, can be summarised as follows.

Practical issues

– profitability, availability of markets;

– commercial need to focus on 'core business' and selected markets;

– strength of local recognition of existing institutions;

– difficulties in working across language and time barriers;

– differences in student access to IT infrastructure;

– cultural differences; and

– availability of suitably skilled staff.

Pedagogical issues

– quality of distance or IT mediated education without strong local support;

– need for local relevance; and

– cultural differences in learning styles.

Policy issues

– local accreditation and consumer protection requirements; and

– differences in public funding policy.

Personal issues

– local variation in demand, eg, for modularised courses or for convenience/personal tailoring.

The effect of these factors is highlighted by Mayers, DeVry Institutes:

> *Almost every day, certainly every week, we get approached to partner with an overseas institution. It's easy to get excited about the global econ-omy. We were intrigued. But let's pay attention to getting things right in the US. Far away, it would be difficult to organise. I wouldn't rule it out from a business point of view, we're looking for opportunities, but there's no real thrust to say 'let's run off and get something overseas'.*

Mason (1999) concludes that such factors are severely inhibiting borderless education within the pan-European context, and further illustration is provided by the experience of the UK Open University, which has had some difficulty in establishing operations in the United States. Key concerns included the difficulty in adapting UK subjects to the US credit-based course structures, and complaints from US academics that 'the course materials rest too much on examples from the United Kingdom that would not be understood here' (Trombley 1999, p. 6).

Conventional universities also provide examples of the difficulty in implementing effective transnational education. A number of universities in Australia and the United Kingdom have established offshore campuses, and it is apparent that quality assurance ranks high among the various issues to be addressed. While offshore quality assurance is possible with good management, strong entry standards and sufficient investment, there are several examples of failures which illustrate the difficulties involved (Tysome 1998). It is possible that US and UK universities will devote greater energy and resources to developing overseas student markets, possibly encroaching on the new and emerging markets of importance to Australian higher education. Such activities, however, were not investigated as part of this project, since they would fall within the scope of existing higher education institutions and systems.

The issue of intellectual property and content is critical. For Dolence and Norris (1995 p. 48), technology is the simple answer: 'point of sale learning will solve IP questions'. While it is tempting to regard the university simply as a manifestation of an Information System, this trivialises the complex nature of knowledge 'possession' and generation. At the organisational level, the issue is how to capitalise on the intellectual capital of staff. The prestige of a traditional research and educational institution is directly related to the perceived quality of its staff, whereas the for-profits' brand distinction is practising teachers from prominent corporations (especially at Keller Graduate School of Management), and convenience and consistency of service. No institution today can employ 'star professors' in all areas of its curriculum, and in so far as higher education will become 'borderless', it may do so through consortia of universities which can operate as one institution in negotiations with 'purchasers' of IP or content. Hence we may see the Universitas 21 consortium as less a loose arrangement for university staff/student exchange, than as a strategic corporatising move to assemble a single agency which a carrier such as News Corporation might approach for content. News Corp.'s recent announcement regarding its interest in education should be seen in this light, as carriage rather than content development, the latter being what Baldwin (NTU) describes as the 'high risk, expensive' aspect of education. Telecommunications companies are desperate for content to fill their bandwidth, and sometimes to assist in meeting regulatory requirements for a percentage of public interest programming. Many universities may be increasingly tempted to supply such content, although it is possible that their tenured staff may not cooperate. However, corporatised arms of universities will simply

contract out to individuals, although they may then be deprived of the star professors commercial carriers will want.

A further copyright issue concerns partnership arrangements with service companies:

> *eCollege owns the specific presentations of graphics in courses it delivers for universities, and a staff member may not use the graphic in a non-eCollege version of the subject. Further, if a university decided to cancel the contract, it would have to re-design its course entirely, since eCollege owns the licence to the program.*

> *(Blumenstyk 1999)*

Whether borderless education will be profitable to the organisations concerned remains a moot point, and this will be the final test of globalisation. None of the organisations involved in this study would reveal cost and revenue details of their distance or online programs, and Heeger (NYU) and Watkins remain sceptical: 'they won't talk about it; they say external studies programs 'have a latent value' … even the universities are operating them like a business at the margins' (Watkins CHEA).

4.3.3   International trade agreement and higher education

International trade in services emerged as an issue in the Uruguay Round of the GATT (General Agreement on Tariffs and Trade) multilateral negotiations, completed in 1994. With world services exports totalling about $US1 trillion in 1992, accounting for one-fifth of world exports, and with an annual rate of export growth of 15 per cent between 1982 and 1992, it had become apparent that any commitment to global trade liberalisation would have to incorporate international trade in services. Under the General Agreement on Trade in Services (GATS), signed in Marrakesh in 1995, two general obligations that are binding upon member countries were agreed:

- the *most-favoured-nation* principle, whereby members agree not to provide preferential trade treatment to one member country over another, subject to conditions arising from the existence of regional trade agreements; and

- the principle of *transparency*, whereby all member countries agree to make all other member countries aware of domestic regulations that affect the capacity of other member countries to export services, with an aim of making any forms of assistance to domestic providers as transparent as possible.

Educational services were not a high priority area in the Uruguay Round, but are coming to be of greater significance in the 'Millennium Round' of

multilateral trade negotiations commenced by the World Trade Organisation (WTO) in Seattle in November 1999. Of the five sub-sectors of education services (primary education, secondary education, higher education, adult education, and other education services) it is the higher education sector that is both the most internationally traded, and the sector where countries that are signatories to the GATS, including Australia, have sought exemptions from the overall GATS framework. The Australian Government has flagged that it will seek to encourage liberalisation of trade in services and greater market access to the services sectors of member countries, including education services, and will demand a comprehensive approach to negotiations, where member countries are required to propose specific exemptions to the general framework (the 'top down' approach), rather than nominating in advance the sectors they wish to be involved in the WTO GATS framework (the 'bottom up' approach) (DFAT, 1999, p. 259). Given that earnings from the export of Australian education and training services contributed $3.018 billion to the Australian economy in 1998, making education the third most valuable of Australia's service exports and making Australia the world's sixth largest exporter of education services (Australian Education International (AEI), 1999), such a standpoint is not surprising.

The extension of the general obligations of the GATT to trade in services through the WTO GATS presents three significantly new sets of issues. First, the impact of the WTO GATS upon domestic policy-making is potentially broader than the GATT, since it deals with investment in services and movement of persons as well as trade in commodities, with implications for the foreign investment and immigration policies of member nations as well as tariff and trade policy implications. The WTO GATS agreement defines trade in services broadly, to include:

- *cross-border supply* of a service (Mode 1);

- movement of the consumer to the country of the supplier, or *consumption abroad* (Mode 2);

- investment by the supplier into the country of the consumer, or *commercial presence* (Mode 3); and

- *movement of natural persons* employed by the supplier to the country of the consumer.

Second, the WTO GATS framework encompasses, and in many respects promotes, a transition within the services sector from a system where state monopoly provision and provision on 'public good' criteria, or strong regulations to manage competition on the basis of 'public service' principles, are being displaced by principles of competition policy, market orientation of providers, trade liberalisation, and deregulatory government policies including the privatisation of state enterprises. Education is in this respect a mixed public/private good in terms of both the role of national governments in its development and its modes and principles of provision, making the question

of the extent of application of principles of trade liberalisation and national competition policy an area of political contest.

Third, the mixed public/private good aspects of education are overlaid by the extent to which it is deemed to have a centrality to national social, cultural, and information policy goals that have the potential to be compromised or undermined by multilateral trade commitments under the WTO GATS. In the Uruguay Round, the major area of disagreement in this respect was in audiovisual services, where a longstanding debate about whether a 'cultural exemption' should exist for films and television programs under the GATT was played out through disagreements between the member nations of the European Union (then the European Community) and the United States (Kaplan, 1994). This project team's 1998 study on New Media and Borderless Education found that so-called 'cultural imperialism' and the question of a 'hidden curriculum' that promoted the ideas and values of the exporting culture were matters of concern among policy-makers in Asian countries (Cunningham et al. 1998).

Of the three modes of trade in education services, the most significant is *consumption abroad* (Mode 2), or movement by students to other countries to undertake study programs. This is an area where few nations have sought GATS exemptions (partly because it would entail restricting the rights of national citizens to travel), and where Australia is a leading exporter. The establishment of *commercial presence* (Mode 3) through 'offshore campuses' or by 'twinning arrangements' between exporters and local providers, has been a significant area of growth in the 1990s, but is also the area where national regulations present the most significant barriers to international trade. In 1998, there were 147 130 overseas student enrolments in Australian education institutions, of which 73 417 were enrolled in higher education. While the majority of these enrolments were studying on university campuses in Australia, and thus within the GATS category of consumption abroad, there were 20 645 students enrolled in offshore campuses of Australian universities. These students constitute the major commercial presence of Australian higher education institutions overseas.

Cross-border supply of education services (Mode 1) worldwide is an area expected to grow significantly with growing use of the Internet for international distance education. Australian higher education institutions will also seek to play a significant role in this area. One indicator of the significance of cross-border supply (Mode 1) of higher education can be gleaned from the University of Southern Queensland which, in 1999, had 2 956 students, or 15 per cent of its total student population enrolled in offshore distance education. DETYA has estimated the number of overseas students completing their higher education degrees by external mode at 4 985 in 1999, constituting 11 per cent of overseas students, 12 per cent of external students, and 1.8 per cent of total student enrolments in Australian higher education (DETYA, 1999).

4.3.4   Mission and purpose

It is apparent that the major difference between corporate, virtual and for-profit institutions and the traditional university lies in their differing missions and purposes in relation to commercial return on their activities. Yet as we have seen, the corporatised university has increasingly turned to full cost recovery and profit- taking as a feature of teaching in areas designated as Continuing Professional Education, such as postgraduate Certificate and Masters programs. This aspect of corporatising education activities is not uncontentious, even in the for-profits such as KGSM, where 'corporate education' and 'corporate training' 'are tending to collide' (Munro, KGSM). Marginson (1998) notes: 'the shift to the market as the organising framework for education policy changes the character of the educational goods that are produced'.

What is noteworthy is that even the for-profits which see the public sector as a competitor do not deny the different mission of traditional universities, that is, 'to develop citizens' as Mayers (DeVry) says, a reflection of Dewey's abiding influence in US society, whereas DeVry's focus 'is on outcomes; it's more circumscribed'. Ricordati (KGSM) is adamant about the 'larger purposes' of the public system: 'the reason they get public funding is that they're there to serve the needs of the entire state … It's my hope as a citizen that their role doesn't change'. Indeed, it is evident that there is wide agreement with Peter Karmel's observation (shared by Coaldrake and Stedman, 1998) that Americans:

> attach importance to the personal cultural/intellectual benefits and to the social functions of higher education as well as to the economic one; in Australia, in contrast, emphasis has been placed on the economic pur-poses of higher education as workforce preparation'.

(DeBats and Ward, 1998, Foreword)

4.3.5   Governance and culture

Universities, both in teaching and research, are being exhorted to reform themselves to reflect new ways of producing and communicating knowledge. So-called 'Mode 2' approaches, which tackle practical problems through the development of transient, transdisciplinary teams drawing on expertise from within and outside the university, have been the subject of considerable study and interest in recent years (Gibbons 1998a). Such approaches parallel the operations of virtual organisations studied in the business literature, where 'companies cooperate spontaneously in order to exploit temporary market opportunities' and where services are tailored to individual clients through 'interaction between legally independent companies to create a common value chain and distributed, predominantly information-based processes, resulting in location-independence' (Siebers and Griese 1998, pp. 169–170).

Paradoxically, while several of the organisations examined here (University of Phoenix, WGU) utilise some Mode 2 approaches in terms of market

opportunities and client service, their curriculum development and internal cultures reflect more traditional, indeed Fordist, practices, such as disaggregated task roles, high-volume orientation, centrally developed 'product' in the form of standardised curriculum and little choice for the student-consumer or delivery agent-teacher. University of Phoenix's online degree requires very rigid adherence to a weekly schedule. There is little attempt to customise curriculum for the individual student, though corporate customisation is encouraged.

Judith King, Chief Executive of the Australian Services Network, states that the challenge for universities is to 'maintain the quality and integrity of their courses while at the same time adopting the flexibility and management practices demanded in the market at large'. Her list of challenges includes:

> *switching from the mass market for tertiary education to niche markets; turning competitors into partners. Supplying skills in the knowledge econ-omy is big business, and competition is reflecting that. Universities will also have to adjust to lifetime learning with more flexibility. Individuals who are part of knowledge industries will continue to acquire knowledge as a norm. They will look for solutions from institutes of learning that treat them as a customer—and create courses for the market of one.'*

(King 1999, p. 8)

For the most part, the exemplar organisations studied here were not virtual organisations or Mode 2 operators, although they were undoubtedly more able than many conventional universities to exploit new market opportunities and to draw on external expertise. Where some aspects of virtual organisation were evident, as in the matrix corporate structures of McDonald's or Ford, the emphasis was on standardisation rather than tailoring to local conditions. A similar emphasis was found in other new providers; both the University of Phoenix and Keller Graduate School of Management focussed on consistency and standardisation of content and delivery.

4.3.6 Curriculum

Given the work and domestic commitments of most adults, and the 'time poverty' felt by many people nowadays, it is not surprising that convenience of location and time scheduling, as well as brevity of a study program, or compression of study periods, have a major appeal to adult students. Levine (1999, p. 10) comments that these time-poor and instrumentalist-oriented learners want 'a stripped down version of higher education'.

At a fundamental level, issues of curriculum and content revolve around the nature of knowledge in a postmodern market-based society and, *ipso facto*, the role of 'learning' within an organisation, be it corporation or university.

For some commentators, the question is: 'in learning, how does power constitute what is taken to be relevant and appropriate knowledge in devising curriculum' (Clegg, 1998 p. 13), and the distinctiveness of organisational (as opposed to individual) learning. Clegg also makes a useful distinction between 'exploitative' and 'exploratory' learning in an organisation, exploitative learning being procedures-based, short-cycle and task-focussed; by extrapolation, its delivery method is training. In contrast, exploratory learning is more open-ended, 'just-in-case', risk-encouraging; its delivery mode is mentoring. Summarising Leventhal and March (1993), Clegg states:

> *From the managerial point of view, too much exploitation risks organizational survival by creating a 'competency trap', where increasingly obsolescent capabilities continue to be elaborated; equally, too much exploration insufficiently linked to its exploitation lead to too many undeveloped ideas and too little distinctive competence. What is determined as a rational balance of 'exploitative' and 'exploratory' learning, in any organisation, will depend on the distribution and retention of power and knowledge constituting that organisation.*

What Clegg ignores in this assessment is the *purpose* of the organisation. In the Case Studies presented here, it is acutely obvious that in Army, 'exploitative learning' must predominate, 'because if you don't do what you're trained to do, you're dead', whereas for Microsoft, 'exploratory learning', like organisational style, is commercial advantage. Technology companies promote their industry as characterised by 'experiment and wrong turns' (quoted in Sennett 1998 p. 62). Yet it is debatable whether a university curriculum can be governed by the same *modus operandi*. Nevertheless, these are useful constructs in examining the conception of learning in organisations declaring themselves 'learning organisations', because they affect the nature of knowledge engendered, just as the very distinction between organisational (ie, group) learning, and individual learning needs to be factored into an examination of the corporate university.

In the Western world where intellectual not physical capital is increasingly dominant, a further aspect of the nature of knowledge demands examination. What Clegg (1998 p. 8) terms 'professionally tacit knowledge' or experientially-derived problem solving, becomes codified and then commoditised quickly for commercial advantage. Gibbons (1998b, p. 74) sees the contemporary approach as a 'problem construct', which is replacing the old 'disciplinary structure'. What is in essence operational intelligence becomes an object of study in itself as the discipline of 'business'.

Whereas the site of learning is properly located in the individual, such terms as 'the learning organisation' characterise the organisation as an animate object capable of 'learning'. Operationalised, the 'learning organisation' translates into 'learning for the company'. KGSM's Overbye is alert to the dangers of practitioner teachers perpetuating current practices and procedures 'just

because everybody's doing quality management in a particular way'. However few others of those interviewed considered this issue.

Traditionally, university curriculum has implied a coherent and thoughtful integration of knowledge, skills and attitudes with the dual aim of imparting a specialist understanding of a discipline area and developing an individual to his/her full potential. It is apparent that in response to staff demands to teach specialist topics, and student demands for wider choice, universities have often abandoned coherent curricula for the 'smorgasbord' of subjects for which WGU has been criticised. Yet, as Mayers (DeVry) says, 'industry won't accept total student choice', nor 'student-led classes', and the insistence of professional associations on set curricula in Accountancy and Counselling, for example, tends to support this.

One of the curriculum issues constantly raised in the course of this study is the potential of crediting company training towards formal university courses. There is a deal of evidence to suggest that many students are uninterested in this possibility, but there are other considerations as well. As suggested earlier, the content-heavy curriculum which canonised a body of knowledge reinforced the power and prestige of the formal education system. However, 'learning-to-learn' has now become a guiding educational principle and undercuts the privileging of this canon, and hence of a university curriculum. It also raises the question of what knowledge can be considered integral to a discipline, and whether Laurillard's (1993) contention that the purpose of teaching is to engender a common understanding of a discipline between expert and neophyte is now possible, or feasible.

The increasing use of credit transfers from work training programs and competency-based institutions may disrupt curriculum coherence, with a disjunction between practice-based knowledge, and theoretical knowledge, and a questioning of the skills which can be attributed to a graduate of a particular university. At issue here is the notion of 'seamless articulation' between various providers, and whether this is to be encouraged. Recognition of Prior Learning, while desirable in an efficiency sense, may not make educational sense if curriculum is considered holistically.

As much for this reason as for the loss of revenue involved in allowing a high level of credit transfer from 'cheaper' community college subjects, KGSM strictly limits credit to three subjects. Winston (1999) suggests this has serious budgetary implications for comprehensive universities which subsidise their low enrolment liberal studies programs from enrolments in more popular units subject to 'cherry picking' by corporate or for-profit firms.

In contrast to the notion of education as development of the individual, the corporate training units tend to operate on a deficit model of training. For Ford, the first question is 'what is the performance deficiency that we want to correct, and is it worth correcting?' (Conley, FORDSTAR). For IBM, the focus is also on identifying and correcting 'skills gaps' and 'knowledge deficiencies'

(*Corporate Universities Xchange*, 5 (5), 1999, p. 5). Curriculum is also affected by the motivation of students to learn: working with a 'captive' employee/student demands modification of content and teaching style. For many corporate universities compelling employees to attend training of various sorts, one of the key components of the curriculum has to be 'fun'. Indeed, Corporate Universities Xchange 'Model for Launching a Virtual University' (*Corporate Universities Xchange* 5 (5) 1999, p. 4) includes 'Entertainment Value' alongside nine other elements including Measurement, Content Development and Instructional Design, and Ford insists on games and quizzes in its instructional design.

As service industry employment has grown at the professional level, there has been a growing demand for employees with general cognitive skills: mathematical and verbal reasoning ability, problem-solving and interpersonal skills. Although corporations sometimes criticise undergraduate programs for not producing graduates with such skills, which are considered essential to business, US undergraduate programs in fact typically provide more opportunity for the development of those skills than the typical Australian vocational degree. DeVry's undergraduate program in Telecommunications, for example, includes a state-mandated general education component of 25/134 hours in Communication and Social Sciences, areas of the curriculum which generally develop soft skills. Employer training arms are focussing on these skills in their company training, though it is acknowledged that educating in this area is an inexact science: 'little is known about how to develop and assess these general cognitive and behavioural skills … but most employers associate them with college-level attainment' (Carnevale, 1999, p. 10). Certainly those organisations profiled here now incorporate their own versions of soft skills in their curricula, although both Ford and AAPL concede that linking this training with performance outcomes is difficult.

The Case Studies reveal a further trend of concern to educational commentators like Birketts (1994) and Postman (1995). All organisations investigated here speak of 'chunking', of 'bite-sized bits', 'bumper-sticker sized bits of information' which are 'quickly digestible', of Just-In-Time training, to accommodate the limited time of learners. However, Birketts and Postman query the cognitive loss of linearity and accretive understanding associated with this 'flash card' approach to learning. Certainly the matter deserves more debate than it has thus far attracted, either among those who urge a more efficient shorter work-to-degree program, or those who devise curriculum. While Army and Air Force found in reviewing and scrutinising their curricula for the move to online learning that many programs were inefficient, over-long and repetitive for the learning objectives identified, it is open to question whether some fields of study could be shortened to benefit professional or intellectual outcomes.

For the corporate university the overall objective is the short, medium and long-term survival and growth of the company *as a company*. For a university

conscious of its historical mission and dependent on the public purse, the object of learning is first, the individual student's personal and civic development and, as one aspect of that, his/her employability. A second object is the survival and growth of the discipline as a discrete and worthy object of learning in its own right. For the proprietary university, the object of learning is the customer who creates shareholder value. This is not to say that there is minimal concern for the individual, or the discipline, as readers of the DeVry Case Study will acknowledge. Rather, it is that decisions must be made strictly within a commercial framework. Albrecht (WGU) argues that WGU's competency-based approach serves a genuine employer need, because employers 'think that's what education for employees is all about'. Nevertheless, WGU enrolments to date do not indicate strong student attraction to this approach.

Mingle (SHEEO) is not alone in deploring the move to full-cost recovery and for-profit programs within the public sector and not-for-profit institutions, driven in part by pressures on government funding and the increasing demand for vocational courses such as IT and Business. It is the *purpose* of the institution which is at issue here. Many commentators have expressed concern that the university's primary mission has been diluted and distorted as a result of commercial decisions to broaden curricula. Sir John Daniel (1999b, p. 4) for example, observes: 'so much of what universities do now is not university level work'. Some courses, responding to the demands of industry, cover skills and transmission of information, rather than the critical, disinterested pursuit of personal understanding of a discipline and 'an understanding of the nature of knowledge', the marks of a 'real' university. One of the ideals of the traditional sector has been a respect (however over-emphasised in the past) for 'received wisdom'. Watkins (CHEA) suggests that this is passing even in the traditional university: 'it doesn't matter if the university library has a million books, if the curriculum no longer requires them to read anything'.

Another issue of concern to many observers of the corporatisation of universities is the incorporation into the college and university curriculum of proprietary products. Although none of the major software firms have sought formal accreditation for their programs, most are aggressively partnering with universities both in the US and Australia for incorporation of their certified courses into standard curricula, mainly in IT programs. Sun Microsystems (www.sun.com), for example, announced its move into university education systems in late 1998 through the Authorized Academic Java Campus (SM) program, whereby in return for access to a training centre on campus, and support for staff to gain Certified Java Programmer status (tested by Sylvan Learning Centres), participating universities were able to gain licensed Java technology courseware and the most recent equipment. The University of Pittsburgh and the University of Western Ontario were two early sign-ups, and the University of Hong Kong was also reported to be a participating university. The extent to which the courses are stand-alone, or incorporated and nested into existing courses is unknown (Press Release 8 December, Palo

Alto, accessed 6/2/1999). However, there are some signs that difficulties are emerging in Australian higher education as well, with one company arguing that commercial neutrality has been breached in a University of New South Wales training program using a US software package for which the department concerned has sales rights (HES November 24 1999, p. 46).

For Nugent (Office of Post-Secondary Education), this leads to a situation where 'institutions might be brokering courses that are developed by corporations', which inevitably leads to further corporatisation of the traditional universities. Watkins (CHEA) asks 'when does the tail begin to wag the dog?'. Since complete certification programs studies with third-party trainers, or with a software company such as Novell, often cost $10 000 (Marchese, 1998), there is a strong incentive for students to seek company certification in a degree via the cheaper mechanism (in Australia) of the Higher Education Contribution Scheme (HECS), or to seek credit for their certification in degree enrolment (in the US).

Mingle (SHEEO) believes that corporate 'control' of curriculum is more likely at community college than at university level. The Ford Case Study demonstrates the ability of car manufacturers to mobilise state education institutions to produce a more relevant curriculum, to the benefit of both students and the industry. However, in his anecdote of a Vice President of HR 'writing the specs' for a course he wanted from a community college, Mingle notes 'the corporate player has the upper hand'. This situation poses some concern for those seeking to balance the integrity of a knowledge area, the educational needs of the individual student, the needs of employers and the independence of a public education system.

Yet another concern is the tendency of corporate and for-profit institutions to utilise standardised curricula: 'if you have people who are getting canned curricula, what does it say about how we are teaching them how to think?' (Porter-Smith, ACE). Centralised curriculum design may be anathema to traditionally-minded staff, yet there are many within the wider community who acknowledge the anachronism of the traditional approach whereby individual staff design, teach and assess their own courses, referred to as 'faculty empire' (Porter-Smith, ACE).

4.3.7   Students and staffing

Students

One of the most significant questions raised by the trend to servicing the earner-learner market is the extent to which the new providers are meeting a new market segment, or are drawing students from the traditional university. Mingle (SHEEO) believes they are meeting a new market: 'from the student's

perspective you're probably trading off brand name and prestige which still belongs to the traditional against convenience which belongs to the (for-profit)'.

One contributing factor is the motivation of students to undertake formal as opposed to informal studies. If informal studies are more attractive to most employees, the corporate university will thrive *because* it does not 'test' its students other than through their performance. GartnerGroup (1999 p. 11), among others, observes: 'the notion of lasting, full-time employment with one enterprise is going away … younger IT workers want to be rewarded for what they contribute now (…) rather than for their longevity years from now'. For employers, this might well imply the necessity of providing training for their skilled workforce, as a partial substitute for salary. Mingle (SHEEO) asks whether corporate university students would be undertaking any education if their employers were not providing or paying for it. Mankarious (Hamburger University) indicates that only 12 per cent of McDonald's employees choose the assessment option in the tailored Graduate Certificate courses the company provides in Australia; the vast majority are 'audit students', in university terms. As stated earlier, DeBats and Ward (1998, p. 72) note that the non-completion rate at all US institutions is about 40 per cent; this contrasts with the KGSM non-completion rate of 60 per cent. Hoel (KGSM) suggests that the latter is explicable because students do not intend to complete a formal qualification. Baldwin (NTU) agrees: 'they'll take (subjects) for a grade because that's the way they get reimbursed by their employer … they absolutely have no intention of getting a degree. Much of the training market is prescribed, your boss tells you to go'. Sun Corporation's employees must complete 92 hours of training per year (which includes reading a relevant book), or lose a 12 per cent incentive bonus (*Corporate University International* 5 (6) 1999, p. 6), and this presents an extrinsic motivation which is not directly applicable to university studies. Scott (1998b, p. 115) gloomily notes of current students: 'only a minority now has scholarly aptitudes and ambitions'.

At issue is whether companies mandate employee training as a condition of employment, and the extent to which that training is 'on company time'. It might be surmised that if education moves into personal time (as some of our interviewees suggested it was), students may be more concerned to seek credit for the personal investment they were now making. This would affect the current low level of interest in formal study credit for employer training.

DeVry's Mayers suggests that his institutions attract many first generation students. Heeger (NYU) says they are 'not necessarily highly sophisticated consumers', and their biggest decision is choosing to return to education; after that, they look for convenience and value for money, and many thus choose University of Phoenix and KGSM rather than the prestige organisations, where they would often not qualify.

Drop-out is a major cause of concern among both the new providers and traditional universities. Arguably, it is partly a result of wider access to education, amongst a less-well prepared population. The for-profits attempt to

minimise failure through their selection procedures. Although it is frequently argued that they have increased access to education, they are not 'open' institutions: University of Phoenix screens out 20 per cent of initial applicants and a further 8–9 per cent on further scrutiny. Poor preparation for tertiary programs also implies a greater need for student support services. An RMIT study of the first year experience (*Campus Review* October 13–19 1999, p. 11) reveals that widening access has resulted in up to 50 per cent of some student cohorts being first generation students, who typically require more academic and general support, and who in particular do not respond well to the independent learning required by online education delivery. University of Phoenix and DeVry/KGSM accommodate such students through their intensive teaching approach, their insistence on attendance, and their extensive provision of learning advisors. It is also noteworthy that University of Phoenix's online program attracts a tertiary educated professional student cohort, already experienced in tertiary study and online usage. Although traditional wisdom suggests that adult learners are more self-directed than young students, and are capable of constructing their own curriculum according to their self-perceived needs, the postgraduate students at Keller and the University of Phoenix were evidence of another cohort, namely, adults who draw on their experiential knowledge, but need the guidance of a tight curriculum and a controlled pedagogical method.

Staffing

One of the most noteworthy features of the corporate, virtual and for-profit universities is the Fordist division of labour through specialisation. Such organisations would, in most cases, prefer to be described as 'post-Fordist', in that they promote the notion of self-regulating teams. However, their disaggregation of the traditional teaching role to accommodate the increasingly specialised demands of high-technology delivery and centralised curriculum, means that staff functions are distinguished by specialisation into curriculum developer, designer, deliverer and technician, as well as marker, and in addition, marketer. Evans and Nation (1989) were not the first to observe the tendency of mega-universities, indeed any distance education operation, to demonstrate 'instructional industrialism' as an organisational principle.

A number of factors have conspired to fragment the traditional tertiary teaching role. Since Becher's (1989) illuminating study of discipline-based 'tribes' within universities, the apprehension of what knowledge is privileged and how knowledge is constituted and comprehended have changed significantly. Becher's study painted a world of researchers, fiercely fencing-off Mode1 knowledge/ discourse, in Gibbons' (1998a) terms. Postmodernist emphases on democratising knowledge to include previously scorned vocational and demotic fields such as Hospitality, Business Studies and contemporary Cultural Studies; expansion and specialisation in traditional

disciplines such as Physics; shifts to service and 'knowledge industries', and the explosion of CIT development, have not only spawned Mode 2 transdisciplinary fields of study, but have also fractured institutional structures and the roles of those who people the structures.

Many of the new 'interdisciplines' are 'theory-light', and draw superficially on a range of disciplines, restricting the deep study usually expected at tertiary level. They often rely on the acceptance of 'grounded theory', and are more skills and process-oriented than traditional disciplines. They call for experience, currency and practice in their exponents rather than reflection. This further shifts the pendulum away from the theoretical expert to the broadly-experienced practitioner. The 'adjunct-practitioner' orientation is a distinctive selling advantage for KGSM, and one their students appreciate. To a lesser extent, University of Phoenix also uses this approach to their commercial advantage, though it has a greater reliance on employing staff from other educational institutions, that is, professional academics.

One result of this is the casualisation of the workforce. The majority of teaching staff in the organisations profiled are adjunct, though this trend is not confined to the corporate or for-profit institutions. In Illinois, 82 per cent of all educational institution staff are adjunct. The Modern Languages Association estimates that over 50 per cent of all US higher education teaching is conducted by part-time or adjunct staff (*Chicago Tribune*, July 12 1998, p. 11). In the proprietary schools this is a distinctive feature of their pedagogy, a selling point to students, and a cost-saving measure. Part-time faculty earn between $1 600–2 500 per subject per term, compared to a full-time faculty remuneration of $5 000 per class, plus benefits. (It should also be added that staff in this study were generally paid more, or were allocated greater credit hours, to undertake classes involving distance or online methods.)

At the public universities, the use of part-time staff ensures a balance with more 'theoretical' staff employed full-time, and gives the university an 'edge' in its currency and relevance, particularly in the directly vocational areas of the curriculum. Further, the US practice of employing staff for 9–10 months of a calendar year, now the norm for 86 per cent of all full-time faculty, decreases labour costs, with staff in such positions earning on average $US52 481 in 1997–1998 (Lee and Harmon, 1999), still considerably more than an average Australian academic. Public universities accounted for 33 per cent of full-time faculty employed on a 9–10 month basis in 1998 and 45 per cent of faculty in public universities were engaged on 11–12 month employment arrangements.

Notwithstanding the fact that a high proportion of US faculty in traditional universities is part-time, and the for-profits and new providers rely almost entirely on part-time casual staff, accreditation bodies have insisted on a nominal percentage of full-time staff. For example, pressure has been brought to bear on the University of Phoenix to increase its full-time numbers. Mingle (SHEEO) also flagged 'troubles' with an accreditation application if teaching staff complain that they are not included in governance matters, although if

staff do not specifically complain about exclusion, that does not represent a reason for rejection of an accreditation application.

For the individual staff member, part-time teaching can be soul-destroying (as the NEA characterises the situation), or challenging and stimulating (as it is for many of the staff interviewed at KGSM). The full-time practitioner staff employed as part-time teachers by UoP and KGSM are motivated by love of teaching, ego and, less frequently, extrinsic rewards such as additional income. They are generally earning above average salaries in their day-time job, and see their teaching as a form of community service. As a staff member of UoP expresses it: 'It's a practical application of something we want to share … I learn something every time I go in. They have so much commitment and so much experience that I come out with so much myself'.

For professional teachers, casualisation results in 'freeway fliers' or 'road scholars' in the sense that 'they go from institution to institution trying to put together enough of a teaching living' (Laura Noone, Provost, University of Phoenix). For some academics profiled by public media, even teaching six classes a term at several institutions provides a total annual income of only $21 000 (*Chicago Tribune*, July 12 1998, p. 10), notwithstanding their long experience and sometimes doctoral-level qualifications. Part-time staff they are generally ineligible for medical insurance, attendance pay for faculty meetings, paid leave, or security of employment from term to term. Some for-profit organisations offer better conditions, with UoP faculty paid for mileage, and attendance at meetings.

Professional development becomes problematic for both the individual and the employer: a contract teacher cannot be reimbursed for undertaking courses outside the employing firm, because of tax reasons. Hence any training is likely to be internal. A related issue for Australian universities is ensuring the quality of part-time staff, increasingly being used to ensure relevance for vocational courses, and for flexibility in staffing. The for-profits and corporates insist on some teacher-training as part of their Quality Assurance processes; in Australia, this is unusual in the university sector, where professional develop-ment of part-time staff is negligible. Even VET staff, who formerly were required to undertake train-the-trainer courses, receive little in the way of continuing professional education for their teaching role: 21 per cent of TAFE teachers are casual; they receive just three per cent of staff development outlays (*CR*, April 8-14 1998 p. 8).

Other major shifts in education have also worked against the old model teacher-expert. First, the massification of tertiary education, consequent on credentialism and expanding opportunities for education, has vastly stretched the range of student abilities and motivations to learn. As Coaldrake and Stedman (1999, p. 3) note:

> *the influx of students and the move to student centred learning has*
> *placed in juxtaposition the values of those academics who see university*

*education as being about critical thinking and disciplinary study, and
the values of students, many of whom see university education as being
about professional training and the acquisition of a credential which
will assist their chances of career advancement.*

Further to this is a growing demand on the university to see its central
function as teaching rather than research, and to increase the accountability of
its (publicly-funded) teaching staff. Few commentators have probed the
paradox involved in increased accountability requirements of the tertiary
teacher alongside the dominance of pedagogic theories which demand *student*
responsibility for independent learning, and educational theories about the
constructivist nature of the learning process. Ironically both sets of theories
tend to de-emphasise the role of teacher. The greater range of abilities among
students has, however, intensified the need for quality teaching: 'students can
no longer be assumed to be sufficiently gifted to learn for themselves in the
face of indifferent teaching' (Coaldrake and Stedman, 1999, p. 3).

Another complexity is added to the teaching role with the growth of tailored
courses developed by educational organisations for specific corporations or for
corporate-like sectors such as federal taxation departments. The corporate
training entities studied here are clearly focussed on education and training as
a contributor to the bottom line; their teaching staff have no real difficulty in
locating their end client as the company, and their subject matter as focussed
on business outcomes. For traditional university staff and for KGSM (which
acknowledged it was moving towards the traditional end of the postsecondary
spectrum), conceptualising the client as a corporation with business
expectations of learning outcomes, rather than a student with personal
expectations of a broad educational experience, produces 'tensions' (Mackay,
Deakin University, in relation to the liaison with Coles Institute). Further,
maintaining the integrity of a discipline as a coherent and whole body of
knowledge, and as a worthwhile object of study in its own right rather than as
a means to another end, creates further tensions between teaching staff and
the corporations on which they increasingly rely for income. While
professional associations have long held a place at the curriculum table in the
more vocationally oriented subjects such as Accountancy, and delicate
negotiations have characterised professional societies' accreditation of many
university programs, direct collaboration with a business entity appears to
generate particular problems, though few of our interviewees were prepared
to elaborate on these.

A further major factor in the fragmentation of the tertiary teaching role is the
systematic development and widespread adoption of Instructional Systems
Design (ISD) as a both a teaching model for the production of resource
materials and a learning model aimed at learning efficiency. As a systematised
design, development and production model, ISD cannot fail to undercut the
expert-teacher role, since it relies on separation and specialisation of the
functions of teacher, to include instructional designer/curriculum

developer/educational developer. The role of curriculum developer/instructional designer is to apply pedagogy to the Subject Matter Expert's content knowledge. Emerging from the military, ISD retains its potency there, as the Case Studies demonstrate. Yet to a greater or lesser extent, it has also permeated the practices of all organisations which have systematically addressed the development of teaching/learning processes. In the traditional university sector, this has meant that it dominates in distance education and technology-development units.

The new technologies have contributed to this change of role for tertiary teachers, as they have with all other occupations. Notwithstanding the early adopters who learned html, mastered Adobe Photoshop and Illustrator, found another discourse for their discipline, produced CD-ROMs and developed websites, widespread adoption of communication and information technologies has demanded an army of support staff: specialist online developers, instructional designers, graphic artists, help-desk staff and technical staff. The organisations studied here have different approaches to system-wide introduction of multimedia, distributed learning and online teaching. Yet even those which employ a turnkey partner such as eCollege, providing both infrastructure and delivery and support functions, have found their teaching practices irrevocably changed, requiring more support staff assistance and a more facilitative and less content-focussed role.

The semantics of tertiary education have changed, to the chagrin of many. As the teaching role has been reconceptualised away from content and qualifications, the teacher as didact, 'academic', or 'lecturer' has been replaced by the teacher as 'facilitator', 'mentor', and 'learning manager', although 'instructor', a far more common term in the US, remains popular. Dolence and Norris (1995) predict the total demise of the term 'teacher'. For many staff in traditional universities, the threats implied by this trend are first, the deskilling of a once-integrated role of developer, producer, deliverer and assessor; second, a challenge to the role of content knowledge; and third, an unsettling of the (potential) personal and individual nature of the teacher/student relationship, though the latter is rendered increasingly impersonal in the huge classes of many universities *and* in the 'distancing' nature of computer-mediated teaching.

Universities have not aided their cause by their undue emphasis on research qualifications at the expense of their teaching role. Ramsden (1998) and Coaldrake and Stedman (1999, p. 10) among others point to the one-dimensional *professional* role of the traditional academic, in that while research capacity is evidenced by constant peer review of publications, few tertiary teachers have undertaken any training nor have they qualifications in their 'second profession' of teacher. All the organisations profiled here demanded some teacher training of their instructional staff, ranging from four nights at Keller Graduate School of Management to four weeks in Air Force æ minimal compared to the training required for school teaching, but nevertheless a quality assurance method. However, such staff are not expected to have

doctoral or research qualifications in their specialism; indeed, at Keller Graduate School of Management they may not have any formal qualifications in the subject they teach; as long as they have a Masters, their practical experience is the determining factor in hiring.

Another attribute of the academic role as traditionally conceived is community or public service. The organisations studied here have clearly separated research from teaching, but they also have no expectations of public service except at the private level. Although much community service is now remunerated even in traditional universities, some elements of a voluntary service ethic remain. Whether this expectation will continue in publicly-funded institutions as they edge into fully corporatised entities is a moot point.

4.3.8 Technology

Without question, communication and information technologies have been a major contributor to the growth of the business of education, and the potential for borderless education. Obviously, it is critical that this potential be harnessed for the benefit of students and the greater community. Within the $US60 billion US corporate training market, it has been estimated that online delivery will grow from $US3 billion in 1998 to $8.2 billion by 2001 (Moe 1999). This bullish prediction is reflected in the stated plans of many corporate universities to expand their use of technology in delivery: responses to a survey of corporate universities conducted by Corporate University Xchange indicated that while only 20 per cent of training was being delivered using technology, it was estimated that overall this might rise to 50 per cent by the year 2000 (Meister 1998).

But the potential of technology lies not merely in its compression of time and space, but also, as Slaughter (1998) notes, in its ability to collapse the distinction between knowledge and commodity. With the relative ease with which institutions can adopt an online presence in educational materials, the potential for unscrupulous operators has many commentators worried. Sir John Daniel commented that the early years of 'correspondence education' saw many fly-by-night operators, leaving 'correspondence' with a poor reputation: 'with the sort of rush to electronic education, online education, particularly for-profit online education, you could very easily set the clock back to 40 years ago' (*Interview*, CrossTalk 7 (3) 1999, p. 3). Such suspicions lie behind the reluctance of the Office of Post-Secondary Education in the US to fund loans for distance courses until pressured by the realities of a changing education sector. Continued investigations by the *Chronicle of Higher Education* into the activities of such organisations as the online Columbia State University, considered a 'diploma mill', testify that some suspicion is warranted. Mingle (SHEEO) bemoans the impossibility of disentangling technology from commercial interests: 'this technology thing is not about education primarily. Now that we've commercialised the Internet, it's about business'.

There is wide acknowledgement that government and management believe that distance education and online teaching will reduce institutional costs. This is undeniable where travel and duty allowances are factored into the education and training budget. For most corporates and the Services, this is a major contributor to their decisions to adopt online and multimedia teaching practices. IBM aspires to save $US100 million in travel and associated costs through full implementation of distributed learning to its seven business units and 290 000 worldwide workforce (*Corporate Universities Xchange*, 5 (5) 1999 p. 5). Ford's CIT costs for education are heavily subsidised by 'business' uses of the satellite system. However, practitioners and middle managers involved in the production and administration of educational materials and delivery of distance programs readily admit that high quality materials and courses are 'even more labour intensive and … will not cost less' (Barbara Turlington, ACE).

The literature certainly supports the view of practitioners about greater costs (Matthews 1999; Berge and Schraum 1998; Council of Ministers of Education, Canada 1998). What is undeniable in the traditional university sector is that adopting the same approach will transfer costs to the student (Bacsich et al. 1999). The extent to which consumers will accept this is a moot point; certainly the major investigations in the US over the last five years into the rising costs of tuition (which have resulted in part from the increase in computing infrastructure) depict a level of consumer resistance. Yet universities appear unable to support the levels of technology they do employ. GartnerGroup (1999) recommends a ratio of 1:50 IT support staff to corporate employees, but US universities claim a 1:150 figure for student support. There are no comparable Australian figures, but a better ratio seems unlikely.

A further issue is the acceptance of both earner-learners and learner-earners of technology-mediated instruction: even IBM is finding it difficult to shift its employees towards a wholesale acceptance of online training:

> *The cultural change of starting to use distributed learning as opposed to classroom training is having some profound impacts on our ability to move it quicker. We need to make sure that people understand that educa-tion and learning are more than just social activity.*

(Kenneth Landau, Director, IBM Global Learning, quoted in *Corporate Universities Xchange,* 5 (5), 1999, p. 11.)

However, Thibodeau (Caliber) argues that adult students 'want a chance to get together and collaborate, to learn together'. Allison Trawick (Ford) points out:

> *Almost 50 per cent of our objectives are networking and peer learning, and face-to-face with senior executives, learning to talk to them, learning to confront them as well as to listen … And eventually we might be able to do it electronically, but it's hard enough to do it face-to-face.*

Karen Hudson-Samuels (Ford) also notes that the more complex the content of multimedia product, the more difficult it is to absorb at the desktop, with all the attendant work distractions. In the area of corporate soft skills, like those also taught in university programs, there appears to be strong resistance by employee-learners to technology-mediated teaching. Both health care and education have become larger sectors within the economy as a whole because of 'baby-boomer' aging and the career aspirations of their children. In both sectors there appears to be a resistance to the replacement of labour with technology. Taylor Straut (WGU) notes that the early business model in her organisation relied on information being available mainly on the website, and discovering 'people don't read (the website), they'd rather ask questions and talk to you'.

Thus far, the learning needs of students have been defined in terms of time/space and flexibility/choice. These are, as the growth of the University of Phoenix Online demonstrates, important considerations. But for many, perhaps for most students, there are social and personal dimensions of education which may determine pedagogical choices. Mingle (SHEEO) predicts that 'brand name universities' which offer combined asynchronous and class-based classes 'are in a better competitive position' than virtuals because 'they can give the high touch as well as the high tech, which seems to be what students want'.

What is clear is that, as the Report to the Council of Ministers of Education Canada (1998 p. 11) states:

> *Debates about Technology Mediated Learning can quickly becomepolarised as issues well beyond pedagogy become engaged-control over education, the privilege of professors, the rights of students as 'consumers'—and not only 'how' something is taught, but what, when, why, by whom, and for what purpose.*

5 Implications for Australian higher education

5.1 Introduction

It is important to emphasise at the outset that this chapter will not attempt to review or revisit the many policy aspects of internationalisation, corporatisation or the use of technology which are intrinsic to the operations of conventional universities. Matters such as copyright and intellectual property, financial management, cultural diversity and the appropriate uses of technology are extremely important to universities, and have been the subject of extensive study elsewhere. The Business of Borderless Education project touches on some such generic policy matters, but also highlights a number of issues which are directly relevant to the operations of new providers of higher education, and it is these which will be the focus of this chapter.

5.2 Potential for development of corporate and virtual universities in Australia

Much that has been written about new higher education providers has been framed in the context of the United States, where the great majority of new developments in this field have been occurring. There are several reasons to be cautious about extrapolating this experience to the Australian context.

Broadly speaking, the development of what might be termed non-traditional higher education in the United States appears to be driven by a variety of factors, including:

- a growing recognition, at least by large corporations, of the value of postsecondary education and training, coupled with dissatisfaction with the adaptability and suitability of conventional higher education programs;

- the shift of higher education financing from public to private sources and the emergence of market, or quasi-market, forces;

- growing demand for courses which are relevant to and convenient for working professionals;

- enthusiasm for the potential of information technology to enhance competitive dimensions of education;

- exploitation of market opportunities by for-profit educational providers or by conventional institutions seeking additional sources of revenue;

- variable levels of regulation of higher education provision and quality assurance among the various jurisdictions; and

- concern that there is insufficient capacity in the existing higher education system to cope with future demand in an affordable or equitable manner.

Many of these factors are operating within Australia, indicating possible fertile ground for new forms of higher education provision. For example, managerial, professional and para-professional employment in the United States is projected to grow by 8.2 million jobs in the ten years to 2006, which is the equivalent of 90 per cent of the total number of students in four-year universities (Bureau of Labor Studies 1997); in Australia, the rate of growth may be slightly faster with around 0.8 to 0.9 million jobs, or 25 per cent more than the number of university students (DEET 1995).

However, there are some key differences between the Australian and US contexts which may influence the development of different types of postsecondary education here, not the least of which is the sheer size of the US population and economy. At various levels, demographic and employment growth patterns are different, as is the nature of the higher education system. In the United States, 70 per cent of students at four-year institutions are enrolled on a full-time basis, compared to 59 per cent in Australian universities; admissions are not coordinated; and there is a stronger US tradition of residential undergraduate higher education. In the United States, despite long experience in some institutions, distance education is only now emerging as a mainstream university activity, and is being supported, particularly for IT-based delivery, with substantial sums of money from government and private foundations. Indeed, the quantum of grants from charitable foundations is astounding—the Pew Program for Learning and Technology alone committed $US6 million over three years for technology projects in large introductory university classes (www.centre.rpi.edu/PewGrant.html), and the Alfred P. Sloan Foundation has supported Pennsylvania State University's World Campus distance education catalogue initiative with $2.3 million, as well as contributing to the University of Maryland University College online initiatives. Few large corporations are based in Australia, and there are limited external resources available to education institutions to assist them in developing an enhanced capacity for meeting external education and training needs.

5.2.1 Technology and borderless education

In the earlier study, *New Media and Borderless Education* (1998), it was noted that the rhetoric of globalisation of education far exceeded the reality at that time. In the intervening two years it has become even more apparent that early ambitions to 'go international' have in many cases been overly optimistic.

The use of technology is almost invariably associated with the rhetoric of globalised education. In the present study, some interviewees see local

experimentation with technology as a precursor to international expansions: Microsoft's Powell suggests 'it's not a big move from cross-campus to multi-campus to international collaboration.' In general, the research team found that the exemplar organisations studied in this project have mixed attitudes towards technology. Jones International University (not an exemplar, but a well-known innovator in virtualisation) is the most enthusiastic, the online environment being fundamental to their mission. However this is still a relatively small organisation specialising in business communication. Some of the larger corporate universities, such as FORDSTAR, delivering large volumes of education and training internationally, view the Internet as a major part of the future of education and training delivery, but recognise that technical limitations, particularly bandwidth, means that they are not yet ready to rely heavily on this medium. Larry Conley (FORDSTAR) says:

> we're looking at people doing something unusual over the Internet because we see that as something that's emerging and we need to keep in tune with that so we use it appropriately. We met with [two major software companies] a couple of weeks ago because they were touted as being the way ahead—and they weren't.

Nevertheless, online delivery of education and training is growing rapidly, both for traditional and non-traditional higher education providers.

It was also apparent during the course of this study that some non-traditional institutions had plans to expand their online presence significantly. The University of Phoenix, whose operations largely centre around physical classrooms, reports rapid growth in its online enrolments. In June 1999, the University announced that in order to focus more on its online business, it would close its San Francisco office and shut down its Phoenix-based correspondence distance learning program (Carlson 1999).

Much of the US online activity remains domestically focussed, although some opportunities have been taken for international reach. A recent study of a database of 9 193 online university courses (subjects) showed that 35 per cent had international enrolments, but it should also be noted that only 20 per cent of the ten largest course providers reached an international audience (Brigham 1999).

Commercial companies are appearing with substantial financial backing to assist institutions develop online delivery or to serve as portals to online courses. There have been predictions that local universities will be swamped by a tidal wave of online courses, which will prove more convenient and attractive to students. Gerald Heeger's reservations about the frenzy of online activity, and the dearth of profitable ventures (a point disputed by operations such as Jones International University), have been canvassed earlier. Staff at the University of Phoenix are also clear that their students were not likely to be attracted by unstructured 'smorgasbord' offerings of online subjects.

Referring to online delivery, Brian Muller, the Vice-President of Online Learning at the University of Phoenix, observes:

> *people are trying to do this and trying to be very liberal in how they structure it for students, but our thinking along those lines is that is exactly the opposite of what students really want. If you ask them what they want they will use words like flexibility, but … what the students really need in this kind of an educational setting we think is a lot of structure.*

The point is reinforced by Laura Noone, University of Phoenix Provost:

> *Contrary to popular belief, adults don't exclusively want flexibility, they want convenience. So they don't necessarily want to come in and take the entire panoply of 120 courses in whatever sequence. They want you to structure it in such a way that it is convenient and easy for them to attain.*

One pertinent issue is the extent to which any online global program will be able to deliver the cost savings predicted by many commentators in the business world. Gluyas (1999) suggests that students will be able to gain a 'cyber degree' for A\$360 per year compared to A\$12 500 for an average on-campus course. None of the organisations interviewed as part of this study offer such low fees, in fact their online degrees are more expensive than their on-campus offerings to reflect the higher costs of development and infrastructure support. Some, particularly those outside the higher education sector, have a view of education as a commodity, to which technology can be applied readily as a means of delivery to customers. Microsoft's Powell comments:

> *We need to ask, 'will Newtonian physics change much?' and then 'how many courses in Newtonian physics do we need?' (…) The question will be what you get when you go to school. You may log on and do the course in Newtonian physics from one school, because they've marketed the course best, although it may be the same course as everyone else is offering.*

There is an extensive body of literature criticising commodified conceptions of higher education, largely on the basis that they fail to distinguish issues of curriculum content from the purpose of university education and the pursuit of critical enquiry (Currie and Newson 1998; Mason 1998; Marginson and Considine in press). Many respondents in this study emphasise that the use of technology in delivery is best suited to 'lower level training'. Clark Aldritch from GartnerGroup states that the trend is to save time and costs by auto-mating such training and shifting the productivity to higher level education, on a more customised and more face-to-face basis.

These considerations do not imply that online delivery is inappropriate to higher education, or that there will not be a continuing increase in the availability of good quality online higher education 'products'. But they do suggest that there is a good deal more to borderless higher education than 'delivery of content', and that to date there has been relatively little attention to this broader context by many of the commercial entities involved in this field. For the purposes of this study, it appears likely that claims of technology-enabled international penetration of overseas providers into Australia, or into Australian markets in South East Asia, should at least be treated cautiously.

In what follows, these and other contextual factors are considered for four key types of new provider: corporate universities; transnational (borderless) providers; publicly-driven virtual universities; and for-profit universities.

5.2.2   Corporate universities

Key factors in the rise of corporate universities in the US have been outlined in Chapters 2 and 4. Prominent among these is a general perception of the ineffectiveness of the US higher education sector in meeting the vocational education and training needs of industry.

In Australia, the VET sector delivers a substantial proportion of the education and training which might be relevant to corporations, covering a similar terrain to that of the two-year colleges in the United States. The Australian VET system has for the past decade been directed towards serving the needs of industry through the development of competency-based education and training. Rafik Mankarious, of McDonald's Hamburger University, highlights the difference in Australia:

> there certainly seems to be a move—not away from education—but certainly a move towards skill, be it at entry level or upper echelons … Australia has definitely put a lot of time and effort into making education, whether it be vocational or higher or schools, be empathetic to the needs of business and the needs of what will make somebody employable.

Mankarious also emphasises that in Australia the relatively limited availability of skilled staff means that outsourcing and alliances are more feasible than in-house development of education and training: 'The soft skills are critical: consulting skills, management that sort of thing—but we tend to do that very well ourselves with the team we have here. I certainly couldn't have done it in Australia'. Even in the United States, there is a strong trend towards outsourcing and the formation of partnerships. Zastrocky (GartnerGroup) notes that the emphasis is now on academic leadership to understand, capture and sustain the benefits of external partnerships, although the temptation would be to 'go it alone' once expertise was developed by a university.

However, there is no neat separation of university-level and VET-level corporate education and training. Some corporate educators indicate that historical distinctions between top management and lower ranking workers, where the former would receive university-level executive education and the latter skills-based training, were shifting. This shift is occurring as organisations seek to develop the benefits of education and training more broadly through the workforce, particularly to middle-level managers. Gary de Paul (Arthur Andersen) also draws attention to the needs of corporations for more than simple competencies or skills: 'training is monkey-see, monkey-do … education is about shifting how you think about what you do: leadership, communication and critical thinking skills. The corporations we deal with definitely want that'.

These considerations suggest that corporate education and training in Australia may be advanced through alliances and outsourcing, in many cases spanning the higher education and VET sectors. The Coles Institute provides an early if unproven example. In other cases, corporations may deal separately with different providers according to specific needs, and these interactions may be transacted through separate commercial entities attached to existing universities, for example, Melbourne University Private. Moves by the Property Council of Australia to link to US real estate schools (*HES* May 19 1999 p. 43) are in the early stages of development, but may foreshadow a new type of corporate university in Australia.

Many of the corporations and agencies seeking comprehensive tailored education and training from the universities and VET sector are large, often national or international in scope. There is clearly potential for national or international networks of education providers to be established in response to the needs of such organisations. The formation of such networks have been foreshadowed in the public statements of the Australian Technology Network (the five universities of technology), and the Universitas 21 group.

Universitas 21 represents one response to globalisation: the establishment of a consortium of universities in developed countries in a move Alan Gilbert of the University of Melbourne describes as 'secondary branding', building a name for a group of universities which already have primary brand recognition in their own countries (*CR*, November 17–23 1999, p. 3). Although student and staff mobility and exchanges are one possibility, and the exchange of expensive multimedia teaching materials another, the major advantage of such an alliance is the potential to deliver one curriculum at local level across the globe. However, given the historical difficulties associated with agreeing on curricula across local boundaries, let alone national ones, the curriculum concerned would be likely to be commissioned for a particular purpose, rather than take the form of a global Accountancy course, for example. The Universitas 21 consortium is seeking a media partner, apparently News Corporation, which has established a London-based Worldwide Learning company, hungry for content. Given the comments of Sun Microsystems' Richardson that companies want to deal with *one* institution in developing a

global training program, this initiative seems to offer a sensible way for several Australian universities to move into global educational provision without the risks associated with a sole move into a difficult business. For the University of Melbourne, however, there is potential conflict with its private MUP arm, since Universitas 21 and MUP may be competing for the corporate client.

It has sometimes been suggested that corporate universities have the potential to branch out from internal education and training and become providers to the general public. The possibility of such external leveraging of internal knowledge was canvassed in Chapter 2. A number of those interviewed as part of this project are of the view that corporate universities are likely to stick to educating their own employees. Furthermore, where they might extend further, the product offered would straddle the boundary between training and advertising. Corporate universities are closely focussed on corporate strategies and core business. In many cases they are struggling at present to define and justify the return on corporate investment. The need to focus on core business is highlighted by the experience of Microsoft, whose Powell observes: 'four years ago we launched Microsoft Online Institute. It was "wine before its time" … it was a huge effort to coordinate it; Microsoft then decided "we're not willing to make this a product, we're not a training company"'.

Another possibility is that consortia may develop marketable products from corporate higher education, which then can be made available to the general public. Such a 'supply-driven' approach is evident in the ongoing efforts of publishing firms, such as Harcourt, to develop their own universities. These might prove to be successful; on the other hand, sceptics such as Edwin Eisendrath, senior Vice-President of UNext Learning Systems, say they are 'cynical about how media companies try to break into education by thinking: "we have got the course books, we have got online, now what can we wrap around that?"', adding that 'they are wedded not to what they are but to what they own' (Goddard 1999). Certainly the exemplar non-conventional providers examined in this study do not support the notion of structureless, 'smorgasbord' higher education. This concept will be considered further below.

Australian regulations of the use of the name 'university' will not, as they currently stand, allow corporate universities to operate in Australia under the 'university' label, although exceptions may be made for organisations which offer education and training solely to the employees of a particular corporation. In comparison with the United States, Australia has a generally more uniform and tight control over matters such as the use of the university name, which is protected under business name legislation in all States and Territories, under higher education legislation in some States, and under Commonwealth corporations and securities legislation. The ability to confer degrees is also regulated by State and Territory legislation.

5.2.3 Publicly-driven virtual universities

In the United States there have been concerns for some years that the existing higher education infrastructure will be unable to cope with future demand. Increasing numbers are projected to come from secondary schools, from both short and longer postsecondary education and from adults seeking ongoing professional education. However, Adelman (1999) presents some convincing demographic statistics to indicate that notwithstanding arguments about the current boom in later-age enrolments, the biggest growth in the US over the next decade will come from the traditional college age cohort. Undergraduate enrolments, which decreased slightly in the late 1990s, are expected to grow by 2.6 million or 19 per cent between 2000 and 2015 (Carnevale 1999). California expects public college numbers to rise 36 per cent by 2010 (Schmidt 1999). In 1959 only 20 per cent of workers aged 30–59 needed college or university education; the rate now cited is 56 per cent (Carnevale 1999). For many government education officials, the solution to potential cost and capacity problems lies in shifting from physical campuses to online delivery. Adelman (1999 p. 26) predicts that 'student readiness and equipment requirements will limit online audience', and that the new demographic will have even less well-developed self-instructional skills than the current cohort. Nevertheless, such thinking on the part of governments, coupled with a desire for better coordination of admissions and interstate rivalry over attracting corporate investment and building workforce skills, underlies the formation of regional or state-based virtual university systems. As indicated in Chapter 3, some prominent examples of this model, WGU and CVU, have not proved successful.

In Australia the pressures are somewhat different. The West Review (1998), on higher education financing and policy, estimates that standard demographic pressures and unchanged participation rates would add around 6 per cent to 1997 total student numbers by 2007 and 11 per cent by 2017. It also notes:

> *while the population in the age group from which most higher education students are drawn is projected to grow slowly over the next two decades, the geographic distribution of this group will change considerably, with high rates of growth in some regions and declines in others. Numbers will grow steadily in Queensland, Western Australia and the Northern Territory over the next two decades, but be stable or decline in the other States and the Australian Capital Territory.*

The West Review notes that the 30-64 year old cohort will grow by 34 per cent between 1997 and 2017, and forecasts significant growth in participation from this cohort. While demographic pressures may remain stable, it is possible that an increase in school retention rates, which declined in the 1990s after increasing throughout the 1980s, might fuel increased school-leaver demand for higher education. Nevertheless, a recent assessment by DETYA of the prospects for funding higher education in the future concluded that:

> *In the Australian context, at least, there is no reason to be alarmist at the challenge of financing higher education. Australians are clearly prepared to finance a reasonable proportion of education investment privately, the demographics are uneventful, and there is no reason to expect a rapid increase in the level of participation in tertiary education.*

(Karmel 1999, p. 21)

While the Australian government has been keen to support technology-mediated delivery, expressed for example through the emphasis placed on technology in the allocation of Capital Development Pool funds, there has been less impetus here than in the US for the formation of Australian virtual universities. Australia already has had experience with the establishment of the Open Learning Agency in 1992, which now operates on a commercial basis providing access to subjects from participating universities and VET institutions. The need for coordination of admissions is also less pressing in Australia, where most university applications are processed through tertiary admission centres.

In *New Media and Borderless Education* (1998), it was noted that many initiatives have been 'supply driven' and have not investigated the extent of actual student demand. The experience to date with public virtual universities is that ambitious projects can be frustrated by a variety of factors, including political changes and different perceptions over objectives. Public officials want wide access at low cost, while some education managers and experts see potential for high-end applications of technology. The students' preferences and objectives often seem to be overlooked.

It is apparent that some groups of students appreciate and seek out the convenience of online delivery of higher education, particularly perhaps those students already in the workforce with limited time available for study. However, preliminary studies in Australia indicate that for other groups of students there is a degree of resistance to 'virtual' courses, and a continuing problem with lack of appropriate skills, including those needed for independent study as well as technical skills (Smith 1999; Andrews and James 1999).

5.2.4   For-profit providers

Australia at present has two mainland private non-profit universities (the Australian Catholic University and Notre Dame) and one private for-profit (Bond University). Only the Australian Catholic University network receives public funding for all its undergraduate programs. Notre Dame was granted public funding for its teacher education courses in late 1999, and moves are afoot by other private providers to secure public funding. At present, public subsidies for higher education through the Commonwealth Higher Education Funding Act 1988 are limited to 42 colleges and universities which are required to comply with particular regulations and reporting conditions.

Smith and Sapsford (1998) report that in May 1998 there were, in addition, 68 authorised private providers offering 225 accredited degree and postgraduate award courses, in areas from Homeopathy to Theology, with the majority of providers being theological colleges. This small private higher education effort faces strong competition from existing universities for full fee-paying domestic and overseas students, as established universities seek to extend their income base and the range of programs relevant to working adults.

The extension of public funding to other private institutions would require some form of official recognition, ensuring that such institutions comply with certain standards and relevant regulations which apply to the public universities. The policy considerations relevant to such recognition will be considered below, but it is worthwhile noting that an extension of public subsidies to the private sector stimulated significant new growth in the Australian VET sector over the past decade.

It should also be noted that in some US states the requirements for licensing are stringent, and the new providers have in many instances found it difficult to operate. Only one online university, Jones International University, has been accredited by one of the six US regional accrediting agencies, and few of the major professional program accrediting organisations have recognised the relevant courses of non-conventional providers. Keller Graduate School of Management's Academic Affairs Dean, Sherrill Hoel, feels that the 'normative' aspects of accreditation are shaping the development of the new providers:

> as we move into more States, we're moving further towards the traditional model because the State requires you to. A lot of States have an expectation of what a higher education institution has to look like, and they've not changed their expectation to reflect the changes that have taken place in education. I see us becoming more traditional.

A related test of accreditation systems is likely to be posed as the market for full-fee-paying courses increases. There will be increasing availability of specific programs such as corporation-certified training packages, which education and training organisations might be authorised by the relevant corporation to deliver. Other packages might be franchised by overseas institutions or purchased commercially. Organisations might be expected to apply to State or Territory accreditation bodies for recognition as providers of higher education on the basis of their delivery of such programs. At present such applications confront recognition policies that are based on traditional notions of what an institution of higher education should represent, in particular matters such as the co-location of research and teaching, physical library provision and academic self-governance. It should also be noted that staff and student expectations of what constitutes university resources might cause difficulties if traditional universities are to pursue outsourcing arrangements of components of their programs with other entities. There have been reports of student dissatisfaction with the ability of Martin College to

meet library and IT access needs in a program which fast-tracks international students into Charles Sturt University programs (*CR*, November 17–23 1999, p. 7). KGSM and the University of Phoenix avoid this problem by restricting their offerings to more practical, experiential and 'current' courses which do not rely heavily on library resources.

Gerald Heeger (NYU and now UMUC) speculates on likely growth in the United States, and potentially in Australia, of for-profit universities aimed at niche markets in the professional field: 'Health Care U' or 'Info Tech U'. Again, these would be likely to encounter difficulties with licensing in Australian jurisdictions to operate as universities, and also potentially with accreditation from professional organisations in Australia. Such organisations, both in Australia and the United States, tend to adopt conventional process-based assessment of quality, and few of the non-traditional providers of professional education in the United States have been recognised by the leading program accreditation bodies. Nevertheless, there is potential for niche markets to be actively targeted by commercial organisations, possibly offering corporate-certified programs along the lines mentioned above, or partnering established institutions of higher education locally or internationally. The NTU in its pre-1999 form is an example of such specific activity, providing access to continuing professional education from participating institutions for engineers, scientists and technical managers in the United States and other countries. Its initial foray into the Australian market did not prove productive, partly because it competed directly with the continuing professional education program of the Institution of Engineers, Australia, and partly because it did not gain wide acceptance among students.

One final point relevant to the development of commercial higher education providers deserves consideration here. The developments under study in this project, and the others that comprise the commercial education and training environment, have flourished in a buoyant economic climate. This is relevant particularly for the corporate universities and for the many commercial players in online education and training. However, as one corporate financial officer reportedly remarked to Jeanne Meister of the Corporate Universities Xchange, 'the true test of this concept is what happens in a bear market'. Clark Aldritch from GartnerGroup expands on this point:

> if we have consolidation of the training vendors and a growth economy
> globally, then training is going to grow, it's going to be huge … there'll
> be tremendous demand. But if the economy goes south, or the economy
> stays south in some parts of the world and goes south in the States, it's
> going to look very different. Also, if the training providers stay small and
> stay unconsolidated, then it's going to be a very small world and the
> amount of training to be done is going to go down dramatically. There's
> huge variability … I think the whole training market right now is
> undergoing major, major change, potential consolidation; the economy
> is hard to predict and it's hard to find a sector that is more subject to the

*economy than training. Training goes up or down dramatically
according to the economy.*

Nevertheless, Aldritch felt that the momentum for lifelong learning would
continue:

*the IT world, the IT organisation within a non-IT company, have created
opportunities, have raised the expectations and appreciation for training,
that is flowing over to the business world and to the sales world … I think
the next shift that's going to happen is going to be training driven by end-
users … part of that is because most managers aren't pushing training …
in other words, I as an employee am going to demand training, I as an
employee am going to be advertised directly by training organisations
saying 'here's this great stuff, you better go take it'.*

Given the predictions of many commentators of a 'shake-out' in numbers of
providers, and the current trend to merge into ever larger entities, it is also
worth noting that before US for-profits enter the Australian or indeed any
overseas market, they may well fulfil Winston's (1999) prediction that they will
be fully occupied absorbing the small, failing, private non-profits in their own
national arena, as DeVry is beginning to do.

One of the particular lessons to be drawn from US for-profit providers is their
focus on small class sizes in a distributed campus system of office-like rented
premises with low overheads, limited library and extracurricular facilities. The
students of these institutions find the service attention possible in such
environments appealing. Yet it is difficult to transfer this 'lesson' to the
operations of Australian public universities, except through a for-profit arm of
a university operating in a major city, such as CQU's model in Melbourne,
Sydney and Brisbane. As Moodie (1999a) points out, Australia's 37 public
universities have about 150 campuses already, many with low EFTSU loads
(under 1 000) and most with curriculum choices and facilities poorer than
those on the central campus. While the outlying campuses of Australian public
universities operate in some respects like the University of Phoenix and DeVry
model, local community expectations of the facilities offered by a university
campus, a research capacity, and employment practices, differentiate the
Australian public system from the US for-profit distributed model.

5.3 Policy implications for Australian postsecondary education

The evidence suggests that there is potential for further growth in Australia of
corporate and private higher education outside the parameters of the
established Australian universities, possibly taking the following forms:

- local arms of international corporate universities, serving only the employees of the relevant corporation, possibly operating with the university name under limited authorisation by State or Territory governments;

- domestic corporate universities operating through alliances with one or more established education provider(s), probably spanning the higher education and VET sectors;

- private organisations offering subjects or courses in a limited range of areas, where the material may have been developed overseas or on a commercial basis in Australia, for example, by contracted work conducted by university academics. Such organisations may also act as franchises of overseas universities or as deliverers of corporate-certified education and training packages (for example Microsoft-certified IT training);

- commercial companies associated with established universities offering corporate or continuing professional education;

- expansion of the reach of conventional and new higher education providers into the international student market, potentially in the areas which are key sources for Australia's international student population; and

- limited marketing of overseas higher education offered online by conventional or new higher education providers, such as Harvard Business School or Jones International University.

Such developments do not pose a major threat to the traditional domestic school-leaver base of conventional universities. However, they are likely to heighten competition for the higher education of working adults, and continuing professional education. New providers may also in time challenge Australia's position in international student markets, although as noted earlier few have tackled international markets significantly as yet. It should be noted that nationally in 1998 around 60 per cent of Australian university students were under 25 years of age, almost exactly the same proportion covered by four-year higher education institutions in the US (DETYA 1998, US Department of Education 1999).

The principal challenges for the Australian higher education system in dealing with expansion of activity along the lines outlined above include:

- testing of Australia's formal accreditation and quality assurance systems;

- working across the sectoral divide between VET and higher education;

- access and equity issues; and

- adapting institutional academic and staffing issues and practices to compete effectively with new providers, including in the delivery of 'demand-driven' higher level programs for corporate clients.

5.3.1 Recognition and regulation

Some form of recognition and validation of higher education, external to the provider, operates in most countries. Such external validation may serve a number of purposes:

- protection of national reputation for quality and standards;

- consumer protection;

- determining eligibility for public funding;

- ensuring accountability for public funds;

- maintenance and improvement of provider quality/standards;

- professional entrance and defining industry needs and standards;

- allowing recognition of prior learning to enable academics to judge entry to courses;

- promoting transferability of learning for students; and

- giving external meaning to qualifications and allowing 'sorting' of graduates by employers.

The first four of these purposes are particularly relevant for public regulation and recognition of higher education. Also, as noted earlier, Australia has in place a set of State and Territory-based systems for regulation of higher education provision. However these systems currently have a number of potential problems:

- comparability of standards and criteria, nationally and internationally, is based on ad hoc consultation rather than a national framework;

- criteria have not been systematically reviewed in the light of current and potential developments in higher education;

- there is no clear link with quality assurance; and

- regulation may be subject to challenge on the grounds of anti-competitive-ness or breach of international trade agreements.

In relation to the latter point, the WTO GATS agreement, as discussed in Chapter 4, impacts upon domestic education policy in Australia in three key areas:

- Article VI of the WTO GATS requires that 'measures relating to qualification requirements and procedures, technical standards and licensing requirements do not constitute unnecessary barriers to trade in services.'

It requires that such measures are: '(a) based on objective and transparent criteria … (b) not more burdensome than necessary to ensure the quality of the service; and (c) … not in themselves a restriction on the supply of the service';

- Article XVI of the WTO GATS, governing market access, prohibits limitations upon the number of service suppliers regionally or nationally on the basis of monopolies, quotas, exclusive service suppliers, or an 'economic needs test,' such as the financial viability of existing providers, unless a member country has sought a full or partial exemption from this commitment; and

- Article XVII of the WTO GATS requires that member countries 'accord to services and service suppliers of any other Member … treatment no less favourable than it accords to its own like services and services suppliers.' The critical element of this Article is in the concept of 'like services and service suppliers,' as Article XVII, Section 2 requires member countries to commit to provide 'either formally identical treatment or formally different treatment to that it accords to its own like services and service suppliers.' ('General Agreement on Trade in Services (GATS)' (*http://www.austlii.edu.au/au/other/dfat/treaties/1995/8.htm*, accessed 24/01/00).

These WTO GATS principles overlap with domestic policy precepts, such as the *competitive neutrality* principle of the Competition Principles Agreement that requires a framework whereby no government business should possess a net competitive advantage over private providers by virtue of its public sector ownership.

The WTO GATS principles do not negate domestic structures of governance over higher education. They do, however, qualify policy-making in the area in significant ways. It would be impossible, for instance, to designate in advance those universities which would be distance education providers, as the Federal Government sought to do in the early 1990s. Nor would it be possible to prevent a new provider from operating in a particular capital city or regional area on the basis of there being 'enough' providers, or because of its financial impact upon existing providers. Given the overall interest of the Australian government in progressive trade liberalisation generally, and in liberalisation of trade in education services in particular, it is unlikely that Australian nego-tiators to the WTO would seek commitments in the WTO GATS framework that are aimed at restricting the entry of overseas providers into Australia in order to protect the domestic market. Given the high level of Australian education exports, which include commercial presence and cross-border supply as well as the enrolment of international students in Australian higher education institutions, such a protectionist response would also be likely to be seen as hypocritical by Australia's trading partners in the sector.

Australia's accreditation systems have already been put to the test by a number of new providers, and some changes have been made in response. For example, approval for a company to use the name 'university' is now subject at the Federal level to consultation with DETYA. Notwithstanding this move, University of New South Wales Vice-Chancellor John Niland has suggested the term 'university' will merely share the generic attributes of the term 'company' in the medium term (*CR*, December 15–21 1999, p. 3).

The findings of this research project do not in themselves suggest a preferred model for accreditation and quality assurance, nor do they point to 'best practice' criteria for such activities. Indeed it is apparent that the United States systems are under greater pressure and are in search of answers themselves. Richardson (Sun) says: 'we have devalued … the whole program … of giving academic credit because there are so many accreditation programs and bodies that it's hard to tell what it means to be accredited by a specific one … we have lots of interesting legal and other issues coming'. In relation to cross-regional distance education, for example, the advent of the Western Governors University highlighted the fact that there was no suitable accreditation mechanism available. In response, a special co-operative arrangement among the regional accrediting agencies has been developed to deal with this single institution, as a one-off arrangement.

Several points in respect of quality assurance and accreditation arrangements emerge from this study:

- there is unlikely to be, for the short to medium term at least, a 'tidal wave' of new providers challenging the Australian entry criteria. Instead, it may be expected that ongoing challenges will be posed by a small but steady number of such claimants;

- few of the new providers in the United States would satisfy the Australian criteria for university status. Nor do they satisfy the criteria currently applying in several States of the US or managed by many professional and program accreditors. Some of the new providers are adapting their operations as a result; and

- particular 'hot spots' for accreditation include:
  - the standard of online information and library resources;
  - verification of student identity in a 'virtual environment', including for purposes of assessment;
  - the use of contract as opposed to full-time academic staff;
  - subcontracting of administrative and other functions, such as responsibility of on-line teaching environments, to separate commercial companies;
  - corporate management predominating over academic governance;
  - the limited or non-existent research activities and no direct relationship between research and teaching or curriculum;
  - limited range of programs available in many for-profit higher education providers;
  - trans-border coverage, both nationally and internationally; and
  - different measures of attendance, time of study and student progression (eg, online attendance, competency-based education, and compression of courses).

Some of the above 'hot spots' are not unique to for-profit providers: they may also be raised by some aspects of the operations of conventional universities, such as distance education. The issue of student verification, for example, is of growing importance for universities as they expand their administrative and academic use of computer networks. Many conventional universities in the United States and some in Australia are also turning to commercial companies to develop various functions, including online facilities; it is conceivable that matters previously open to scrutiny as part of quality assurance arrangements may be more difficult to assess if they are considered to be subject to commercial confidentiality.

In dealing with these issues in the light of current and prospective national and international policy frameworks, it will be necessary to ensure that Australia's recognition and regulatory systems have the following features:

- they should be clearly understandable to prospective new providers, and be concerned with the quality of the service rather than artificial restrictions on the entry of new education service providers;

- accreditation and quality assurance criteria for prospective new providers should not be linked to the financial viability of existing providers;

- accreditation and quality assurance criteria should be developed that differentiate between education service providers on the basis of the type of service being provided; and

- if distinctions are to be made between domestic and overseas providers, or between public and private providers, they will need to be transparent and equally applicable to all providers of that type.

The least problematic aspect of international trade in education services, and how domestic policy is developed in light of the WTO GATS agreement, is consumption abroad. Indeed, the Australian government has, like many other governments, sought to encourage study abroad by Australian students through a series of international awards, exchange programs, and international education and training grants. Individual Australian universities have also developed exchange arrangements with overseas providers, and international institutional alliances such as Universitas 21 have identified international student mobility as a priority issue. The establishment of a commercial presence by overseas higher education providers in Australia would present issues that the sector has not had to address so far, as the level of education service imports to Australia is currently very low. To the extent that this emerges as an issue, questions of how to relate materials designed offshore to local contexts would become significant, as would the relationship between the content of courses offered and the accreditation and professional requirements set by local professional organisations.

The major issues arise in the area of cross-border supply, and particularly the delivery of degree programs through the Internet. In some respects, these forms of 'borderless education' raise issues analogous to broader questions surrounding the development of electronic commerce, and how regulatory and

consumer protection systems should adapt. In a draft policy framework for e-commerce, the Minister for Financial Services and Regulation, Joe Hockey, outlined three different scenarios for online transactions:

- both the consumer and business are in Australia;

- the consumer is in Australia but the business is overseas; and

- the consumer is overseas but the business is in Australia and commented:

> *it is important to ensure that adequate consumer protection is provided for all three scenarios outlined above. However, only situations where both the consumer and trader are in Australia can be regulated in the same way as conventional consumer transactions. Both the other scenarios will require a high degree of international cooperation in both policy development and enforcement activities. Australia also faces the difficulty not just of cross-border international transactions, but of an increase in the number of cross-border domestic transactions. A unified national approach will be essential to the development and enforcement of consumer protection in electronic commerce in Australia.*

(Hockey 1999)

One response to an increase in activity in Australia from overseas providers that would be consistent with WTO GATS obligations as well as the Competition Principles Agreement, would be to establish a general licence to provide higher education services to Australian citizens, and develop sub-categories within this framework. At the most basic level, a minimum quality threshold could be established for qualifications to be recognised within Australia. This could be applicable to: those who have studied overseas seeking to have their qualifications recognised within Australia; Australians who study overseas or acquire a degree through cross-border supply through the Internet or other media technologies; or to programs delivered by 'corporate universities' or equivalent bodies that do not seek formal accreditation as higher education institutions. An intermediate level could exist for designated 'teaching' institutions, whose degree programs meet quality assurance requirements set by government agencies and/or professional organisations, but do not meet the expectations attached to a 'university' as understood in Australia, in terms of library resources, proportion of full-time staff, research activity, and range of programs offered. A *quid pro quo* would exist in terms of limits to public funding, through HECS-based places or ability to apply for Australian Research Council research funding. Finally, there could be accreditation and quality assurance criteria attached to higher education providers seeking to be fully-fledged universities, whose ability to meet criteria based upon library resources, proportion of full-time staff, research activity, and range of programs offered would allow them to have access to the full range of opportunities currently available to Australian universities. In all of these sub-categories, or class licences, there would be a second criterion applied concerning whether a provider was considered to be within the higher

education or adult education sector, with a particular area of distinction being the international and cross-sectoral transferability of the resulting qualification.

The above considerations do not suggest a compelling case for abandoning or even drastically amending Australia's criteria for regulation of entry to higher education. However, neither do they suggest that Australia should seek to prohibit as a matter of principle the emergence of new forms of higher education provision on the grounds of quality. Many of the non-traditional providers have arisen relatively recently, and most over the past five years. While the people interviewed from these organisations were understandably enthusiastic about their innovations, it is too early to tell whether or not they will last or what the quality of their education might be in relation to that of traditional higher education institutions. It should also be remembered that the US has been plagued for many years by fraudulent operators in education delivery, and that the advent of the Internet has provided a new avenue for some of these 'diploma mills'. It is almost inevitable that their activities will impinge upon Australia. Indeed, it might be argued that they have already done so: The Australasian Institute incident in early 1999 (*The Courier Mail,* March 8 1999, p.5), in which TAI claimed to be *offering* Internet degrees rather than just *supplying the platform*, was dealt with by the Australian Competition and Consumer Commission as a case of misleading and deceptive conduct. Other commercial providers risk similar reprimands in their loose use of terms like 'offering degrees' on their websites.

The new developments reinforce arguments that entry and regulatory criteria should wherever possible attempt to reflect the quality of educational outcomes rather than traditional processes. They also suggest that it would be necessary to ensure such criteria are consistent with quality assurance systems covering the activities of existing universities and that some mechanisms are in place to foster international comparability and recognition. The framework for quality assurance and accreditation emerging from the Commonwealth, States and the AVCC, and announced in December 1999 by the Federal Minister for Education, Dr Kemp, is consistent with these principles.

The above discussion has focussed on the public regulation of entry of new providers and ongoing quality assurance of existing institutions. However, the need for external validation for professional and institutional purposes is also important and is likely to be rendered increasingly difficult in the new environment. Professional accreditation in Australia varies considerably among the various fields; guidelines can be 'broad and minimalist (as in computing), or prescriptive and detailed (as in accounting)' (HEC 1996, p. 67). In some cases, professional accreditation makes demands on detailed internal processes and curriculum content. Indeed, in the US, the National Commission on the Cost of Higher Education (1998) notes that 60 professional accrediting agencies oversee 100 different programs and substantially increase the costs of institutions. The Higher Education Council in 1996 recommended that 'wherever practicable [guidelines should] recognise internal quality assurance

processes and should be focussed on required outputs rather than the detailed manner in which outputs are achieved' (HEC 1996, p. xi).

Professional associations in Australia do not accredit overseas courses, but in some areas enter into agreement with counterparts in order to mutually recognise accreditation systems, and hence deal with the eligibility of graduates from those recognised courses for membership of professional associations. The Higher Education Council noted that Psychology accreditation was largely internationally oriented while Law, Accountancy, Physiotherapy and Education were mainly concerned with local standards (HEC 1996, pp. 19-20). In the United States the program accrediting bodies are almost entirely focussed on the domestic scene, although some have extended their membership and accreditation to other countries. The American Association for Management Education accredited 370 business programs as of late 1999, of which 15 were from outside the US, with seven of those 15 being from Canada. As noted earlier, they do not accredit UoP courses.

Higher education has long been an international enterprise, particularly in relation to research. International education is now a significant feature of the United Kingdom, Australian and US higher education systems, and it is apparent that Australia will face continued competition for such students. At present Australian higher education enjoys a good reputation for quality and a comparative price advantage in many fields. Sustaining such a reputation will require institutional and public action to assure prospective students that courses are of international standard. With greater international mobility in professional work, it is also likely that professional accreditation and institutional quality assurance will need to pay more attention to international professional standards. Some Australian institutions have chosen to participate in the Global Alliance for Transnational Education (GATE), which may well serve as a useful forum for advancing transnational recognition of higher education. Other avenues include institutional alliances such as Universitas 21 and international groupings of professional organisations.

5.3.2   Cross-sectoral issues

The education and training delivered by the organisations examined in this study span a range from non-credit short courses through to higher degrees. It is apparent that a considerable part of this range would be classified in Australia as the responsibility of the VET sector. Many of the features of design and delivery are also familiar in the Australian VET sector, namely the competency orientation, the pressure to modularise offerings, and the use of technology to enhance convenience of delivery. More recently, the moves to 'user choice' in Australian VET have meant that on-the-job training also includes the use of practitioner-teachers and practitioner-assessors, a reflection of the practice adopted by some of the US organisations studied here.

The debate over competency-based approaches to education appears less focussed in the United States than in Australia, probably because there has not been the level of national systematic attention given to the topic. The boundaries between education and training, and between competencies, skills, attributes and habits are unclear, and those interviewed hold differing views about whether such boundaries could or should be drawn. To some extent it is possible that there is a convergence of approaches occurring across tertiary education, particularly as higher education devotes greater attention to the development of graduate attributes. Certainly some providers of corporate education argue that corporate clients generally see little merit in distinguishing rigidly between education and training or between longer and shorter forms of education; generally it is argued that such clients want demonstrable improvement in skills from both universities and colleges. The Western Governors University embraced the competency-based approach, and in this aspect it is undoubtedly more innovative than in its much-publicised use of technology. Many of the other providers examined here remain wedded to credit-based forms of education, although they are able to present what they offer in terms related to competencies. Despite this, Gerald Heeger (NYU and now UMUC) is sceptical: 'the for-profits use words like 'competencies': they don't do it any better than the universities, they just use the terms better'.

What is clear is that the new providers, along with many in conventional universities, are moving further into modularisation, breaking the curriculum into shorter and more conveniently delivered components. Pam Pease from Jones International University comments:

> *our goal is to develop modules—we're trying to break everything into parts, 'chunk it', so it's OK if somebody wants a degree program … but we also know a lot of people want certificates, groups of courses, and certificate programs. And there are other people who just want modules—they want to be able to go online and have access to training that is 50 minutes long, or one week long, not eight weeks long. We thought eight weeks was short, but now it doesn't seem so short any more judging by what people are telling us.*

If the activities of the exemplar organisations studied in this project are any guide, then Australian universities which wish to respond successfully to external demands for lifelong learning and corporate education will need to be able to work successfully in partnership with VET providers. Such partnership would need to move beyond cooperation in articulation and the design of courses by the respective institutions: it would need a genuine capacity to design and deliver reliable and high quality programs in partnership with corporate clients. Such a task is likely to accentuate the many structural, financial, governance and pedagogical difficulties experienced in current cross-sectoral relations.

Concerns were also expressed by some respondents about the negative effects of too narrow a focus on competency-based education and training, largely because a narrow focus might 'lock-in' skills and approaches rather than develop the level of flexibility and adaptability necessary for a knowledge-based economy. Such concerns echo those expressed by some Australian educators about trends in the VET system (Butler 1999).

5.3.3 Equity and access issues

The College Board in the US in April 1999 published '*The Virtual University & Educational Opportunity: Issues of Equity and Access for the Next Generation*', calling for public policy action to narrow the 'digital divide' between the educational 'haves' and 'have-nots'. The Board notes that 'while we write primarily based on US experience, the trends and issues are not far different in Asia, Europe, and other parts of the world, as the forces of economic and technological globalization reshape tertiary education everywhere' (Gladieux and Swail 1999, p. 5).

The principal cause for concern noted in that report is the uneven distribution of access to the necessary technology, in particular that in the US three-quarters of families with incomes over $US75 000 have a computer, compared to one-third of those with incomes between $US25 000 and $US35 000 and one-sixth with incomes less than $US15 000 (Gladieux and Swail 1999, p. 17). The report also notes that the use of technology has in most cases added to, rather than reduced, the costs of higher education for individuals.

In the US, as in Australia, short-course or graduate higher education for working adults—the so-called 'lifelong learning market'—is almost entirely on a full-fee basis. US companies often pay the cost of tuition, albeit sometimes on a conditional basis depending on progress, from tuition reimbursement or designated training funds. Mingle (SHEEO) is concerned about the potential for skewing that might arise in a purely market-based approach to lifelong learning. He observes that in relation to one major for-profit provider:

> *[it] gets, I think, 80 per cent of its earnings from reimbursement from employers, not directly from students. Well, who are those employers? They are business, and they are profitable businesses. They are not child-care centres, they're not governmental workers, they're not for the most part blue collar workers, they aren't service workers. They are in the high tech business sector, or the telecommunications sector, or in sectors where unions have pushed for educational benefits. So the market gets skewed … if you put this together purely as a profit exercise and expect it to cost recover, it will dramatically affect who you are going to educate and what programs you are going to develop.*

For the most part, the for-profit providers in this study are concerned almost exclusively with people on relatively high incomes and/or from corporations willing to shoulder the cost of the student's study. There were exceptions; for example, DeVry Institutes points out that a significant proportion of their undergraduate students come from rural areas and are the first in their family to undertake tertiary education. Mingle (SHEEO) suggests that one government response to the personal costs of higher education is to *allow* tuition fees to become a disincentive to university-level study, and to re-direct students to the cheaper two-year community college/VET sector, more closely aligned with the workforce preparation now demanded by industry. Community response to such a move is unlikely to be favourable, if the US experience is any guide.

Student tuition at the for-profit organisations is invariably higher than at state universities, with the exception of MBA programs. However, the for-profits rely on lower 'opportunity costs' for students via quicker degrees and more convenient modes of attendance. The principal area of discounting in for-profits appears to be in relation to alumni, where the Keller Graduate School of Management provides limited discounts on further study, while the University of Phoenix allows alumni of their online programs free access to their electronic library. KGSM reports limited interest in the scheme, and University of Phoenix does not report usage. DeVry's undergraduate arm does have a limited scholarship scheme, although subsidisation of access on the basis of lower socio-economic background or other basis was not raised by the for-profits; it is likely to be considered the province of the non-profit universities and government financial assistance programs. At the institutional level, Scott (1998b p. 108) argues, it may be much more difficult for a university to be both 'mass' and international: the former demands an 'inward' orientation, widening access for under-represented social groups and/or meeting the needs of local economies and communities, while the latter suggests an 'outward' orientation, enhancing international networks of scholars and scientists. Universitas 21 represents the second orientation, and is relying on the recognition of individual 'brand names' in research strength. At least some universities, such as Monash and UKOU, clearly believe that the approaches are not mutually exclusive.

The implications of such business considerations for Australian universities are considerable if the postgraduate or continuing professional education markets of universities are to be expanded to increase non-government income. Few Australian companies outside the public service offer tuition reimbursement except for senior management. This may well limit the growth of degree-level studies among the adult worker population. The ATO currently only allows deductions for training and education related to the improvement of opportunities in one's current employment. Since many new jobs are in areas that are unrelated to previous occupations, changing the taxation regime to reflect the fact that lifelong learning may involve re-training for an entirely new industry is imperative.

Further, the attitudes of Australian business and the population at large may also contribute to reluctance to engage in formal education programs: Mary Dickie (reported in *CR* November 17–23 1999, p. 9) notes a tendency for Australians to fall into four categories: those passionate about learning; those who 'learn to earn' because employers require some training activity; those who are learning averse; and those who have more pressing commitments, who feel 'guilty' if they spend time or money on education. Her interviewees exhibited enthusiasm about learning, but not about formal education. The Australian Industry Group's 1999 Report 'Training to Compete' reveals several important trends among industry respondents that are germane to future directions in continuing professional education. First, industry prefers to recruit individuals with existing skills rather than train employees; second, if the company *did* sponsor training, it wanted delivery in the workplace; third, most would prefer to outsource education and training if providers catered to their direct business needs; and fourth, although most businesses agreed with the rhetoric of training, their investment in training was relatively low. If universities are to increase their commercial teaching activities, it will be necessary both to change social attitudes about private investment in education and training, and to change taxation regimes to encourage corporate Australia to invest more in their existing employees' professional development.

5.3.4   Institutional academic and staffing policies

The traditional ideals of academic work involve collegiality, authority based on academic standing, institutional governance by academic staff, autonomy and academic freedom, linkage of teaching and research, and academic control over most aspects of the educational process. While there has been a great deal written about the compromise of these ideals in the modern university, they are far removed from the practices of the business-oriented organisations studied in this project.

The key features of these non-traditional institutions have been outlined in Chapter 4. While different providers have different mixes of approaches, and conventional universities have to some extent moved in similar directions, the central features of the non-traditional providers examined here included:

- close focus on specific target client groups and a relatively limited range of courses;

- ability and willingness to design courses to suit clients;

- willingness to outsource or collaborate in areas such as course provision and technology infrastructure;

- high levels of modularisation and non-credit courses;

- business management structures in place of academic governance and management;

- limited library collections, or a focus on online library resources;

- the 'unbundling' of academic work, with different groups contracted for their expertise in designated areas, such as curriculum design, teaching or assessment. Specific practices varied, with some organisations seeking to deliver a quality-assured standardised product, others aiming for a 'best of the best' model, allowing some variation;

- more widespread use of professional practitioners instead of academics in the teaching of professionally-relevant courses;

- casual contracting of teaching staff;

- close evaluation of all aspects of the education process, in many cases focussing on customer satisfaction;

- mandated teacher training;

- limited or no research activity; and

- limited or no community service.

As noted earlier, several of these features represent 'hot spots' for the accreditation of the new providers, challenging as they do the traditional notions of academic work and the nature of a university.

The operations of the new providers pose three potential implications for conventional universities. First, they might be considered as examples of business practices which may prove successful in a commercial environment. Some of the above practices are already familiar in many universities. The division of academic labour, for example, is a common feature in distance education and underpins the lower cost structures of universities with large distance enrolments, such as the UK Open University (Daniel 1999, p. 8). The use of part-time teaching staff is also increasing in Australian public universities, reflecting the trend in US for-profits: the latest DETYA figures report only 43 per cent of staff are full-time or fractional full-time (*HES*, December 8 1999, p. 38). Second, the above practices might be taken to represent competitive advantages for the new providers in an openly-contested market which conventional universities cannot or should not replicate. Third, they might be taken as practices which differentiate traditional higher education from narrower, more vocationally-focussed education and which enable conventional universities to argue that they provide greater depth and quality.

The latter does not imply that universities can or should assume they will be untouched by the growing business of borderless education. Indeed it is inevitable that the processes of higher education will continue to be transformed. However, the emerging market-driven differentiation of universities in Australia, and elsewhere, is likely to see a range of different practices adopted by different universities, as they manoeuvre themselves and seek to develop strategic positions.

The for-profit universities examined in this study are still largely concerned with attracting students rather than meeting the needs of corporate clients.

Where the latter is the case (for example, NYUonline, Melbourne University Private, and the Coles Institute in Australia), the organisation is still in the relatively early stages of development. Where the target group is students rather than corporations, there is more focus on degrees and certificates and less need to tailor programs and to draw on expertise external to the organisation's core area of interest. It should be noted, however, that like many conventional universities, the student-oriented providers all indicate an intention to develop further their provision of education to corporate clients. Such developments may pose a major challenge for universities that wish to cultivate corporate clients, but are wary of compromising or changing their traditional modes of operation.

Universities may need to exercise come caution in developing formal credit programs to respond to continuing professional education needs, rather than short courses. Evidence confirms a growing body of research that indicates many adult professionals are uninterested in pursuing formal qualifications, preferring short courses relevant to their immediate professional responsibilities (Bunn and Barnes 1999; Hart et al. 1998). This would suggest that for many adults, employer-provided practically-oriented courses, subcontracted to university providers, but without credit, might prove a fruitful avenue for universities to pursue. However, corporations appear unlikely to pursue this direction: the Australian National Training Authority's commissioned report on User Choice (*CR*, December 15-21 1999, p. 8) reveals a distinct preference for recruiting trained staff rather than training existing employees. Nguyen (Caliber) says this is also the case in the United States.

It might be considered entirely legitimate for some established universities to remain aloof from the style of operations of the new providers, arguing that at least some universities should exist to foster intellectual development and to further the study and communication of knowledge in depth and for its own sake. However, it is evident that public financing of higher education, for the most part required for activities not related to commercial interests, is limited and increasingly subject to accountability and other requirements. As indicated in the earlier study (Cunningham et al. 1998), there is a real danger that commercial education providers could 'cherry pick' the profitable areas of higher education, posing significant budgetary problems for conventional universities. Some have claimed that this is already happening in Australia's VET sector, where TAFE colleges allegedly are left to provide the less profitable, and frequently more expensive, parts of vocational education and training (Purdom 1998, Butler 1999). Most universities wish to expand their commercially-relevant activities both for pragmatic reasons and also to embrace an expanded and outward-looking vision of the place and purpose of higher education.

Universities in Australia and the United States have begun to address this area through rapid expansion of postgraduate coursework programs, often in the form of graduate certificates. Such programs are typically vocationally-oriented,

short in length, often taken by part-time students and often designed in consultation with prospective employers. Such programs, together with the array of short courses offered under the heading of continuing professional education, have proven attractive to many students and have generated considerable revenue for many universities. As one observer has noted:

> *though there are policy issues associated with the programs (concerning, for example, how to award credit, locus of responsibility, faculty reward and compensation and so on), in general the programs follow the normal path of internal review, and the educational model of teaching and learning is the one familiar to the academy.*

(Irby 1999, p. 38)

The next step, should universities wish to take it, is to develop education and training programs in partnership with clients, in the process ceding some control of the process and working to external deadlines and other demands. Such a step takes universities further towards the territory contested by commercial providers.

Some universities have chosen to establish their own business-like operations to exploit the commercial education market. This may be achieved through the establishment of an independent company, attached to the university through full or partial ownership arrangements. NYUonline, Melbourne University Private and Deakin Australia are all examples of this development. The advantages of such an arrangement are several, and allow the conventional university to mirror some of the practices of the new providers:

- staff are engaged on a contractual basis to achieve specified tasks;

- development of educational offerings can be conducted as a commercial proposition, including the allocation of intellectual property rights according to rules based on contracted input rather than conceived as deriving from academic ownership;

- commercial organisations can operate outside the restrictions of government higher education regulation, although subject to normal commercial regulation such as the Australian Trade Practices Act;

- they can bypass university processes which may be too slow or restrictive for commercial activities;

- they can more readily work on applied problems as they are not discipline-based and not organised around departments or schools;

- they have the advantage of trading on the prestige of the parent university name;

- disruption and distortion to the parent university 'core business' is minimised; and

- financial and legal risks to the parent university are limited.

Potential disadvantages of establishing a separate commercial arm include: the difficulty in securing accreditation, in Australia, as a university; securing initial capital investment; dealing with increasing competition in the area; and potential conflict with the academic culture of the university. The latter could include concerns about the limitations on academic freedom arising from greater corporate involvement in the university. This point is illustrated in the reported objection by senior faculty at Temple University in the US to the proposed establishment of a for-profit subsidiary corporation akin to Melbourne University Private, as an activity likely 'to pervert the purposes of the university' (Carr 1999a). Other academics in Canada and the US have protested over matters such as the contractual arrangements limiting the scope of research and dissemination of research results, and the potential for universities to be pressured from engaging in research or teaching which may be perceived by corporations investing in the university as contrary to their interest (Desruisseaux 1999; Mangan 1999). Similar concerns were expressed by some Australian academics in relation to the establishment of the Coles Institute (*CR* April 21–27 1999, pp. 1–2; Moodie 1999b). While allegations of such occurrences have been made, it is not apparent that they are widespread or that they fundamentally compromise the capacity of universities to engage with corporate clients, and there was little evidence or discussion of these trends among interviewees. Nevertheless, it would appear sensible for universities to develop and implement policies governing such situations.

The alternative to establishing a separate commercial arm, if a university wishes to engage on a commercial basis with demanding corporate and individual clients, is to attempt to incorporate commercial and demand-driven activities within the normal operations of the university. To date this has largely been the preserve of graduate schools providing executive management programs. If this type of activity is to be extended, then some difficulties will need to be overcome. These include problems in working within a system based on rigid academic calendars, credit-based and highly structured awards, and high proportions of relatively autonomous full-time staff engaged in scholarly activity within disciplinary boundaries. It may also create difficulties in determining the circumstances under which staff can be offered incentives for undertaking work that it is undoubtedly demanding, and possibly at times intellectually less stimulating, alongside their normal work associated with the university's core teaching and research. Universities usually have loose descriptions of workload expectations, often determined on the basis of set structured teaching hours together with allowance for research and administrative duties. In such a loosely defined environment it is hard either to determine appropriate compensation for extra work, or to develop policies governing the circumstances under which academic or non-academic staff can be allowed to work for other organisations.

The latter point is particularly relevant since several of the for-profit universities in the United States rely on their ability to engage academic staff from established universities to develop and deliver their courses, thereby potentially 'free riding' on the traditional university's additional costs of supporting research and other professional development. This issue was

highlighted in November 1999 when Harvard University's Law School administrators claimed that one of their professors had violated university policy by supplying course material to a commercial online institution (*CHE* December 3 1999, p. A43). The dispute prompted Harvard to undertake a review of its relevant policies (Carnevale and Young 1999). Australian universities may need to follow suit and review their staffing and intellectual property policies with a particular emphasis on the circumstances under which outside organisations can draw on the time and expertise of university staff or use intellectual property generated within the university.

The evidence suggests that the development of corporate and for-profit higher education will develop differently in Australia than has been the case in the United States.It appears unlikely that there will be a tidal wave of new providers emerging in Australia in the short-term.While it is conceivable that new providers could target the international student market and, in particular, the South-East Asian markets which are of prime importance for Australian universities, there is as yet little evidence that they intend to do this in the near future, nor that they have the capacity to overcome the many practical obstacles involved.Nevertheless, it is apparent that competition in the education of working adults and continuing professional education will intensify, both among established universities and from new providers.

This report should be used primarily as 'market intelligence' by the various organisations which have a stake in the future of higher education in Australia.In particular:

- for government, the key public policy questions concern quality assurance and accreditation, and the potential impact on access and equity of the growth of new forms of higher education;

- each university needs to assess the potential impact of the development of corporate and for-profit universities according to its own mission and goals.For universities which wish to tackle the working adult and corporate education markets, the operations of new providers provide an example of competitive practice, albeit one which may not always be consistent with other goals of the university.For all universities there are complex policy issues raised concerning the ownership of intellectual property and the use of staff expertise by other organisations; and

- for academics in Australian universities, the implications of this commercialisation are profound. The new providers are not bound by the norms or ideals of traditional higher education such as collegial governance, linked research and teaching, or academic autonomy and control. Traditional universities have demonstrated that they can successfully operate in a limited part of the lifelong learning arena, that involving award courses and the offering of some short courses. However, new approaches may be needed to expand operations in this area, particularly in responding to the needs of corporations for tailored education and training. The professional operations of the new providers, particularly in relation to teaching, may offer some valuable lessons.

Appendix A

The Business of Borderless Education

Organisation	Category	State	First Name	FamilyName	Position	URL	Address
Air Command and Staff College		Alabama	Edd P.	Chenoweth	Dean for Distance Learning		ACSC/DL 225 Chennault Circle, Maxwell AFB AL 36112-6426
Air Command and Staff College		Alabama	Don	MacCuish	Professor of Distance Learning		ACSC/DL 225 Chennault Circle, Maxwell AFB AL 36112-6426
Air War College		Alabama	Steve	Szafarz	Director Nonresident Studies		AWC/NS 325 Chennault Circle, Maxwell AFB, AL 36112-6427
Airforce Extension Course Institute	Instructional Designer	Alabama	Fred	Vornbrock			50 South Turner Blvd MAFB-Gunter Annex AL 36118-5643
Airforce Extension Course Institute	Instructional Designer	Alabama	Jerry Dr	Bolling	Chief of Technology		
Airforce Extension Course Institute	Instructional Designer	Alabama	Adelaide Dr	Cherry	Chief Academic Affairs		
Airforce Extension Course Institute	Dean	Alabama	Donald Col	Philpitt	Dean		
Airforce Extension Course Institute		Alabama		Savell			
Airforce Extension Course Institute		Alabama		Howard			
Airforce Extension Course Institute		Alabama		Henderson			
Airforce Extension Course Institute	Operations Despatch	Alabama	Petra	Gallert	Chief Operations		
Airforce Extension Course Institute		Alabama		Fullbright			
American Council of Education		DC	Barbara	Turlington			
Arthur Andersen	Instructor (St Charles)		Shari	Katz	Chicago	www .arthuranderson .com	
Arthur Andersen	Instructor (St Charles)	Australia	Julia	Langdon	Melbourne	www. arthuranderson .com	
Arthur Andersen	Student (St Charles)		Darrin	Lee	Seattle	www. arthuranderson .com	
Arthur Andersen	Student (St Charles)	Massachussetts	Christie	Marks		www. arthuranderson. com	225 Franklin Street, Boston MA 02110

Organisation	Category	State	First Name	FamilyName	Position	URL	Address
Arthur Andersen	Student (St Charles)	Ohio	Daniel	Rock	Cleveland	www. arthuranderson. com	
Arthur Andersen	Student (St Charles)		Alexandre	Serpa	Sao Paulo	www. arthuranderson. com	
Arthur Andersen	Student (St Charles)	Osaka	Yasumi	Taniguchi		www. arthuranderson. com	Hankyu Grand Building, 8-47 Kakuta-cho, Kita-ku Osaka 530-0017
Arthur Andersen		Illinois	Jodi	Aleck	Manager, Business Consulting Education	www. arthuranderson. com	1405 North Fifth Avenue, St Charles IL60174-1264
Arthur Andersen		Illinois	Gary	DePaul	Senior Consultant, Assurance and Business Advisory Performance Enablement Group	www. arthuranderson. com	1405 North Fifth Avenue, St Charles IL60174-1264
Arthur Andersen		Illinois	Susan	Hopkins	Senior Manager, Learning Solutions, Performance and Learning	www. arthuranderson. com	1405 North Fifth Avenue, St Charles IL60174-1264
Arthur Andersen		Illinois	Jon	Olson	Managing Director, Arthur Andersen Performance and Learning	www. arthuranderson. com/aapl	1405 North Fifth Avenue, St Charles IL60174-1264
Arthur Andersen		Illinois	Judith	Powills	Manager, Assessment & Measurement	www. arthuranderson. com	1405 North Fifth Avenue, St Charles IL60174-1264
Arthur Andersen		Illinois	Rebecca	Russell	Manager, Client & Office Relations, Marketing and Communications, Performance and Learning	www. arthuranderson. com	1405 North Fifth Avenue, St Charles IL60174-1264
Arthur Andersen		Illinois	David	Schell	Manager, Learning Technologies, Performance and Learning	www. arthuranderson. com	1405 North Fifth Avenue, St Charles IL60174-1264
Arthur Andersen		Illinois	Natalie	Woodward	Client & Office Relations, Visitor Program, Center for Professional Education	www. arthuranderson. com	1405 North Fifth Avenue, St Charles IL60174-1264
Arthur Andersen		Atlanta	Jan	Wyche		www. arthuranderson. com	Suite 1800, 225 Peachtree Street NE, Atlanta, GA, 30303-1731
Asymetrix Learning Systems, Inc.	CUXconf	Tennessee	Joe	Markwordt	Vice President Sales		PO Box 148, Glenwood, MD 21738
Christian University GlobalNet		Colorado	Evan	Morgan	Executive Director and CEO	www.cugn.org	801 West Mineral Avenue, Littleton, Colorado 80120-4501
College of DuPage	Instructor (KGSM)	Illinois	Richard	Elliman	Assistant Professor Business/ Management/ Marketing Business and Services Division	www.cod.edu	425 22nd Street Glen Ellyn, Illinois, 60137-6599
Corporate University Xchange		New York	Jeanne C.	Meister	President		381 Park Avenue South, Suite 713, New York NY 10016

The Business of Borderless Education

Organisation	Category	State	First Name	FamilyName	Position	URL	Address
Council for Higher Education Accreditation		Washington, DC	Judith	Watkins			One Dupont Circle, NW, Suite 510. Washington DC 20036.
DeVry Inc	Student (KGSM)	Illinois	Chris	Barajas			
DeVry Inc	Student (KGSM)	Illinois	Asad				
DeVry Inc	Student (HR)	Illinois	Sharon	Hulsey	Center Support Assistant, KGSM	www.keller.edu	One Tower Lane, Suite 1000, Oakbrook Terrace, Illinois 60181
DeVry Inc	Student (KGSM)	Illinois	Niki	Theodos	Admissions Representative, KGSM	www.keller.edu	One Tower Lane Oakbrook Terrace, Illinois 60181
DeVry Inc		Illinois	Patti	Hermach	Regional Director Admissions, KGSM	www.keller.edu	One Tower Lane, of Suite 1000, Oakbrook Terrace, Illinois 60181
DeVry Inc		Illinois	William	Leban	Associate Director of Curriculum, MBA/MPM Program Manager	www.keller.edu	One Tower Lane, Suite 1000, Oakbrook Terrace, Illinois 60181
DeVry Inc		Illinois	Eric W.	Munro	Director, Center for Corporate Education, KGSM	www.keller.edu	One Tower Lane, Suite 1000, Oakbrook Terrace, Illinois 60181
DeVry Inc		Illinois	David L.	Overbye	Director of Curriculum, KGSM	www.keller.edu	One Tower Lane, Suite 1000, Oakbrook Terrace, Illinois 60181
DeVry Inc		Illinois	Timothy J.	Panfil	Centre Director, KGSM	www.keller.edu	One Tower Lane, Suite 1000, Oakbrook Terrace, Illinois 60181
DeVry Inc		Illinois	Timothy H.	Ricordati Ed.D.	Dean, KGSM	www.keller.edu	One Tower Lane, Suite 1000, Oakbrook Terrace, Illinois 60181
DeVry Inc		Illinois	Lawrence H.	Rubly	Director, Distance Learning, KGSM	online.keller.edu	One Tower Lane, Suite 1000, Oakbrook Terrace, Illinois 60181
DeVry Inc			Michael	Smith	Student, KGSM	www.keller.edu	
DeVry Inc.		Illinois	Robert	Fredrick	Financial Aid Director, KGSM	www.keller.edu	One Tower Lane Oakbrook Terrace, Illinois 60181-4624
DeVry Inc.		Illinois	Robert	Kropidoski	Student Finance Systems Manager		One Tower Lane Oakbrook Terrace, Illinois 60181-4624
DeVry Inc.	Instructor (Keller)	Illinois	Donald R.	Carter	Director of Technology and Information Services for Keller Graduate School of Management	www.keller.edu	One Tower Lane Oakbrook Terrace, Illinois 60181-4624
Digital Education Systems		Colorado	Marshall	Crawford	CEO	www.digitaled.com	730 17th Street, Suite 360, Denver Co 80202
Financial Times		New York	John	Authurs	New York Correspondent	www.ft.com	14 East 60th Street New York NY 10022

Organisation	Category	State	First Name	FamilyName	Position	URL	Address
Ford Motor Company	Student (Fordstar)	Michigan	Steve	Erdman	Sales-Manager Ford	www.demmer.com	Jack Demmer Ford, 37300 Michigan Ave, Wayne, MI 48184
Ford Motor Company		Michigan	James C.	Demmer	Vice-President	www.ford.com	Jack Demmer Ford, 37300 Michigan Ave, Wayne, MI 48184
Ford Motor Company		Michigan	Dean	Coffman	Training Coordinator, Training Strategy & Curriculum, Education & Training Dept. Marketing, Sales & Service	www.ford.com	Regent Court, Mail Drop #9NE-A Rm 9N125, 16800 Executive Plaza Dr. Dearborn, MI, 48126-4207
Ford Motor Company		Michigan	Robert H.	Cox	Manager, FORDSTAR Facilitators Education & Training Dept. Marketing, Sales and Service	www.ford.com	Regent Court, Mail Drop #9NE-A Rm 9N140, 16800 Executive Plaza Dr. Dearborn, MI, 48126-4207
Ford Motor Company		Michigan	Larry	Conley	Manager, FORDSTAR Operations	www.ford.com	
Ford Motor Company		Michigan	Tom	Doyle	Core Technical Training	www.ford.com	Fairlane Training & Dev. Center, 1900 Hubbard Dr. POB 6055 Dearborn MI 48121-6055 USA
Ford Motor Company		Michigan	John C.	Ulrich	FORDSTAR Operations Manager, Customer Communications and Satisfaction, Ford Automotive Operations	www.ford.com	330 Town Center Drive, Fairlane Plaza South, Suite 324, Dearborn MI 48126, USA
Gartner Group		Conneticut	Jim	Adams	Group Vice President Industry Services	www.gartner.com	56 Top Gallant Road PO Box 10212 Stamford CT 06904-2212
Gartner Group		Conneticut	Clark	Aldrich	Senior Analyst Management of Technology	www.gartner.com	56 Top Gallant Road PO Box 10212 Stamford CT 06904-2212
Gartner Group		Colorado	Phil	Farley	Research Director, Academic Strategies	www.gartner.com	775 Rossum Drive Loveland CO 80537
Gartner Group		Conneticut	Greydon	Freeman	Vice President	www.gartner.com	56 Top Gallant Road PO Box 10212 Stamford CT 06904-2212
Gartner Group		Colorado	Michael	Zastrocky	Research Director, Research Strategies	www.gartner.com	1271 Cedar Street, Broomfield, Colorado 80020
Jones International University		Colorado	Pamela	Pease	President	www. jonesinternational. edu	9697 East Mineral Avenue, PO Box 6512, Englewood Colorado 30155-6512
McDonald's	Student		Rob	Chapman		www.mcdonalds. com	2 Easton Oval, Suite 200, Columbus, OH 43219

The Business of Borderless Education

Organisation	Category	State	First Name	FamilyName	Position	URL	Address
McDonald's	Student		Michael	Charles		www.mcdonalds.com	3707 FM 1960 W, Suite 300, Houston, TX, 77068.
McDonald's	Student		Patti	Duval		www.mcdonalds.com	1650 West 82nd St, Suite 900, Bloomington, MN 55431
McDonald's Corporation Hamburger University		Illinios	Karen	Tancrede	Restaurant Management Development Team Leader	www.mcdonalds.com	
McDonald's Corporation Hamburger University		Illinois	Christina E.	Cooper	Instructional Design Manager, Traing, Learning & Development	www.mcdonalds.com	Hamburger University2715 Jorie Boulevard, Oak Brook, IL, 60523
McDonald's Corporation Hamburger University		Illinois	Mike	Harder	Learning & Development	www.mcdonalds.com	Hamburger University2715 Jorie Boulevard, Oak Brook, IL, 60523
McDonald's Corporation Hamburger University		Illinois	Rafik	Mankarious	Dean, Hamburger University	www.mcdonalds.com	Hamburger University2715 Jorie Boulevard, Oak Brook, IL, 60523
McDonald's Corporation Hamburger University		Illinois	John	Prpich	Learning & Development	www.mcdonalds.com	Hamburger University2715 Jorie Boulevard, Oak Brook, IL, 60523
Michigan Virtual University		Michigan	Errol E.	Koos	Vice President, Market and Product Development	www.mivu.org/	3025 Boardwalk Suite 220, Ann Arbor, MI 48108-3266
Michigan Virtual University		Michigan	Trevor	Thrall	Director of Research		423 W. Ionia St, Lansing MI, 48933
National Education Association		Washington, DC	Rachel	Hendrickson	Organisational Specialist		1201 16th Street, NW, Washington DC 20036-3290
National Education Association		Washington, DC	Christine Specialist	Maitland	Organisational		1201 16th Street, NW, Washington DC 20036-3290
New York University		New York	Gerald A.	Heeger	Dean, School of Continuing and Professional Studies		25 West Fourth Street, Room 206, New York, NY, 10012-1119
NTU		Colorado	Lionel V.	Baldwin	President	www.ntu.edu	700 Centre Avenue Fort Collins CO 80526 USA
Pinacor	Student (UoP)	Arizona	Julie	Craig	ChannelServe, Desktop Services, Business Development Specialist		3001 South Priest Drive, tempe AZ, 85282-3492
Sprint	Student (UoP)	Arizona	Bobbie L.	Nichols	Division Adminstration Manager		Sprint Paranet, 3101 N. Central Ave., Ste 1440, Phoenix AZ 85012
SRP	Student (UoP)	Arizona	Kenny	Edwards	Performance Analyst, Corporate Performance Consulting		Mail Station CRF203 PO Box 52025 Phoenix AZ 85072-2025

Organisation	Category	State	First Name	FamilyName	Position	URL	Address
State Higher Education Executive Officers		Colorado	James	Mingle	Executive Director	www.sheeo.org	Suite 2700, 707-17th Street Denver Colorado 80202 3427
Sun Microsystems		Colorado	Jim	Moore	Director Workforce Planning and Development		
Sun Microsystems		Colorado	Bill (Dr)	Richardson	Vice President and General Manager, Sun Educational Services Enterprise Services		500 Eldorado Boulevard, MS BRM01-176 Broomfield, CO 80021
Sylvan		Barcelona	Michael	De Grande	Vice President Educational Services, Wall Street institute		
Sylvan		Los Angeles	Marlene	Canter	President, Canter Group		
Sylvan			Joseph	Duffy	CEO		
Sylvan Learning Systems		Maryland	James	Hermens	Director Corporate Development		
Sylvan Prometric		Maryland	Jeffrey H.	Cohen	Vice President Academic Services		1000 Lancaster Street, Baltimore, Maryland 21202
Sylvan Prometric		Maryland	Stephen A.	Hoffman	President		1000 Lancaster Street, Baltimore, Maryland 21202
Sylvan		Maryland	Chris L.	Nguyen	President & CEO, Caliber Learning Network, Inc.	www. caliberlearning. com	3600 Clipper Mill Road, Suite 300, Baltimore MD 21211
Sylvan		Maryland	Bryan	Polivka	Senior Vice President, Caliber Learning Network, Inc.	www. caliberlearning. com	3600 Clipper Mill Road, Suite 300, Baltimore MD 21211
Sylvan		Maryland	Kevin M.	Thibodeau	Vice President Academic Services, Caliber Learning Network, Inc.	www. caliberlearning. com	3600 Clipper Mill Road, Suite 300, Baltimore MD 21211
Tennessee Valley Authority	CUXconf	Tennessee	Mary Catherine (Cathy)	Hammon	General Manager TVA University		400 West Summit Hil Drive, Knoxville Tennessee 37902-1499
Tennessee Valley Authority	CUXconf	Tennessee	John B.	Turner	Senior Vice President, Education Training and Diversity		400 West Summit Hill Drive, Knoxville Tennessee 37902-1499
University of Phoenix	Faculty	Arizona	Norma J.	Turner	Turner & Associates, Management Consultants	www.uophx.edu	1058 E. Clarendon Ave. Phoenix AZ 85014-5033
University of Phoenix	Faculty	Arizona	Victoria	Levin	Program Director Undergraduate Business	www.uophx.edu	4605 East Elwood St, PO Box 52076 Phoenix Arizona 85072-2076
University of Phoenix	Faculty	Arizona	Anthony	Poet	Graduate Business Program Director, Department Chair	www.uophx.edu	4615 east Elwood St, Suite 300 PO Box 52069 Phoenix Arizona 85072-2069

The Business of Borderless Education

Organisation	Category	State	First Name	FamilyName	Position	URL	Address
University of Phoenix		Arizona	Pam	Felkins	Director Student Services	www.uophx.edu	
University of Phoenix		Arizona	Nina	Omelchenko	Vice President, University Services	www.uophx.edu	4615 East Elwood St, PO Box 52069 Phoenix, Arizona 85072-2069
University of Phoenix		Arizona	Laura	Palmer Noone	Provost, Academic Affairs	www.uophx.edu	4615 East Elwood St, PO Box 52069 Phoenix, Arizona 85072-2069
University of Phoenix		Arizona	Kurt A.	Slobodzian	Dean and University Librarian, Instructional Technology and Learning Resources	www.uophx.edu	4615 East Elwood St, PO Box 52069 Phoenix, Arizona 85072-2069
University of Phoenix		Arizona	Karen	Spahn	Executive Director, Institutional Research	www.uophx.edu	4615 East Elwood St, Phoenix, Arizona 85040
University of Phoenix		Arizona	John D.	Sears	Vice President, Institutional Development, Apollo Group, INC.	www.uophx.edu	4615 East Elwood St, Phoenix, Arizona 85040
University of Phoenix		Arizona	Larry	Tudis	VP-Director	www.uophx.edu	
University of Phoenix	Student	Arizona	Mike	Breinholt		www.uophx.edu	2303 S. Cottonwood, Tempe, AZ 85282
University of Phoenix	Faculty	Arizona	Robert	Salmon		www.uophx.edu	
University of Phoenix	Student	Arizona	Deborah	Dworkin		www.uophx.edu	
University of Phoenix	Student	Arizona	Ilisha	Newhouse		www.uophx.edu	
University of Phoenix	Student	Arizona	Alisa	Pickert		www.uophx.edu	
University of Phoenix		Colorado	Brian	Muller	Director, Online Learning	www.uophx.edu	
University of Phoenix	Student	Arizona	Greg	Colton			
University of Phoenix	Student	Arizona	Kim ("Chris")	Christensen		www.uophx.edu	
University of Regina	CUXconf	Tennessee	Dianne L.	Common	Vice President (Academic)	www.uophx.edu	Regina, Saskatchewan, Canada S4S 0A2
US Army Training & Doctrine Command		Virginia	Col. Christopher J.	Olson	Dir. Training Development and Analysis Activity, TPIO Total Army Distance Learning Program		ATTG-C Fort Monro, VA 23651-5000
US Department of Education		Washington, DC	Cheryl	Leibovitz	Senior Policy Specialist, Office of Postsecondary Education	www.ed.gov	

The Business of Borderless Education

Organisation	Category	State	First Name	FamilyName	Position	URL	Address
US Department of Education		Washington, DC	Maureen A.	McLaughlin	Deputy Assistant Secretary for Policy Planning and Innovation, Office of Postsecondary Education	www.ed.gov	7th & D streets, SW, ROB-3, Room 4060, Washington DC 20202
US Department of Education		Washington, DC	Varun	Nikore	Special Assistant, Office of the Assistant Secretary for Postsecondary Education	www.ed.gov	400 Maryland Ave., SW, Room 4082, ROB-3 Washington DC 20202-5100
US Department of Education		Washington, DC	Michael A.	Nugent	Program Officer, Fund for the Improvement of Postsecondary Education	www.ed.gov	Room 3100, ROB-3 7th and D Streets SW Washington DC 20202-5175
Village of Bensenville	Student (KGSM)	Illinois	Alfred J.	DeRose	Youth and Family Counselor, Teen Center, Youth Services Dept.;		700 W. Irving Park Road, Bensenville, Illinois 60106
Western Governors University		Colorado	Robert	Albrecht	Chancellor	www.gwgu.edu	1059 Yosemite Street Bldg 758 Room 249 Aurora Colorado 80010
Western Governors University		Colorado	Marcia	Bankirer	Senior Academic Officer	www.wgu.edu	8880 East 10th Place AuroraColorado 80010
Western Governors University		Colorado	Terri	Taylor Straut	Director, Customer & Provider Relations	www.wgu.edu	8880 East 10th Place AuroraColorado 80010

Appendix B

B.1 McDonalds

B1.1 Introduction

Everyday more than 40 million customers step into one of the 25 000 McDonald's restaurants in 117 countries around the world. In Australia, McDonald's sells one in four meals eaten outside the home. The corporation operates primarily as a franchiser, with about 80 per cent of restaurants independently owned. The remainder, identified as McDonald's McOpCo stores, are company operated. McDonald's is ranked 134t^h in the Fortune 500.

Outside the US, McDonald's has close to half the world's branded quick service restaurants, and 63 per cent of sales (Highlights, *1998 Annual Report*). The corporation opens four new restaurants a day, 1 750 a year, most of them outside the US. In the past decade, McDonald's has entered 67 new countries, with the US and European businesses contributing the most to operating income. In 1998, new markets included Lebanon, Moldovia, Nicaragua, Pakistan and the Republic of Georgia (in the former USSR).

McDonald's vision is to be the 'best quick service restaurant experience'.

McDonald's has always been a franchising business. All franchisees are independent, full-time operators, rather than conglomerates or silent partners. Franchisees who want to operate more than one restaurant have to meet special conditions. In the US, licensees operate an average of 3.4 restaurants each. As a result of the large number of franchisees, McDonald's operates as a matrix organisation—a cooperative of owner-operators, employing more than one million 'crew members' alone, working with the corporate machine that employs 280 000 people worldwide.

In recent years, in response to franchisee concerns about the centralised control of the business, McDonald's has become more decentralised, with the establishment of a divisional structure in the United States. Each of the five divisions is a large enough business to qualify as a Fortune 500 company in its own right.

The McDonald's story started with Ray Kroc in 1955. Current Chairman and CEO Jack Greenberg, who joined the corporation as Chief Financial Officer in 1982, is only the fourth person to hold that position in the corporation's 44-year history. McDonald's listed on the Stock Exchange in 1965. Then 100 shares cost $2 250. On December 31, 1998, those shares, adjusted for stock splits, were worth more than $2.8 million, with a compound annual total return of 21 per cent for the previous 10 years.

In the mid to late 1990s, McDonald's share of the global fast food business was under attack from competitors, especially in America. Greenberg is credited with steering the corporation to a healthier performance level with a focus on global brand management and five global strategies:

- develop our people at every level of the organisation, beginning in our restaurants;

- foster innovation in our menu, facilities, marketing, operations and technology;

- expand our global mindset by sharing best practices and leveraging our best people resources around the world;

- long term, reinvent the category in which we compete and develop other business and growth opportunities; and

- continue the successful implementation of changes underway in McDonald's USA. ('About McDonald's Our Vision', www.mcdonalds.com/corporate/investor/investor.html)

The five global strategies are being supported by expanded investment in training and recognition of staff performance.

B1.2 Organisational/training goals

Our goal is to have the best trained, most respected and committed employees in the QSR (quick service restaurant) business. Our future depends on it. (Alan Feldman, President McDonald's USA, 1999 AGM)

Training is a key platform in McDonald's attempts to maintain and further grow its global brand, despite the difficulties presented by multiple ownership and far-flung geographic reach. Consistency of product and service, despite geographic or cultural boundaries, is a primary driver of the corporation's education and training programs.

Not surprisingly, McDonald's education and training functions are fragmented throughout the organisation, with responsibility shared by owner-operators or corporate restaurant managers, geographically-based business groups and divisions, and corporate home office. At store level, individual franchisees or restaurant managers work with business or training consultants to develop crew skills. There is a self-contained training department in each of the 38 US regions and 115 countries that McDonald's operates in; these deliver the basic and intermediate operations and management courses. The Advanced Operations Course (AOC) is delivered at Hamburger University, McDonald's worldwide management training centre, and each restaurant must have at least one AOC graduate. Design and development of training programs and curriculum is controlled centrally, with the corporate Training, Learning and Development Division based at

Hamburger U in Oak Brook, Illinois. McDonald's also manages 10 international training centres, including Hamburger Universities in Australia, England, Japan, Brazil and Germany.

Just over three years ago, McDonald's appointed a Vice President in charge of training. Pat Crull is a training professional who came into the VP ranks from outside the company. Previously, training was treated like many other positions within the corporation: long-time corporate staff rotated into the job, served for two or three years and then moved on to fulfil a different function.

B1.3 Learner demographics

Most McDonald's employees start from the restaurant floor up, joining the corporation as a teenage member of the crew. Despite having a globally recognised brand and product, the spread and varied nature of the cultural markets that McDonald's operates in, combined with the mix of franchise and company-operated businesses, mean that there is no internationally-applicable 'average' crewperson or manager. Demographics vary, subject to a range of factors including whether or not the restaurant is company-owned or franchised, and geographic location.

That said, restaurants generally have a staff of 50-70 crewpeople, with an average turnover of 40 per cent—although this is known to reach 100 per cent turnover every six months in some urban areas of the US. The majority of crew members are 15-19 years old. McDonald's believes the ethnic mix of the crew should reflect the community around it. In some parts of the US, this means the majority of the crew may be of non-English speaking background.

The McDonald's tradition is one of working through the ranks, and this continues to be the case for the majority of employees in management and supervisory positions. Staff also tend to be hands-on or practically focussed. The careerpath into management is: crewmember, hourly manager, salaried manager positions (manager trainee, second assistant manager, first assistant manager). Employees become responsible for a one to two million dollar business when they graduate to restaurant management.

Hamburger University staff suggest that in their experience, roughly 50 per cent of restaurant managers left school at 16, joined the corporation as teenage crew people and worked their way up through the business. The remainder have completed college degrees and then moved into the fast food business as a career choice. Many of these will have worked at McDonald's part-time while studying.

However, these percentages also vary according to geography. In the United States, roughly 70 to 80 per cent of restaurant managers will have come through the ranks, probably have graduated from high school, but either did

not go to college or have had only limited exposure to a college education. Internationally, the percentages are reversed, with the majority of restaurant managers holding at least an undergraduate degree, and some having a Masters degree as well.

Ages also vary. McOpCo employees are likely to move into the management ranks in their early 20s, reaching mid-management levels in their late 20s, early 30s. Those in similar positions in franchised businesses are likely to be older, as movement through the ranks tends to occur at a slower pace. Franchisees themselves are also likely to be older, aged anywhere up to their 50s. In the US, 34 per cent of franchisees are women and minorities, with almost double this percentage registered as franchisee 'applicants in training'.

Restaurant managers who remain in the business typically advance to take up area supervisor roles, supervising four or five company-owned restaurants. They then move into mid-management ranks, as consultants and then department heads, working across three streams: with the McOpCo stores, with owner-operators, and in operations. Training consultants work with McOpCo stores. They are responsible for the development and implementation of all Regional Training Programs for operations staff and restaurant management. Business consultants generally work with 18-24 franchised restaurants. They perform a similar role to training consultants, but work with franchisees and restaurant management to improve restaurant operations, sales, profits, and people development.

McDonald's delivered formal training to more than 230 000 entry- and mid-management-level staff in the US alone in 1998. This figure is expected to triple in the near future, with the extension of the corporation's new curriculum to hourly managers.

B1.4 Costs

McDonald's invests hundreds of millions of dollars in education and training. The decentralised nature of the business, its divisional and regional management structure, and the heavy dispersion of ownership amongst multiple licensees, means it is impossible to identify the amount of money spent on training and education.

Individual businesses fund the training of crew members and pay travel and associated costs for management staff attending operations courses. The corporation pays for design, development and centralised delivery costs, along with the home office Hamburger University budget. Regions fund the international training centres and non-US-based Hamburger universities, as well as regional training centres.

Hamburger U Dean (at mid-1999) Rafik Mankarious says the difficulty is in trying to determine what to count in a training budget: 'Obviously this costs a bit of money to run. What do you count? Do you count the cost of delivering here or do you count the cost of bringing the 7 000 people in from all around the world?'.

Mankarious says previous attempts to quantify the amount invested in training centred around developing a cost per staff position metric. He says the average franchisee has 50-70 crew members who do an average of 60 hours training within the first six to nine months. If crew members chose to do one of the accredited certificates, then the time investment increases to 200 hours. Turnover in crew levels averages 40 per cent annually. The cost in staff time is then added to costs of materials, equipment and so on.

Once staff move into the management stream they are likely to undertake at least 1 000 hours of store-based or store-supported training, not including their introductory studies. They will be expected to complete 33–34 days in classroom training over two or three years. Training and development costs for mid-managers are likely to reach $10 000 in 18 months.

You add that up and the cost of facilities etc., it's enormous …
It's definitely more than one per cent of salary … I would suggest to you
it's more like 7–8 per cent of salary and certainly more than 1 per cent
of sales around this whole system. And we don't keep track of it.
Obviously whoever is running their budget keeps track of it—I have a
budget. I keep track of that and the restaurant keeps track of their
budget—but we don't aggregate it. We've never had to say 'is this worth
it?', or had to measure it …

(Mankarious)

B1.5 Education/training model

B1.5.1 Curriculum design process

Corporate training at McDonald's is divided into distinct areas, with a curriculum design team working with a delivery and development team and a field implementation team in the main content areas of restaurant management, mid-level management and executive management. The curriculum design team brings together training managers, instructors and informational and instructional designers.

Development of curriculum is also a cross-sectional team exercise, typically bringing together one or two instructional designers, one or two operations people, representatives of the target audience and occasionally an instructor or professor.

McDonald's staff work closely with consultants and contractors, although there has been more of an attempt to bring the expertise 'in-house' in recent years, by increasing the number of instructional designers at Hamburger U.

The corporation has established global core curricula, which are taught throughout the system. The restaurant management course is one such program:

> *So in Learning and Development we are responsible for developing and delivering the curriculum that will be taught throughout the system. Each region or country then adds to, or enhances, the core. The core is the non-negotiables or the minimum standard and then they enhance or add, depending on their country or regional need.*

> (Karen Tancrede, Restaurant Management Development Team Leader)

All instructional designers, bar one, have a formal degree in this field. The exception is a long-time employee who moved into training from the field. Information designers are also heavily employed, especially in McDonald's recent revamping of its Crew Development Program (CDP) which graphically depicts technical skills-based 'learning points':

> *Information design is, in loose definition, the organisation and hierarchy of information in a way that somebody can easily understand and digest it … We're able to get very complex concepts across in a very easy to understand compact way that allows the person to be able to immedi-ately apply it. Things like maps that take them through what they need to do to execute a shift, step-by-step visually. Because people learn in pic-tures, they're able to apply it that much more easily. The information designer is able to organise the information so that it literally leads them down the path to learning.*

> (Tancrede)

The design process is a highly systemised one which starts with an analysis of assumptions and expectations that design, delivery, presentation and operations staff bring to the curriculum design team. The group then defines learner objectives, based on a needs analysis, before moving onto the look, feel and nature of the content.

> *As a team, both designers and deliverers, we brainstorm a list of what we assume to be constraints, assumptions, expectations, what do we want the experience to be and why, so that we're all really calibrated on what those things are. So we don't go into it and start running up against roadblocks and arguments … Things such as group size and how many languages, how many interpreters we would have, how often we think we could hold the class …*

> (Mike Harder, Learning & Development)

McDonald's staff say this approach spreads ownership of, and knowledge about, the process, so there are more people to take information outside the design group, to the various stakeholders.

McDonald's uses a model of 40 hours of design and development to one hour of instruction. A typical class is 35 to 40 hours. Self-paced modules vary greatly, involvement in design also varies greatly depending on content. For example, if the material is operations-based then subject matter experts would be heavily involved, if the content is soft skills, then internal involvement would be less than that of outside experts. A new course tends to be up and running in two to three months. The process is complicated by the global nature of the business: courses are taught in several languages, so material has to be translated even for the pilot stage.

> *If we don't do it with a multi-lingual audience we don't know if it will work with that audience, so there's no point doing a pilot with an English-language only audience. So typically we will do all the participant materials first. We'll do the design, flesh it out, get a good amount of detail in it, gather all the content and then we'll produce the participant material and then we'll do the instructor materials. So the participant materials we'll usually turn around in four-six weeks.*

(Christina Cooper, Instructional Design Manager, Training, Learning and Development)

Curriculum design is further complicated by the diversity in age, experience and prior education level across different countries. This challenge has been one of the drivers of the facilitated learning model: previously, courses were developed to meet a middle ground between extremes of educational level, age and experience.

> *In our old world of thinking it became more and more of a problem, because we're teaching to a middle that doesn't exist. When you present to a middle that doesn't exist, you're going to miss the target all the time. But if you're facilitating and you're doing it in teams, and most of our learning is done in team environments, those that know a lot are teaching and those that don't know so much in one area are learning (and in another area they may be teaching) … That's allowed us to raise the bar too, so now we can teach at a higher level. We can truly try to raise the bar because we know that we've got more than one teacher in that classroom.*

(Tancrede)

B1.5.2 Content

Content varies widely according to job classification. The Crew Development Program, which introduces restaurant staff to the technical aspects of their

work, is almost 100 per cent technically-based, delivering on-the-job skills at two levels:

> *The first level, the beginning level is just to get them competent on being able to perform the function, 'just give me enough that I need to know to survive lunch rush'. The second level, the advanced level, takes them to the whys and the mechanics of the job, the temperatures, the times, dealing with the raw product and kind of transitions into the technical skills, what we call critical standards, that they will need as a baseline for moving into management.*

(Tancrede)

Restaurant management teams use station observation checklists to certify that crew members have achieved adequate operational standards.

McDonald's has 'embraced the idea of competencies as a foundation for selection, for succession planning, for development', creating a shift in the way training is viewed and in the structure of the content.

> *Instead of saying 'what is this job and 'what does the job description tell us we should train people for', we started to look more at competencies across positions and core competencies needed for the success of the business and to start to take the approach of building our training to support competency development, not just job task or job capability development … We've still got a lot of the technical, you've got to be able to practise exactly what you do on the job and then go do it.*

(Cooper)

As employees move up the organisation and into managerial levels, the content balance between technical skills and soft skills content alters.

> *If we're talking about restaurant management, off the top of my head, and this is not scientific at all, I would say that it is probably 40–60, technical 40 per cent, soft skill or global 60 per cent. And it goes more and more to the soft skills the higher you go. (…) For example, there are parts of the supervisory skill or the consulting skill that are very soft skill related, but there's also some very technical aspects of how to do that job.*

(Tancrede)

Hamburger University staff say the shift in content emphasis reflects an understanding that the technical skill sets, or operations-based training, is best taught in the restaurant, in a self-study on-the-job format.

> *We have found through our needs assessment observations, evaluations etc., that that's the best place to learn, closest to the reality of what*

*you're doing. So much of our hands-on shoulder-to-shoulder training is
about how do I calibrate a grill, how do I service a customer properly,
the nuts and bolts of the business. Most of our soft skill training—how do
I communicate effectively with people, how do I coach effectively, how do
I manage conflict, how do I build a team, how do I plan for success,
how do I manage my time?—all of those things are taught primarily in
the classroom for the first time. It's a controlled environment, our folks
can slow down long enough to really absorb those kind of concepts, we
have trained facilitators to be able to teach them those things. The
experts in operations or the technical skills are the people who run
our restaurants and the people who supervise the people who run our
restaurants. So we're trying to place the trainee in the hands of the
most capable trainer for each specific skill set.*

(Tancrede)

Training staff suggest the change in content was also driven by a recognition
that hands-on staff would always make time to learn the technical aspects of
their jobs.

*It was very obvious that if you're in a restaurant and you have to know
how to calibrate a grill and count money and count inventory and
make an order, you'll learn it. If we put the right evaluations and
verifications in place, we'll be sure you learn it. But if you're in a
restaurant day-to-day and you're in that environment, there's no
guarantee you will learn how to effectively manage your emotions and
deal with a conflict situation, or be able to coach through to a
performance result.*

(Tancrede)

Courses are still clearly linked to particular jobs and progression through the
corporate careerpath, although the effectiveness and reach of store-level
programs vary according to ownership type. Thus, owner-operators
committed to training and McOpCo stores are likely to have higher
percentages of trained staff than franchisees whose attention is focussed on
practical day-to-day operations issues.

Mankarious says classifying courses as education or training or postgraduate
versus undergraduate is not a straightforward task: it depends on the level of
management being targeted. At the lower level of assistant manager there is a
high degree of vocational training, with greater soft skills content at restaurant
manager level. Mid-management curricula approach postgraduate level.

B1.5.3 Delivery

As McDonald's content in the classroom shifts from technical to soft skills,
the corporation is making more use of adjunct faculty–external consultant

presenters with specialist knowledge in the desired area. Consultants are also more evident in the mid-management and executive ranks. However, the corporation stands firm behind its practice of using its own practitioners as the primary source of presenters.

> *We strongly believe, and have had it proven over time, that our restaurant managers need context to understand how to use the soft skills to get results. The only people that can give them the context are operations experts like themselves. So you have somebody who has been in the trenches with them, understands what they're going through, understands that when they have to deal with conflict or have to build a team, they're doing it on their feet, 10 hours a day, no rest, doing 15 things at once, using real store examples. Nobody can make that emotional connection with our students like somebody who's been there, and that's proven out over time. Especially in the restaurant management or operations area, we are a business that we call 'ketchup in the veins' … There's a lot of emotional connection to our restaurants and the brand and the managers need—it's part of the adult learner principles—they need to feel that emotional connection. We've found that for our particular audience it's extremely important. They've got to feel it first and then they learn it.*

> (Tancrede)

Classes at Hamburger U vary in size and mode. The AOC course has the largest class sizes with 40 to 80 students. Coursework is divided evenly between large group sessions and teamwork (small group work). The mid-management classes, with around 20 to 26 people per class, spend just 20 per cent of their time in large group work, the rest in small group sessions.

McDonald's prides itself on the situated nature of its formal learning classes. Face-to-face courses are interspersed between self-study modules and computer-mediated or video-based in-store instruction.

The self-study modules have a higher proportion of actual hard information or processes to work through, with time in the classroom focussed more around facilitated discussion and the participants' experience base, with limited lecture or formal presentation. Generally face-to-face learning equals the amount of time spent on self-study.

B1.5.4 Technology

Most self-study materials are in the form of conventional large printed study guides, although some innovative graphic card checklists are used in-store to ensure crew members are following exact procedures. Technology-mediated training currently has very limited application in the McDonald's environment. Growth of this mode of delivery has been restricted for a number of reasons, including the primary business of the corporation (which is making and

selling food, not a knowledge industry), language, infrastructure and audience. Geographic and regional differences continue to be problematic as well, with staff citing tensions between any move to increase technology-mediated delivery and such factors as the Asian economic crisis or access to reliable telecommunications infrastructure in some of the less developed areas of the world.

Some computer-based training is used for self-study programs at mid-management level, however use is limited as the programs are only available for people who are literate in English. Platform issues also are problematic, with challenges related to whether staff have access to the hardware and software for computer-based learning.

> *That doesn't say we're ruling it out. We're looking at it more from the possibilities of pre-course and in-course work. We're using a computer-based simulation in the strategic decision making course … and that's because it's not heavily text, it's more numbers and figures and reports that are on screens, than text that somebody would have to read.*
>
> (Cooper)

McDonald's has experimented with satellite-based distance learning but found it was not particularly successful, largely due to the nature of business and the student cohort.

> *It's a very fast-paced retail business and to get a bunch of people in the same place at the same time around the world, or even around the country, and we were just trying to do around the country, was very difficult. What's a good time for Chicago is not a good time for California if you're in the restaurant business. Anytime between 10.30 and 2.30, you should be in the restaurants doing stuff.*
>
> (Cooper)

The corporation decided that there was little difference between its largely non-interactive satellite-delivered program and the same material on videotape.

> *You didn't have a much better quality learning experience than if somebody had a videotape and they could play it on their own and do answers and workshops. We were doing it where they had workshop materials and workshop facilitator on site and we were trying to stretch the capabilities of the technology as much as we could … It was very limiting and the acceptance level was lukewarm.*
>
> (Cooper)

McDonald's staff attending courses at Hamburger University say the face-to-face presence of the presenters is important to them—and they are not interested in video or Internet alternatives:

The thing about coming here is most of the instructors and professors have gone through what we're going through. They have years of experience. They've gone through all the different areas: training, supervision, business consultants. That alone allows us to relate to that. It's more hands-on, they're very approachable … a video's nice but you can only get so much from a video. Coming here, relating to them, seeing how they've handled different situations … It's not as monotonous as it would be watching a video or the Internet: there's no way I'd sit through this in either one of those two venues.

(Pat, Student)

B1.5.5 Evaluation

Like many US training organisations, McDonald's uses the Kirkpatrick model of evaluation, primarily concentrating on Level 1 and Level 2 evaluation. Every course and every professor is subjected to Level 1 evaluation each time a training event occurs. Courses undergo significant evaluation and piloting processes when first developed. Hamburger U professors are also frequently evaluated, with one-way glass-walled translation booths allowing unseen monitoring of teaching/facilitating performance.

The corporation plans to conduct Level 4 evaluations (on the Kirkpatrick scale) as it shifts to its new curriculum in the near future.

That's one of the things that we're going to attempt to do that probably less than 5 per cent of corporations in America do—Level 4s—just because of the expense and they're very complicated and very time consuming. But it is our intention to do Level 4 evaluations because we feel we can measure some specific results, some changes in behaviour that will be reflected in information that we currently gather.

(John Prpich, Learning & Development)

B1.6 Sources of teachers

The US-based Hamburger University is home to 27 'professors'—of whom roughly 40 per cent have come to the training arm from overseas McDonald's operations. They are appointed, generally, for a two-year period only.

Thus professors are drawn from the field, and are required to have a strong operations base:

Preferably, somebody that's had the experiences and can speak to them. Somebody that can articulate the experience and what they learned from it and be able to bring that to light. We're looking for somebody

*that has extremely good communications skills, of course. Somebody
who has very good analytical skills and is able to really
understand—because those analytical skills are so important in
facilitation, to be able to listen for understanding, know what they
meant to say not what they really said and bring it back around. We
look for somebody who's an extremely good coach. Someone who can
problem solve very well …*

(Tancrede)

Consultation skills are also important; professors are required to present
operational and 'restaurant-floor' inputs in a range of forums, and to work
with curriculum design and development groups, information designers, and
instructional designers. The professorial role is highly structured, with a
detailed on-the-job professional training and induction process which takes
about three months and includes a buddy system, 'professor guidebook',
mentoring and coaching sessions, and a certification process.

*What the professors will do, they'll sit at their desk, they'll study the
scripts through their computer, they'll create their own outlines, they
may use an outline from another professor. On the left hand side it tells
them the key learnings at the beginning of each class. It has a
breakdown of the classes, the material—where it is —how long it should
take you to present it. (…) Then they'll also complete a dry run. So
they'll present in front of the professors and get some feedback.*

(Prpich)

B1.7 Accreditation

The complex nature of McDonald's training is reflected in its accreditation
relationships. The organisation has various partnership and certification
relationships linked to the various levels at which it operates. Many of the
entry- and mid-management level courses in America have American Council
on Education certification (expressed as semester-hour equivalents). Non-US
operations have similar certification arrangements: 'it is up to each and every
country to accredit according to the country's guidelines, laws, organisations,
and most of the countries mimic that or pursue that in a similar way'
(Tancrede).

One clearly developed example of the extent of certification and accreditation
is in McDonald's Australian operations. The company recognised national
moves in vocational education and training and some years ago piloted the
articulation of its crew training program into a Certificate II of Retail.
Mankarious says the introduction of the certificate was a good move, but not
without its problems:

> *It's aligned us from a vocational point of view with retail, helped test
> our standards and get our standards recognised … (but) the logistics of
> the certificate itself didn't sit very well with the business. So we did some
> further work to make the certificate more accessible to our folks and we
> did some further alignment … to the point where the certificate is now
> able to be delivered part-time, it's able to be delivered in a flexible
> timeframe and some great things that fit into our business a lot more
> than the original pilot framework.*

Crew members in two states of Australia—Victoria and Western Australia—
can also choose to have their training accredited as part of their high school
certificate. This scheme, introduced in 1997, was believed at the time to be
the first formal relationship of its kind between an enterprise and a school
system. The student/crew member registers their intent with their school and
restaurant employer, to enrol in the retail certificate. McDonald's is a 100 per
cent private provider of the certificate, although it encourages the schools to
be involved in the period of training by follow-ups and through feedback
and counselling. On successful completion of the certificate at McDonald's,
students are accredited with one high school subject.

> *So here's a tremendous benefit there, because they can work part-time,
> learn this thing, be paid for it, and be accredited with a subject. If they
> chose to do only five subjects—four core and one McDonald's—they
> have more time at school to concentrate on their core subjects. So there's
> an all around win-win situation for the students.*

(Mankarious)

McDonald's Australia has extended its range of training programs into the
management ranks, with a suite of qualifications up to the advanced diploma
of management, which operates in all states, based on a competency model.
Mankarious says it has been a major benefit for training in the organisation:

> *It's helped us in that our people view their training and address their
> training a lot more seriously because they could see a formal prize at
> the end of the day. It also helps us from the point of view of positioning
> a career at McDonald's as a better job, it's a vocation. Not only are you
> working at McDonald's and learning great skills, but you're getting a
> piece of paper that's recognised by State Training Boards, and it's
> transportable skills.*

The Australian organisation has also set up a formal relationship with
Macquarie Graduate School of Management, again 'over a period of time,
mining through some innovation both for McDonald's and Macquarie'
(Mankarious). The program is about three years long, and combines
workplace learning through modules and workbooks, assignments and
prerequisites with a series of classes at Macquarie. If students chose to be

assessed by Macquarie University, they gain credit for three units, and three units are enough for a graduate certificate. 'So again by going through the McDonald's training—a compulsory opportunity—if you take the assessment option, you can walk away with a certificate' (Mankarious).

The Macquarie program has been running for just over 18 months, with about 12 per cent of staff choosing to do assessment to obtain the graduate certificate in management. Mankarious says it is just one of a myriad of different models, with other parts of the McDonald's organisation doing the same things but without the formal relationships.

The McDonald's-Macquarie relationship is one of its more formal relationships in higher education, although as previously mentioned, the organisation has many formal relationships in the vocational sector. However, the corporation has been approached by a major private US University, which has looked at its department leaders course, and suggested that with a little more contact time, more rigour and a method of testing that would indicate knowledge transfer, they would give the course graduate-level credit. Mankarious suggests he is not sure yet how that relationship will progress: 'we're still feeling each other out and having our first date. You know, do we want to go out together before we get married. We're going to start slow and do some work on our curriculum'.

If the deal goes ahead, Mankarious says it will not matter how many people take up the formal accreditation option:

I don't care if one person does it, having it available for them to do is the key. Now obviously if there are handicaps for them to do it, I want to take those handicaps away. But whether one person or 100 do it is not what it's about. It's not about 'getting them' to do it, it's about offering them the opportunity. (…) I want to be able to stand there and say 'not only are we teaching you skills for our business, but it's transportable. This is our gift to you, now look at my employment as a package. It's not just about the dollars that we pay you, this has value too'.

He suggests accreditation and certification issues are important and should be regarded not as challenges, but opportunities.

Documentation

1998 Annual Report
'Shift Management' Participant Study Guide
1996 'Professor Guidebook'

B.2 Ford

B2.1 Context

> *No company has had a greater impact on the lives of people around the world in the 20th century than Ford. We put the world on wheels with the moving assembly line and the first affordable car for the masses. And we made the world a better place with five-dollar-a-day wages and pioneering efforts to reduce, recycle and reuse.*

(William Clay Ford Jr, Chairman Ford Motor Company, *1998 Annual Report* www.ford.com/finaninvest/stockholder/stock98/chairman.htm)

Take more than 350 000 corporate staff, add another 200 000 people working on your products in your name, but employed by thousands of franchisees, factor in thousands more suppliers and a global manufacturing, distribution and service base and you have some idea of the education and training challenges confronting Ford Motor Company.

Ford is the world's largest producer of trucks, and second largest producer of cars and trucks combined. It sells more than 70 different types of vehicles, under the Ford, Lincoln, Mercury, Jaguar and Aston Martin brands, as well as holding equity interests in Mazda and Kia.

In the last two decades Ford has concentrated on developing 'world' cars, part of a massive globalisation campaign that aims to perpetuate what the corporation describes as its 'simple goal: continuously produce better products at lower cost' (see www.ford.com/default.asp?pageid=95&storyid=191). It is a mission that still reflects the corporation's relatively humble beginnings in 1903. Launched in a small converted wagon factory in Detroit, Ford's assets then consisted of tools, appliances, machinery, plans, specifications, blueprints, patents, a few models and $28 000 in cash supplied by 12 investors. Henry Ford's intention was to build the automobile millions could afford. In 1998, Ford sold 6.83 million vehicles, generating almost $120 billion in sales revenue (www.ford.com/finaninvest/stockholder/stock98/operatin.htm). Today, Ford's core business is still the manufacture of motor vehicles, which are then sold and serviced by staff working for franchisees. But the corporation also boasts Hertz, Visteon and fully-owned subsidiary Ford Credit—the largest company in the world dedicated to automotive finance. Ford Credit alone has more than eight million customers in 36 countries and a diverse workforce of more than 16 000 employees. It also serves the financing needs of more than 11 000 dealers with wholesale, capital and mortgage loans.

B2.2 Organisational/training goals

We don't have to sell training at Ford … line management very much appreciates training, they spend a tremendous amount of time in the classroom, the senior executives spend a lot of time in our classrooms … From (the CEO) down we get a lot of their time, their money … they respect training and what it can do for performance.

(Allison Trewick, Coordinator Leadership Development, Ford Education and Training)

Given the complex organisational and diverse business arms of the Ford Motor Company, it is not surprising that education and training have been targeted as tools to maintain employees' passion for Ford's business and success. Rick Rothermel, Manager North American Training Operations, says in 1994/95 there was a major corporate restructure and 'we began doing business globally, global teams, global design'. Rothermel says the corporate focus shifted from being an automotive company to being consumer focussed, and the organisational change started with his North American Education and Training (NAET) section 'because that's our role'.

CEO and President Jack Nasser says when the company decided it wanted to grow Ford enthusiasts, it:

started a broad educational effort. We began teaching entrepreneurial business principles to our people. We wanted them to feel and behave more like owners, with a deep appreciation of what it means to be a shareholder. We became teachers. Business acumen was taught in intensive three-day sessions to all salaried employees. We called it Business Leadership Implementation, or BLI. Executives participated both as students and as teachers. Believe me, you don't really know a subject until you get out and teach it! … Our teaching and learning didn't stop there. In the age of the Internet, information in any large corporation should flow without barriers of any kind. Senior managers typically invest a lot of time informing investors and consumers. We need to take as much time—if not more—informing our own employees … I'll tell you, this new teaching and learning process is working. We're looking at our business in a fundamentally different way.

(www.ford.com/finaninvest/stockholder/stock98/ceo.htm)

The complex nature of the corporation—simultaneously aiming to operate on a global basis and as clearly distinct individual businesses—makes it difficult to identify all training and education activities performed in the company. Ford's education activities run from K-12 through to vocational training, for-credit and not-for-credit courses and higher education programs. 'We purport to be an organisation entrusted with lifelong learning so we start with K-12; we train people in the company, send them to uni, for professional development; pre-retirement planning training (is done) here (Fairlane Training and

Development Centre, Dearborn), financial planning, their after-Ford life' (Rothermel). The mission of the Education and Training Centre is 'to improve human performance which directly impacts competitiveness and ultimately shareholder value' ('Education and Training Overview'). The corporation's education/training activities include:

- supplier training through the Fairlane Training and Development Centre, with more than 300 courses in technical, computer, language/culture and management and general business training. These courses are offered in various modes and range in length and price. For example a 24-session Japanese course costs $1 800, a 24-hour accent reduction course costs $980, a Chinese audio course, self-paced, self-taught with weekly tutorials is $1 700 and a half-day self-verification awareness course costs $225;

- partnership with 62 US colleges to provide a two-year Associate Degree in automotive electronics;

- various degree programs offered by the University Programs Group for Ford salaried staff and suppliers in conjunction with a number of US universities. Classes are on-site after work hours at Ford facilities in south-east Michigan. Degrees include Bachelors, Masters and PhDs in engineering, computer science, applied statistics, electronics, management and computer control systems. Modes also vary, with some programs instructor led, while others are distance learning or videotape- based. Partner universities include the University of Maryland, Michigan State University, Michigan Technological University, Pennsylvania State University and Purdue University. Some of the degrees are 'globalised': for example, a Masters degree in Automotive Systems Engineering, offered through University of Michigan—Ann Arbor is a 'global program' developed jointly with UK, Germany and Australian (Deakin) universities. Ford's corporate training programs have varying objectives and targets. This program 'is a global focus on aligning advanced degree Ford employees with the needs of the company' and involves senior management projecting their future training needs 'and we'll go out and look at existing universities worldwide to determine where the research on this emerging technology is and to begin to enter into a partnership with that university to deliver a degree granting program in that technology' (Rothermel). Similar schemes apply more generally to MBA and overarching technology programs;

- the Ford Dependent Scholarship program for US Salaried Employees, which makes $1 000 available per annum to help regular full-time or retired salaried Ford employees pay for their dependents' post-secondary education;

- Ford (particularly at its headquarters in Detroit) school liaison program, which attempts to have a strong influence in setting and supporting curricula. For example, in its visiting engineers' program 300 to 400 engineers work with school teachers in an attempt to make sure they 'understand the maths, the physics and technology' (Rothermel);

- Ford's partnership with the Henry Ford Greenfield Village (Ford museum in Detroit) and Michigan State to set up a charter school on the museum site; it is looking to replicate this at other US locations. Currently it is offering grade 9 and 10 education, and eventually it will go to grade 12. The school is open to the public, applicants participate in an entrance test and last year 1 500 people applied for 120 places. The learning is applictions/performance based with one objective being for students to graduate with a stronger focus on maths, arts and technology;

- apprentice training programs, partnered by the employees' union.

Ultimately, aside from their outreach/community service activities into schools (K-12 programs) and colleges, there are three main client groups for Ford education and training activities:

1) suppliers—as mentioned above, supplier training is available through the Fairlane Training and Development Centre. In this sense, Ford courses are open to the public. As already mentioned, a wide range of courses is available, and some are delivered on the supplier's site;

2) Ford Motor Company staff—those working for the corporation itself;

3) franchisees and their staff—who are not Ford employees.

This case study primarily focuses on the latter two groups.

Ford's education and training activities are largely fragmented and decentralised—although they too have had to respond to the corporation's globalisation strategy. Corporate training centres, some operated by human resources departments and some reporting directly to their business units (eg, manufacturing training reports to manufacturing division), are dotted around the globe and each region has its own training organisation. However, those involved in Ford's education and training sections are aware of the difficulties and are trying to develop collaborative interfaces—a 'one-stop shop' approach—so the confusion of training activities is reduced. Manager FORDSTAR Facilitators (Education & Training Department, Marketing Sales & Service) Bob Cox says dealers are one group of consumers who are calling for a more unified approach. He says they once identified 18 different groups of training-related staff, all funded by Ford budgets, who were delivering training directly to Ford dealers or dealership staff. 'The dealers have asked 'can't we go to one single source to get anything we need—maybe different people provide it, but can't we go through one?' So I think … we are now starting to move towards that.'

Staff say they need a 'training tzar', someone of very high rank within Ford Motor Company, and the chairman must say 'all training has to go through and be approved by this individual, period, or somebody's going to have to explain to me' (Dean Coffman, Training Coordinator).

North American Education and Training (NAET) reports to HR. NAET is responsible for curricula which is generic to the company 'not the brake

system or power engineering … we're corporate global, with responsibility for cultural change, for employee development, leadership development, for generic' (Rothermel). A Launch Planning and Training team manages training, people issues and personnel development connected to the introduction of new products. The Executive Development Centre, also based at the Fairlane Training and Development Centre (FTDC) in Dearborn, provides leadership development for Ford's top 5 000 staff.

Ford has more than 50 regional training centres that deliver training to dealership employees, but in the mid-1990s, it made a huge investment—more than $100 million—in its FORDSTAR satellite network. The network broadcasts training via two-way data, one-way video, two-way audio link to all US, Mexico and Canadian dealerships. FORDSTAR is the primary tool for delivery of training to about 200 000 dealership staff. Manager FORDSTAR Operations Larry Conley explains the factors that led to the introduction of the satellite network:

we were faced with the introduction of a lot of new model vehicles, one every 90–100 days, and the technology on those was dramatically different from what it had been. I took over training in the mid-80s because training wasn't working. They said 'find out what's wrong'. We found out that we had a mechanical workforce and our cars were becoming moving computers. Our cars were coming under computer control, our workforce was mechanical. We were faced with a dramatic change in the way we did our training …

Conley says dealership training 'wasn't important' before the early 1980s. Mechanics:

could come in off the farm with some familiarity with equipment and generally make themselves pretty effective because auto technology hadn't dramatically changed from Henry Ford's day. 1978 was the introduction of the first computer chip that had anything to do with engine performance. Until then it was mechanics and hydraulics, standard stuff.

FORDSTAR's focus on dealership employees, as distinct from Ford Motor Company staff, is reflected in its organisational positioning as part of the Sales and Marketing Division. At various stages in its history, attempts have been made to consolidate Ford's education and training activities: the most recent of these did not work for two reasons:

First, we didn't do it completely, we only took certain parts of the organi-sation and consolidated, and we allowed others to stay on their own, because of the way the company is structured. We took Manufacturing and Product Development and a smaller HR and pulled them together, we did that globally. That probably brought together 60 per cent of the

total training effort at that time. But because of the specificity of Power Engineering—the expertise was there, the resources were there—it was a niche effort. We consolidated as much as we could. The thoughts and ideas were centralised, but we didn't insist on the practices being centralised and the budget was not totally centralised, so there was still the opportunity to train outside that. About one and a half years ago, HR decided they would go to a shared services model, and they looked at all the work that HR does and put it into two baskets, the transactional work and the transformational work. All the transactional work went one way with their resources and the transformational the other way. All the things that are OD (organisational development) are transformational. Things that are transaction like, people come to the training centre for classes, they're transactional. That's where we are today.

(Rothermel)

Bob Cox and Training Coordinator, Training Strategy & Curriculum (Education & Training Department, Marketing Sales & Service) Dean Coffman say the bottom line objective of their training curriculum is to help dealerships win the customers over.

B2.3 Learner demographics

One major difference between the two primary target groups is reflected in their employment context. Corporate staff are hired by Ford itself, dealership staff are employed by franchisees. Typically, dealership staff are more mobile (likely to move from employer to employer) and more likely to have had lower education levels.

The change in automobiles is reflected in the focus of Ford's corporate training activities. NAET staff say there has been a noticeable shift in the education level of plant employees. Where once about 70 per cent of hourly workers were high school dropouts, now around 30 per cent have been to college and just 10 per cent have dropped out of high school. Still, about 60 per cent of corporate training is targeted to these 'hourly' workers (those paid by the hour) on the factory floor, 25 per cent at the corporate level and the rest on developing core or generic courses. All Ford employees have the right to enrol in community college or university courses, these being considered separately to the 5 000 enrolled through Ford's university partners program.

In the USA in 1998, 25 per cent of hourly employees and 16 per cent of salaried employees were minority group members and nearly 16 per cent of hourly employees and 26.5 per cent of salaried employees were women. It is not difficult then, to conclude that the majority of Ford Motor Company staff, whether working in Ford plants on the factory floor or in corporate divisions, are white and male.

Dealership employees typically have had lower levels of education than those employed by Ford itself. As a result of efforts to increase the educational level of its dealership employees (adding new staff and developing a two-year Associate Degree in automotive electronics with 62 US colleges) the high-school dropout rate fell to less than 10 per cent in 1993. 'Conversely the number that had some form of post-high school automotive training was into 30 per cent ... the influx of people with at least an associate's degree, with electronics, maths, reading, has changed the nature of the workforce, we're much better off' (Conley).

James C. Demmer is Vice President of Jack Demmer Ford, a large dealership in Michigan. (Demmer and a range of his employees—technicians, mechanics, salesmen and managerial staff—were interviewed for this study.) He says education levels vary within dealerships. While those in specialised fields—for example vehicle technicians—are likely to have some form of college diploma or degree, a high school education is usually adequate for sales staff, who are hired for their people skills. 'Other positions throughout the organisation are skill level positions that require specific training to do that job, but don't necessarily require a college degree.' Demmer says Ford factories tend to offer higher rates of pay, and can afford to be more selective with their staff than the dealers. However, Cox suggests there has also been a general increase in the educational level of dealership managerial staff. 'Originally dealers were intimidated by company people because they were college graduates and they wanted change. You have a lot of dealers now that can look eyeball to eyeball with these young shooters, college degree, Masters whatever.'

Motivation to study and learn also varies within dealerships:

> I suspect if we were to really delve into it, visit quite a number of dealerships, we are going to find that the dealership people are an awful lot like you and me and some of them look at lifelong learning as a journey that will never end and others very seldom consider an adult learning course.

(Coffman)

B2.4 Costs

It is impossible to quantify the exact investment of the Ford Motor Company in education and training. An overview document of the Education and Training section indicates Ford spends $440 million on training, 2.5 per cent of payroll (the average for other leading edge companies is 3.9 per cent of payroll). However, like other huge worldwide conglomerates, this figure is unlikely to reflect the real cost of education and training across the corporation due to the disaggregated nature of the business and the combination of corporate and franchise staff.

so much falls down the cracks because of size and complexity. And over the last few years, the meaning of training has expanded so much: it can be anything from a gathering of people to a formal training event. The hourly side tracks that more carefully because it's a contract negotiated figure with the union. It's highly proprietary but the figures are sort of there. That's total Ford, but doesn't include the salaries or time off the job, that's the actual investment the company makes.

(Rothermel)

NAET staff acknowledge that some of the courses offered can be delivered more cheaply by external competitors, for example where the content is mainstream computer applications based (MS Word or Excel). However, many of the courses they deliver 'are so unique that, except for a degree offered somewhere at a university, this is the only place to come' (Tom Doyle, Core Technical Training, NAET). Often in plants, or locations distant from the corporate headquarters in Dearborn, it is more cost-effective for a consultant to go into the workplace and deliver training. Ford employees (usually in workplace teams) come from across the world to attend courses at the Executive Development Centre. Costs are carried by the sending organisation—'if they don't send them, signed up to send them and things get too hot, then we charge them' (Trewick).

Ford has invested more than $100 million in the FORDSTAR network, but not before its proponents guaranteed a significant return on investment. However, the FORDSTAR network was able to reach into 100 per cent of its target audience because it brings together training, communication and collaboration—and training delivery is not its primary function.

Even to get it on the agenda, we had to show a 35 per cent ROI. That's the benefit of the synergy between data and video: we were able to reduce dealer and our data movement costs. We were able to save dealers about $11 million a year, and ourselves $20 million, just in data movement. We use the network for three things, training, communication, and collaboration. Collaboration will put more on the bottom line for Ford than training will. If we can get early problem definition back to the assembly line, we can make changes on the line that will prevent problems. Management were sceptical: it took us a good portion of a year. We got every organisation within Ford that does dealer training together. We had to generate that 35 per cent ROI with hard numbers. We came in pretty close with hard numbers and they gave us some latitude because we believed in it so much. We far exceeded expectations. We never thought we'd do so much training. Much greater communication and collaboration too. Reduced amount of travel, reduced the cost of collaboration, increased the speed of communication. I'm not talking about the quality of communication, but in terms of the ability.

(Conley)

The investments in education and training discussed here do not include salaries, or time out of the workplace to study or attend courses—nor do they include the costs carried by franchisees (also in time for FORDSTAR or in actual dollars where employees participate in face-to-face classes).

FORDSTAR's 'do-it-yourself' MIP—multimedia instructional podium—desk, which positions the course presenter and one technical assistant as solely responsible for the course delivery, in much the same way as a radio announcer works almost single-handedly, was also developed out of a concern for the costs of broadcast delivery. Conley says the push to automate the technology side of delivery followed his realisation that every time FORDSTAR went on air:

> *people would come into the studio. Thirteen people not counting instructors and observers! I said "I can't afford this for very long: it's costing me $1 500 per hour satellite time, and 13 people, set-up people, camera people". So I looked at John (Ulrich) and said "your job is to automate this thing, no more than one person along with the instructor".*

In the past, Ford's training arms had had 'bottom-line' objectives—and some still do. The FTDC, for example, charges a fee per participant for all courses, with the fee varying according to mode, length of course and so on. NAET staff also offer to facilitate meetings and plan conferences.

The original Ford Marketing Institute, which provided courses to dealers, was expected to generate revenue—the highest of which, in 1992, was about $8.8 million. However, the introduction of FORDSTAR has shifted the cost balance. Dealers pay a monthly flat fee for the satellite service, and are not charged any incremental fees for training. The introduction of FORDSTAR included a guarantee that the company's 10 most popular courses would be converted to the new medium. 'At that point in time it was difficult for us to go to the dealers and say we want to run a three-day event in your locality and we want you to pay … when they can turn right around, turn on that TV and it has no incremental cost' (Coffman). However, dealer courses are still sold throughout the regions on a daily participant fee basis, 'or we will sell our package to a region for $2 400—for a training day—and they take on the burden of all the expense and everything and they can sell it to the dealers for whatever they want. We still make something out of it and they make something out of it' (Coffman).

B2.5 Education/training model

Ford is in the midst of moving from a largely face-to-face model of training events, to more of a mixed mode model, which still includes face-to-face, but

as facilitative and in small group discussions. Ford appears to take a relatively holistic approach to education and training. It is willing to invest in policy and long-term strategic approaches to potential challenges with education/training solutions (witness its visiting engineers and university partners programs for example). At the same time, Ford is looking to technology to expand its reach and speed of delivery of education/training, while refusing to rule out face-to-face and other modes of delivery as important learning tools. Ford's education and training programs currently make use of traditional classroom teaching, workplace-based instruction, CD-ROM, satellite, internet and laser disc (declining). Ford has training centres around the world, some of which are based on site at Ford factories, others servicing regional operations or dealerships.

There is a fairly widespread commitment to the principles of adult education and learning: Malcolm Knowles, one of the leaders of the adult learning movement in the US, was an advisor to Ford in the 70s, and his principles of adult learning have become ingrained in the company's approach to training.

Ford commits a minimum 40 hours training per corporate employee per annum, although this breakdown changes according to division and job classification. The training program is supported from the top down, and includes a heavy emphasis on workplace learning, applied learning, teamwork and mentoring. Tom Doyle says if he was responsible for the training budget he would probably invest even more on 'mentoring and sending people out to the organisation to help and much less on very basic information technology' and design and development. 'Because no matter if it's the highest engineer or the lowest whatever employee, there's that gap between training and application. Whatever medium we use, instructor-led or CD-ROM, they need that push, that reinforcement. I don't know if they have to come here, we may have to go there and help them.'

Primary concerns with dealership training involve reach, access, speed and incentive. FORDSTAR is seen as one solution to at least three of the problems—reach, access and speed. Dealers need only a television set (hooked up to FORDSTAR, which the dealership is already linked to for data and communication purposes), One-Touch keypads (which look like a remote control and allow the viewer to interact real-time with the course instructor) and a program guide, to participate in FORDSTAR delivered courses. Many dealerships situate a television set in the lunchroom, where staff can watch while they take a break, and occasionally have a second TV set in the manager's office or a meeting room. Access and reach were issues because 34 per cent of dealers were more than 150 miles away from a Ford training centre:

> and they're generally smaller ones. That straight away says a lot of
> people have great difficulty participating in training, and if my costs
> are an issue and I'm a small dealer, I can't send everybody to training,
> so I have to hope that somebody who takes it, comes back and

*regurgitates it to the rest, and they don't. Suddenly I've got employees
who aren't trained.*

(Conley)

Speed of reach is also an issue. Before FORDSTAR, when a new model vehicle
was introduced, 'in a 90 day period with 162 people on the road, we would
only get through the major metropolitan dealerships. … we'd get one or two
who were expected to take it back to the rest of the workforce and never did.
And we didn't get distant people' (Conley). Conley says in 1994, when
FORDSTAR was first getting underway, his section delivered just over 150 000
class sessions using CD-ROM, classroom and a little FORDSTAR. In 1997, they
delivered 717 000 classes, mostly via FORDSTAR and CD-ROM.

B2.5.1 Curriculum design process

Ford's corporate and dealership training programs primarily rely on outsource
models for development and delivery of courses. The NAET section is staffed
by 30 Ford employees and 180 contract staff. 'Even though the numbers may
be different, as you go from training function to training function, the ratio of
internal staff to contract is probably the same. Worldwide, we have 250 in the
training centres' (Rothermel).

Ford's corporate curriculum design process is also in a state of transition, moving
from a 'catalogue driven entity … part of HR but somewhat isolated … guided by
needs assessment' to more of a 'performance consultant' process (Doyle). Much
of the curricula currently on offer was determined some years ago through a
global tactical needs assessment. Further input was provided by the Ford Design
Institute. Doyle says when requests for training solutions are received 'we go out
and scope the request', a consultative process enabling them to determine better
and more easily the intervention that should be made, because 'we all know
training's usually not the intervention that's needed'. When the decision is made
to develop a new training program, an in-house team of performance consultants
and instructional technologists works with the technical area subject matter
experts to develop the course. Doyle's team then scripts a leader's guide, hires
and certifies instructors 'and manages that whole process'.

Development of FORDSTAR courses begins with 'front end analysis' (Conley)
where the FORDSTAR team aims to identify the role and purpose of the training.
Conley says the process is also looking at whether there is:

*a business value in it because we don't want to be training unless there's
a business value. So the purpose of my front end analysis people is to
identify what is the performance deficiency that we want to correct and
is it worth correcting? Is it something people do frequently and there's an
economic reason to correct it or is it something that's so important that if
they do it wrong once we have a catastrophe? We try to prioritise our
resources based on what are the most important performance*

discrepancies that our dealerships face in various positions that we need to train to. That's the first step. The second step then is: what is training's role, and what are the competencies, and what's the gap between the skills and the competencies.

Once these initial questions have been answered, and a decision made to proceed with a FORDSTAR training solution, the resulting information is handed over to a design team. Corporate project managers work with outside vendors on all courses, because of a lack of in-house designers: 'Ford's a pretty hollow operation in this area' (Conley). These external vendors often work with Ford on a relatively frequent basis.

I've insisted all our design houses have graduate level if not doctoral level instructional design skills available, if not on their staff, and that they also participate in some of the courses John (Ulrich) organises on "how do adults learn, how do you design for this media, how does the brain work". So they're getting a new CD from me, but I want to make sure they're philosophically where I want them to be, otherwise they'll never exploit this technology.

(Conley)

Coffman says the external team typically involves a writer, one or more instructional designers, and a range of subject matter experts, internal and external.

The shelf-life of FORDSTAR courses varies depending on their aims, objectives and point of origin. Policy-related Ford Motor Company courses (like those dealing with warranty policies or liberalised dealership payments) have relatively short life spans, perhaps needing to be changed every year—even if the changes are relatively minor:

when that new (warranty policy) manual comes out my old course is not obsolete, but it's not useable either because I have to take the shell, the approaches that have proven workable in those programs, and infuse the new information into it … Let's say I have 12 warranty type courses. The longest is four hours, the shortest is one hour, most of them are two hours and of those 12, on two of them I'm out of business just a very short time, maybe just a couple of weeks. Maybe 3–4 weeks max. The others I'm out of business for a while.

(Coffman)

Similarly, any courses which are relative to a particular product or are model-year specific need regular updating. However, general managerial or 'soft skills' type courses—like resolving customer concerns, leadership for dealership managers and so on—need less frequent revision, and may last up to three years.

B2.5.2 Content

Ford corporate and dealership courses cover a wide range of subjects and issues. The training focus includes job-specific content, core corporate material and soft skills-related subject matter. Courses are clearly catalogued and organised by topic and category. They are also grouped in sets of recommended curricula for specific job categories or roles.

More than 400 corporate training courses are offered in the following areas:

- management and general business training (sub-categories include: language and culture, communication skills, general business skills, process leadership skills, secretary/administrative skills, training/facilitation skills);

- computer training (application development, fundamentals, project management, spreadsheets, databases, graphics, CAD, environment);

- technical training (fire protection, global prototype inventory requisitioning, manufacturing support, product development, quality planning, reliability, safety, simulation, transportation of hazardous material); and

- personal and professional development (courses include: career mapping, pre-retirement planning, creative thinking, advanced reading skills, managing stress, making diversity work).

Ford has identified a priority program to encourage leadership behaviours in its corporate employees. A number of courses are identified as being BLI (business leadership implementation) aligned, with more to be developed. An April 1998 document identifies 12 categories of Ford leadership behaviours:

- integrity: 'does the right thing'

- courage: 'takes action in the face of challenge'

- durability: 'perseveres despite hardship'

- people development: 'teaches, develops and motivates people'

- teamwork: 'collaborates to achieve results'

- communication

- desire to serve: 'demonstrates personal commitment'

- drive for results: 'gets the job done'

- systemic thinking: 'sees beyond the details'

- business acumen

- innovation

- quality methods: 'understands what it takes to do quality work'

With respect to the content of dealership courses, the FORDSTAR training catalogue, sent to each dealership monthly, lists courses in the following category groups:

- FORDSTAR orientation

- Parts
- Technical
- Parts and service operations
- Sales
- Business managers
- General

Within these categories, courses are grouped according to sub-topic headings. For example, the May 1999 FORDSTAR catalogue lists 11 courses under the warranty and claims sub-category of Parts and Service Operations and 20 courses in sales, tools and support, a sub-category of Sales. These courses vary from 'selling to women'—a four-hour course which aims to increase awareness of women's marketing trends and identify positive sales techniques for selling to women—to 'selling luxury—the Lincoln LS experience', which takes an in-depth look at product features of the vehicle in question.

FORDSTAR course development staff say a research team was in the field in 1999 looking at those people who have moved beyond the survival entry level of employment in dealerships, in an attempt to identify the best kinds of training for intermediate and senior level dealership personnel. The research will be used to develop position-specific, competency-based, step-by-step training programs for these more senior staff.

They suggest content decisions are at times driven by corporate politics or reactive attitudes. For example, when FORDSTAR was first introduced, Education & Training guaranteed to convert the 10 most popular courses to FORDSTAR delivery:

> No matter what the course was, we would take the 10 most popular and we would convert them to FORDSTAR. We didn't agree with some of their choices because we didn't think it was the right medium, and you know it came down to a medium decision, but nevertheless that's what they did.

(Coffman)

Similarly, courses have been developed in an attempt to address perceived market difficulties:

> a handful of dealers, an equally small number of senior company executives sitting around talking about how lousy the car business was at that particular moment in time said 'gosh we need a training program like that, don't we?'. And sold themselves on it, threw I don't know what they threw at us —$100 000 or a couple of hundred

thousand dollars or whatever—and said 'see how fast you can go and make it happen' …

(Coffman)

The content of dealership courses treads an uneasy line between explicit and general. Demmer dealership employee Alan Riley says he recently completed a Ford in-class, on-site training course on noise vibration and harshness:

Well you tell that to someone and they think—'wow this guy went to school for squeaks and rattles and vibrations'. But they got so in-depth showing all the tools that could decipher a bad u-joint under a vehicle, a tyre that was out of balance, a vibration in an engine that would transmit up through the steering column and into the steering wheel. They showed the different paths that these things would take. Ten years ago this was unheard of. The depth that they went into this. To me it was like an engineering class—a college engineering class—you know the training has evolved to that point.

On the other hand, Cox suggests that while opinion and policy are often presented, there are some subjects, like compensation issues, which are not discussed or that are treated sensitively.

Courses are increasingly focussing on 'non-technical' or soft skills subjects, following market research which revealed dealers wanted help in these areas. 'They wanted help in how customers expect to be treated, as basic as that sounds, customer handling' (Coffman). Course content is likely to continue to evolve and change as dealers become clearer about the core competencies they want in their staff.

We're identifying what the market is telling us about what the core competencies are today and speculating what they'll be tomorrow, because clearly today's are not going to be the ones that enable the dealership to survive tomorrow. And that's where the education comes in, because we've got to get their minds and methodologies into a learning organisation, learning things for a world that's not well defined right now. We're literally trying to change minds and put them through a different curriculum.

B2.5.3 Delivery

Despite its complex organisational structure, the majority of Ford training takes place either in the classroom (workplace and training centre) or as distributed delivery (primarily through satellite). The shift in the nature of Ford's business has also seen a shift in the role of the class instructor: course presenters are most often subject matter experts or professionals in their field. 'The whole

role of our field instructors has changed: no longer is it instruction, but facilitating the skill building, coaching and counselling the role of the instructor has changed dramatically' (Conley).

Delivery modes vary according to the type of content, sponsoring training organisation and target learner cohort. Typically courses are divided into self-study or instructor-led, with the majority of corporate training offered on-site or in Ford training centres, and the majority of dealership courses now delivered using FORDSTAR. Some corporate courses are also delivered using the Internet or CD-ROM, and CD-ROMs were installed in dealerships when the FORDSTAR network was set up. Dealership courses are further broken down into instructor-led courses that can be broadcast via satellite and those 'which would still be done in the classroom, that could only be done in the classroom, eg, teaching people to pull apart engines, those are tactile skills' (Conley). Content with a longer shelf life is developed in self-study mode on CD-ROM, such as automotive electronics (which 'doesn't change very much, that's fairly stable technology'). Conley says classroom courses tend to deal with 'that which is changing and that needs a different type of environment'. Technology-enabled delivery has made a huge difference to the location of dealership training: 'before FORDSTAR and CD-ROM, 88 per cent of the training was done outside dealerships; today 92 per cent of the classes are completed in dealerships' (Conley).

Face-to-face classes are still considered essential. Coffman argues that FORDSTAR is perfect for delivery of facts-based or informative content, such as teaching somebody warranty rules:

> You can do all kinds of things with facts orientated stuff. Things that people need other people to help them think through—typically in a small group setting—or if there are things they need to be able to practise to do or things they need other people to practise to do, you can't do those on FORDSTAR.

> You can ask questions on FORDSTAR … you get put in a queue and you may or may not be asked. There are a lot of time constraints on FORDSTAR … if you are the 31st call and they are only going to take 10, well then you will be unable to ask your question. In a classroom you can bounce it off the instructor—there's more time. You can ask him on the lunchbreak or whatever.

> (Demmer)

Trewick (FTDC): 'We would never choose to put leadership things on a CD-ROM because that's not where people are. They want face-to-face, they're used to that, that's what the organisation's used to'. However, courses developed for Ford's customer service division or Ford Credit—the staff of which are widely dispersed geographically in little offices all around the

company—are more likely to be offered in a technology-enabled distributed mode.

> *These organisations are used to being isolated, not going to any kind of training, so they were the first not coincidentally to do interactive video, CD-ROM, the first to do distance learning. The organisation is much more prepared, they understand the need to get people to do this. So they are even putting leadership kind of training on mostly CD-ROM, because people are used to doing that, they've sorted out all the issues involved.*

> (Trewick)

All Executive Development Centre courses are in face-to-face mode, reflecting the primary networking and peer learning objectives of this area of training:

> *Most of what we do in our programs is just getting people to talk to each other, because these are high-level people and there's a lot of information to share. And it's not easy to replicate that, most people at that level aren't on chat rooms, so they don't know how to chat, in the same kind of way. If we were able to replicate that kind of networking and peer learning electronically, we probably would be able to do the same kind of things … Almost 50 per cent of our objective is networking and peer learning, and face-to-face with senior executives, learning to talk to them, learning to confront them as well as to listen to senior executives. And eventually we might be able to do it electronically, but it's hard enough to do it face-to-face.*

> (Trewick)

Ford training and education staff—whether developing courses for corporate or dealership employees—have a common commitment to managing and supporting the learning experience, despite the abundance of courses and options.

> *We've seen that because organisations don't do preparation, it wasn't clear to learners how to manage their learning. "Should I try this all at once?' 'Should I try to take it in chunks? Do my manager and support people understand what I'm trying to do?" We've got a lot of cubed office environments, there are a lot of environmental distractions, how do I manage and factor in all those things and then I'm learning very complex content: it can be very demanding to do that without the right kind of support, to make the right choices.*

> (Karen Hudson Samuels, Learning Strategy and Technology, Ford Education and Training)

Frequent mention was made of the wants and needs of adult learning and importance of catering for adult learning styles. Conley says this emphasis directs the development of FORDSTAR courses:

That means I can say "How does an adult learn? How much can they grasp in a sitting? What practice do we want them to do to make sure they retain it?" and give it to them in that size chunks. My favourite class is a half-hour class because that's about all my mind can absorb. We limit the classes to two hours because that's how adults learn, and we don't have to push it. We can adapt it. We've spent a lot of time: John's in charge of our quality control and he's spent a lot of time training our instructional designers into how do you develop for this media which is very different, and how do adults learn, how does the brain store information …

Doyle also highlights the continued preference of corporate employees for face-to-face classes, citing 'very low' responses for internet-enabled courses.

I think it'll take a push from management, because it's the timing. To get 30 000 people through these courses took years; now—theoretically—they can do it quickly, over night, over the weekend, except for face-to-face. But they're still choosing instructorled and many of them are younger. The demographics show they're younger, they're newer employees, less mature in their careers, so they're younger than the average but they're still choosing the face-to-face.

Conley says the introduction of FORDSTAR has not signalled the end of Ford's physical training centres: 'they're probably utilised as much, but they're used for a different purpose'. He says in the technical training area, curriculum has been divided according to what seems the most appropriate delivery mode. The typical curriculum has some self-study, maybe reading or CD-ROM, some FORDSTAR, some classroom 'and they're blended in at the right time in the curriculum. 'I learn this, then I go for hands-on'. But I don't go for four days, I go for four hours of hands-on, then do something else'.

B2.5.4 Technology

The organisational fragmentation that characterises Ford's education and training activities is reflected when it comes to approaches to technology. Those delivering corporate training have been relatively slow to make the shift to technology-enabled delivery, and the limited work that has been done in this area is CD-ROM or Internet-related. In contrast, FORDSTAR represents a major investment—philosophically and economically—in a technology solution and its champions, such as Conley, do not yet consider the Internet provides a viable and sustainable alternative.

We wanted to get messages out there very fast … we wanted to reach deep down … CD-ROM and satellite are so helpful because they allow us to overcome geography and drive it (training) deeper into the dealership. A dealer may have an employee who looks to have potential and one

who doesn't and the dealer will say "I'll pay for one, not the other". Now the training's coming into the dealership and it's convenient, both of them will get trained. In some of the smaller dealers, Sleepy Eye Minnesota, the two partners are the dealership. If one goes into training in Minnesota, a couple of hundred miles away, the other can't even go home for lunch. Now it's all right at the doorstop.

(Conley)

As mentioned earlier, with the help of FORDSTAR the E&T division went from delivering 150 000 classes in 1994 to 717 000 classes in 1997. FORDSTAR now delivers 450 classes a month, broadcasting 1400 hours a month over six time zones and typically attracts between 30 000 and 40 000 students a month. It has the ability to deliver all-day broadcasts on 10-15 channels (although seven channels were used for this purpose in early-mid 1999). An instructor, positioned at a MIP desk, speaks direct to camera (and an unseen audience that can range from 20 to 300 workers). The system allows integration of presentation software and connects to the Internet as well as supporting two-way audio, one-way video link-up. Guest speakers can be included in any program and the system software, One Touch, provides information at the click of a mouse or touch of the screen. This information includes the number of sites logged on, the number of students logged on, and flags those students who have questions or concerns. It also provides immediate pre- and post-testing systems and analysis of test results. All test information is scored, and reported back to the dealership, with both student and manager having access to it.

Dealership employees log onto a class using their social security number to get onto the network, and connect to the host computer. Participants use a keypad to respond to questions; the presenter/instructor immediately gets a histogram of the responses. Multiple choice questions are usually built into the course. Students also have a call button on their One Touch pad (which looks like a remote control), the instructor switches to them when he is ready to take their question. Students have a microphone, and all watching can hear the discussion. Up to two students can communicate at once. FORDSTAR courses are accompanied by detailed workbooks.

FORDSTAR is a tightly structured, very focussed system, pitched to and aligned with the interest level of dealers, and premised on both the aforementioned adult learning principles, and basic tenets of broadcasting—delivering a message directly to the viewers and endeavouring to keep them engaged with the screen. However, the delivery model presents problems in terms of instructional design. Conley says while the One Touch keypad is essential, course designers tend to build all interactivity around it.

And we're saying "no, we don't want that; we do want keypad every five to seven minutes to keep people alert and awake and tuned into your message but we want to teach in the manner in which adults learn:

interesting, involved!" You have to design exercises very creatively; maybe a competition between dealer groups to get the right answers: or someone from Boston vs someone from LA … We have to get our instructional designers to build fun into the course so adults are interested, and feel that they're participating and are. It's a tough task.

Design of program materials is also a challenge: the FORDSTAR camera cannot focus for the entire program on the face of the presenter, instead it will switch to course materials and graphics, such as PowerPoint slides, which emphasise salient points (these then comprise the majority of the course workbook). The challenge is to get the point across in the least possible number of words:

We've spent a lot of time on that because it's the only way you can exploit the media. We want the graphics to be like a bumper sticker: very easily read, easy to understand, we don't want a page of text on the overhead (screen).

The FORDSTAR model has also evolved: where developers initially thought they could broadcast all-day courses, they have learned to modularise. Coffman says the initial concept was that programs would be four, six or eight hours, with no more than two hours broadcast at the same time each day. Courses would be repeated morning and afternoon and the entire class would be completed over a number of days. Unfortunately, dealership staff reported the model was not working for them.

Maybe somebody could come Tuesday and Wednesday, but not Thursday and Friday. Or they could come everyday but Wednesday, but there would be that void, or they'd never pass post-test in all probability … Well there was almost a hue and cry "bust them up into littler pieces, find logical subjects that represent content that you can train on and give them to us in one hour or two hour chunks. It's okay if you need all three chunks but coming in Tuesday, Wednesday and Thursday at 10o'clock is probably not reality for most of us. So if we are going to help each other, make them shorter". We've done that.

FORDSTAR can run up to eight classes simultaneously. Most classes attract 20 to 30 participants, some classes get up to 300 viewers. Participant numbers vary according to course content, whether or not the course is required, and external/environmental factors.

What I find fascinating is how quickly FORDSTAR shatters the ego of the Ford Motor Company. Say I have a course on the Ford PC operations and I think it's the most important thing in the world, but nobody shows up to my class!

(John Ulrich, FORDSTAR Operations Manager, Customer Communications and Satisfaction,

Ford Automotive Operations)

Courses that depend on 'fairly heavy verbal involvement' (Conley) are reduced to smaller class sizes. Technical training courses are less focussed on verbal interaction and more on digital interaction through keypads. As a result classes are larger, with on average more than 200 participants per course.

Dealership employees suggest FORDSTAR is a great information and technical training tool, which allows them to carry on with their daily work, while learning. They suggest it is especially useful for entry-level employees, those new either to the automotive industry or Ford itself. Demmer says FORDSTAR is a good compromise between face-to-face and technology-enabled delivery.

> *In the past when we'd always go off-site for class, there were certain types of classes you may not normally take because you might not think they are important and this makes it easier to take some of those marginal classes which do have some importance—it's just that you don't know they're important until after you take the class. The capability of taking it without taking a big bite out of your work day.*

Conley says FORDSTAR was the logical solution for an organisation 'having a tough time keeping up the classroom training'. He says FORDSTAR is an 'even better' answer for the non-technical area because of the ability to 'chunk' the training:

> *We would take them out for a week of training and stuff so much into their minds and they'd go back and didn't have enough time to put it into long-term memory, or practise it and the forgetting was very fast. But because of the logistics and cost of travelling, you wanted to shift everything into their heads. Over FORDSTAR I can give it to them in 30 minute chunks.*

However, Demmer dealership employees themselves expressed concern at the one-size-fits-all nature of the courses delivered by FORDSTAR. 'Maybe it is because they are broadcasting to a large audience and they have to start from someone who doesn't have as much experience as possibly I would or someone else. It was very basic' (Steve). They suggested FORDSTAR courses should be pitched to different skills levels and could be targeted more precisely. Their comments demonstrate that even supposedly homogeneous groups have different learning needs and preferences; for some employees, the decision ultimately is one that reflects personal learning styles:

> *Personally I like the old way better because I actually think you learn more out of it … you go to the class, you know it takes you away from your work site for a short period of time but I honestly felt that I learnt more in those classes … if you go to class you learn hands on. You watch the TV you don't.*

(John)

With respect to the use of technology in corporate education and training, NAET is looking to Web and CD-ROM as its primary technology interface. Doyle says with the technical education curriculum the driving force for a shift to the Web is 'the numbers, and the feeling of management that it was critical that they wanted to get the whole workforce through all these modules more quickly than originally planned'. However, course developers are struggling with meeting training objectives and dealing with what works—or does not work when integrating technology into training. NAET has a media selection model that course developers can use to determine where, and what type of, technology is appropriate. However they say this is contrary to a position expressed in some parts of the corporation that more staff can be moved though courses much faster if the content is technology-enabled. Such an argument fails to recognise workplace realities:

> *that's in a lab environment where you can reduce the time. In practice, you can't shut the door! It might take me months to complete a course that was shortened to four hours from eight hours, but it takes me a month to go through it because I'm taking it in smaller pieces.*

(Hudson Samuels)

NAET staff say they are confident both technology and face-to-face learning are equally effective if courses are well-designed and well-supported during delivery. They say, where courses are well-designed and well-supported, 'time-on-task' is one of the key factors likely to influence the effectiveness of the learning experience. However, they suggest in the past there has been too much of a willingness to simply transfer existing courses to a new medium, without considering whether the program is appropriate or suitable—and without re-purposing the content. They also identify clear preferences for face-to-face delivery where the content being introduced is new to the participant. Desktop or technology-based delivery is an option when the content is reinforcing prior learning or updating already-acquired knowledge:

> *The main outcome is to help people do what they need to do immediately more efficiently: 'I need that task information right now'. If I'm acquiring a brand new skill set or knowledge, I don't know anything about this, this is my first time I'm learning it, learning at work, at your desk, may not be the most efficient or effective way at all. But if you're reinforcing and sustaining an existing knowledge or skill set, there's a different kind of story.*

(Hudson Samuels)

Computer training is offered in three modes at the FTDC: instructor-led, self-instructed or facilitated lab (mixture of instructor led and self-study). Hudson Samuels says the FTDC experience is that staff will go for the instructor-led option if it is their first introduction to the computer package, but 'if it's a new version, I'm just going to take the lab because I can set my own pace and I

don't need that reinforcement'. Hudson Samuels and Trewick identify a critical attitude towards technology-based learning:

> *they (learners) are less forgiving. I just did a study of safety training and if people had a choice, if they had not been through the CD-ROM or whatever, they would automatically choose group learning. If they'd had a good experience with similar information, they might choose a CD-ROM. The differences in attitude, behaviours or results? There were no differences other than I think there was less time on task for the interactive video and CD-ROM. But they would have chosen the group learning until you give them experiences otherwise.*

(Trewick)

Choice is also a key factor. Hudson Samuels says where learners are presented with a choice of modes, they are most likely to favour the traditional (face-to-face). She argues it is a different story when students are motivated by a desire to get a degree:

> *When you're geographically dispersed, and you want to get a degree, particularly from a certain type of school, you're going to take and endure however it's going to be handled. They (universities) tend to do better I think at web-based training than what we've done so far. University models, they're doing it all the time, they don't isolate the learner so much, you've got chat, you've got reinforcing behaviour, so it's not a bad experience. But then there's no other choice. If you want that, that's the only way to access it. In corporate training we're often competing where there is a choice. I can have classroom or I can have the other and they'll choose the classroom.*

However, management's intention is to eliminate choice: all instruction will be moved to the Web: 'that's what they say now' (Doyle).

B2.5.5 Evaluation

The corporation refers to the standard Kirkpatrick model of evaluation, with most courses undergoing level 1 and 2 evaluations. However, both corporate and dealership curricula developers are trying to set up more rigorous evaluation of non-technical courses. It can be relatively easy to evaluate the effectiveness of technical training which can be linked 'right to performance on the job' (Conley). For example, he says, dealerships service 1.5 million warranty repair orders a month:

> *that gives us plenty of knowledge of you: you put your social security number on that warranty order when you do it, so we can look at technicians all across the country and know how well they're doing.*

*We linked our training records to that, so now I know you're having a
lot of repeat repairs, and you haven't been trained. Well, shame on us.
And I can start to do correlations: once you've done the training, have
you got reductions in the number of repeat repairs? We're trying to do
the same thing with Education and Training … to link it to
competencies and performance on the job.*

B2.6 Source of teachers

FORDSTAR courses are delivered by independent contractors, hired in as
training facilitators. Coffman suggests there are about 30 trainers on contract,
14 working on FORDSTAR alone. All trainers go through an induction and
development process. Presenters typically come out of the automotive field
and have some degree of expertise. Dealership experience is a positive
attribute, however trainers tend not to be working simultaneously as course
presenters and for a dealership (as the dealer must approve this outside work).
The dealership course developers put a heavy emphasis on facilitation skills as
opposed to subject matter expertise or knowledge: 'by saying facilitator, I
mean they have good classroom facilitation skills, as well as being a subject
matter expert' (Coffman).

Those hired for FORDSTAR also must pass an audition, which looks at their
camera presence, confidence and so on:

*It's entirely possible that this person can't cope with the loneliness of a
camera lens in a little cubicle, distance-learning training cubicle and
just fail miserably … We have had facilitators that intuitively we knew
would be great FORDSTAR facilitators. Even more awkwardly we've had
other facilitators served up to us by other people who were stakeholders
who really knew how great they were at classroom instruction. They've
said "we want you to take every short cut you can in getting Greg ready
to be one of the FORDSTAR facilitators" … Well Greg might just fall on
his face and you go back and tell them that it didn't work out with Greg
and … they can't believe it. We've had facilitators that … have …
mastered complicated training programs that they didn't know before
and gone out and ran outstanding classroom seminars, and you put
that same individual (on FORDSTAR) and you know … they've
practised, (but) they come across and you think they were an axe
murderer on the FORDSTAR network or worse, just freeze up.*

(Coffman)

The ability to interact with just a camera and participants who are numbers on
a screen or voices at a distance is an art in itself.

When you go into run a seminar class you get charged up and energised by that group and when it's over with you got that adrenalin probably carrying you for another one to two hours … But when you go on FORDSTAR … desk … either it's going to energise you or it's going to drain you.

(Cox)

Once the decision is made to hire, facilitators begin their induction and development process, spending eight to 10 hours of rehearsal for every one hour of broadcast time just to prepare to deliver that subject. Cox and Coffman say the ratio of rehearsal to broadcast time has been as high as 20:1 and can even go lower than 1:1 where an experienced facilitator takes on a new course. Most new facilitators need at least five hours' practice on the MIP desk.

Conley suggests the secret of FORDSTAR's success is that the 'people delivering the course know something about it; we don't use actors'. While presenters do not follow a script word-by-word, content of the class is 'choreographed' (Conley), taking into consideration the timetable demands of satellite programming and the size and nature of the audience. Presenters have to follow the prescribed pattern, but can be flexible: 'because you're a subject matter expert, you can field questions, engage your audience … but as far as winging it, that's not allowed' (Ulrich).

B2.7   Accreditation

Formal accreditation appears to be a non-issue at Ford. The corporation's extensive worldwide links with partner universities and colleges provides access to degree qualifications. Far more emphasis is placed on company certification, which now carries weight for both individual dealership employees and for the dealerships as a business. Coffman says certification should mean something: 'when … a consumer walks in the dealership and they see this plaque up there that says you are a certified sales consultant, it ought to say something about their performance'.

Employees who have Ford's 'Master' certification, which signals completion of specific training programs, can get a transcript from Ford which will show:

they have had every engine course, every electrical course … that's like money. You can take that and walk into a dealership 30 miles down the road and say, "… I am good at a lot of things from a standpoint of preparing automobiles, these are my training credentials" and it would carry a lot of weight.

(Coffman)

In recent years, Ford has introduced mandated training courses for dealership technicians working on vehicles under warranty. The dealership does not get paid for the warranty work it completes if its technicians do not have the right certification.

This relatively new policy has led to dramatic enrolments in certain FORDSTAR courses at certain times of the year. As Table 1 shows, course participation far outweighs capacity when certification deadlines draw near: 'so what they were doing in December was crashing the system, you know to get their certification in. They had postponed it as humans like to do' (Cox). The huge over-capacity figures follow FORDSTAR's shift to an open enrolment process. Typically, if a class is full (reaches capacity), others can watch but not participate interactively. However, on the last day of a course broadcast, in the last 30 minutes of that event, anyone who wants to log in can.

> So all of a sudden people can log in their social security numbers and come on for the pure intent and purpose to take the post-test because we want to capture it electronically to get it processed … so that goes on as part of their certification requirement. So that works but it causes us a lot of problems in that if we have a technical glitch we may have lost all of those. Or we would just have to pass them all—they never really took the test.

(Cox)

Table B1*: E&T Curriculum Overview USA 1/12/98-31/12/98

Name	No. of classes	Course capacity per class	Total course capacity	Total student part.	% of course capacity	Avg. no. part.	Post tests taken	Post tests average	% pass post test
The F-150 Experience	3	125	375	1004	268%	335	1004	98%	99%
1999 Ford Super Duty F series pick up	1	100	100	632	632%	632	632	89%	89%
The Navigator Experience	3	100	300	1007	336%	336	1007	88%	91%
PAS: Business D'ment	8	125	1 000	1959	196%	245	1959	92%	92%
PAS: Prod. Pres & Price Discussion	9	125	1125	2307	205%	256	2307	93%	94%
Win-Win Negotiating	5	100	500	1476	295%	295	1476	96%	96%

Excerpts taken from Ford E&T table dated 26/1/99

B2.8 Challenges

Various issues that could be seen as challenges to Ford's education and training efforts have been considered already in this case study. These include:

- the complex organisational structure of the organisation, with many non-corporate (franchise employees);
- the need to service equally important manufacturing and retailing core businesses;
- the worldwide operations base of the corporation;
- the shift in the skills base of the core manufacturing and servicing businesses from mechanical to electronic/computerised;
- a strong labour market resulting in the need to retain existing employees in a low-unemployment environment;
- getting the right balance between face-to-face and technology-delivered education and training;
- the need to deliver targeted courses beyond a 'one-size-fits-all' or lowest-common-denominator level; and
- different priorities and organisational objectives within diverse arms of the corporation.

All Ford corporate interviewees commented on the size, complexity and lack of formal alignment of the corporation's training activities as a challenge:

We have a lot of good things going on, all the key things you can think of … but because we're so big and things come out of different organisations, we're not all aligned necessarily … but I think that's changing, I think the CEO is very interested in seeing that alignment.

(Trewick)

Hudson Samuels says she believes NAET delivers services and products well, 'but I don't know if we have a strong enough strategic vision of how all the pieces link together, so the line organisations appreciate the fact that we deliver'.

Doyle argues that one of the division's strengths is also a challenge:

We try to serve all our customers and that's a negative also … we can't be all things to all people, technical, non-technical, leadership. All over the map and it's at a level that perhaps is too high and we have to look at the value-add to the company, to the bottom line … we're trying to focus more laser-like so we achieve more and add more value. We have more than 400 courses on our catalogue, and it's very difficult. There's

a demonstrated need through the needs assessment for the majority of them, but I'm not sure today if that's the best use of our time and our resources.

The Education and Training Division's need to deliver courses for dealership clients using a 'carrot and stick' approach to entice dealership workers into its classes is a significant challenge: 'we don't mandate that the people get the training, and thus if the person doesn't believe that the training's useful, they'll avoid it in the future' (Conley). The Division has some limited powers, which compel dealerships to participate: 'if anything the major manufacturing corporations have less control today than they did 25 years ago'. Conley believes offering training that is relevant to dealership staff is his division's single biggest challenge.

Major challenges will continue to accompany questions about the place of technology in Ford's education and training program. Conley argues technology-delivered courses have to be done well: 'Most of the people involved in what we do come out of the classroom training environment, or preferred the classroom training environment, and getting that change done well is a monstrous job'. Interviewees suggest some decisions in the past have been based more on a 'let's use FORDSTAR mentality' than what was appropriate for the training situation at the time.

> *Basically the approach was "see how well you can do it on FORDSTAR. We are willing to take some short cuts. We are willing to make some compromises". I've heard this comment several times, "I'd rather have 70 per cent of the training value put forward to a 1 000 people on FORDSTAR than have 100 per cent of the training value put out to 350 people in the classroom". And sometimes we just did it and other times we said, "well wait a minute what if we were to tell you won't get 70 per cent, would you settle for 35?". That, that's when usually the walls went up and they said "wait a minute, we are not communicating with each other. Let me just say it one more time. See how well you can do it on FORDSTAR" and those were the marching orders.*

> (Coffman)

B2.9 Future Plans

FORDSTAR look set to continue as Ford Motor Company's main outreach to dealerships, with efforts underway to increase reach outside the USA. Conley says the staff in other countries have to be committed if FORDSTAR is to work for them:

Australia came up with a business plan and a fervour to get IT. If we shove it on them, it won't work. It's a tough enough ask, that the people behind it had better be passionate about it, or it won't work. We had it studied in Europe but there was no one passionate about it, so we didn't put it there. South America, Mexico were crying for it. Japan is looking at it. If you haven't got multipoints though, it's not economical.

And, while Conley and his staff have been looking at the potential of the Internet as a delivery medium, they are yet to be convinced of its suitability and capabilities. Conley says he has struggled to find someone doing something visionary about the medium:

we didn't see anything we could use now or anything better than FORDSTAR short-term … But we're constantly listening, looking and trying to find people doing more than sharing information. Most of the training we've seen over the Web is just putting information out there. Learning styles mean nothing. ID means nothing. "If it's there they'll learn." That's not the case in life. And we haven't found anybody measuring anything, evaluating or testing anything. You can do testing over the Web but evaluation is non-existent.

Documentation

FCSD Curriculum Overview—USA/Canada 1/1/98-31/12/98
FCSD Curriculum Overview—Jan-Dec 1997
E&T Curriculum Overview—USA 1/12/98-31/12/98
E&T Curriculum Overview—Jan-Dec 1997
Education and Training Overview
FORDSTAR Distance Learning Historical Data
FORDSTAR StarGuide (Course catalogue) April 1999, May1999, June 1999
FORDSTAR Dealership Training Planner, Non-Technical Training January-April 1999, May-August 1998
FTDC 1999 Supplier Training Services Catalogue
FTDC Employee Training Services Guide January-June 1999FORDSTAR Sales Operations Management Course workbook
Ford Leadership Behaviours 1998

B.3 Arthur Andersen Performance and Learning

B3.1 Organisational context

Arthur Andersen Performance and Learning (AAPL, www.arthurandersen.com/aapl), is the training arm of Arthur Andersen (AA), one of the two business units of Andersen Worldwide. Established in 1913, AA is a global, multi-disciplinary professional services organisation with 1998 revenues of over $6 billion gathered from over 100 member firms in 81 countries.

AA's four professional service categories are:

- Assurance and Business Advisory;

- Global Corporate Finance;

- Business Consulting; and

- Tax, Legal and Business Advisory Services.

Unlike KPMG and the GartnerGroup, AA does not currently include its Education consulting as a separate industry program like Healthcare and Energy.

AAPL, previously the Professional Education Division of the Centre for Professional Education, focusses on the design and development of professional education, and was established to support the learning and education needs of over 72 000 employees working in the four professional service categories. Jon Olson, Partner and Managing Director of AAPL, has only recently begun reporting to the managing partner of Human Resources and believes that AAPL now strategically aligns with the AA vision 'to be the recognised leader in performance enhancement'. AAPL consists of three sub-groups: Client Services, which liaises directly with member firms and external clients, and designs develops and delivers training products and services; Technical Services, which also includes instructional design, graphics, and technical production; and Operations, which provides administrative support.

B3.2 Organisational/training goals

Arthur Andersen based his organisation on the notion of acting as 'one firm' and speaking with one voice, hence the AA culture is predicated on

consistency. This consistency in concepts, techniques, language (English) and management has resulted in a single world-wide operating structure, and enabled AA to expand profitably into international markets while maintaining quality of service. Education and training is focussed around their flagship training facility, the Andersen's Centre for Professional Education, at St Charles, Illinois. Purchased in the early 1950s, the Centre sits on 151 acres along the bank of the Fox River, and operates as a mini-campus with hundreds of classrooms, more than 13 000 computer work stations, and accommodation for about 1 600. It hosts around

70 000 Andersen Worldwide professionals and visitors each year, and has meeting and dining amenities for more than 1 800 people. The Centre plays an integral part in preserving the Arthur Andersen corporate culture and is the hub of all Andersen training.

Education is pivotal to AA's mission as a premier consulting firm: its own employees are quintessential 'knowledge workers'; their competitive edge depends on correctly predicting business cycles and trends, interpreting the changing legal and regulatory environment, and devising corporate strategies. Hence Gary de Paul (Senior Consultant, Assurance and Business Advice Performance Enablement Group) says: 'We're educating our professionals so they can educate our clients'.

AA therefore promotes its education goals in terms of its client services: 'education has become part of an integrated approach to individual, team, and organisational performance, which enables people to respond to a changing world' ('Client Services Education Catalogue—Spring/Summer 1998'). Thus AAPL offers educational programs to external clients as well as to its own internal clients and members. It plans, develops, and delivers these programs tailored to individual client needs, and will contract for a corporation's entire training function. It also will teach in a limited range of languages other than English, in recognition of its global coverage.

Given the nature of the company, AAPL also undertakes research and development activities in areas related to the business functions. AAPL promises 'just-in-time, point-of-need solutions' to client companies' training needs. Its goal is best summed up thus: 'Our strategic intent is within the context of, and aligned with, that of the Business Unit—'to provide information and apply knowledge' to our clients in ways that enhance their business objectives' (AAPL 'Our future'), and to achieve this within AA as a whole, it must sell its services internally as well as externally, since it is a business unit in its own right.

B3.3 Learner demographics

Professional staff enter AA with at least an undergraduate degree. AA has a reputation for taking the 'best and brightest' students from universities, and while this has obvious advantages, the competitive nature of achieving academic excellence is seen as a distinct barrier to developing some of the 'soft' skills, such as effective team skills.

> *If they're truly the best in their field, they've always been recognised as individuals, whether at uni, or the business, and they're not willing to give up that reward which is an intangible reward, for a team award.*
>
> (Olson)

Training is an ongoing, career-long activity at AA—from first-year staff up to the most experienced partner—and courses at St Charles are attended by professionals from AA offices around the world. All professional staff, defined as those who deal directly with external clients, take 135 hours of training each year. Non-professional staff undergo 90-95 hours per year.

B3.4 Costs

AA investment in training is significant, with $372 million spent on training in the 1998 financial year, approximately 6 per cent of total revenue. This equates to 6.15 total participant formal 'sitdown' training hours per employee. Costs of attendance at St Charles vary: a one-day course costs around $500, and a three-day course around $1 700 depending on the classroom activities. Sometimes a client will be brought in to participate, anchoring the classroom activity to an authentic experience. 'In one course we're actually having to hire a retired CEO to come in and play a CEO. It's not cheap, but it adds to the experience. That's factored into our tuition (costs).' (Jodi Aleck, Manager, Business Consulting)

All related costs are borne by the individual firm: air fare, accommodation, food, as well as the cost of the course itself. This has implications for those AA firms in poorer countries and is one impetus for a move to distance education: 'In Romania it costs a year's salary to send someone over here, way too much, so we're trying to find other ways to meet their needs.' (de Paul)

AA does not judge return on investment solely on financial return, but believes strategically it is important to evaluate whether training meets key stakeholders' expectations. A model called Concept Mapping, Pattern Matching and Measurement (CPM) is used to establish ROI (Return On Investment) in addition to ROE (Return On Expectations).

The concept mapping component involves stakeholders brainstorming and assembling a prioritised list of desired training outcomes. The prioritised list is then evaluated based on its importance to the project's success. This is then matched to the project's observed outcomes.

B3.5 Education/training model

Olson views AAPL as a corporate university, however he believes the education and training model used is quite different to those of most organisations. After a visioning exercise in 1995/96, AAPL moved from their previously narrower view of staff training and into a supported environment of continuous learning.

> *We need to be more than training. (The learners) need to do something before they come. Learning is 'before', 'the event', and 'after'. We have to ensure they do all of that. That's the important difference—application. The 'after' is the difference between training and learning. We wanted to move from training to learning. We wanted to make them committed to continuous learning.*

(Olson)

This continuous learning environment focusses on working adults' professional development through formal courses, as well as point-of-need learning through coaching and mentoring and access to sophisticated performance support tools.
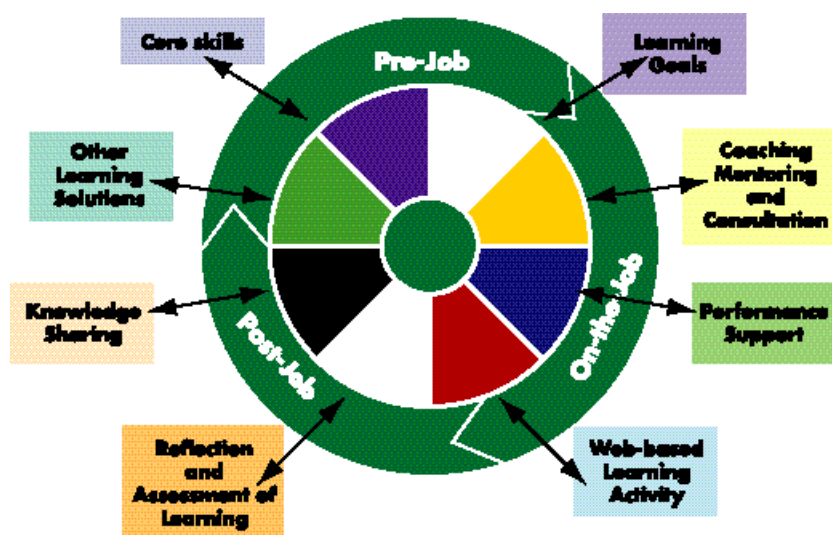
AAPL Continuous Learning Environment

AA uses three techniques for educating professionals attending formal courses at St Charles:

1 cognitive social learning—based on the notion that new professionals need to be part of a cadre, achieved through a cognitive apprenticeship aided by hands-on workshops involving the use of case studies;

2 traditional hands-on, reception learning, a 'knowledge dump' where information is transmitted to the learners; and

3 role-based scenario and guided enquiry (de Paul).

Courses at St Charles are held in residential block mode so that staff can fly in from all over the world for the course, 'hothouse', and then leave en masse, with Friday afternoon limousines stretching back through the campus taking staff on the two-hour trip back to Chicago. All courses are taught within the atmosphere of a common Andersen culture, with a strict dress code enforced in all but one area on campus—it is only in the last few years that the 'no suit, no dinner' rule was relaxed.

Internal courses at St Charles vary in length depending on topic, with week-long technology courses, and immersion courses like Business English running over two weeks. Class sizes vary, with larger groups sometimes having three or four instructors. Courses are streamlined, with AAPL well aware that 'time is money': 'You have to realise you're taking people away from business that generates revenue' (Susan Hopkins, Instructional Designer). Learner motivation is high, and so are expectations of what the course will add to revenue generation back in the member office.

The learner-teacher relationship is based on the practitioner-participant model, with Andersen participants viewing the instructors as coaches and facilitators who will also be learning during the course.

> *Not 'instructor' but more expertise and knowledge, that's what they're providing. Also, good coaches, because we do a lot of group discussion and presentation and we do have people who are not comfortable with presentation and (our trainers) say "this is a non-threatening environment, you should try it", so people skills are also developed in the course.*

(Yasumi Taniguchi, AA Japan, learner)

> *Everyone's (a) participant, even down to the facilitators—(they) are participants themselves.*

(Darrin Lee, AA Seattle, learner)

B3.5.1 Curriculum design

Course identification is driven by senior management through a partners' advisory committee, which identifies changes in industry sectors and organisations and recognises strategic training needs. Each course developed has a senior manager from the respective service line acting as a 'sponsor', providing high level advice—advising, for example, on whether AA will buy a course or develop it internally.

> With the project management course we knew there would be lots of courses out there. We did our initial search of vendors … but my sponsor said "that's not the way we do things at Arthur Andersen", so we (custom) developed the course.

(Aleck)

Before its visioning exercise AAPL custom-developed all of its own training material—a time intensive and expensive process which did not fit AA's need to react quickly in a rapidly-changing market place. Resources are now acquired where possible and developed when needed.

> We (used to) customise everything to fit our context. But that doesn't work any more if you want to create learning solutions fast, so we're looking much more at acquiring training when it makes sense, looking at starting from scratch as a last resort on pieces that do need to be customised.

(Aleck)

There is still, however, a strong tendency to develop in-house courses in most situations because the knowledge generated is proprietary or has commercial potential. The Client Services Group takes existing Andersen training that has been developed and sells it to clients where suitable, however this is done on a very limited basis. In some areas, they acquire rights and customise for their own needs: 'The Fifth Discipline—we bought the full rights to the book, and we can work out what we want to do with it' (David Schell, Manager, Learning Technologies).

AA is moving to a 'dual delivery' system of instructional design so classroom resources can also be available in the office or wherever the learner is located.

> So we're starting to work with the idea, as we're developing instructor-led courses, how do we capture that information, modularise it, we call them 'learning objects'—how do we create learning objects or put them up on the web so people can take them anywhere, anytime, any place, so if they can't get into a classroom, they can still get the training … the idea is that those materials are online for anyone else to access.

(Aleck)

AA has developed its own methodology of curriculum design, Method/E, which is a synthesis of AAPL's educational expertise. It adapts the standard Instructional Systems Design methodology, 'outlines a comprehensive yet cost-effective approach of achieving behavioural change through an educational process.'
(arthurandersen.com/AAWebContent.nsf/SysFrame/DDMFrame?OpenDo).

Method/E™
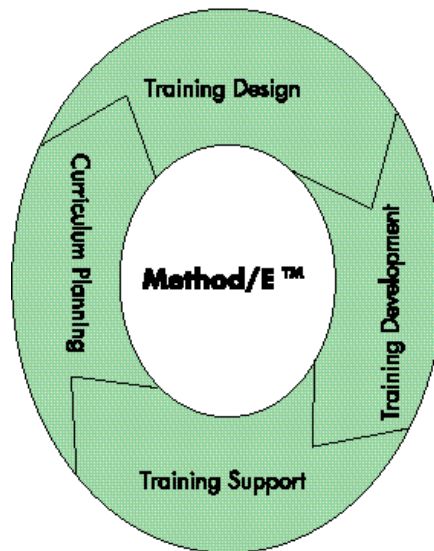
Method/E™ encompasses:

1 Curriculum Planning, which identifies the programs needed to address business and performance issues by analysing business plans and current operations. The outcomes of this phase are:

Curriculum Plan—a high-level description of the organisation's curriculum needs and plans for implementing the curricula in the long term;

Project Definition Reports—including work plans, staffing requirements, and resource requirements necessary to complete agreed course design and development projects;

2 Training Design, where an in-depth analysis of the training needs is carried out; the outcome of this phase is a Training Design Report, used as the basis for further developing the training program;

3 Training Development, where course materials are developed and evaluated; the outcome of this phase is the finalised training materials; and

4 Training Support, where training is monitored.

Most curriculum development is centralised at St Charles, ensuring consis-tency in methodology and quality. There are 180 professional education specialists within AAPL. The 20 who focus on development of resources come from a range of backgrounds including education, English, and social sciences (Aleck). Development time varies but use of the World Wide Web and associated development templates has meant that that these 20 staff have been able on occasions to develop 100 hours of training in only 90 days. More commonly, two or three content experts will work on courses in partnership with AAPL staff for up to three months, sometimes causing difficulty in Andersen's intense revenue-generating environment.

> *When they come here to do content, it's not chargeable work, so they're losing money, is the way they see it. That's a challenge. When we need content expertise for a long time, they would either send someone who wasn't valuable to the line practice at earning, so he's probably not much good at the content. So many times we would end up with content that wasn't as good as it should have been. We're convincing them now that if they want good training, they have to give us their experts.*

(Schell)

The firm's Intranet is increasingly used to get access to experts, both for course development and delivery, so by using technology: 'it doesn't matter if they can't come here for five days at a time, we can use them where they are for a couple of hours at a time … the best people are the busiest.' (Aleck)

B3.5.2 Content

AAPL offers courses in all four of AA's professional service categories, which subdivide into 40 or so distinct service lines. Because of their career-long education and training philosophy, Andersen cover the full range of interpersonal and information technology training. 'Because we have the leisure of doing career-long learning, we build all of what we call the 'basic skills' of the leadership program into a curriculum and it builds on itself every year.' (Olson)

Topics may have different emphases in different countries to accommodate cultural diversity.

> *Facilitation is not a positive approach in Asian culture, so we have to change that for Asia; we do 80–100 sessions in 'facilitation' in the US and Europe, but it's not popular in Asia. (…) (We) identify needs via a market analysis, I've been to China to discover how the local office deals with programs. Then we do a meta-analysis, develop the test, pilot it, the standard ISD progress.*

(Hopkins)

While acknowledging cultural diversity Andersen does, however, reinforce its underlying tenet of 'one firm, one culture', weaving it through all of its courses:

When we do a course, we're trying to socialise individuals to that particular field. You have a cadre of individuals that work with common understanding, common models, common techniques, technologies and frameworks. This is the proprietary knowledge. You have an outsider come in and our role is to socialise that person as efficiently and effectively as possible, so they can become a member of the cadre. We want them to internalise that.

(de Paul)

AAPL also makes its training expertise available to clients on a fee-for-service basis. Generic courses offered to external clients include 'Asking effective questions' (two days); 'Motivation and leadership' (one day); 'Finance and Accounting for the non-financial manager' (two days), and 'Asset and liability management' (three days). The Client Services group will customise Andersen internal 'Packaged Solutions' for external clients, offering a complete service that fits the client's particular business objectives and learning goals. AAPL has also modified some 12 000 plus hours of curriculum to make it non-Andersen specific.

B3.5.3 Delivery Modes

Although AAPL employs self-paced learning for some activities, the predominant model is face-to-face group learning in a class facilitated by professional trainers. AA professionals come together for training in local offices, at regional training locations and at St Charles. One-third of face-to-face training is carried out at St Charles, with two-thirds undertaken elsewhere. Technology-based training is used when instructionally appropriate.

It depends on what's being learned. ESL is immersion in the culture, but writing skills: you can use email. Delivery is not the first thing we think of: it comes later, after the objectives. … For interpersonal skills, it must be face-to-face, instructor-led, modelling on the person who leads.

(Hopkins)

Coming to St Charles is seen as offering a valuable cultural and networking opportunity.

I'm from Brazil … in our country we have some issues in our industries and we're having a lot of American industries and other countries' industries come in too, so it's really interesting to see the experiences and the ways people work

all over the countries so you get the understanding … of how they speak, how they use the jargon, how it's regulated.

   (Alexandre Serpa, AA Brazil, learner)

B3.5.4 Technology

As would be expected, technology use across AA is standardised, and includes Microsoft Office, Lotus Notes and KnowledgeSpace. Lotus Notes is groupware, and facilitates worldwide sharing of knowledge across all AA offices; KnowledgeSpace is the basis of Andersen's Global Best Practices® Knowledge Base, a dynamic collection of information used to improve client and staff skills, processes, services and products. KnowledgeSpace is also available on the World Wide Web to subscribers, encouraging participation in the AA community.

Technology-based training is increasingly being used within Andersen, from business television and computer-based training on CD-ROMs, through to AA's virtual reality installation, Tax Works, created to take AA into the 21st century business environment, but also part of AAPL's external offerings.

Tax Works was designed in collaboration with Disney, and is a futuristic environment which participants enter via multimedia to explore new ways of creating their future. The room is a three-screen mini-theatre complete with sophisticated lighting and interactive voting capabilities. AAPL's John Olson would like to expand AA's use of environments like Tax Works. '(It) was a risk … (but) we've never had anyone come in and say 'it's crazy' … they enjoy it.'

Technology-based learning is seen as an important adjunct to face-to-face for a number of reasons.

   We need to reach a global audience. We need to lower travel costs and accommodation and time to a central point of training. It's ROI. Even if the participant were not going to learn as much, the amount of cost saving would justify the change to multimedia.

   (Schell)

While AA is shifting to a greater use of technology-based training, Olson does concede there are cost implications: 'It's still much more costly to build technology-delivered learning. It also takes longer, and speed to market is terribly important. Now cost will come down and speed will come down, but not yet'.

The Internet is also used for training delivery, with Olson believing it is changing the way staff learn:

With technology-delivered training, it must be in smaller bites, in smaller times, pick up and put down. It's stop/start. It's more like learning objects. Break things down into smaller digestible learning objects; it's like Pacman, you eat enough then when you've got to do something else, you go away and then you come back and eat some more. At the end of the day, you've achieved something.

Performance support via AA's Intranet is also available.

B3.5.5 Evaluation

AA conducts extensive evaluation of all its professional staff and courses. Baseline competencies are established for each service line and AA expects staff to attain both broad and specific skill levels. 'Learning interventions' are performed on staff who are then reassessed to exhibit an increase in competency levels, providing a measurable result of the efficacy of the training carried out. Staff undertake development on the basis of 'shared responsibility', rating the firm through satisfaction surveys, and self-reporting on their areas of professional development need.

Feedback on courses run by AAPL is garnered from various sources, participants, and service line management as well as partners who have a concentrated client load in a particular industry. Participant evaluation of courses is both formative, before and during the training; and summative, after the training is completed. AA uses the four-level Kirkpatrick assessment model, and while to date the emphasis has been almost exclusively on Level 1, processes are being put in place to incorporate the remaining levels in order to gauge training results at both the individual and organisational level.

1 Reaction. AAPL has 'value added' to the 'smile sheet' approach by identifying predictors of participants' satisfaction with training, such as relevancy (right training at the right time for the right person) to collect information that is quantifiable.

2 Learning. AA gather quantifiable data in the form of tests, behaviour checklists, and computer simulations.

3 Behaviour.

4 Organisation.

This information is fed back into AAPL to assist it in developing focussed, appropriate training for both internal and external clients. AAPL also uses the ExCEED (Exceeding Client Expectations Every Day) methodology, adopted by AA to evaluate how it can meet and eventually exceed clients' expectations, to identify AA's learning needs from both client and AA perspectives. The evaluation group is separate from the instructional designers in the business unit, encouraging objectivity. Even the skill level of individual clients is

gathered informally from training coordinators and fed back to AAPL to inform the training profile.

B3.6 Faculty Profile

The majority of instructors at St Charles campus are not professional, and the courses they teach are not necessarily matched to their degree discipline. Rather they are active practitioners 'pulled from the line', asked to teach in areas where they have extensive practical experience.

> *I haven't spent a ton of time prepping for the class, because it's stuff I do every single day. I've been following this exact methodology for two years solid, so I look at it and I know what it's about, but then I'm able to bring examples of how I've used it. So hopefully people are learning how it applies in the practical sense and not just being conveyed this information.*

(Shari Katz, instructor, AA Chicago)

Instructors teaching at St Charles also see themselves as learners, with the teaching experience providing an opportunity to broaden their skills base, to share experiences with other professionals, and to further practise formal presentation skills.

> *It's a change of pace, a break from what we normally do, but also a chance to practise presentation skills, speaking in public, even speaking with a microphone, which is something I haven't done before, and as part of our job we are expected to speak in public, to give presentations, to talk to large rooms of people … although we teach and coach our staff, this is a very different situation, so we learn from that.*

(Julia Langdon, instructor, AA Sydney)

Andersen staff are fully supported while at St Charles so they can focus on the task in hand—facilitating others' learning. 'If a blue pen is needed when you're in class, all you need to do is pick up the phone and within five minutes someone will hand it to you' (Natalie Woodward, Client & Office Relations).

Instructors are viewed by participants as both teachers and facilitators: 'because we have experienced people and it is a lot of sharing of ideas and transferring of skills' (Lee). Instructors delivering training away from St Charles are local professionals who undergo 'Train the Trainer' courses to ensure professional teaching skills.

B3.7 Accreditation

Where once AA had the policy of 'up or out', linking their system of career-long learning into progression through the firm, attrition of good staff was wasteful of the firm's resources. AA has now positioned itself strategically to retain staff, with certification seen as a pivotal means of achieving this in the future: 'Certification is a way to retain people. We need to retain people. Certification is a competitive advantage' (Olson).

AA management has extensively debated whether there is advantage in formulating AA-customised higher degree programs. While there is an Arthur Andersen MBA program operated exclusively for AA staff by both Manchester and Leeds Universities, Olson sees the advantages of AA staff attending mainstream education programs. 'AA androids–all in one class, maybe that's not as good for personal development as a mixed class that's case-based' (Olson).

Courses taken at St Charles currently use self-assessment, so cannot be credited towards the AA MBA. Changing the current structure to meet government regulations would have severe cost implications for the firm, whether Andersen undertook to set this up themselves or in partnership with, say, a for-profit university, with one quote received in the order of $250 000. Courses can, however, be counted as part of Continuing Professional Education credit with professional associations.

Staff undertaking further study are supported by AA on the basis of shared responsibility. Participants are given financial assistance, and may be granted time to attend classes.

B3.8 Future plans/challenges

A major challenge to AA is in maintaining consistency and its recognised total commitment to quality within an environment of exponential growth. With hundreds of offices in dozens of cultures offering an enormous variety of services, Olson sums it up when he says: 'The challenge is we're too big'.

AA sees its 'learning organisation' focus as ensuring a competitive edge: 'We sell people. We sell people skills. And our clients buy people skills. We have to have our people one step ahead of our clients' (Olson). In AA's user-pays/cost recovery atmosphere, however, there is tension between this continuous learning imperative, the cost to member firms of purchasing that training, as well as the willingness—and in some cases the ability—of member

firms to spend a large proportion of time in training at the expense of revenue generation.

The two main technology delivery issues AA face in their use of the Internet for training and performance support are typical of many organisations—security and bandwidth. AA delayed its online learning push until it created a firewall that would support the level of security needed, and many of the technologies AA is seeking to adopt, such as video streaming, are not possible with so many of their professionals needing to be mobile, and accessing their Internet-based training away from the office.

There is also a reticence in using the technology. Most AA professionals are young, but according to Hopkins 'even they don't want to learn with technology'. Nevertheless, over 50 per cent of training at AA is delivered via the World Wide Web. The Internet is seen as having great potential in the AA environment, where probably only 30–40 per cent of professionals are able to access instructor-led courses because of the mobility needed in their predominantly project-based work. Probably 50 per cent of preliminary and advanced education will continue to be offered at St Charles, because it exemplifies the networking opportunities that are central to AA corporate culture, and because it represents in a physical way the epitome of American business education for international and national employees:

> We don't have an established practice in Japan, so I'm here to learn the new service line. We have a choice of either inviting someone to Japan and have this course, but this is the best environment to have a course. We get to see different offices and listen to different experiences and all the material is here and all the expertise is here, it's the very best place to get new ideas and knowledge.

(Taniguchi, student, AA Japan)

Documentation

AAPL 'Client Services Education catalog—Spring/Summer 1998'
AAPL 'Our future' n.d.
Smith, E. (1996). 'Continuous learning Arthur Andersen style'. Reprinted hand-out, originally published in *Corporate University Review*, 4(4).
1998. 'Performance and learning helps Arthur Andersen maintain status as world-class learning organisation'. Reprinted handout, originally published in *Emerson's Professional Services Review Journal*, March/April.

B.4 Microsoft

B4.1 Context

As the largest and most aggressive software developer and marketing agency in the world, Microsoft's reputation is that of the 'bogeyman' of the eduction sector, a reputation that may not be deserved, since in 1997 higher education constituted less than 0.1 per cent of the business (Cunningham *et al* 1998). Its co-founder, Bill Gates, has earned opprobrium for the profit the company has made over the last twenty five years, but he has driven a high profile business with a consistent effort to engage education consumers as the next/net generation, most particularly through software products and generic reference materials, such as the Encarta series, which are oriented to mass market purchase. Microsoft is not producing mass market curriculum materials. The company has also been in the forefront of multimedia and online applications for education.

Founded in 1975, incorporated in 1981, Microsoft quickly embraced the lexicon of the university, establishing its 'campus' in Redmond Washington State, in 1986. Windows 3.0 was only launched in 1990. The company is truly global, notwithstanding its strong physical US connection. It has a Manufacturing, Operations and Logistics division based in Dublin Ireland, a manufacturing centre in Puerto Rico, and an Operations and Logistics centre in Singapore. More significantly, its software is a global standard; 52 per cent of revenue is derived internationally (www.microsoft.com/presspass/fastfacts.html, accessed 12/1/2000). It employs nearly 33 000 staff worldwide, although over 22 000 are US-based. Almost half of these staff are engaged in Research and Development, with roughly half in Sales and Support. The majority (74 per cent) is male. In one sense, as an (applied) research organisation, it thus shares some of the characteristics of universities of technology.

When the interviews for this case study were conducted in May 1999, the company was in the throes of a 'core restructuring', into 'distinct customer-centred business groups'. It was also in the midst of one of the most-publicised anti-trust cases to come before US courts.

B4.2 Education/training goals

In one sense, the whole of the Microsoft organisation is an exemplar of a learning institution and a training institution, but the business is 'infrastructure

enablement'. The mantra at Microsoft is 'obsolete your own products'. Hence staff are constantly engaged in development. There are seven different training organisations within the organisation. They are:

- the learning solutions group, composed of Microsoft internal customers in the technical field;
- Microsoft consulting services, a post-sales group;
- technology specialists and systems engineering; a pre-sales development group;
- personal business systems;
- Microsoft Press;
- executive management development; and
- Microsoft technical education.

The seven training directors meet on a monthly basis and collaborate as much as possible to ensure non-duplication across a vast organisation. There is no immediate sense of the need to amalgamate these seven training groups into a single corporate university umbrella, nor is there a likelihood they will combine, since the company is based on separate cost centres. Ryan LaBrie (Technical Training Manager, EST Course Development) believes that if a corporate university were to emerge, it would be positioned under HR, and would not sit independently.

Microsoft is arguably closest to a virtual training institution in the sense of the 'hollowing out' of the educational value chain and its distribution to third parties where at all possible. Given the difficulties that led to the abandonment of Microsoft Online Learning Institute (MOLI) in the mid-1990s, Microsoft has sought to outsource all training on Microsoft software products to third parties, except in the development of the curriculum content of the certification programs. This is generally a process quite specific to the information technology industry, as content is of a highly technical nature and is standardised globally to a much larger extent than virtually any other curriculum content can be.

The principle at Microsoft is 'one to few to many' (LaBrie). It is a clear view within Microsoft that it would not establish an external 'Microsoft University'— 'we couldn't meet the demand' (LaBrie). After the failure of its online training venture, Microsoft Online Learning Institute ('wine before its time' according to Barbara Howe, World-wide Training Channel Manager) in the mid-1990s, Microsoft rejected direct involvement in education and training, preferring a franchise-type operation or 'partnering' with 1700 private training companies internationally, designated as Certified Technical Education Centres (CTECs) to undertake the teaching of Microsoft certified courses. MOLI was a huge effort to coordinate: 'We're not willing to make this [training of third parties] a product, we're not a training company … we're in the software business' (Howe).

There is a clear distinction between training and education within the Microsoft employee environment and training for third parties on Microsoft applications.

LaBrie notes that there is a 'struggle' about the difference between education and training. There used to be standard requirements for internal Microsoft professional development: technical skills people had 25 day training requirements per year, with at least 10 days in technical upskilling and up to 50 per cent in soft skills training, but this is under review. There has been a much stronger emphasis on soft skills development—'they're very significant here' (LaBrie).

The training needs within Microsoft are very different from that assumed within the higher education 'cycle', which do not meet 'speed to market' considerations. Because the training program is so tied to product development, Microsoft must 'break the boundaries of the five day instructor-lead classroom' (LaBrie) in order to deliver within the organisation.

Microsoft is crucially involved in the cutting edge of the need to attract and maintain high quality employees and retain them. Microsoft will pay for undergraduate or Masters courses from a university if the course applies to the job, and it will reimburse up to $5 000 US a quarter. The level of reimbursement used to be unlimited but it has been scaled down recently. Microsoft will not pay for a PhD. Any employee, in addition to such university course support, can get 10 days professional development per annum. As well, if there is a very specific area of professional development required, there can be up to an extra 10 days available. About 50 per cent of all staff get to at least one conference per year. The Human Resource Department drives these minimum requirements.

B4.3 Costs

Microsoft courses are not inexpensive, but they almost guarantee an income stream. In mid-1999 in Australian dollars, the Engineer Core Course was $650. Each of the four examinations attracts an additional fee.

B4.4 Education/training model

Microsoft's emphasis is not on direct selling: its major strategy is to license its learning materials in print /CD-ROM format to teaching partners, or Microsoft Independent Courseware Vendors (MICVs). There is however, also a direct selling strategy: an individual buying the certification kit receives 20 per cent off the examination fee for a Microsoft Certified Professional examination.

After re-orienting its direct teaching business model following the failure of MOLI, Microsoft has focussed on 'partnership' arrangements: 'We use the terms authorised, approved or certified; it's not 'licensing', it's not a franchise; we're partners' (Howe). Certification is a major plank of the business strategy; it underpins global use of the product, ensures quality service from dealers, and has introduced an international qualification which is as transportable as a university degree within the IT industry.

The company outsources both teaching and testing on its Certification programs, with a number of testing agencies, including Sylvan, which provides both the physical test centres through its network of outlets, and test developers (www.slspro.com). There are now more than 1700 such companies internationally, ranging from large well-established providers through to 'Mom and Pop' shops. The Certified Technical Education Centres are companies franchised to Microsoft to train people on technical products, not just Word or Excel, but database management, data warehouse network software. The company also sees third-party vendors as a source of business: Blackboard, the online educational platform company, builds on Microsoft products.

The broader context for this massive franchising operation is the huge skills gap in information technology world-wide. There are at least 700 000 unfilled jobs in IT and that is hurting Microsoft and all technology companies because there are not enough skilled personnel to deliver on demand. The premium training companies amongst the franchisees are Microsoft Certified Solution Providers. These must have two Microsoft Certified Professionals on staff and two Microsoft Certified Trainers (they might be the same people). The hardware requirements for these premium companies are stringent: they must have 17 inch monitors at each site, and must use the Microsoft Official Curriculum in paper format. The important value adding amongst the franchisees is that they can customise the courseware to suit the client.

There are also Authorised Academic Training Providers (AATP). These are high schools, vocational colleges, and community colleges which use the Microsoft Official Curriculum but do not need to have Microsoft Certified Trainers. There is a tension between the CTECs and the AATPs because the latter 'buy off us at a discount; they can slash their prices because they're government-funded in part, and they spread the five-day course out over a semester; it's different model of training … the corporations want a quick fix usually; they want the five-day course' (Howe).

The client base for the CTECs is individuals already working in the IT industry, and those seeking a career change.

B4.4.1 Curriculum design

Microsoft is rigorous in its curriculum design process for certification materials: the 'official'' curriculum is developed by a dedicated team consisting of course designers, product developers and engineers. Most of the 100 designers are full-time.

B4.4.2 Content

The external certification offered by Microsoft is very specific: it maps to job type and software application type. The certifications are offered in systems engineering for the Internet, systems engineering, database administration, solution development, professional (site building), professional (Internet) and professional (www.microsoft.com\mcp\faq.htm). There are 200 courses. It is a strongly modularised certification process. No higher level qualifications can be gained by accumulating units within certificate programs. Most employers look at the Microsoft training program as an entry level qualification.

B4.4.3 Delivery

The major delivery mode for most Microsoft training remains face-to-face, supported by extensive self-paced manuals and CD-ROMs, through one of the myriad of outlets, approved vendors or community colleges. The Engineer Core Course for example, consists of 3100 print pages in four volumes on six CDs; it requires four examinations.

B4.4.4 Technology

As indicated, Microsoft's external training via franchisees relies mainly on self-paced materials, CD-ROM, and face-to-face classes, and internally on face-to-face courses. However, the company is working hard on streamed video, which is 'about two years away' (Joe Powell, US-Education Higher Education), in recognition that video remains a popular distance mode in the US. Powell believes that 'the key to success is a very strong faculty support mechanism, and this faculty support is the single largest impediment to introduction of online teaching'. A complicating factor is that the educational technologists in most institutions 'tend to be propeller heads' who cannot relate to teaching staff.

B4.4.5 Evaluation

Microsoft, like McDonald's, ensures quality in their franchise arrangement through insistence on the employment on each site of two Microsoft certified professionals (MCP) and on the use of the Microsoft Official Curriculum (MOC) in paper format, along with a $1400 licensing payment. There is no formalised feedback on the quality of the teaching partners, although there is an online evaluation of the courseware itself. However, the company does not monitor formal educational establishments:

> *We are not worried about the skills level of their teachers because the college endorses their teaching abilities … The academic is a very strategic middle person and the academic environment is very strategic for our product. We look at this environment differently from the commercial environment. If you can get students who learn to love Microsoft you have got a future customer.*

(Howe)

The main quality control mechanism is through assessment and examination. The whole examination/assessment process is fully outsourced. Sylvan Prometric and Virtual University Enterprises, a division of National Computer Systems, are both engaged by Microsoft to proctor exams and provide online testing services (see www.microsoft.com\train_cert\intl\intl.htm). 'Lots of our conversation [between Microsoft and the certification partners] is about assessment: pre and post assessment. We test to see what they need and then test them after the course' (Howe). Standards of assessment are high and the pass rate is typically only 50 per cent at first attempt although it is possible to attempt multiple times.

Microsoft would not consider accreditation because of the expense, and because the 200 courses on offer would need constant re-accreditation as the product changes.

B4.5 Future plans

Microsoft intends to introduce a JIT online system for its internal training, drawn from all sectors of the company.

B.5 University of Phoenix

B5.1 Organisational context

Established in 1976 and first accredited in 1978, the University of Phoenix (UoP) (www.uophx.edu) was founded by John Sperling from San Jose State University, in response to what he perceived as a need for focussed degree and continuing education courses for adult professionals. It has few full-time staff and no staff tenure, no physical library, no campuses, no half-year term, and no academic research by faculty. This non-traditional approach has tapped into the lifelong learning market and engendered quick growth—from eight students in 1976, 10 000 in 1990, to a mid-1999 enrolment of over 65 000 part-time students, growing to over 80 000 at end 1999. This level of enrolment places it as America's largest private accredited university for working adults.

A 'for profit' institution, UoP is the largest division of the publicly-held Apollo Group, the other arms being Western International University, operating in North America, the Institute for Professional Development, and the College for Financial Planning, with 22 000 non-credit students. Apollo listed on the stock exchange in 1994. Its structure (see below) is a traditional hierarchical corporate structure, but in this case the 'product' is education.

UoP offers Associate, Bachelor and Masters degree programs in Business, Information Technology, Health Care (Nursing, Counselling), Education and Science, as well as a Doctoral program in Management (Organisational Leadership). The UoP also offers professional certificate programs and customised training programs to corporates such as Wells Fargo and Intel. While the vast majority of UoP students attend face-to-face courses, the online program, established in 1989 with eight students, now has over 6 500 students. UoP receives registrations at the rate of 4 000 per month, with about 800 students a month graduating.

UoP Organisational structure
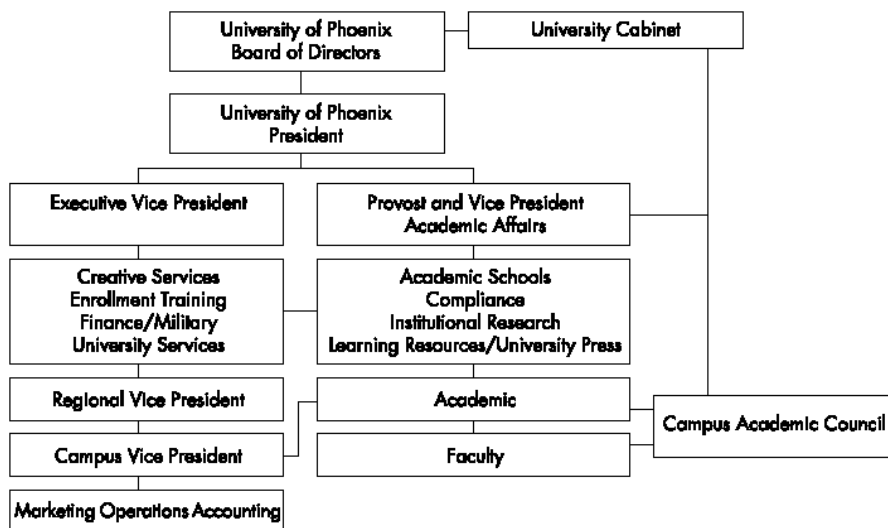
UoP 1998 Fact book, p.3

UoP operates in 13 US States, as well as Puerto Rico, with more than 80 campuses and learning centres located in leased office space, shopping malls and industrial areas, with the result that the classroom atmosphere is professional rather than academic. UoP has a small presence in the UK, Canada, and the Netherlands.

B5.2 Organisational goals

The University of Phoenix focusses on the adult student/ worker market, defined as 23 years or older and working full-time: 'many of the things we do wouldn't work in a traditional 18–21 year old type of market' (Laura Palmer Noone, Provost, Academic Affairs).

UoP focusses on vocationally-oriented courses:

We have a narrow curriculum that's appropriate to what adults want and need today. … it's learning they can turn around and apply tomorrow on the job … It's not rhetoric, it's not theory, it's good, practical, applicable knowledge they need in the workforce.

(Karen Spahn, Executive Director, Institutional Research)

Some courses were developed specifically in response to industry needs, such as the MBA in Technology Management, created as a result of suggestions and input from technology-based microchip producers Intel and Motorola. UoP staff see their programs as firmly based in education rather than training.

> *I think that the difference between education and corporate training is really a key one but it seems to me that the kind of education we offer here has a greater transferability.*

(Norma Turner, faculty)

> *The difference that I think exists between corporate training and UoP … If I'm at Intel and I take a HR legal class and someday I want to be HR Manager of Chris Enterprises, I can either tell CEO Chris that well, Intel trained me in HR principles and so he knows that I learned it, or I can say that I learned and studied … HR principles (at the university) … you can easily translate what you've learned here into different environments, rather than just getting corporate training from one particular organisation.*

(Student)

While students are considered the primary customer at University of Phoenix, Apollo Group's John Sears sees corporations as an equally important customer: 'corporations are in effect our "shadow consumer"; they pay the bills'. University of Phoenix has a well developed and strategic approach to working with corporations, which are targeted by building partnerships that enable the entire Apollo Group to deliver a suite of integrated products and services covering:

- partner services—specific services sold to corporations to enhance their training efforts, eg, articulation and outcomes assessment;
- curriculum and development activities;
- 'off-the shelf' courses and/or trainers from UoP;
- opportunities to take advantage of the facilities that University of Phoenix has all over the country; and
- consultancies.

B5.3 Learner demographics

UoP students are highly motivated middle class professionals, 'mid-to-high-end consumers who make purchase decisions based on value and reputation' (Apollo Group *1998 Annual Report*). To experienced teachers, they clearly differ from conventional students; 'the UoP student is a very distinct animal …

what I see from them is a direction and investment in their education'
(Turner).

> *I've often felt they're the most demanding group I've worked with …*
> *They are much more demanding than younger students with less*
> *experience. They are many times every bit as expert in their field as the*
> *faculty is in his or hers, and that needs to be recognised and taken*
> *advantage of in a positive way.*
>
> (Bob, faculty)

Convenience of location and strictly limited time periods, one block of time
per week for five or six weeks, meets the needs of these time-poor workers.

> *We're here four hours a week and the rest of the time is spent practically*
> *either in study groups working with other professional students or doing*
> *research which is directly applicable to our workplace.*
>
> (Student)

> *I found the semester programs at (two other state universities made it)*
> *very difficult to even think about finishing my degree while working full-*
> *time. I found that was just impossible—it was not set up or conducive in*
> *any way to my working needs. And the opportunity to be in a classroom*
> *with other working professionals I found to be much more gratifying for*
> *me professionally than the other universities where the students are more*
> *full-time graduate students as opposed to working adults.*
>
> (Student)

In-Class Students	Online Campus
Average Household Income $US55 000	Average Household Income $US70 000
Average 34 years	Average Age 35.5 years
Full time work experience 13 years	Full time work experience 15.5 years
Male 43% Female 57%	Male 65% Female 35%
Supervisory or Managerial Responsibility 48%	Supervisory or Managerial Responsibility 69%

Students are obviously attracted to UoP partly because of the potential to
eliminate duplication of effort in any prior learning: 95 per cent have
transferred from other institutions with an average of five credit documents to
rate; they are on average granted 40 credits towards a total of 120 (Nina
Omelchenko, Vice President, University Services). They are thus not
inexperienced learners in some setting. Because of the distinctive nature of
the programs in teacher education and nursing, across the institution as a
whole males and female numbers are almost equal. Klor de Alva (President,
UoP) is adamant that UoP is not competing with traditional universities

because of its demographic: 'it is clear that our students are generally students who would never have gone to school except for us-or who are now going to traditional schools because of us. Our interest is in making education accessible' (Hixson, 1998 p. 22).

B5.4 Costs

Program costs to students vary from state to sate, relating to the costs of living. UoP charges a premium for online courses: a BSc costs $US33 150 compared with $US25 000 for a face-to-face version. All students are required to provide personal computer and online access, thus eliminating the need for infrastructure costs at the expense of the University. UoP participates in all Federal loan programs, though less than 40 per cent of students are eligible for some form of loan; 54 per cent of students receive some tuition reimbursement from employers (Palmer Noone). By accrediting corporate training and negotiating bulk rates, UoP is also able to reduce tuition reimbursement budgets for many of its corporate clients. Over 90 per cent of revenue derives from tuition.

Costs are also reduced through leasing facilities, 'taking the real estate out of education' as the President says. UoP start-up costs per new site are between $US700 000 and $900 000, for 200–300 students, and only $150 000 where there is an existing campus to supply administrative support (Apollo Group *1998 Annual Report*). In FY1998, marketing costs were $49 035 000, administration $33 183 000, and teaching costs and services $232 592 000 across the Group; no separate figures are available for UoP, but it represents the major division of the Group. What is perhaps of interest is that the company paid no cash dividends 1994–1998, notwithstanding a high share price prior to 1999 and revenues which have increased yearly, eg, 1998 showed a 37 per cent increase in revenue over FY1997.

Faculty pay rates vary from $US950 per class to $US2 000, depending on the experience of the individual teacher and the length of the course; most are at the lower end of that rate, about half the rate for an Assistant Professor (Australian Lecturer A) in other US institutions. Faculty are paid mileage costs, and for attendance at required faculty meetings; after 12 months service, they are also eligible for stock options.

UoP therefore offers a 'lower cost' product to a clientele that is seeking lower opportunity costs for an education; although the fees themselves are dearer than at a state university, the program's scheduling (which accommodates working adults) and its compressed program, means that students achieve their degree (and its financial/social benefits) faster.

B5.5 Education/training model

'Contrary to popular belief, adults don't exclusively want flexibility, they want convenience' (Palmer Noone). Consequently, UoP's educational model is geared entirely to the working adult learner, with accelerated terms of five (undergraduate) or six (postgraduate) weeks at nights and weekends. Students are able to enrol right through the year. Staff build a degree package for each individual student based on their prior learning.

The teacher-student relationship is the practitioner-participant model, with faculty viewed by students (and perceiving themselves) as 'facilitators' rather than 'instructors'.

> *I use the analogy that unlike much of the previous education that they had, the students aren't sitting in the back seat of an automobile while the faculty members (are) sitting in the driver's seat driving them around. Instead they're in the driver's seat and the faculty member is the navigator reading the road map at the side saying "maybe you might want to try going this way or try going in the other way"'*

(Victoria Levin, Program Director Undergraduate Business)

A 'cohort group' concept has been adopted. This is deemed to foster team work and increase retention rates through group loyalty; the cohorts are further divided into learning groups of three to five which meet outside class time for team projects. UoP also believes study groups give students the ability to learn from one another via 'horizontal learning' and develop teaming skills.

> *On (the) ground it's usually 14–15 students, online it's 8–11 students … we put students in cohorts and … into a pre-registered group calendar just like the classrooms do. Let's take an MBA program for example—the program is set up almost identically (to our other courses). Students take one course at a time, each course runs for six weeks. You're pre-registered for all the courses in your program and (the course) takes about two years … many students will go through their entire program, taking courses consecutively just with that cohort.*

(John Sears, VP Institutional Development, Apollo Group)

> *One of the things that truly differentiates the University of Phoenix from most of the other institutions in the US that are delivering non-traditional learning is the study groups. We think that these groups allow students to learn teamwork skills. The companies that employ our*

students have told us that one of the things that they find missing in traditional graduates is the ability to work in teams.

(Palmer Noone)

The accelerated term has potential pitfalls:

The model, because it's so quick, boom, boom, boom, one week after another—five weeks undergraduate, six weeks graduate—there's no margin for error. You really have to stay on top of the assignments. Students have to stay on top of assignments, faculty have to stay on top of assignments.

(Vicki, student)

UoP students are required to accept responsibility for achieving their learning objectives. Some students spoke in terms of their fellow professional worker/students being facilitators as well as the faculty, and that they were equally influential, and sometimes more important than faculty in learning.

One quarter facilitator, one quarter student, one quarter study group, one quarter materials and that would pretty much summarise how I would see it going in the classroom. It's not that way every class, and it's not written in stone, but those are just broad parameters to kinda see where the instructors, the study group, and the modules fit in.

(Tony, student)

B5.5.1 Curriculum design process

Faculty use a detailed, standardised, centrally-developed curriculum. A 'course module' is developed for each course. This detailed syllabus outlines objectives, content and assignments, as well as suggestions to faculty on how to allocate time during a lesson. The curriculum is lock-step. Each course must be taken sequentially with no optional subjects available. Content is more practically-based than theoretical. Instruction is standardised, via a 'teaching script', so a course taken on one campus will be much like the same course taken on another. UoP has 126 full-time non-tenured faculty members who teach three courses per year, but whose prime responsibility is curriculum design. The part-time staff can contribute to curriculum through Campus Academic Council. Although the University is vocationally based, its undergraduate programs must, in conforming to accreditation requirements, include a mandated number of credits in General Education; this constitutes up to 54 of 120 credits in a Bachelors program.

B5.5.2 Delivery modes

UoP describes itself as a 'distributed university' (Omelchenko) but it is critical to note that the delivery mode remains predominantly face-to-face, via four-hour small classes. Muller (Director Online Learning) believes that adult students need 'a lot of structure' and discipline; in both face-to-face and online programs, assignments are set weekly; online students are required to log on five out of seven days a week, and to discuss questions based on the text for the course, the online lectures and readings. All students enrolling in online mode are trained in the use of the technology.

The online program was established in 1989 in San Francisco, and is the fastest growing 'campus' within UoP. The online mode was described by Sears:

> *When I say 'online', what I'm referring to is a group-based, very collaborative, very interactive educational experience for working adults that almost identically replicates what we do in our ground-based classrooms.*

This flexibility in delivery mode allows UoP students the opportunity to complete their studies when faced with work or family related difficulties; it is also appreciated as a feature of the program by corporate clients who may transfer staff regularly.

> *When I came to UoP I had attempted a graduate program at two other state universities and through various moves around the country had not been able to finish them. When I hit upon UOP I felt it was the answer because should I move, the opportunity to use the online program to complete my degree was very important to me as was the six week modules.*
>
> (Student)

However, Klor de Alva describes it as 'a cross between the Jesuits and the Marines training … it's highly disciplined and (there's) almost zero tolerance for absences, zero tolerance for lack of participation' (Hixson 1998, p. 23). Approximately 60 per cent of online students graduate (reported in Jackson 1999), close to the standard completion US undergraduate rate.

B5.5.3 Technology

University of Phoenix has built a database—the Online Reuse Database—to process credit transfer applications efficiently, consistently and quickly. This initiative has meant that while applications have doubled in four years, they are processed with exactly the same number of administrative staff. The database is being expanded to include transcripts from overseas universities

and other institutions. The online program uses an adaptation of Microsoft Express.

Apollo has also partnered with Hughes Network Systems, and through their joint purchase of OneTouch systems, has the potential to offer global training, via video or desktop computers (Apollo Group *1998 Annual Report*).

B5.5.4 Evaluation/quality assurance

Evaluation and quality assurance is taken seriously at UoP and is carried out with all of the university's stakeholders. Employers are surveyed to determine the effectiveness of academic programs and whether UoP is meeting current needs. Each Dean is responsible for conducting a rigour analysis of the program on an ongoing basis where staff look at the content of programs and benchmark it against other institutions.

UoP stringently measures the quality of both its students and faculty. Initial screening excludes 20 per cent of student applicants; a further 9 per cent are refused on closer scrutiny after compulsory proficiency tests in Maths and English, a two-three hour standard competencies test (GRE-style) at the start and end of each student's program which aims to show the increase in competencies and skills, cognitive and otherwise gained through the program. Results are benchmarked on the Educational Testing Services (ETS) test.

Quality assurance is maintained through a variety of rigorous processes devised and administered by the Department of Implementation and Training, which is 'charged with consistent implementation policies, procedures, programs and training services to the internal staff'; it is 'the corporate university of an external university' (Omelchenko). Prospective staff undergo an initial screening process that excludes those who have not received at least a Masters level degree two years previously, and five years' experience in their teaching field. Applicants then have an interview with another member of the faculty who is an expert in their field to ensure their expertise has the appropriate currency and depth. Following this they make a presentation of their teaching style so their interaction with adult students can be evaluated. Finally, prospective faculty participate in a leaderless group activity, an evaluation in an unscripted, unrehearsed environment, where they are observed at problem solving.

Every unit has a faculty profile, a specified set of criteria that must be met by staff in order to be able to teach that unit. The 30-40 per cent of staff who are successful undertake two weeks of three hours per day online training without remuneration. This is required even if they have taught at other institutions, and covers areas such as adult learning theory, facilitation techniques, instructional study group management, evaluation, grading and feedback. This is followed by a six-week mentorship program. Faculty members who share their expertise and act as mentors during this six-week period share the new faculty members' pay for that period. In addition to this, faculty who are

teaching online use a self-paced tutorial to learn about the conferencing software used in the online classroom.

Faculty constantly undergo constant class evaluation and feedback; online courses are archived, 'the equivalent of videotaping' (Muller):

> *If a student (who is taking an online class) say(s) to us, I'm not sure I got my money's worth, I'm not sure how prepared and effective the instructor was, we have instructional specialists who go right into that classroom and reads through the entire transcript.*
>
> (Spahn)

> *Measuring for effectiveness and efficiency is very critical, and it doesn't matter if it's for learning outcomes or for service level; the only way we know what we need to improve is if we measure it to what we value and say "this is a part of our core service features".*
>
> (Omelchenko)

Both administrative staff and faculty are required to undergo ten hours of continuing professional development annually. Finally, all comments sent to UoP by staff and students are read by the Chair, John Sperling. According to the 1998 UoP Fact Book, 75 per cent of UoP alumni rate the value of their education as 'above average' or 'excellent'.

B5.6 Faculty profile

The University of Phoenix employs more than 5 300 faculty, about 50 being full-time. There are about 2 000 administrative staff, including recruiting and marketing specialists. The Online component employs 800-900 part-time faculty members and six full-time staff. Most faculty take nine classes per year. In the last three years, UoP has been obliged to employ 126 full-time faculty, in response to a North Central Association of Colleges and Schools requirement that there be one full-time staff member for every major. The demand still rankles: when Palmer Noone was confronted with the demand from North Central, she argued that if the Association could outline the outcomes they wanted, she could prove UoP delivered the same outcomes with part-time practitioners: 'it's a very controversial element, probably for all the wrong reasons'.

Yet the use of practitioners (and ipso facto part-timers) is integral to the University's mission: 'We use practitioner faculty because we have adult students, and research has shown that adults want practical application of class material' (Palmer Noone).

*I … like the fact that faculty members work in the fields that they teach
(in) so I'm not at some other university where it's a graduate student
teaching me who's never worked a day in their life and (who is) a
professional student.*

(Student)

Because of the emphasis on faculty who are practitioners, the percentage of
staff holding doctorates is low relative to traditional universities. To encourage
staff to obtain doctoral degrees UoP has entering into partnerships with a
number of new universities, namely the Graduate School of America, Nova
South Eastern University, Saybrook Institute, Regent University, and Fielding
University, which all give UoP faculty discount on their tuition.

B5.7 Accreditation

UoP is accredited by the North Central Association of Colleges and Schools.
Nursing and Counselling programs are also recognised by the professional
association registration bodies.

UoP's non-traditional structure and approach does not meet some accrediting
bodies' established standards. Thus, in states such as Texas and New Jersey,
UoP's lack of a full-service library, indeed the absence of 'real books', and the
fact that its staff lack a terminal degree, prevent accreditation and state
licensing. UoP has begun to enter the East Coast market: in March 1999,
Pennsylvania's Department of Education approved UoP's application to open
campuses in Philadelphia and Pittsburgh.

B5.8 Future plans

UoP has high ambitions for growth in the same markets as most traditional
universities, individual and corporate adult education: the *1998 Annual Report*
(p. 3) estimates the market in these areas as being $US300 billion for
postsecondary higher education, and $US85 billion for workplace education.
'We aim to be perceived as the partner of choice in higher education' (Sears);
for Palmer Noone, the University presently has 'one half of one per cent of the
adult market in the US right now', but with an anticipated massive increase in
the demand for university education, 'all boats rise with the tide'. Sears argues
that the market will decide on UoP's reputation and future: 'those who stay
will be the ones who do it effectively'.

There appear to be no immediate plans for a large expansion of the overseas
operations, currently quite limited in scope. They have few international

students: 'there's so much potential for growth right here in this country that we can't keep up from an administrative and faculty standpoint' (Muller).

Although the Online Reusable Database, which compiles credit records, has attracted major interest from external organisations, UoP currently sees it as a competitive advantage for the organisation, in that it allows student applications to be processed quickly, much more speedily, and cheaply, than the manual system used by the American Council on Education. The current application process relies on a pen-and-paper pro forma but UoP plans to make the Database available for prospective students, so that they can themselves automate the process. The Case GuidesTM are also paperbased at present; they are obviously capable of commercialisation, either through acceptance of the UoP competency equivalence, or through adapting the software.

B5.9 Challenges

Given the astounding growth rate of UoP, maintaining a quality service and standards is a major challenge: 'we've looked very conscientiously at how we can sustain that growth while maintaining quality at the academic and service level … We can always stop growing' (Omelchenko). Management feels that growth is not 'capped' by physical location, as with the traditional universities, because UoP has grown via adding small operations at the local level, in leased premises, and by taking on part-time and casual teachers in response to demand. At the administrative level, growth has come at a price in record-keeping difficulties. In 1998, the federal Department of Education began an audit into non-compliance regarding federal loans, which was finally settled mid-1999 with a substantial fine being imposed on UoP, and a reprimand urging better financial procedures.

However, it is apparent from media coverage of UoP operations that a major challenge remains the attitudes of the media and traditional universities towards its operations as a whole: if its graduates and corporate clients are impervious to the suspicion that has greeted UoP, the growth will continue. Sears is convinced that ultimately the customer, individual and corporation, will decide:

> *Their focus is really on what does the workforce at xyz corporation need to be able to do to promote and advance global competitiveness in the next five to ten years. That's all they care about. Whether that's training in the sense of training or education in the traditional sense really doesn't matter to the employer … 'What contribution can you come back to the corporation and make as a result of what you've done.' I*

think their view is on maximising what they can get out of the
academic experience. It matters little to them if you go off and take an
accounting course from Harvard … or from Queens Community
College. What matters to them is what can you do when you come back
on the job.

Documentation

University of Phoenix 1998 Fact Book
Apollo Group 1998 Annual Report
Basinger, J., 'Report on U of Phoenix sends stock price down', The Chronicle
of Higher Education 2 Oct 1998. A15.
Hixson, A. 1998 ''Klor de Alva: Changing the rules', The Hispanic Outlook
on Higher Education, 9 (3) pp. 21–25.
Selingo, J. 'U of Phoenix retracts New Jersey Application', The Chronicle of
Higher Education, Nov 27 1998, A32.

B.6 De Vry Inc.

B6.1 Context

The origins of the proprietary DeVry Inc. (www.devry.com) stem from 1931 when Herman DeVry founded a for-profit facility in Chicago to train technicians in electronics and the burgeoning radio industry; this became the DeVry Technical College in 1953, which began offering associate degrees in 1957. Keller Graduate School of Management (www.keller.edu) was founded under another name in 1973 'to provide an alternative to the traditional, research-based management programs then offered by major universities' (*Request for Institutional Change*, 1998 p. 3); it bought DeVry Institutes in 1987, and was floated as a public company in 1991, with a majority private shareholding remaining with the founders. In 1996 DeVry Inc. purchased Becker CPA (Certified Practising Accountants) Review.

DeVry Inc., with its headquarters in Oakbrook Terrace, outside Chicago, the parent organisation, thus has three divisions:

1 DeVry Institutes, with 16 institutes in the US and Canada, and 38 000 full-and part-time students in 1999

2 Keller Graduate School of Management, with 31 office locations in eight states and 5 500 postgraduate students

3 Becker Conviser CPA Review, with 190 outlets including 29 international locations from Russia to Africa, coaching over 20 000 students a year for CPA Certification examinations.

Although the *1998 Annual Report* (p. 11) speaks of the three divisions as constituting 'a new kind of university', none of the divisions uses the term 'university', not did any of the interviewees use the term. However, effectively the divisions now mirror the general structure of a Masters level educational institution in the US, with certificate, undergraduate and mid-level postgraduate programs, a continuing professional education program, and no research capacity. The company is in active acquisition mode, and in June announced its purchase of the private Denver Technical College.

Consistent profit growth through increased enrolment and retention of students has made DeVry Inc. one of the largest for-profit education institutions in North America; in FY 99, revenues increased 19 per cent over FY98, to over $420 million, with net income (profit) at nearly $39 million. Tuition fees accounted for 91 per cent of income; 60 per cent of the budget item 'Educational Services' in FY 99 consisted of teaching staff costs (www.devry.com/sub/annualreport/financial_statements.html). Like UoP, DeVry

has occasionally failed to meet the reporting requirements of federal tax agencies (*1998 Annual Report*) and in 1996, the Ontario Ministry of Education and Training suspended then conditionally reinstated its federal financial aid program on the Toronto campus.

DeVry's structure is hierarchical, and based on operational lines, as the organisational charts below illustrate. KGSM has a National Advisory Council, consisting mostly of business leaders, many Keller graduates.

B6.2 Organisational/training goals

Under the Boyer four scholarships framework, DeVry Inc., but more particularly KGSM, articulates its organisational *raison d'etre* as entwining the two scholarships of application and teaching. Employment is the major program goal: the *1998 Annual Report* notes an employment rate of 96 per cent for the Institutes (and in the US, the state education authority can and does sue for misrepresentation of graduate rates). The Institutes division offers a narrow curriculum providing 'career-oriented higher education programs in business and technology': 'we don't want to be everything to everybody; we do technology-based business programs; we give them a technical education at the entry level' (Jerry Dill, President, DuPage Campus). KGSM focusses on 'practitioner-oriented graduate management programs with an emphasis on excellence in teaching and service to working adults' (*1998 Annual Report*); it is 'a very niched, focussed organisation' (Tim Ricordati, Dean, KGSM).

KGSM also has a corporate training arm, the Centre for Corporate Education, consolidated from previously *ad hoc* training activities in 1994, which now offers Certificate programs in project management in KGSM facilities ('corporate education') and tailored training programs in corporate facilities ('corporate training'): 'it's a nice platform to provide training or consulting' (Eric Munro, Director, CCE). The Centre grew out of an initiative to develop a Masters in Project Management; local companies were approached for their response to the proposed course and they asked for just-in-time training, not a degree program. Originally the subsequent non-credit programs were offered to Motorola, AT&T, and smaller companies. The third arm of the DeVry Inc. activities, CPA Review, is a 'pragmatic coaching program' which provides 'efficient and effective training' to pass the exam.

The 'student-as-customer' orientation is evident in every aspect of the DeVry operation: across all programs, students are counselled individually before admission by dedicated Admissions Officers located in each centre; an active program of job placement employs 100 dedicated staff; teaching staff are required to return all assignments and examinations within two weeks of student submission; the Institutes division also purchases and rents housing for undergraduate students in the Chicago area.

DeVRY INC.
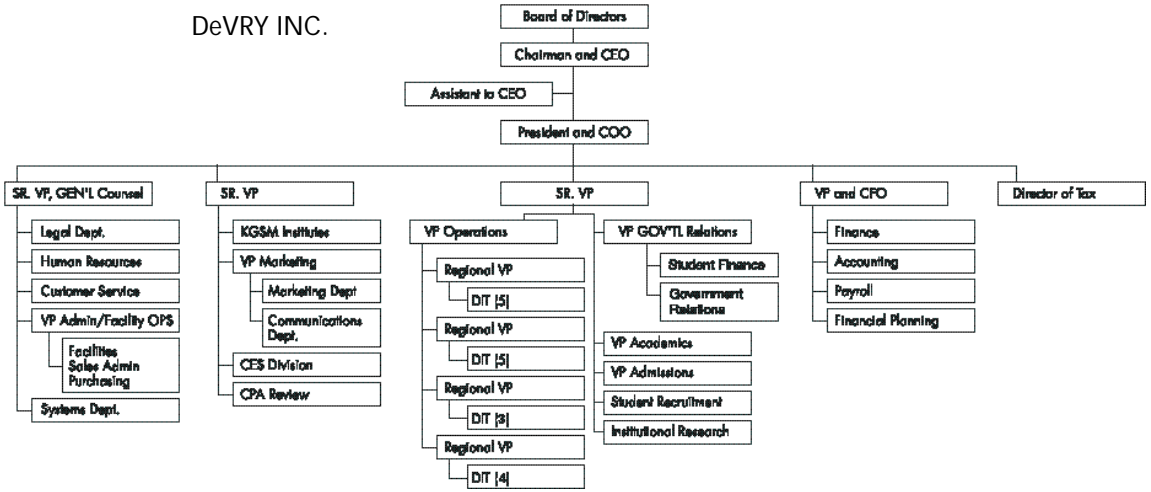
Keller Graduate School of Management
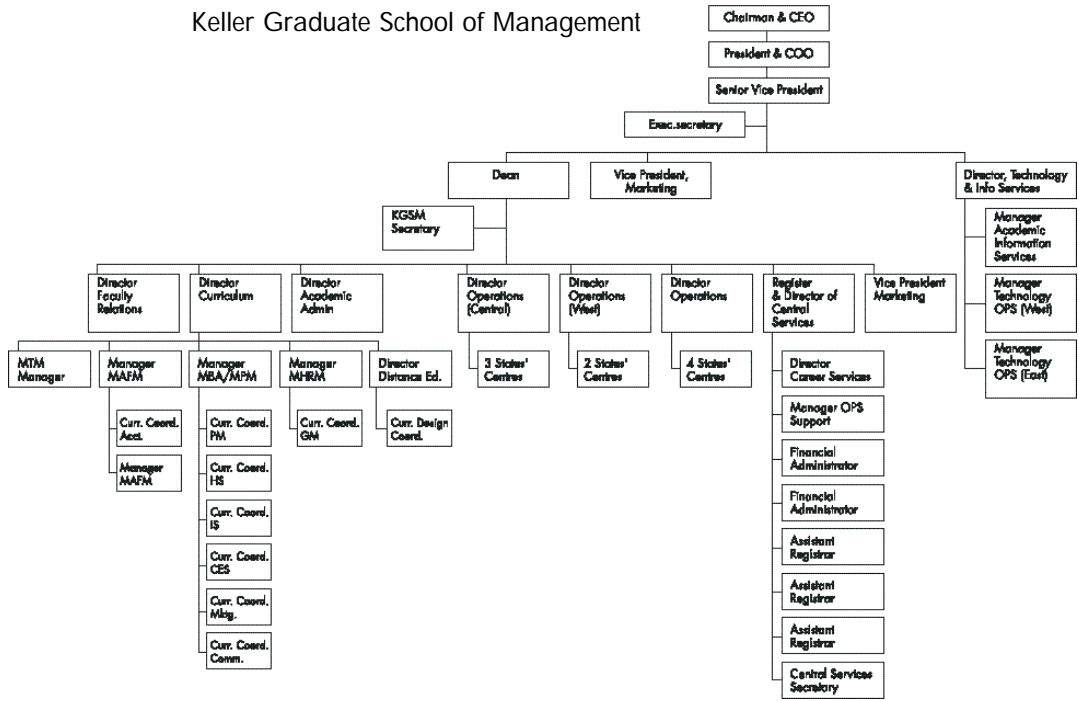
B6.3 Learner demographics

DeVry Inc.'s learners span school-leavers to mid-career professionals changing careers or upgrading their qualifications.

DeVry Institutes admits only high school graduates or those who can demonstrate their capacity for formal tertiary study through an entrance examination; at the Institutes, this is a mathematics and written expression test, and if students show a deficit, 'we would suggest (they) go to community college for remedial work because that's (the colleges') skill area' (Dill). Ensuring success is good pedagogical and business sense, since revenues per student improve with retention rates. Fourteen to seventeen per cent of applicants fail the entrance test. At KGSM, the test was devised and adapted from an instrument commissioned from Educational Testing Services. There is no 'open admission' to any program.

At a typical Institutes campus, one-third of students apply for some credit transfer from another college, but only 3 subject credits are allowed, and students 'rarely' request that much (Dill). Students are highly cost-conscious and often do General Education components at a cheaper community college before transferring for the specialist technical courses at the more expensive DeVry. Dill notes 'for some students we're second chance, for others, we're first choice'. DeVry does not accept credit transfer from UoP online courses: 'There's a problem with the integrity of the work: who's doing the work?' (Pat Mayers, VP Academic Affairs, DeVry). Given the nature of the programs, it is unsurprising that only 25 per cent of students are female. Ethnic composition of the Institutes varies according to the location. Mayers is proud of the Institutes' contribution to family socio-economic change with a demographic that is 'first generation students': 'their incomes will transform what's happening in their families'.

DeVry Inc. as a whole recognises that 'the adult learner market has been our fastest growing segment' (*1998 Annual Report*, p. 3), and thus the Institutes division, which had relied on day-students, has expanded its delivery to evening and weekend courses to accommodate the growing numbers of over-25 adults; this market now constitutes half of the division's students.

KGSM's Masters programs attract working adults: 95 per cent are employed. According to Munro (CCE), they choose a postgraduate institution on reputation and/or convenience: 'Keller works very hard on the convenience notion … usually they live within 10 miles of the Centre'. 'Our students don't need the fluff, the ivy-covered walls; they want practicality' and they get it in 'class A office buildings, bright, cheery, clean and functional' (Ricordati). Students agree: ' I don't care for the theory; I've got a real job and I want something I can use … virtually every class you come away with something you can use' (Michael Smith, student, KGSM); 'There's a lot of hands-on instruction here, team building, team concepts which keep you more up-to-

date than straight text work' (Rogers, student, KGSM). Gender is more equally balanced than at DeVry, though there is still a male bias; again, this reflects the range of courses offered. The average age is 33, the same as it was 10 years previously, but the range is now broader, 28–45 rather than 30—5.

Like public universities, KGSM is also seeking new markets in the form of corporations, and for the Director of the Centre of Corporate Education, this means distinguishing between corporate education and corporate training:

> *Corporate education is the provision of full graduate credit courses for groups of company employees. Corporate training is providing on site not-for-credit courses at companies … if you go into corporate training you walk into a room, spend eight hours and then you leave. If you come into corporate education, you're going to get textbooks, and homework, exams etc. You will get … evaluation through Kirkpatricks 1, 2, 3 levels … There is some kind of pre-selection that occurs so they're not being forced into the class, they can share openly with each other because they're from one organisation.*

(Munro)

In undertaking this move, CCE tries to establish long term relationships: they return to the client three months after the training to check on outcomes. However, there are ethical dilemmas involved: teaching staff must sign a confidentiality agreement if they participate in corporate education/training, and 'you have to select instructors that will not have a corporate or business conflict', which is particularly difficult given KGSM's use of practitioner faculty who may work for a rival organisation (Munro). KGSM partially solves the conflict of interest dilemma by contracting with the individual students, not the company, in corporate education programs. Munro is enthusiastic about the energy generated by a compressed-time company course: 'Intellectually it tends to be more intense and more challenging … it's a toss up in terms of whether they miss out on the broader experience from other students.'

B6.4 Costs

DeVry Inc. minimises its fixed assets by renting functional office space wherever possible, particularly for KGSM/Becker programs, although the Institutes generally operate out of owned buildings in industrial parks on the edge of major urban areas. They offer simple canteen services for day-students, and vending machines for part-time evening/weekend students. In 1999, Institute programs range from $US3 815 per term ($US29 2200 per year) for Accounting, to $US32 860 for a Computer Information Systems program; all programs are an extra $5 000 in New York State, reflecting higher

real estate costs. The Institutes division is deemed eligible for all five major federal aid programs; about 70 per cent of revenue derives from such aid. Students are therefore proactively assisted in obtaining loans, and the Institutes division also offers its own loans. Students must be enrolled for a minimum of six credit hours (of a standard load of 12–19 credit hours) to be eligible for aid.

Although Illinois fees, at $1 285 per subject, are much higher than those at public universities in the state, 90 per cent of KGSM students obtain some tuition reimbursement from their employers. This fee includes individual tutorials at student request, and all academic and study skills counselling. Faculty reimbursement is at three levels: new staff called 'instructors' (with less than four sections' experience) receive a minimum of $1 600, and a preparation fee after they have taught the class. (This approximates to the going community college rate in Illinois.) If they rate 'exceptionally well, 3.25 on a 4 point scale' they become 'faculty', and receive $2 000; after teaching 10 sections, they are eligible to apply for Senior Faculty status and can then receive an additional 15 per cent. Again they must achieve above 3.25 and this is being revised upwards. If there are more than 28 students in the class, or they are teaching online, or if there are more than 20 students in the online course, the remuneration increases.

B6.5 Education/training model

Across programs, the DeVry Inc. model is traditional face-to-face classroom instruction of three to four hours per subject; attendance records are mandated because of student loan requirements, and 'you can't be successful if you're not attending' (Dill). At the undergraduate Institutes, the program is a standard semester-length full-time course for the traditional school-leaver cohort, but has expanded to include a part-time program for a large adult cohort. Because the program was designed for school-leavers, as outlined below in 'Content', the specialty courses include General Education cores: 'clearly we view what we do as education, not training; they can transfer their learning from one area to application in another area' (Dill). Part of the success of the program is that it recognises some of the social desiderata of school-leaver learning, viz cohort progression through sequential lock-step curricula. However, this is changing through more flexible timing, compression of courses and choice of subject to accommodate part-time students.

All divisions know their market well, and believe that a very structured program is necessary for both school leavers and adult students: 'Our DeVry

students are in the middle ground between the precious few and the masses; some are not committed. I encourage faculty to say "let them go if they're not committed"' (Mayers). Becker employs 'programmed learning' and mnemonics to push accountants through the certification exams; if they fail, after attending all classes and doing all the homework, they can take the course again for free. There is a 70 per cent pass rate. KGSM employs the same type of systematic mastery learning processes through'System Supported Teaching and Learning', test item banks and self-help quizzes developed for the more difficult subjects.

At KGSM, the teaching year consists of five 10 week compressed terms. All facets of the program design revolve around widely-shared beliefs about adult learners, their lack of time, their needs for convenience and immediate relevance, and a belief that 'the adult is a consumer; you're buying education' (Ricordati). The students agree that Keller's appeal is immediate applicability: 'something I can take back and apply almost immediately' (Alfred DeRose, student, KGSM). However, there is no doubt that for most students the acute emphasis placed on support services is a major attraction: 'I wanted small intimate classes. I looked at seven other schools but it was really Keller because of the admissions process … you weren't like a number' (Niki, student, KGSM); 'we're very student services oriented here; we provide tutoring at no extra cost; help them with their photocopying resources, admin will help them with their research on the Internet' (Sharon Hulsey, student and administrative staff, KGSM).

One essential component of that attention is the small size of the individual centres: most have only 400 students and 25–30 faculty, and class sizes are between 16 and 20, so personal knowledge of students is possible despite the part-time nature of contact; students are well-known to the administrative and teaching staff, and this relationship is cultivated strongly.

The full-time-practitioner part-time teacher model is designed not only to attract students who want currency, but also to attract enthusiastic teachers:

> *We hire practitioners who in their heart love teaching; they earn enough money in their other jobs to indulge their love of teaching. You put a box around that and call it a classroom. It's a very simple idea.*

> (Mayers)

At KGSM, if not DeVry, faculty are encouraged to facilitate rather than 'instruct'; 'The idea of knowledge coming from on high in adult education doesn't work' (Ricordati). 'You might be an expert, but it's got to be an expert mentor-coach relationship rather than a master/apprentice relationship' (David Overbye, Director of Curriculum, KGSM).

The company's undoubted success is related directly to its targeted curriculum, its focus on individual and personal service to a clearly defined market, and its 'after-sales service' with alumni (www.devry.edu/alumni_directions).

B6.5.1 Curriculum design process

The curriculum development process is thorough, systematic, and highly centralised. DeVry Institutes closely monitors industry employment trends, and its courses are informed by local business advisory boards and employers recruiting directly from the Institutes. However, even in the undergraduate program, teaching staff contribute.

At KGSM, the Curriculum Director of each strand consults with employers and experienced faculty to develop Terminal Course Objectives (TCOs) for each program and individual course. All staff must use a supplied curriculum guide which contains 'sample syllabus, lesson plans, exams, examples of instructional activities, as well as the text book sections they have to follow. All faculty … have to use the same book' (Hoel, KGSM). Each teacher is also issued with a comprehensive and practical Faculty Handbook which details their administrative and teaching responsibilities, suggests how to develop their syllabus within the curriculum guide for the subject, and how they might incorporate their own experience in the 20 per cent of the course which allows for individualisation, and presents examples of exams and exercises. Staff must submit their syllabus, including each three+ hour lesson plan, to the Curriculum Coordinator. Curriculum directors are alert to the potential in practitioner-oriented curricula of perpetuating poor current practice, simply because it is current:

> We tend to find that our faculty and students, each individual company, seems to think that they've got the one right way to do it, so we need to be continually concerned; if we perpetuate one company's practices, that's not necessarily the best way to do it … We have to watch that.

> (Overbye)

One of the core justifications for the centrally-developed KGSM curriculum is the need for standardisation because students often relocate in this most mobile of Western societies; a single curriculum therefore theoretically enables any student to enrol in any centre at any point in their program. However, enrolment numbers often do not justify mounting a particular unit; the online program is designed to overcome the difficulty of completing a specialisation by combining enrolments across the country.

For corporate clients, the attraction of CCE is that it does tailor its curriculum, unlike some of the big public universities, most particularly in Graduate Certificate level programs. In addition, an attraction of engaging Keller for corporate education rather than training, is that a training budget often requires a high level authorisation because it is a lump sum, whereas in an education program a middle manager can sign off on tuition reimbursement for individual participants in a program; that is a more flexible budget line.

Curriculum design has also been affected by engaging with corporate clients: Munro cited an instance in which a corporate education class was required to undertake an exercise on diversity issues in their organisation for a graded assignment. The manager of the organisation was to be present for a team presentation. Munro suddenly realised that the students might be comp-romised by an adverse report; the instructors and the students discussed the matter, and resolved to proceed, but it demonstrated to all concerned that where grading was involved, such exercises were fraught. Preserving independence of assessment as part of the curriculum is vital for the credibility of KGSM.

B6.5.2 Content

The Institutes mission dictates that the programs of study are narrowly focussed on the employability of graduates: degree programs are offered in Accounting, Business Administration, Computer Information Systems, Electronics Engineering Technology, Electronics Technology, Technical Management, Telecommunications Management, and related areas at certificate and diploma levels. There is a core curriculum, mandated in many states, of General Education (Writing, Speaking, Social Sciences, and Humanities); Career Foundations (Business Fundamentals, Math and Science) and Technical Specialty Support (Computer Applications, Accounting Basics). The General Education core comprises a substantial amount of each program, eg, in the Accounting and Business Administration degrees, 13 credit hours of Communications Skills and 12 hours of Humanities are required of a total of 134; there is a choice of 14 subject areas including Contemporary Literature and Film and Literature.

KGSM Masters programs are limited to Business Administration, Human Resource Management, Accounting and Financial Management, Telecommunications Management, and Information Systems Management, although the vast majority of enrolments (72 per cent) are in the generic MBA. Certificate level programs are offered in the same areas, but constitute only 10 per cent of enrolments.

A key element of the curriculum is the capacity to modify up to 20 per cent of

the set curriculum through the prism of the individual teacher's experience, or at the behest of a corporate client:

> *We can take a Keller course that might have 10 terminal course objectives; we can throw two out because they don't matter to that client, or we can rearrange them or choose the emphasis. We believe we can tinker with 20 per cent of the course to make it a better alignment with the customer's needs and still maintain the academic accreditation of the whole thing. Actually if you think about it on the basis of the way we provide our instructors with curriculum guides, there is that much flexibility built into the whole thing anyway.*

> (Munro)

All material is developed by in-house subject specialists.

B6.5.3 Delivery mode

DeVry Inc. operates as 'a distributed education system'; it is 'one institution' with many 'spokes' (Sherrill Hoel, Director Academic Affairs). With its strong focus on adult learners, the company tailors its delivery mode to those students' needs; it is adamant that 'older students prefer an equal, interactive relationship with the institution and a more intimate class size' (*1998 Annual Report*, p. 8). The Institutes follow a traditional face-to-face delivery; an accelerated three-semester program has recently been introduced, and a weekend program with a 30 per cent reduction in class contact has also been introduced for Computer Information Systems. The student:staff ratio at KGSM is 15:1 (and if class size exceeds 20 students, the teacher is paid more). Facilities in all divisions are functional: leased desks, partitioned classrooms and minimal computer laboratories. The Institutes have adequate but restricted libraries, and staff facilities are sparse, with two staff sharing a computer in a shared office, and part-time teaching staff working in open plan areas.

In 1998, KGSM gained separate accreditation for its online MBA program (online.keller.edu). It is believed that this will extend convenience for those unable to attend physically for domestic or travel reasons, and also accommodate students in specialist low enrolment subjects which could not feasibly be offered on-campus. Yet there remains a scepticism about the potential of wholesale moves to distance education, partly because of the lack of meaningful interaction, and partly because of student readiness issues: 'If we move towards d.e. as a norm, students may or may not be able to tolerate the degree of responsibility for their own learning that we're going to expect of them' (Mayers).

> *Our students would say 'that's definitely not for everyone, but it is for some of them. Where we're going to see some tensions is when we get to a situation where a student can only get the subject they want online.*

They want it live but it won't be. We're accredited to offer courses online, so we have to offer every course online.

(Overbye)

One laudatory feature of the online program is a mandated test of computer competency and a (rudimentary) Learning Style Inventory to assist students to decide if they are suited to this mode. At June 1999, half the subjects had been developed in this mode. The online program has increased course costs, but also increased the number of students able to participate: eCollege design and development charges are $3 000 per subject, and KGSM pay a bonus for staff teaching on-line. KGSM online students are charged the eCollege administrative charge of $125 per subject, with management saying: 'we don't consider this a financially efficient way to educate at all' unless it increases numbers (Hoel).

Notwithstanding the instructional design input from eCollege, the online program appears rudimentary: text and PowerPoint notes predominate, and clip art, although time-limited quizzes, journals, threaded discussions and email communication are employed as a way of ensuring interactivity and legitimacy of effort from the student, along with a mandatory proctored final examination. One instructional designer was on staff at KGSM.

B6.5.4 Technology

DeVry Inc. facilities are low-tech; students at the Institutes are not required to have personal computer access, and computer laboratories are rudimentary. There is a five to six year timeframe for universal computer ownership (Dill). There is no evidence of technology-enthusiasts among staff interviewed: although the Institutes in Chicago joined a consortium of community colleges for a distance network, there is no real commitment. The equipment was a state-funded two-way video system, and faculty volunteered if they wanted to be involved: 'but staff said it's hard! You have to be on camera. You have to re-package everything and do PowerPoint' (Dill).

In adopting distance education in its 1997 Strategic Plan, KGSM stated its belief that 'classroom-based instruction that incorporates distance learning methodologies for the purposes of enhanced instruction will remain the primary form of education delivery for the foreseeable future' ('Request for Institutional Change' p. 29). With no experience in distance modes, KGSM began cautious experiments in 1997 with Lotus Notes Learning Space and CD-ROMs, but struck a number of difficulties; when they chose to go online, they consequently bought in a 'turnkey' online system from Real Education, now eCollege, for a 'six figure sum', excluding the per-subject and $125 per student helpdesk cost. 'It's on their server, they handle the

telecommunications, the technical help support issues. That's not what we do
… we're not IBM, we're school' (Ricordati).

B6.6 Evaluation

Evaluation is a composite process of adherence to multiple accreditation
applications across the various states in which DeVry operates; consistent
monitoring of internal administrative procedures; attention to individual
student concerns; and in KGSM, strict attention to individual faculty
performance through student evaluation instruments and observation of class
performance. Although evaluation processes are mandated for accreditation
purposes, central staff are clearly self-reflective and dedicated professionals:
'we're very self-critical, we do a lot of self-examination and revision of our
approaches' (Mayers). From the perspective of teaching staff, this rigorous
evaluation is directly related to the fact that KGSM is for-profit: 'There's a lot
of bias against Keller and DeVry because they're for-profit, so because of
that—and they're aware of that—they put a lot of effort into their systems,
more than a lot of schools that have a name' (Elliman, faculty KGSM, full-time
(community) College of DuPage).

The Institutes division is less rigorous in its staff evaluation than KGSM; the
campus Dean inspects a full-time staff member once a year, and once a term
for part-time staff, 'but not if they've been teaching for five years' (Dill). At
KGSM, all teaching staff, no matter their experience level, even those on the
full-time administrative staff who take additional classes such as the Director
of Curriculum, are observed once a term for 35–40 minutes, and a checklist is
completed, generally by the Centre Director, who then provides feedback to
the teacher. A numerical evaluation is given, and staff records are tracked
through a central database. Some 'issues in grading' determined a program of
faculty development whereby staff in 1999 must attend a two-hour session on
assessment and grading before receiving their annual increment. The use of
practitioners 'forces us to ask 'what constitutes excellence in teaching? how
are we going to assess it?"' (Overbye).

> What the Director and Associate Director of Curriculum plus the
> Curriculum Coordinators all across the country and all of those in Oak
> Brook do, is that they're responsible for curriculum review, Terminal
> Course Objectives, developing and upgrading curriculum guides,
> approving faculty, communicating with faculty during term time,
> approving and reviewing faculty lesson plans, syllabus, looking at their
> exams, eval-uating exams for academic rigour, we're looking at how

*those exams are assessed, graded by the faculty: was the grading
appropriate for graduate level work?*

(Hoel)

The Institutes are particularly sensitive to student exit opinion, but tracking of graduates provides encouraging feedback: 'of the responses straight after leaving, there's some dissatisfaction, but the later after graduation, they feel it's given them a good basis' (Dill)

Quality is 'assured' through careful attention to curricular, operational and pedagogic support, and operational activities receive particular emphasis because they represent the 'face' of the organisation. However, there is rigorous evaluation of staff and programs and through selection of students in the first instance: GMAT or GRE results or a free one hour KGSM test are required for admission. No more than three units are allowable in credit transfer of a total of 13-15. Even students coming on corporate programs are tested, and are not admitted if they do not pass the entrance test. One feature of the grading criteria marks Keller as a 'practitioner' organisation: 'in awarding a B, for example, the teacher is advised to consider, inter alia, whether you would be pleased to say this (assignment) came from you or your organisation: the person responsible would probably be slated for advancement' (*Faculty Handbook*, p. 39).

In corporate education activities, KGSM ensures that students are aware that teachers are observed in weeks two or three of the course.

B6.7 Source of teachers

'We'd rather have a practitioner who's never taught than a teacher who's never practised' (Overbye).

At the Institutes, staff have predominantly been full-time, but with a dramatic increase in adult students, part-time staff numbers have expanded dramatically; they have generally been used for the evening and weekend work, and are mentored by the full-time staff. Engineering and telecommunications teachers are generally full-time and often engineers seeking a career change; they are trained by DeVry, whereas the newer part-time staff are trained teachers in the Humanities/Social Sciences areas. Part-timers teach 25–30 per cent of all subjects; 'that's probably a good ratio' (Dill).

At KGSM, all practitioner faculty are part-time, and are drawn from some of the highest profile business companies in the US: 'we don't like to use the term adjunct because it denotes second class citizens' (Ricordati). There is no tenure. Many faculty teach one term a year only; some take three classes

a term; in equivalent full-time terms, there are 125 teaching staff. As the division moves to more full-time staff, they would expect teachers to take 3 classes per term, and 15 per year. Faculty Handbooks outline the criteria expected of faculty for each disciplinary strand; they must have a Masters degree, though it does not have to be in their teaching field; they must have seven years' experience in an area directly related to their teaching. The selection process is rigorous:

> *Everybody is responsible for recruiting, but the primary responsibility rests with the Academic Operations Manager (in the three largest centers). We have open houses, get resumes in, bring these people together as a group, through interviews at least with the Centre Director and probably the Curriculum Manager, then the person does a teaching demonstration, then the resume is sent to the Curriculum Manager. Then the person has to participate in the Excellence in Teaching Program. It's workshop based, four nights in a week during the term before they teach, lesson plan, topic outline … they prepare a syllabus, the lesson plan, a draft of the final and a mid-term exam, all these are sent to the Curriculum Manager and approved or not by the Manager.*
>
> (Hoel)

Certainly at KGSM, there is an obvious enthusiasm for teaching among staff:

> *I was intrigued by Keller because they offer support, especially on the academic side, and the control they have of curriculum and faculty … The place … doesn't cramp style when it comes to what I do in the classroom but it ensures I maintain standards, recognises the trade-off in customer service … between giving students what they want and what they need, and is acutely aware of rigour in the curriculum.*
>
> (Elliman)

> *It's rewarding: there's a tremendous amount of support for the faculty because they're working all day and do it for another three hours, so you need support to help it all run smoothly. It's amazing the work that goes on behind the scenes … you can go to the Curriculum Coordinator if you have questions to develop for exams, or course materials. They'll spend the time you need to help you.*
>
> (Bill Winchup, faculty, KGSM)

Faculty appreciate the fact that there is no requirement to publish, and the applied nature of the program. Long-term employees are granted stock options related to years of service.

B6.8 Source of administrators

At KGSM, the ratio of teachers to support staff is notionally 60:40; there are 750 teachers and 175 full-time staff with duties ranging from curriculum design to marketing and advising. Senior administrative staff in academic areas are long-term employees from various arms of the company, often engineers-turned-teachers; 'we have people come through traditional business organisations who have come to realise that education is a little higher calling than selling razor blades' (Ricordati). 'You need a good balance' of educators, business trained people, administrators from outside and company-grown staff. At DeVry even the Vice President continues to teach, while at KGSM all curriculum directors are required to teach at least once a year; most teach several classes.

B6.9 Accreditation

All degree and postgraduate programs are accredited through North Central Association of Colleges and Schools and are licensed through the relevant state boards where physical campuses are located. Corporate education must be conducted either in the KGSM centres or to a single corporate group on corporate premises; in the latter case, the accreditation agency must be informed:

> *We're a target for anyone that can say 'you're doing this for a profit therefore you are breaking the rules', so you constantly make sure you are squeaky clean. We will push the regulative bodies to get as much as we can but we will do it through them and not on the side.*
>
> (Munro)

Senior staff are committed to this process, because it 'makes us a better organisation' (Ricordati).

B6.10 Future plans

Although no staff referred to DeVry as a university, the *1998 Annual Report* foreshadows a re-branding; this would be problematic because of the name value of the existing divisions. Significantly, many senior staff felt that KGSM in particular would move further towards the traditional end of the spectrum because of accreditation requirements:

> *As we move into more states, we're moving further towards the traditional model because the state requires you to. A lot of states have the expectation of what a higher education institution has to look like, and they've not changed their expectation to reflect the changes that have taken place in education. I see us becoming more traditional.*

(Hoel)

They expect 'more full-time faculty, more PhD faculty' (Overbye). Yet for KGSM Dean, Tim Ricordati, movement has already occurred in the opposite direction: 'they have become more like us'.

The prospect of international expansion was not dismissed by KGSM Dean Ricordati, although 'too many educational institutions think about international operations as very sexy, and once they get there, they don't know what they've got into'. The Institutes Vice President was more sceptical: 'Almost every day, certainly every week, we get approached to partner with an overseas institution. It's easy to get excited about the global economy. But let's pay attention to getting things right in the US. Far away, it would be difficult to organise' (Mayers). Nevertheless, the 1998 Annual Report (p. 45) reveals that international operations (in Becker CPA Review programs) were loss-making, and constituted less than 10 per cent of all revenues.

B6.11 Challenges

Interviewees were frank about the difficulties facing DeVry Inc. Their concerns echoed those of many in the public sector, particularly as they relate to maintaining quality in the face of rapid growth. Indeed many saw the company as moving closer to the traditional end of the education spectrum, both in widening the curriculum, and providing more professional development for staff, such as sabbaticals, but the cost for that would be $4 million per year. 'We've got to pay attention to our Deans too, not just our faculty; the Deans are getting crushed in the changes. We've got to give them technology and more staff, to help them with additional resources' (Mayers).

Although DeVry actively cultivates individual employers as a 'key client group', via recruitment exercises and corporate accounts in KGSM, staff recognise the tensions inherent in tailoring educational programs to corporate ends. Both the 'silence' of DeVry staff regarding the Becker program, which is rote learning-based but a 'cash cow' for the company, and concerns about the CCE section, illustrate these tensions. They also demonstrate the core educational ideal of DeVry Inc. Munro is concerned that corporate education and training are 'two businesses' 'but they are tending to collide'.

There is a concern that student expectations and their immediate job placement from a DeVry Institute are poorly matched: 'the distance between what they want and what they get increases', partly because the 'the TV ads are 15 second spots that create an impression about a technology career … in print matter … we regulate ourselves because we are very careful not to create unrealistic expectations' (Mayers). However, later year satisfaction is 'very high'. All interviewees were sensitive to a perceived disparagement of proprietary schools, and although marketing was a core function, 'our recruiters are monitored carefully; if they think it's like selling cars, they're purged' (Mayers).

DeVry is struggling with completion rates: the undergraduate completion rate is under the 50 per cent target at 30-34 per cent; the difficulty is to maintain quality and integrity while increasing this rate through better selection. All students must enrol in a degree program to qualify for a student loan, so students who only want a few units appear as drop-outs, although they may have received what they wanted from their education. Retention is significant not merely for credibility but because 'every percentage increase in retention adds $6 million to the bottom line' (Mayers). AT KGSM, the completion rate is 38-40 per cent, 'probably pretty consistent with other programs with part-time students' (Bill Leban, Associate Director of Curriculum, KGSM).

Of equal concern is the quality of teaching:

> *The fundamental problem is what goes on in the classroom, the bonding between the student and the teacher, the quality of the relationship, that's what's lacking in DeVry at present; we don't monitor that enough. To do that, you've got to be attentive to your faculty. The faculty need to be heard, to paticipate in decision-making. We need to substantially increase our investment in professional development, to look at DeVry in terms of resources and tools rather than prescriptive faculty development programs that come out of a big green tower in Oak Brook. Our target is to get them to six days of professional development a year.*

> (Mayers)

As in every accredited institution that depends, albeit indirectly, on company tuition reimbursement to individual students, there is a concern that staff grading integrity may be compromised somewhat by partial grade-contingent tuition refunds. KGSM scans the class results for anomalies: 'they are all evaluated on the basis of reasonableness'. 'Some companies will give you 100 per cent for an A, 75 per cent for a B … students have 10 weeks after the end of a course to challenge a grade … it could be $200 or more a student' (Munro).

Competition in this market is intense, and DeVry sees its competitors as 'community colleges, every other provider in IT, Microsoft with their certified programs, private providers … who aren't interested in general education, who don't want a core curriculum like we offer, who'll do it quicker, cheaper, faster' (Mayers). For the CCE arm, competition in the training area is 'endless … there's ESI, 50 times the size of us' (Munro). For KGSM, there are 24 MBA programs offered in the Chicago area alone. For Dean Ricordati however, 'the pie is getting bigger. As long as we do a very good job, we'll be fine'.

Documentation

DeVry Institute of Technology 1998 Academic Catalogue
DeVry 1998 Annual Report
KGSM *Request for Institutional Change* 1998. Submitted to North Central Association of Colleges and Schools
KGSM Master your Future
KGSM Academic Catalogue 1998-1999
KGSM *Faculty Handbook* 1998
KGSM Student Handbook 1997

B.7 Sylvan

B7.1 Context[1]

Education is the bridge between the past and the future. It drives the soul, buoys the spirit and feeds the mind. It takes people into new worlds and gives them the power to fulfil their dreams. Whatever those dreams may be.

At Sylvan Learning Systems, we recognise that the quest for knowledge is universal, that education empowers and that learning knows no boundaries.

(1998 Sylvan Annual Report)

Sylvan Learning Systems Inc plans—and claims—to be the world's leading provider of educational services to families, schools and industry. Economic analysts Merrill Lynch (Merrill Lynch 29 October 1999) observe that Sylvan has 'seven times the market share of the next leading tutoring company in the US and a nearly 90 per cent market share in testing. Sylvan is the second largest English language training company in the world'.

Yet this corporate conglomerate of education and training service providers had a rollercoaster year in 1999—one that saw continued strong growth in all parts of the business, while share prices fluctuated from a high of more than $34 per share to a low of $10.69 in the 12 month period to the end of November 1999. Despite the weak share price, Merrill Lynch reported stronger than expected revenue growth across all Sylvan's major business units.

The Sylvan group consists of various acquired and spun off companies that reach out to learner cohorts from kindergarten children to adults. Educational services and products range from testing and tutoring to distributed delivery of language classes and teacher education. These businesses include:

1 Sylvan Learning Centers, which in 1998 serviced 129 000 students through more than 700 centres in the USA and Canada;

---

1 It is worth acknowledging that the nature of this educational business is such that it does not fit neatly into the case study sub-headings established for this project. The majority of the Sylvan and Caliber businesses see the corporation as providing the tools by which other providers can deliver education and training (with obvious exceptions being Wall Street Institute and Canter). While Sylvan Learning Centers are delivering courses, their primary target market is the K-12 demographic which is outside the parameters of this study.

2 Sylvan Learning Centers International, a further 900 European centres, operating under several corporate names, which deliver tutoring and homework help to school children;

3 Sylvan Prometric, the world's largest testing business, which, in 1998, administered more than 3.5 million tests in 25 languages in more than 150 countries, through more than 2 500 authorised testing centres;

4 Wall Street Institute, an international franchising operation that is dedicated to teaching English as a foreign language and provides English language instruction to an average yearly student body of approximately 80 000 students. WSI has 263 instruction centres and uses a combination of live and multimedia instruction to deliver English language courses to working adults in 15 countries mainly in Latin America and Europe, but also in Asia and the Middle East;

5 The Universidad Europa de Madrid (UEM), the company's first private for-profit university in what Sylvan plans to be an international network in select markets;

6 Sylvan Contract Education Services (CES), which provides programs of support for staff and students delivered under contract to more than 900 schools across the United States. Sylvan has established learning centres in elementary, middle and high schools, mainly in urban districts (including Los Angeles, Detroit, St Paul and Chicago). Sylvan's services, which include remedial maths and reading tuition, speech therapy and special education assessment systems, are provided free to students. Funds are provided primarily from federal, state and local board grants;

7 Canter, part of CES, which delivers professional education training and education to 5 000 US school teachers enrolled in its degree programs, delivered by distance education, and another 25 000 in single subject professional development activities, some of which can be credited towards a degree;

8 Caliber Learning Network, an affiliated company which is now publicly listed on the stock exchange but which started in 1996 as a joint venture between Sylvan and MCI. Caliber delivers professional education and training programs through a three-tiered multiple media platform which combines two-way video-conferencing, the Internet and PC-based communications technology. Caliber serves both as a major information distribution network and a distributed educational delivery system, with partners including the Wharton Business School (University of Pennsylvania) and Johns Hopkins. In 1998, more than 60 000 working adults participated in a learning event at one of Caliber's learning centres;

Other businesses in the Sylvan group, which will primarily be mentioned in passing in this Case Study, include:

9 PACE, which delivers corporate training and consulting services to corporate clients (and which Sylvan announced in late 1999 that it was selling); and

10 ASPECT, an English-language business, which operates in five countries (including Australia) and provides immersion courses for college-entry level students.

B7.2 Organisation/training goals

The Sylvan story started 20 years ago when Sylvan was launched as a tutoring company by an Oregon teacher looking to build an alternate career path for teachers. After being sold to the US business Kindercare, the corporation was sold to two Baltimore software developers (co-CEOs Doug Becker and Christopher Hoehn-Saric) who had previously designed a smart card product and computer storage device to hold patient records and sold the business and business plan to a large health fund. In 1993, after listing on the stock exchange, Sylvan acquired Drake Prometric on the cusp of the dawning era of computer-based testing. Prometric has three major lines of business: professional licensure exams, information technology exams and academic services exams (eg, GMAT, the Graduate Management Admissions Test, and the Test of English as a Foreign Language or TOEFL). IT testing programs are delivered for Cisco, Microsoft, Novell, Oracle and others, and professional exams are delivered in a range of discipline areas including medicine, teaching, accounting and aviation. In 1998, Prometric's secure computer-based testing services grew further with the addition of a five-year contract to deliver, from 2000, all drivers' licence theory tests for England, Scotland, Wales and Ireland. Total revenues increased from more than $US94 million in the 1994 financial year to $440.3 million in 1998. In the same period net income grew from $3.9 million to $35.7 million (1998 Annual Report, p. 2). President Sylvan Prometric, Stephen A. Hoffman, says it is the secure component of the testing model offered by Prometric that makes it unique in the marketplace.

> *There are multiple kinds of testing, there's probably 100 companies now providing Internet tools to let people do their own testing. It's the secure component to what we do that differentiates us from the rest of how testing is done … It's the secure piece that makes us somewhat unique. Anyway there are many entrants at the low end of this, it's the higher ends that we've sort of laid stake to at this point in time, and again, there are some viable competitors. And therein lies this investment dilemma for others coming in.*

Hoffman believes the ability to offer a secure testing process removes one stumbling block by providing a solution for the increasing numbers of people/organisations concerned about the integrity of testing in an online or distance environment: 'Distribution of education is relatively straight-forward … The assessment piece is trickier. It's new or news it seems, it's really apparent to us why it all fits, but to them the idea of doing it this way, with this level of control and without tremendously hurtful economics, opens the door'.

Hoffman argues that Sylvan has segmented the industry into a variety of different segments 'and sort of made our choices as to where we want to play … It is an aggressive company that has a long term view of the opportunity in things that are related to education services'.

Just as Prometric's business is the niche market of testing, Canter specifically targets the niche of teaching. Co-Chief Executive Officer and President of Canter, Marlene Canter, says the business concentrates on teachers: 'it's our pretty much only market, sometimes we venture into the administrators … sometimes … the parent market but … our particular business methodology is to sort of stick to your knitting, keep your focus on what you do'.

Caliber grew, in part, out of Sylvan's need to deliver training to staff working in its own Learning Centre businesses (15 000 teachers are now employed in these centres), however its long-term vision is to be 'the global standard for high impact distributed learning' (*1998 Annual Report*, p. 3). Chris Nguyen, President and CEO, says Caliber works with corporations and academic institutions as a joint venture/marketing partner or as a host organisation, providing a distributed delivery system, and administrative support services if required, for education and training providers. In this latter case, the partner institution provides students, staff and content and Caliber supplies the network infrastructure and delivery system. Caliber Vice President Academic Services Kevin M. Thibodeau says the corporate strategy is as much about access as anything else:

> *We provide access to this world class education that isn't always avail-*
> *able in someone's local community and we do it through a convenient*
> *and high impact product. I do believe it leans more to the access side so*
> *more people can choose the products they want to choose for education.*

The partnership/alliance strategy is also reflected in the new international university outreach (UEM) as discussed by Dr Joe Duffy, now Sylvan's Senior Vice President International University Initiative and formerly president of American University, Chancellor of the University of Massachusetts and head of the United States Information Agency:

> *… the Sylvan notion is not to create a string of little American schools …*
> *We want to see outside the US if we can assemble a network of*

*universities that relate to each other … We hope to facilitate the
movement of faculty and students back and forth … We will not do
Internet educa-tion but we will do distance learning … live satellite
interactive education that we developed with Caliber, so that if Spain is
teaching a particular course on the European market we might want to
make it available on other campuses. This is the one place where we
might work with an American university like the Wharton Business
School, with which we work now, on a particular course that seems to be
a good option to offer our students. We would see the students being able
to move back and forth. My dream, frankly, would be that a Latin
American student would have a work internship for a year in Madrid
and students there could come to Sao Paulo and we'd facilitate that
through this system of institutions.*

Duffy says Sylvan is in the business of education, and to some extent it works
'at the seam between government and traditional institutions, we're not trying
to replace, but I suppose we are trying to challenge occasionally some of the
traditional notions'.

Sylvan CEOs Becker and Hoehn-Saric argue that through its growing network
of testing, training and tutoring sites 'Sylvan is establishing a ubiquitous
distribution channel for educational services around the globe' (*1998 Sylvan
Annual Report*, p. 3). The company, which mixes strong franchisee arms
(90 per cent of Sylvan learning centres are franchisee-owned and managed)
with corporate controlled business, has been deliberately positioned as a
partner and service provider to the education sector, government and industry,
rather than a product provider. 'Partnership with the education establishment is
one of the fundamental tenets of Sylvan's strategy' (Becker 1998). Hoehn-Saric
goes on to suggest worldwide spending on/in the education and training
industry is estimated at $3 trillion annually.

B7.3 Learner/client demographics

The diverse nature of the Sylvan and Caliber business arms mean client and
customer demographics tend to differ quite markedly. Aside from the Sylvan
Learning Centers and Contract Educational Services, which primarily target a
K-12 demographic, the businesses provide services for postsecondary
students. Hoffman and Jeff Cohen (Vice-President, Academic Services, Sylvan
Prometric) suggest one trend in postsecondary learners that needs more
attention is their increasing age, with the average age of a college student
now 33 years, and more than 50 per cent of higher education students now
older than 25 years. They acknowledge the higher than typically depicted
average student age is probably because 'you've got a lot of 60-year-olds in
the system', but believe the figures are important for those servicing this

market. Sylvan Director of Corporate Development Jim Hermens says trying to identify the client or customer is 'a funny notion in the testing business' because Prometric has to convince and provide efficacy to someone who actually has to provide some kind of certification:

> *The value of Microsoft's networking software, and someone working on it, is only as valuable as their certification and so we want Microsoft to be our client, to want to use us to verify their trainees are certified. But then we also want to make sure that trainee decides to take their exam at a Prometric testing centre. So it's a mixture of balancing both of the ends of who you're serving customer wise.*

Although Caliber's learner demographic changes according to which partner program deliverer is using the facility at the time (corporate clients tend to use them from 9am-5pm, with academic program partners occupying the evening slots), there are a few observations that can be made about those learners/clients frequenting Caliber facilities. Thibodeau says corporate customers include any major corporate or institutional client who wants to 'use our network to get a consistent high impact message out to a distributed workforce, dealer network or constituent group. We work with generally Fortune 500 companies which have large distributed training needs, national associations'.

Caliber Senior Vice President Bryan Polivka says there are two basic audiences: corporate and academic:

> *There's the corporate audience where they're told to go and they're look-ing for something that, well to be honest, is as painless as possible. I think about half the people still view education as something that is really good for them but, it's "I'm busy, it's taking time out of my family life or time out of my productivity at my corporation". So it's almost like, you still have your mainline job in a corporation and then you have activi-ties with which you polish your skills which is training or education. But they're almost always viewed, even at the most forward-thinking companies, as something that's taking away from your productivity, that's actually the way they view it, so they think of it as something that's you know a little bit negative. So I do think individuals at corporations are looking for something quick. They want the infor-mation, there is no question about that, but they want it to be delivered to them almost painlessly, if they could plug it in at night that is what they would do. There is a fair amount that want to socialise too, but ultimately I think it's a little bit more "give me the information" from a corporate consumer's perspective. From the academic side it's different …*

Thibodeau says the highest levels of corporate executives—CIOs and CEOs—tend not to congregate in learning centres:

> *Generally speaking (they) still want to get together in a small executive seminar style or they want to be on the phone, it is not necessarily an audience that wants to get together across the country in learning centres. Really from vice presidents on down, it works very well.*

He says top corporate executives will make an exception if there is an outstanding speaker or reason to meet that they consider 'worth their while', but it is important to ensure they meet with a group of their peers. 'You don't match up CEOs with product managers in the same classroom, that won't work, just like it doesn't work on campus.'

The average profile of teachers serviced by the Canter business is currently that of experienced practitioners in their 40s who have been teaching for a number of years. These professional teachers are likely to have families and be very busy, studying in the evening after a full day's work.

> *You will find a lot of people who are in their mid-career and who are working moms or dads didn't think they could ever work full-time and get a college degree or a Masters degree at the same time and now they have found that they can, so they go forth for the learning of it and also for the incentives that their districts give for pay increases.*

> (Canter)

The typical Wall Street Institute student is aged 25–35 years, and an upper class, upwardly mobile professional (Michael De Grande, VP Educational Services, WSI). However, students can enrol from 17 years, with the youngest student aged 17 and the oldest a 90-year-old Chilean man. Students tend to be studying English-language courses for a career-related purpose. They may be self- or employer-funded.

B7.4 Costs

It is impossible to quantify costs, although detailed financial statements of the various businesses are available through the annual reports. Again, actual costs vary according to which business is being discussed and who the partner client is. For example, students who attend non-public school-based Sylvan Learning Centers pay for the experience ($40–$75 per month), while those who are fortunate enough to have a centre on school grounds as a

result of a government, state or school board contract are able to access the same services at no charge.

According to SUCCESS Magazine, which ranked the top 100 Franchise businesses in 1998, a Sylvan Learning Centre (which scored as the second-best franchise business) costs $34 000–42 000 a franchise.

The costs associated with setting up a major rival to Prometric would be prohibitive (Hoffman). Hoffman argues that the testing business is a classic distribution model in that 'there are many providers and there are many, many consumers in testing and our challenge is to try to provide the linkage that puts them together in a fashion that no one could afford by themselves'. Hoffman suggests Microsoft probably could afford the necessary investment to fund a testing network of its own, but this is not one of its core competencies. However, he says Prometric's reach in this niche should be generating increasing cost benefits:

> We look on this as just a huge market that we have just sort of put our fingers in at this point … it's more than that, we actually put our fingers in for the low hanging fruit, the high value programs that are either high stakes assessments or entrance examinations or high stakes certifications for which there is significant value and therefore the ability to pay the price if you want computer-based delivery. The good news from our perspective is that as we keep loading more and more volume onto this network and you can drive the incremental cost down all the time, it opens up more and more opportunities to in fact penetrate.

Tuition was $2 500 per individual per program in Wharton Direct's 'The Working Knowledge Series' (eg, Building a Business Case, Using Financial Statements, Understanding the Business Drivers for Your Industry). Classes met for a three-hour session in a Caliber Learning Centre, once a week for six weeks.

Determining whether or not the cost of corporate training via Caliber is reasonable or not, depends on the specific circumstances and your notion of value 'which is the combination of a whole bunch of things, price point being one of them' (Polivka).

> If corporations are using us to train their own people it is very much going to be based on the value to the corporation. The content's going to come from the corporation itself and then it's just a matter of whether or not we can help them deliver that content at the price point that is needed or the cost that's needed for their own ROI—return on investment—to make sense. So if you have a piece of training that needs to go to 10 000 people and your current solution requires them to fly to

> *a single location, where you have a single instructor, in groups of 10, it is going to cost you so much money that you will never implement it. So the question is can you get the price point of the delivery of the instruction down to a point where it makes sense to invest $100 000 in training 10 000 people to get this much performance increase out of them. It is really something training departments at a corporation make an evaluation on.*

WSI courses are sold complete with a 'you get what you pay for' guarantee. De Grande says courses are sold with time limits and specific objectives, and, provided students complete a minimum number of hours per week, if they do not reach their language objective WSI guarantees to 'either give them more time to reach their language objective or we will even refund their course money'. Younger WSI students tend to be self- or family-funded, while the tuition of working adult students may be paid by either the employer or the student. Similarly, Canter tuition fees tend to be the responsibility of the individual student, although teachers will apply for Federal grants or Federal funds for tuition reimbursement, and some school districts will reimburse teachers' tuition costs.

Hoffman says while the line between education and training might be blurring, it was important to realise that profits were not easy to achieve:

> *Is the line blurred? The answer is yes. Is it going to get blurrier? Probably. This is not perfectly true but one of the differentials—when we look at training, we look at training from a distribution stand point again because it's largely what our mission is but not exclusively. If you look at training as a business it's difficult to find a model that's been very successful. If you look at most of the computer-based training companies, they don't make any money. If you look at most of the IT training businesses, they don't make any money. Corporate universities are doing it for other reasons and they're justifying the expenditure on training based either on productivity or retention or a combination of both. It's difficult to find a business model that really is successful in training.*

B7.5 Education/training/business model

The prevailing theme behind the Sylvan and Caliber education/training/business models is a commitment to the client and a clear convergence of what customers want, with what works.

Caliber's education/training model attempts to turn conventional teaching into an 'interactive distance learning event' where quality content, professional

presenters and helpful facilitators work with students to ensure an optimal learning experience. Caliber Learning Centers bring together the technologies of broadcast (the presenter's face is beamed from a studio via satellite), the Internet, and PC computing (individual web-wired workstations in a small group learning room). Subject matter experts act as presenters, while on-site facilitators, intended to smoothe the way technically or facilitate small group work, add a familiar and comfortable presence in the far-flung learning centres.

The Caliber model features two-way video conferencing, audio and data transmission via an interface designed to be user-friendly and to emphasise those aspects of the experience that most resemble a traditional learning event. Polivka says respecting what works in traditional education is primary to what Caliber is about:

> *While there has been a large amount of fleeing traditional education as though there was something wrong with its standard methodologies, we at Caliber said there is nothing wrong with the standard methodologies, they just are not distributable. In fact they are the best. If you can have students in a classroom with an instructor, that is the best way to go, but you can't distribute it that way. So let's build something that respects what works, and then we will employ the technologies for what they do best. A common mistake that distance learning enterprises or institutions make when they enter distance learning is to say "here I have this new technology, now let's figure out how to make it work for learning", and so they go off on the web and go off on CDs and go off on whatever and they are not really thinking about it from the other side-'what do the technologies really bring to the table, and what can we do to maximise each of the technologies' abilities?".*

One feature of the Caliber model is that the broadcast component is treated like a mainstream television production. Polivka says sessions can be broadcast anywhere to any number of learning centres simultaneously. There is no 'live audience' in the studio. However he says it is important to have high video production values:

> *if you don't have high production values where the picture looks good, audio sounds good, you've got good lighting, sets look good, you have some makeup—people assume that it's not high quality content. If it is on a TV, it's got to look good on TV.*

Teaching assistants (TAs) may also be used to take student queries, via email or computer chat, during the course of the Caliber learning session, and either respond directly or refer the questions/issues on to the presenter. TAs

may be situated in the same learning centre as the class being taught, the same room (least likely), or at another site altogether (perhaps in another state or country). Polivka says there are good reasons this mode of interaction is labelled 'whisper' on the Caliber interface and that traditional teaching staff who have experienced it in the Caliber environment miss the facility when they return to their normal work.

> *In our environment they get a lot more questions … these questions are ones that get asked in people's heads but never get voiced. Except, maybe, to lean over to the guy next to you and say "you know why xyz" and they go "I don't know" so that is pretty much as far as it goes. But in this case you can actually lean over to the smartest person in the class (the teaching assistant) and they actually will have the answer for them. And … this is the one I've found that I miss now when I go to any live lecture or class … There is always at some point where I go: 'I have got a question, I'd really like the answer to it but it is not worth interrupting, it's not even worth walking down at the end of the classroom to ask the instructor, it might be worth asking somebody next to me, but I wish I had the whisper function in this environment'.*

The Canter training/education model sees courses delivered in distance education mode using videotapes and speaker phones: 'because we believe all working adults had better access to those two instruments than they did to computers and also because we base our methodology on collaborative learning' (Canter). The model reflects the division's belief that adults learn better in collaborative groups and that this is especially the case for teachers, who are isolated as adults in their classrooms. The result is an attrition rate in the degree programs of under 3 per cent, which is, as Canter says 'phenomenal'. Such a rate reflects not merely the collaborative nature of the teaching/learning model, and the quality of the learning materials and high levels of access to staff, but also the motivation of the students, intrinsic and extrinsic, as promotion is tied to gaining a qualification.

Canter works with colleges to develop content, as well as being a marketing company.

> *The colleges … we work with recognise that although they teach live regu-lar teaching in the traditional way it's better for them to outsource some of what they do for this distance learning because they don't have the resources to do that. So they contract with us, and we work with their faculty because the materials basically become accredited by the institution's accreditors—we have nothing to do with their accreditation—and we develop programs or courses that consist of a video that have the leading experts on the video, and theory application and different ways of demonstrating the theory on the videotape and then there is a study guide that goes along with it. There are questions that are group*

questions, there are application questions for the classroom, there are reflection questions, there are individual questions and then there are questions that they have to respond to their adjunct faculty member and the faculty member will call them on the phone. So they have the contact with the university via the telephone. And that's basically the simplicity of the model that we use.

The typical Canter course requires the same time commitment as a traditional college course, with about 8.5 hours of videotape and the study guide. Students are expected to form a study group of at least two, but preferably three or four, sometimes five (who may or may not be at the same school). Group members decide how and when they will do their course work, with some groups setting aside each Saturday until the course is completed watching the video together and work on their study guides. Other groups meet once a week after work to watch the videos and do their group work. Portfolio assignments are attached to various sections of the course just as in a regular course and these assignments have to be faxed to an Adjunct Professor at the college for their feedback.

But the beauty of the program and the beauty of it for working adults is they can structure it anyway they want. We have heard, where the teachers get together in the evening, they bring their kids, the kids do their homework, the parents do theirs. You know it's just really very flexible, which is part of the nature of it to work within the time constraints that the people who are taking it have. In the degree program we collaborate on, they generally take two courses a semester which is a heavy load plus their teaching but they're able to do it, it's an 18 month program. The other courses we do, teachers just take single courses usually one at a time and take it one semester at a time.

(Canter)

The WSI learning model is a flexible combination of live (face-to-face) teaching and multimedia instruction, with roughly four hours multimedia instruction in a WSI lab to two hours face-to-face. The multimedia centre is open from 9am until 10pm and for a half day on Saturday. Timing for taking classes is also flexible, as course progression is based on completion of elements, students do not move through the course in a cohort group, unlike the Canter model. 'They move through at their pace and then they sign up for a class that pertains to the particular block of material that they just completed studying. So every time they come into a class they are with a different group of students and a different teacher' (De Grande).

After a standardised entrance test, students are placed in an appropriate level for their English ability, with the shortest course being three levels, a nine-

month program. Course sales average 3.5 or four levels, roughly a year, with about a 30 per cent renewal rate as students complete one course and then continue onto the next. The WSI learning model is competency-based on acquiring language in a natural way, 'our teachers here are very much facilitators and guides. Frankly we emphasis the idea within our system that if our teachers teach anything, what their main responsibility is, is to teach our students how to be good language learners, rather than to teach them the language'.

The heart of Prometric's testing model is that it is secure computer-based testing, that is that the parent institution/organisation should feel assured that the person named as having sat an exam did in fact do so. The model combines sophisticated levels of computer-based testing with a proctor system in secure testing centres all over the world. Examinees are physically 'eyeballed' by the Proctor and required to produce their identification.

Hoffman argues that computer-based testing is quite sophisticated and says the notions that fewer options are available for computer tests are false. He says many clients have discovered that their options increase markedly once they put aside paper tests.

> we see the sophistication going up radically. Microsoft … (are) breaking ground in terms of utilisation of simulations and live product testing. Just to give you this particular example, what they have written on the computer is actually a Microsoft product alongside a test driver and as you're actually utilising the product the test driver has the intelligence to in fact observe what you are doing within the Microsoft product and actually grade you based on not only the results but the path you took to get to the results.

A7.5.1 Content/curriculum design process

The willingness of the Sylvan and Caliber companies to work with their client groups means that content and curriculum design is directed by the partner organisations in many cases, although exceptions to this might include Wall Street Institute, which develops 'fairly well programmed' proprietary materials, Canter and the K-12 Sylvan Learning Centres. Caliber staff are committed to developing content which makes the most of their interactive platform, however, ultimately this is first the responsibility of the content provider.

> I mean we generally help them out with the development of their content. We take what is very often very raw content and transform it for Caliber delivery.

(Thibodeau)

It's pretty much whatever they want … Some want us to be involved in the development of the content, others just want us to help prepare their pre-senters and the content designers for the Caliber environment. Others don't even need that. From their own studios they've figured out Caliber networks and they work primarily with a program manager and we do very little design.

(Polivka)

Similarly, Prometric has on hand experienced test/examination developers, but must be guided by the requirements of the client group.

Marlene Canter says her group works with teachers and education boards to develop a content and curriculum that is relevant, and very practical, 'not just theory in their heads'.

B7.5.2 Technology

One aspect that is all-too-obvious about the Sylvan/Caliber approach to technology in their education business is that there is an eclectic mix which appears more driven by what is right for the individual business and its clients than a central dictate to use one specific technology solution across all businesses. In brief:

- Caliber uses a three-tiered integrated platform of Internet, PC computers and broadcast technologies. The result is two-way audio, two-way video (with ceiling mikes and mini-cameras in the small group learning rooms) and with Internet and intranet operational;

- Canter uses speaker phone and video tapes;

- WSI uses a multimedia instructional program for language teaching—but then uses live classes to test the application of the knowledge gained through the multimedia study;

- Prometric uses computer-based testing (with different software configurations depending on the exact subject being tested).

Polivka says what Caliber has done is build a network that appeals to the individual learner, which means satisfaction with the model on offer is high and the specific technologies used are not an issue. However he identifies trends towards 'more synchronous large events and … some way to leverage that into an asynchronous environment or at least into a web environment so we can reach more people. I think there is a conflict of some degree in each of these things between the learning experience, which everyone wants to be extremely high impact, and the accessibility that is required'.

Hermens says the use of the three basic off-the-shelf technologies, which Caliber simply interwove in an appropriate manner, has resulted in a model that allows small group interaction in the one classroom or across the country, providing additional benefits for participants:

> You are in a classroom that probably has from three to 16 other students and your small interaction can either be with those three to 16 others live on location or you could be part of a study group that involves a Houston student, a Denver student, a Minneapolis student, a New York student. For instance, Wharton's found that particularly exciting because it allows the Aerospace people from Seattle to share their industry thoughts with the software developers from the Bay area, and with the Government employees in Washington DC. They have very different per-spectives of business problems relative to their industry so it creates a very exciting way to have students interact across country.

Nyugen says there is definitely a 'buzz' around technology and training, with two of the main forms being Internet-based and satellite distance group-based learning but in the last 10 or 12 years there has not been large scale migration from traditional room-based learning to media-based learning in any significant fashion. He says it is not clear how that should be translated in terms of shifting trends:

> But there is certainly a lot more buzz around it now than there used to be and there is certainly a shift within media-based training from what would be considered traditional computer-based training to web-based training or interactive web-based training—that seems to be the cleartrend within the media-based training altogether. So, I think the ability to ask questions of the subject matter expert or instructor, which you can do with the Internet-based training and you traditionally couldn't do with computer-based training is probably the driver behind that. It is clearly a better form of education than traditional computer-based training.

Internet-based education is not currently a priority for the international university arm.

> It's not that we've rejected it. Other people are doing it. I've visited some places that I think are doing it responsibly and some places that are not. There are some institutions I have observed that simply want to take what happens in America, put it on the Internet and ship it to other parts of the world—I think that's a recipe for failure. We're trying to discipline ourselves to a particular concept, seeing if we can make it successful, see-ing if we can persuade those young analysts trained in Ivy league schools who analyse stocks in the US, to persuade investors that a little

> *patience for 10 years' investment in education is not a bad thing—and that's an open question by the way. I think if we can discipline ourselves and stay focussed we've got a notion that should work.*

(Duffy)

Nor is there are any indication Sylvan/Caliber businesses will abandon existing modes of technology for the Internet. Polivka says 'it is a fact that web-based training has the highest drop-out rate of all learning platforms'. Marlene Canter suggests the success of the technology solution for Canter students is one reason why the attrition rate for Canter programs is 'so low':

> *besides of course the content … I believe it's the collaborative nature of it and the fact that you are really working with a group of people who have exactly the same goals as you do, they have the same job as you do, they have the same needs and interests and because the material that they are learning, the way that it is prepared, is intended to be applicable the next day. So teachers are in dire need of success and I believe that that is what attrition rate is all about. We have raves from people that this has been even more intimate with their faculty member because most people that go to college classes don't get to spend time with their faculty member other than they go for an appointment. These people are on the phone with their faculty member on a very regular basis for an hour at a time sometimes, discussing theory, concepts, application, that kind of thing and we have heard from both professors and students that it becomes a very intimate experience.*

Marlene Canter says the company is working on an Internet version of the teaching model, but she is not going to release what they are working on unless they can achieve the same results in terms of the attrition rate.

> *I believe that one of the things that is wrong with on-line courses … is a lot of that attrition comes from the alienation that goes on … Even though there are chat rooms you are really doing it alone and I think that probably accounts for that—plus whether the content is relevant or not counts for a lot of it.*

B7.5.3 Evaluation

The extent and level of evaluation is also affected by Sylvan and Caliber's positions as tools or service providers rather than controllers of product. Thus, while Caliber Learning Centers may be the locus of the educational experience and Caliber might contribute to the facilitation of learning, control of evaluation remains with the partner organisations/institutions. Organisations

such as Johns Hopkins and Wharton regularly evaluate their programs, but the evaluation parameters are set by those partner groups.

Caliber-controlled evaluations tend to be at Level 1 or 2 on the Kirkpatrick scale and are focussed on students' reactions to their Caliber experience. That said, Polivka boasts the model consistently rates (on 80-90 per cent of survey responses) as 'better than the classroom', because the integrated technology platform caters for different learning styles and allows some sense of self-pacing through the learning process.

Caliber also suggests student response has been 'fantastic to date' (Thibodeau), with virtually no attrition.

> *The only students that are dropping out of our courses are students that have had major life changing events either family issues, moving etc, and when you compare that to most distance learning companies which have very high drop out rates and even on-campus programs which have significant drop rates, we're doing well. But the most satisfying feedback is the anecdotal feedback, the subjective feedback we're getting from students which is hearing things like 'this is a better experience than I had in my undergraduate days, I feel more connected, I get better answers to questions' and those are consistent across the board. 'And my chair's more comfortable and boy I hadn't seen technology like this in my university.'*

Caliber's technology systems also allow for some evaluation of content and programs through the data that is generated and collected during the course. This data can be traced down to individual student and instructor levels.

B7.6 Accreditation

Accreditation and certification were topics of primary interest to Caliber and Sylvan staff, although not necessarily in the traditional sense. Due to the corporation's positioning as the glue that binds various sectors together, and a committed partnership broker, a relatively minor responsibility for accreditation/certification rests with the group—and some programs, like some of those in the Sylvan Learning Centre, are accredited although they do not need to be. Thus, Caliber need not worry about its relationship with Johns Hopkins or Wharton, accreditation is part of the dowry that they bring to the marriage between the partner groups. As well, it is in this area that much of Prometric's core business has its foundation—in the delivery of tests and exams for professional licensure, academic qualification and certification.

Hoffman says it is hard to determine how much of the discussion has been prompted by the massive move to computerised testing:

Certainly IT examinations are IT dependent and the whole concept of certification as a career enabler is relatively new. So that is a phenomenon … In the construct of professional certifications, I guess generally there has probably been some increase in the level of emphasis on the testing for these organisations although to be honest most of them exist for the purpose of certification or testing. In other words, if you've got an architectural board, their mission in life is to certify architects. They do that through examinations and they always have. They used to do it with paper and pencil but now they do it computerised and in a much more sophisticated fashion.

Hoffman suggests there could be regional differentiation in relation to corporate-based certification. 'The whole concept has different appeal in different parts of the world. Pretty well accepted here. Pretty well accepted across most of Asia. Very much rejected in Europe.' Hoffman says despite regional differences, he thinks 'the next big wave in certification is something that's corporation specific … '

Accreditation and certification are also a large part of Canter's business in servicing American teachers. In fact, Marlene Canter argues, accreditation is a critical issue. Canter has embarked on an alternative certification program following on from the crisis in teacher shortage that has resulted in large numbers of uncertified/accredited people teaching in American classrooms.

It's also pretty much a horror story (in the US) in that we have a lot of people in the classroom, who somehow are in there and not trained because of the emergency certification they need to get and they have 5 years to get trained afterwards. We … are doing an alternative certification program where we will recruit people who want to be teachers, who have already have their original Bachelors degree—it doesn't have to be in a related area, but they have already gone through four years of college with their Bachelors degree—and then they will be recruited into a district. We will be hired by the district and we will then take responsibility for the recruiting and the training of those teachers to get them to a place where they can get their certification.

The Wall Street Institute is currently not accredited, but is investigating possible paths to accreditation or certification. Assessment is competency-based, with entrants sitting a standardised entrance test and then placed at an appropriate level of coursework depending on their abilities. De Grande says students currently end the course with a Wall Street certificate of completion.

Possible moves to accreditation include putting the Wall Street system into universities and professional schools.

> *once that happens we'll have accreditation from the university system, and … completion of a certain level would be equivalent to "x" within their language requirement for the university … I think it lends a great deal of credibility to the institution not only publicly but with the academic community.*

Thibodeau says certification is important in any industry which is professionalising, where a degree is not enough and the industry want to move the next step to some kind of proprietary certification that shows you have hit the standard. Nguyen says professional licences and certificates, like the CPA, are hugely powerful credentials that are non-academic in nature. 'But because … they have had rigour and industry acceptance—rigour being testing and then industry acceptance or industry adoption—they are like part of your education process. I think there is a pretty big trend that is going to happen over time'.

Nguyen also argues there are economic imperatives for the certification ball to keep rolling:

> *The phenomenon that Novell started and Microsoft now is indicative of, is so significant. The average starting salary of a Microsoft certified engineer is higher I believe than a PhD in computer science. And it takes you a grand total of six weeks to go through or something ridiculous like that. So the market place is simply … the education space has got to respond to such a phenomenon. "Does it map to various different other disciplines?" is something probably every educator in whatever field it is should be asking or is asking. A four year undergraduate program, you have essentially screened out some huge percentage of the market place because it takes four years. And that's just a big deal. If you look at one of the very, very common drivers of adult-selected education, it's time. "How short a time do I have to go through this process in order to get that credential?" The shorter the time period is, the better they like it. And the more they'll pay for it.*

B7.7 Challenges

The obvious challenge which must concern all those in the Sylvan stable is the fluctuating public share price, at end 1999 near its year low, which seems to ignore the continued strong growth and valuable market share of this major education business.

Sylvan's history is one of acquisition and merger and in the light of its announcement that it will be shedding some divisions to focus its business more strongly, it would appear there may be further evolutionary stages ahead.

The Sylvan group's demonstrated ability to identify strong market niches and present itself in the right place when education and training providers are looking to outsource lucrative market niches or to purchase specific services from a proven deliverer should also stand it in good stead.

The blurring of education and training was considered by some executives to be a future issue, with traditional tensions between those supporting either education or training as being more preferable than its counterpart, although others expressed this as primarily an issue of semantics. Hoffman suggests access and equity will continue to worry new clients, particularly in the transitionary phase as they move from more traditional testing methods to computerised exams.

> *This is always a topic of conversation but typically easily overcome in that we can show them studies many of our older clients have done … utilisation of the (test) computers is and continues to be relatively simple and that if the exam is structured correctly, interaction with a computer doesn't in fact provide any prejudice associated with most individuals— that is not 100 per cent true but in most cases. And the access thing is actually something we work hard at. We have got 3 000 centres around the globe and that number is probably still going up to 50 or 60 a month. So the whole issue of being where the people are is a part of the challenge for this whole thing.*

Canter argues America's 'dire need of good teachers' is both challenge and opportunity. Internet delivery options are also seen to present both challenge and opportunity (De Grande). De Grande suggests corporate training or in-house training for employees, particularly in relation to English, is going to continue to develop and expand, but this is also both opportunity and challenge.

> *There is always a danger that whenever there is a downturn in the economy it seems that the first thing that goes is education from either a government or company's budget. My own personal opinion is that's the last place that they want to cut when there is a downturn in the economy but it seems to be quite common among all governments and all companies … one of the first things when they start looking for cuts is they look in the education and training area. Our experience is then quite the opposite with individuals. Somebody that finds themselves redundant or is fearful of losing his or her job has more incentive to*

> *upgrade their skills in order to either make them more employable on the market or to retain their job.*

Finally, various executives repeatedly referred to the inertia of traditional ways of doing business—old ways of studying, learning and delivery for example—as challenges to be overcome. De Grande says anyone can use the WSI learning model to learn if they are 'willing to open their minds to new approaches to learning. But for those that are closed and feel there is only one way to learn it becomes a much touchier sell to get them to accept and embrace the method'.

B7.8 Future plans

Sylvan plans to continue growing its business, particularly targeting 'the delivery of indigenous testing programs in countries all over the world' (Hoehn-Saric, *1998 Annual Report*, p. 5), such as drivers' licensing; WSI hopes universities will outsource their English language training programs to the company, and ultimately Spanish language as well.

More immediately, in the second half of 1999, Sylvan announced a deal to sell PACE and spin off its largest money-making arm—Sylvan Prometric—by listing it as an independent company on the stock exchange.

Documentation

1998 Annual Report Sylvan Learning Systems Inc.,
www.sylvan.net/annual_report.html (last accessed 20/12/99)
1998 Annual Report Caliber Learning Network Inc.,
caliber.com/aboutus/annual.htm (last accessed 20/12/99)
1997 Annual Report Sylvan Learning Systems Inc.
Many press releases and supporting documentation from 1998/1997
Articles about Sylvan from Newsweek, Success, Business Week, Franchise Times
Johns Hopkins Business of Medicine: Executive Graduate Certificate Program Information Sheet
'Where Learning Goes to Work', Caliber Learning Network Information pamphlet
WhartonDirect Information sheets
Merrill Lynch, 1999. 'Business Does Not Deserve Today's Valuations'. 29 October.

B.8 Air University

B8.1 Context

The core business of the United States Air Force (AF) is the defence of US strategic interests worldwide, through air power; it also has responsibility with sister services (Army, Navy and Marines) for joint operations ranging from exercises to the recent Kosovo operation, where AF took the lead command in what was described as the first wholly air power attack.

AF has a complex and bureaucratic structure, following a strict hierarchy both in terms of activity and rank, with pilots at the apexby virtue of their dexterity and judgement skills, ranging down to trade level personnel whose activities have in the past been seen as nevertheless fundamental to the service's achievements. There is a long chain of command from five star generals to enlisted men. Furthermore, staff career patterns are variable; the initial service period is three years, with the option of signup for a career service with a number of 'jump-out points' before retirement. There is a large Reserve (civilian) contingent of nearly 14 000 across the US.

Education and training have always been critical to the operations of the AF, both because of the readiness issue and the necessity of maintaining currency with sophisticated and expensive equipment. Air University (www.au.af.mil/) is an umbrella term for a large network of training and education agencies within the AF, under the general governance of Air Education and Training Command (AETC), the administrative, operational and curriculum development centre for all education and training. AETC was established in 1942; originally its provenance was restricted to flying training, until it assumed responsibility for almost all AF education and training in 1993, along with recruitment. The scope of the Command is reflected in its size: there are 45 000 staff. In fiscal 1998, 362 000 students completed courses with AETC, Air University's component of this being 184 007.

Air University's schools include:

- Air War College (AWC) (www.au.af.mil/au/awc/awchome.htm);
- Air Command and Staff College (ACSC);
- Squadron Officer School;
- College for Enlisted Professional Military Education (CEPME);
- Air Force Officer Accession and Training School (including Officer Training School and Air Force Reserve Officer Training Corps);

- Air Force Institute of Technology (which provides postgraduate degrees and continuing professional education via course work);

- College of Aerospace Doctrine, Research, and Education;

- Ira C. Eaker College for Professional Development (which provides continuing education for chaplains, personnel specialists and computer systems managers);

- Community College of the Air Force;

- International Officer School; and

- Extension Course Institute (responsible for correspondence education and training since 1950, and more latterly for distance education via any mode). ECI specifically covers preparation of materials and their distribution, quality control, record keeping and evaluation; it has a staff of 19, with 9 education/instructional design specialists.

Air University thus includes all USAF education and training programs except the Air Force Academy, which comes under the Headquarters United States Air Force. It is under the command of a Lieutenant General, who is responsible to the Chief of Staff, USAF. It has a 36 member Board of Visitors drawn from education, business, industry, the professions and the public service, to oversee organisation, and management. However, each section operates somewhat independently, with the various schools/colleges struggling to establish technical and operational standardisation, especially with the advent of a forceful policy on distance education as the modus operandi for the future. A limited amount of research and scholarship is undertaken, mostly in the postgraduate courses of AWC, and, in education methods, at ACSC.

B8.2 Organisational/training goals

The AETC is responsible for the provision of professional military, continuing and specialised education for all AF personnel and Reserve staff, with over

5 000 courses in 300 different career specialties, covering technical training for officers and enlisted members, navigator and pilot training, and doctrinal and leadership training. AF, while subject to some of the forces currently impacting on the university/VET sectors, is also highly sensitive to government directives, and political and international crises. Although the ECI had provided for correspondence education in a large range of education and training fields for almost 50 years, a strategic unit, the AF Distance Learning Office, was established in 1995 as the Director of Education began to be persuaded of the importance of distance education in meeting the needs of a widely dispersed student body. The DLO and ECI were expected to merge in

1999. The current Director traces the surge in interest in distance education to Desert Storm, the NATO attack on Iraq in 1991:

> *It goes back to Desert Storm. The reason the Army is ahead of us: the US used a lot of Army Reserve and National Guard. They found they weren't as well trained as they should have been. Command said 'we'll have to find another way of getting education and training out to them, and distance learning will be the way'. The big push to distance learning in the Army is a readiness issue. In AF we didn't have a backlog of training. The push in AF was dollar savings. … We spend $84 million a year putting people on planes and paying them to be somewhere else.*

(Col Philpitt, DLO)

While travel costs are driving corporate America to electronic and tele-communications for a proportion of training delivery, and AF claims this was a principal driver for them, they believed that for Army, it was a matter of inadequate training leading to poor performance in an emergency. Yet there are other external pressures that affect AF, such as the January 1999 Presidential Executive Order 13111 'Using technology to improve training opportunities for federal government employees', which mandated the doctrine of lifelong learning and 'any time, any place' training for all government employees. The Secretary of Defence had immediately prior to this issued a distance learning 'Vision' to the services, giving them five years to use technology to:

- *increase student performance by up to 30 per cent;*
- *reduce classroom time by as much as 30 per cent;*
- *reduce per diem and travel costs; and*
- *reduce development costs by up to 50 per cent.*

(Col Philpitt, DLO)

Experience had already confirmed the potential for savings in ancillary costs and extension of access: in the Judge Advocate field, a new course on the legal ramifications of a revised acquisitions regime was projected to attract 200 students; only 60 could be accommodated on the residence course. In the event, 700 enrolled in the distance program.

Government support for the telecommunications age has thus driven much of the stimulus for distance education in the services. Government has a more direct control over Defence practice than it does over education institutions, which, if 'public', have traditionally had some autonomy of governance, or are under state government legislation.

B8.3 Learner demographics

Air University is responsible for providing education and training to a diverse clientele: enlisted personnel, officers, and civilians (through the Reserve). ECI alone ('the largest correspondence school in the US') offers more than 416 courses, and a further 1 300 residence courses are offered, ranging from three days to 12 months. Students are thus brought to residence classes (at great expense), or are stationed at AF bases throughout North America or overseas, or in smaller field operations worldwide. There is thus a very real incentive to increase the provision of education and training via distance modes.

Student ages range from school leavers to 60, with the bulk being adult learners over 24. Gender distribution remains unequal, and predominantly male. Promotion is directly linked to completion/success in courses ('pipeline requirements'), so students have a career incentive to enrol, even when the courses are nominally 'voluntary'.

B8.4 Costs

Since much of the training involved is mandated, funding has not, until the advent of more sophisticated technology, been a major consideration. However, as with all publicly-funded operations, AF has now to operate in a more accountable and stringent funding system:

> *The bosses are interested in Return on Investment (ROI). They will find money if they see costs savings down the road. Unless it is a mission essential requirement it won't get funded without an ROI. Being able to document ROI upfront is becoming very important and usually that comes down to the person who 'owns' the course, the instructor. That's being pushed down to the instructor now, this tool (Advisor 3) helps that.*

(Dr Adelaide Cherry, ECI)

Early experiments with more sophisticated technology proved both expensive and ill-considered: 'A lot of early adopters didn't consider who was going to maintain the course after they implemented it and left' (Cherry, ECI). ACSC:

> *developed an all-electronic program: a stack of books went to a CD-ROM … I sat in on the original briefing and said "I need 13 people to develop this in a year". It ended up nearly 40 people to meet the timeline. It's a lot more daunting task than most people realise.*

(Philpitt, DLO)

Some of the electronics was without guidance. Like some people believed that you could create a paperless world. Had they asked us we could have told them there had problems. They put the whole course on a CD-ROM and found intense objection from users. So they're adding paper back in, printing readings and papers.

(Dr Jerry Boling, Chief of Technology, DLO)

Middle level managers like Col Philpitt are not persuaded by the possibility of cost reduction with high technology training solutions:

Distance learning may reduce costs, but may not if the training is mandated. There are high upfront costs: one million dollars per uplink studio. There may not be a dollar payback for six years. The Army plan talks about a seven year point for moving from the red to the black on expenditures.

(Philpitt, DLO)

However, cost efficiencies are complex and difficult to calculate, and may relate as much to lower dropout rates; eg, Jones in his CEPME course estimates that among his 11 00 annual student numbers, dropout has declined from 75 per cent to 65 per cent as a result of using interactive CD-ROMs for delivery. While there was considerable variation in estimates among different school developers, one ACSC contractor noted that a three to four day face-to-face course had been converted to 6–8 hours of study via CD-ROM. A 'compression rate' of one-third was considered usual. Drake (ACSC Distance Learning) noted that print vs CD-ROM delivery meant per student costs went from $46 to $2.50. (However, print was being reintroduced, to supplement the CD.) Overall, Philpitt has asked for 'tens of millions of dollars to implement the ADL plan.

B8.5 Education/training model

The education/training model has traditionally been instructor-centred, content driven and competency-based. The Instructional Systems Design (ISD) method is mandated and outlined in AF Handbook 36–34 ISD. Teachers are directed to AF Manual 36–2536 Guidebook for AF Instructors which directs developers and teachers to 'eliminate irrelevant skills and knowledge instruction' (3.4–3.5) and 'develop instruction based on job performance and educational requirements' (3.4–3.5). Nevertheless staff believe that in many cases there remains potential for eliminating some existing course material, reducing the time spent on teaching and learning. Although instructors in the residence schools often develop the curriculum they teach themselves, it is

frequently the case that instructors follow a detailed curriculum, down to the lesson plan level, prepared by others.

The advent of video satellite as a medium of delivery in 1993 through the establishment of Air University Television (www.au.af.mil/au/oas/autv.htm), broadened the scope of courses available, since discussion can occur live, enabling 'soft skills' objectives to be met, as well as some technical training. Nevertheless, the model remains teacher-centred, an extension of 'stand-up' instruction to a remote class, generally of 10-15 students.

As indicated above, AF has relied heavily on residence courses for its education and training, with a ratio of 3:1 residential:distance courses. However, they are in the early stages of transition to a model focussed more on independent learning using distance education. Currently, their distance education remains largely print-based, because of the logistics of delivering material worldwide in a cheap and portable format. It has been accepted that this entails delays in delivery, feedback, and marking, but since there was a limited number of courses available in distance modes, and these were not considered time-critical, such inconvenience was not considered overly problematic.

B8.5.1 Curriculum design process

The curriculum development process is thorough, team-developed, systematic, and highly bureaucratised. It is based on an Instructional Systems Design (ISD). ISD is based on systems analysis and design, and Bloom's taxonomy of educational objectives in the cognitive domain, and to a lesser extent, Krathwohl's affective domain objectives. Typically a course revision will involve Subject Matter Experts (SMEs) from within AF (or, increasingly, on contract); course directors within the various schools, who are required to consult supervisors of staff who have completed programs to ascertain whether the training has been effective; student evaluations; instructional designers within the schools, and, if the course is available via distance, instructional designers within the ECI. For a new course, development will involve a course director who works with an instructional designer to outline a preliminary set of objectives.

An extensive array of resources is available online and in print form from ECI to assist in the development process, with a heavy emphasis over recent years on selecting appropriate delivery media. Developers and instructors are required to work through these resources, which, along with instructional advice, contain detailed checklists and time-lines as well as contact points and proforma requirements for any technology-mediated teaching. (Examples are *A Guidebook for Teleseminar Course Design,* and *Distance Learning: Curriculum Analysis* and *Media Selection Guidebook.*)

SMEs are required to attend a residential Academic Instructor School of four weeks' duration, as are all Air University instructors. The course is intense,

and very practically oriented: it covers lesson plans, different teaching approaches, practice sessions, instructional design, design of test items (multiple choice questions), writing objectives and has a small theory component. Intakes are large, but class sizes themselves are small (eight-ten). Face-to-face teaching is heavily supported by in-house materials such as the Catalog of Instructional Objectives and Activities (A1-400 06-97).

What is most remarkable about the systematic approach is that it pervades every aspect of planning and procedure in AF: a 300 page distance learning handbook was contracted out for development, but proved unsatisfactory, so it was re-vamped by ECI. Planning is an extensive and thorough process:

> *We began the AF Distance Learning Road Map, a plan about how distance learning is going to look between now and 2015. There were lots of false starts: it took 18 months to get to 62 pages. It's for headquarters coordination.*

> (Philpitt, DLO)

B8.5.2 Content

Content varies widely, from trade and technical training to high level strategic planning and leadership: the various administrators all distinguish between 'education' and 'training'. Wolfe (1997:3), Chair of the AUTV, states 'there is a clear relationship but distinction between the two terms'. Hence the term 'distance learning' has been chosen to eliminate any unnecessary implication of status, as well as to focus on the underlying activity of learning as the student's responsibility, rather than stressing the process of 'education' which entails both teaching and learning.

Administrators note the objections of SMEs in each 'area' to utilising distance learning techniques for teaching:

> *We've talked to educators in the military and they say "computers are great for training, not good for education" and you talk to trainers and they say "that may be good for education, where you're just talking to people, but in training you have to touch things". There's a butting of heads all the time about where distance learning works.*

> (Philpitt, DLO)

It is apparent that medium of delivery is integral to the nature of the content of a course for instructors.

Although content does vary widely, selection of one program is illustrative: AWC provides senior Professional Military Education (PME) for senior officers

in 'Air Power'. The curriculum was developed in house, over a twelve month period, and currently consists of four 'volumes' or modules:

Volume 1: Future Conflict Studies

Strategy, Doctrine and Air Power

Leadership and Ethics

Volume 2: National Security Decision Making

International Security Studies

Volume 3: Joint Force Employment

Elective: In depth study of one of the above curriculum areas.

Each 'volume' is expected to be completed in six months.

Copyright is perhaps less of a conundrum in AF than in many universities because much of the material in PME courses has been developed internally. However, one CEPME course of 2 CD-ROMs, with 150 hours of study and 11 000 students had copyright costs of $6 per copy.

B8.5.3 Sources of courses

Curriculum has invariably been developed in-house by full-time instructors and course directors who have extensive job experience or educational qualifications, depending on the nature of the program, until the recent drive to distance learning via CD-ROM, the favoured approach to delivery. A lack of staff with the requisite expertise in the technology, and a lack of time, have meant that contract staff are being hired on a project basis to develop course materials. However, the responsibility for the curriculum remains with the in-house instructors, as in all cases existing materials are being 'converted' to the new medium from face-to-face curriculum.

Curriculum development is a one to two year process depending on the length of the in-residence course and its level. The CD-ROM 'Air Power Doctrine' developed at ACSC by a team of contractors (all ex-USAF officers) varying from six to eleven over the course of the project, required seven and a half months of programming time, excluding the curriculum development time, since it was adapted from existing course materials. Interactivity is restricted to navigation and links to official documents and readings: it is designed for six to eight hours of study.

B8.5.4 Delivery

The current description for mode of delivery is 'right time, right place':

> *The key is we don't necessarily have to give it to the soldier sitting in the*
> *desert in Saudi Arabia. We will set the time and we will decide when*
> *that course is going to be delivered. Why? Financial reasons.*

(Philpitt, DLO)

As an example, 'Air Power' for senior PME is delivered in-residence to a select-on-merit group of about 25 per cent of the eligible cohort, and those not selected may register for distance education, completing by seminar or individual study.

In this course, the three 'volumes' consist of 40 lessons; each lesson consists of 100 pages of text reading to occupy approximately eight hours. Each volume is tested by a proctored multiple choice exam. The elective requires the reading of a text book, followed by a quiz, and a 15–20 page paper.

Those who elect to study by seminar meet for two to three hours a week on their base over a 10 month academic year (August-June) in a lock-step sequence, to allow transferring personnel to pick up their studies on another base. An eight person minimum limit is required, although video-links to another base group may be organised to meet this requirement. Students within the seminar group prepare the lesson from the materials provided and lead the seminar with prepared slides, readings, questions and activities; all these are suggested in the materials.

Those studying independently are given 18 months to complete the program; the majority (over 65 per cent) prefer the independent option, which has the advantage of allowing continuous enrolment.

Some programs are offered as complete courses in 'teleseminar' form; others, such as the 'Air Power Doctrine' seminar program and correspondence (independent study) program, supplement print and CD-ROM materials. Extensive resources are devoted to teleseminar delivery with specific training for presenters and developers at the Maxwell-Gunter facility. Studio technicians monitoring audio levels and connections, and broadcast specialists, support the presenter-instructor at the uplink studio, rehearsal of classes is standard procedure, and site facilitators are required at each downlink studio to prepare for the class, train the students in equipment use, monitor the lesson, coordinate teaching/learning activities in the classroom and assist students with all content/administrative and technical problems.

B8.5.5 Technology

It is ironic that having pioneered the Internet to ensure functional survival of military data, it has taken the services so long to apply the technology to education and training ventures. However, print materials, cheaply reproduced, remain the main delivery medium for distance and face-to-face delivery. 'We're finding people try to be too electronic and come back to print' (Boling, DLO). ACSC internal surveys, most recently in January 1999, indicate that 77 per cent of students prefer print materials to text on screen which they then print off. Most developers have now realised that they must move back to print for the courses which involve a heavy reading load; others believe that reading requirements are increasingly irrelevant: 'we have to compress four hours of reading into 20 minutes they can just grab. In distance learning expecting four hours of reading won't work. They've got to get it quickly' (Dr Savell, ECI).

Excluding print, the primary technology employed at present in the delivery of programs is Interactive TV. The Air Technology Network operates AUTV as a dedicated cable/satellite service with four uplink sites, and 80 downlink sites to all bases throughout US states, and 10 in Europe. At Maxwell-Gunter, the uplink centre provides both instructor training facilities as well as full broadcast studio facilities. It is a one-way video, two-way audio system relying on a push-button system rather than the keyboard used at FORDSTAR. The Network is integrated with other educational networks, eg, the Government Education and Training Network, for cross-Defence and government activities. Synchronicity is a problem with the medium, with multiple time zones ranging from four to 24 depending on where the course is offered, and only one video classroom on many bases.

CD-ROM has replaced disks, partly because of the greater potential for incorporating materials heavy with graphics, but also because AF developers have opted for a voice narration delivery on the CD-ROM, rather than print. AF aims to work with a hybrid of CD-ROM and the Internet: 'it's not the most elegant solution, but what we have to live with right now, considering the constraints' (Boling, DLO). 'We put the stable content on the CD, the stuff that changes on the Internet' (Boling, DLO).

The tools AF 'supports' ('we have to avoid the term "standardisation"' (Boling, DLO) are Advisor 3, a media feasibility and ROI tool; Designer's Edge, a pre-authoring template; and Textbook 2. ToolBook is also used in some schools. 'Our policy is to wait until the commercial world has these things available to us because we can't build everything' (Cherry, ECI). (The exception is the metatagging project (see below). Yet Cherry acknowledges that the tools are not 'scientific': 'it just helps walk them through the process, they have to use judgement at every step'

Both floppies and CD-ROMs have been fraught with development difficulties, ranging from student resistance to technical difficulties in the burn process and consequent batch recall

B8.5.6 Evaluation

We found we weren't doing a good job of analysing our own courses because of built in biases. We had the skills, but there wasn't enough trust in us and the job was massive, so we hired. (Cherry, ECI)

We contracted a study to Booz, Allen and Hamilton, to review 1 300 formal, in residence education and training programs. Our brief was "give us feedback on each course":

- *leave it like it is, don't mess with it;*
- *you don't need it anymore (eg, flagpole maintenance);*
- *you should convert it to distance learning;*
- *you should leave it as a residence but get away from the podium instructor and increase technology in the classroom; and*
- *you should turn it over to a contractor and let them do it.*

(Philpitt, DLO)

Evaluation at the program and instructor level is integral to AF procedures. Student evaluations are mandated; instructors are monitored to ensure adherence to lesson plans in their teaching. Supervisors of graduates from all programs are consulted to verify behaviour outcomes. ECI maintains quality control of distance development processes and materials where possible, given its human resources. The Institute has developed a set of 'metrics' to monitor and collect data on for its ADL initiative:

1 Instructional effectiveness and efficiency;

2 Do the students perform well?;

3 Is the instruction high quality and relevant to their career field?;

4 Are there savings in time, travel, manpower, increasing productivity as a result of productivity?;

5 Cost—per program, per student, per instructional hour?;

6 Technical system usage and reliability; utilisation rates, equipment failures, student requests for help;

7 Administrative and operational processes: are we getting the course notification out there?; and

8 Customer satisfaction: critiques from students, training managers, course directors.

B8.6 Sources of teachers

While the majority of teachers at present in the in-residence courses and distance learning programs are USAF staff, this is changing rapidly with the downsizing of the services in the early 90s. Even areas once designated strategic to AF security interests are being outsourced to civilian teachers, generally ex-AF personnel:

> *I personally think we're going to see more contractors in this, possibly more on the training side than the education side. A few years ago I was back on a training base. Two months of the first simulator training was contractor taught. If we can do it in flying training we can do it in any training. We are contracting out our hands on training now, even to dis-cussions on missile maintenance. Who better to teach missile mainte-nance than the people who build them?*

(Philpitt, DLO)

Most instructors are 'practitioners' from the operational areas; they generally remain as instructors for a maximum of five years before promotion to more senior ranks of management. However, in relation to the production of distance material, Philpitt expects 70 per cent of conversions to be undertaken by contracted staff.

B8.7 Sources of administrators

Management experience rather than specialist knowledge of education or distance delivery modes dominates the background of the senior administrators in AF. None had had previous experience in the specialised field of distance education before their recent appointments to drive the AF distance learning initiative. 'I was a base commander and I didn't have a clue what d.l. was and I knew no one else did either' (Philpitt, DLO); the Dean of Distance Learning, ACSC was appointed in late 1998.

B8.8 Accreditation

Because of its extensive and respected programs and attention to education and training, Air Force has been a community-college level and undergraduate provider through public funding for many years. The relevant agencies are accredited by North Central Association of Colleges and Schools, and also in the case of Engineering and Technology, to the Engineering Accreditation Commission (Accreditation Board for Engineering and

Technology: ABET). The Commission of Colleges of the Southern Association of Colleges and Schools has accredited the Community College, and various programs of the University such as Academic Instructor School, can be credited towards Community College programs.

The American Council on Education (ACE) designates that some graduate credit for certain courses completed in various programs, eg, Air War College, may be applied towards student transfer to civilian educational organisations, and there issome undergraduate credit for Squadron Officer School. For career staff, this credit may be significant since all officers are required to have a degree (generally this is from civilian institutions), and promotion to Colonel level is dependent on possession of a Masters degree as well as the relevant 'pipeline requirements' of professional military education.

A significant factor here is the AF interest in providing its own Masters degree (of Military Arts and Science), ie. a 'corporate degree':

> *The General wants a Masters in something useful to the service, since they're probably going to stay another 15 years by that time. Save money by not paying tuition to other universities. We don't know if we can get the money AF spends on outside tuition to hire our own instructors. One option is partnering another uni; but if the General wants one degree that wouldn't work. Plus no university could add another 9 000 students … they just don't have the facilities … outside agencies don't have the skills to tailor military history to Air Power, which is what we teach. We have a very linear building block approach to curriculum and we want to keep that, not just have bits that fill in spots in the whole curriculum.*

(LtCol Howard, ACSC)

> *We want to get it accredited. Our biggest problem is having terminal degree instructors; that's what you need for accreditation at Masters level or higher. We're going to interpret that as 'terminal degree instructors developing the curriculum'. But we'll have contract instructors at less than terminal degree level providing the courseware. There's no way I can hire 100 PhDs to administer that courseware. That's what we think all the distance learning programs around the country that are coming on are doing to make it accredited … We have a course in warfighting skills; there's no terminal degree in that so we take job experience as the equivalent … With the University of Florida PhD program, they contract terminal degree people to interact with their students in (another state) for example, but (the courses are) all developed at Uni Florida … We can't do that.*

(Col Edd Chenoweth, ACSC)

The reward system for education and training in AF is wholly related to career advancement; a combination of informal and formal military education, as well as technical or general educational qualifications, is required to progress beyond the enlisted staff level, and career staff must complete tested ie, examined programs.

Air University is struggling with pedagogical issues related to the acceptance of distance learning programs: the resident program for 'Air Space Power' is a 12 month base program; selection is competitive with between 17-25 per cent of the cohort being accepted. Since equity of opportunity is a critical issue for AF, they have been required to offer the course by correspondence to all eligible staff. However, there is both a spoken and unspoken assumption that the 'correspondence course' is a second rate alternative:

> *We provide what we call a Readers' Digest version, because there's a lot of things you can't fit into ten and a half months … There's not the same writing requirements, the tests are different. We don't have the staff to answer everything, evaluate 9 500 written assignments, so we do MCQs, machine graded things. To cut down the workload.*
>
> *We know it's a different quality and they know it. Your diploma at the end will say 'resident course' or 'correspondence course'.*

(Col Edd Chenoweth, ACSC)

B8.9 Future plans

In the longer term, AF plans to move from 'right time, right place' education to 'any time, any place' delivery, 'network-based technology, not audiographics, not satellite TV, but web-based to the desktop' although 'they don't expect it to replace the classroom entirely' (Philpitt, DLO). This is part of the Advanced Distributed Learning initiative (www.adlnet.org), and the AF Distance Learning Road Map, which has a 16 year timeframe. The Booz, Allen and Hamilton survey will incorporate the 'migration plan' to desktop delivery. With efficiency as a major driver, ADL is intended to:

- *promote widespread collaboration;*
- *exploit Internet technologies;*
- *develop next generation learning technologies; and*
- *create re-usable content and lower costs with object-based tools.*

(Boling, DLO)

Most AF personnel were both sceptical of the possibility and dismissive of the desirability of 'any time, any place' delivery for all courses. However, ADL is the goal of top management and a small number of technical visionaries. At its most ambitious, it involves metatagging all program content down to the 'teaching point', defined as 'something you can teach and have evaluation on. You have to be able to re-aggregate it' (Boling, DLO). In order to achieve reusability of content, the key requirements are: accessibility of material and the capacity to channel it to other locations on the system; interoperability, so that material can be accessed despite being developed on different platforms with different tools; durability or the avoidance of re-design or re-coding if the base technology changes; and re-usability, a structural standard that will permit incorporation of content in other applications without major adaptation. This project constitutes 9-10 per cent of the ADL initiative, and is in its embryonic design phase.

ADL also involves a 'five year refresh' plan, which does not imply replacement of equipment every five years as with the Army plan, but that every development and tool/hardware equipment introduced must be assured for compatibility with the standard equipment for the following five year period: 'we tell developers "what you develop has to work on this", purchasers "what you buy has to support this".The platforms being sold right now will do everything we need for a long time' (Boling, DLO).

There is a temptation to 'abolish the author' via the use of Designer's Edge, if metatagging can be implemented:

> *We don't know the extent to which that's going to automate the development or creation of software, but Designer's Edge has that capability. It's customisable, so you might get 50 per cent, depending on the level of interactivity you need, maybe up to 100 per cent conversion, so once you've got the content in Designer's Edge, then there's no author. We know that's easier said than done.*
>
> (Boling, DLO)

Nevertheless, AF are also developing an electronic train-the-trainer course in interactive courseware development for all defence services.

In terms of lifelong learning support, administrators are hopeful that the emphasis on distance education will mean a move to learning as part of the 'official duty day' but acknowledge that is ambitious: 'it may end up being a combination' of workplace and home study (Philpitt, DLO).

B8.10 Challenges

AF is in the main open about the challenges that confront it in implementing both short-term and longer-term goals, particularly in relation to the ADL initiative.

The major challenges for the technologists are bandwidth and security limitations; achieving standardisation of development platforms, gross delivery platforms and individual equipment; and funding. Bandwidth continues to be a major problem with Internet materials:

> *The pipes aren't big enough to handle everything we want to send. No one wants to send a document; they want to send 20 minutes of video, then they want interaction with an instructor. It's just not there yet.*

> (Philpitt, DLO)

Security is not related to content, but to system access; there are firewalls which would prevent Reservists from accessing material through a commercial ISP, and Reservists are a prime target group for distance learning. Further, a proportion of training is provided to other nations' defence personnel, and access thus presents a security risk.

The matter of standardisation plagues AF:

> *There's no standard delivery system now. People have typically bought a server, built a project, by themselves. That's not going to work, we need some consolidation. It's part organisational, part network support problem.*

> (Boling, DLO)

Staff acceptance and skill levels remain major issues, with the consequent need for major staff development. Further, in common with other services, AF has difficulty retaining highly trained staff, especially in IT areas, with the consequent need for contract staff. Student acceptance is a further complication: some staff believe that younger students welcome a move to higher technology delivery: 'They're used to exploring'. Not all are so sanguine:

> *There are kids who don't have the patience, or the skills, or the analytical thinking skills, because all of a sudden grammar becomes important, it's important to navigate around the code which is a lot more complicated and trickier than you can learn from TV.*

> (Instructional designer, ECI)

ACSC has found new teaching methods also meet resistance: their attempt to use a panel to present different interpretations of an issue in a teleseminar met with 'switch-off', literally:

> *They really like knowing "this is the bottom line answer". If the lecture is just instruction from one person, that's clear, but one time when we had a panel giving opposing views on some issue, students thought we were just arguing here … they turned it off and went home. We're going to have to educate them better about what we're going to do for some of these types of discussions.*

(Chenoweth, ACSC)

Student access is a problem below the officer level: currently there is an unwritten requirement that officers possess a recent computer, but the difficulty of requiring that for NCOs is acute, with the possible solution being the introduction of swipe card laboratories in the dormitories at the Academy. More problematic is access for the Reserve, for whom distance learning represents the best option from the management perspective. However, equity considerations are paramount here, since there is much goodwill associated with the retention of the Reserve personnel.

As with all computer-mediated instruction, student support services are critical, and AF found its enthusiasts did not always consider this aspect of learning because of a face-to-face mindset:

> *We found that people forgot, they tended to focus on "what does it take to get this on disk?" without any consideration of what happens when the disk is out there. When the students have questions, who do they call? So we have developed team roles unique to the various technologies.*

(Cherry, ECI)

The very notion of mainstreaming distance education is problematic, with unreal expectations of its effectiveness: many high level managers perceived it as 'the silver bullet' which would solve current training problems: cost and inconvenience:

> *Everywhere we go we say 'distance learning is not a panacea. People say "boy will this solve all our problems. This will save money. It will reduce ops tempo by taking education and training to the military base and not have to send staff someplace else". But it's not a panacea. If you had bad instructors in a resident course and you put it into d.l., you've got a really bad course.*

(Philpitt, DLO)

Documentation

Air War College Nonresident Studies Programs: Academic Year 1999 (pamphlet)

Distance Learning Resource Handbook. DLO publication or www.airuniv.edu/afdlo

Wolfe, T. (1997) 'AF collaboration with Interactive Television'. Paper presented at University of Wisconsin 13th Distance Learning Conference, Madison, Wisconsin.

Wolfe, T. (1994) 'Instructor preparation for distance learning'. Paper presented at the Defence Acquisition University Conference.

Distance Learning Curriculum Analysis and Media Selection Guidebook

B.9 US Army: TRADOC

B9.1 Context

The Training and Doctrine Command (TRADOC) has core responsibility for the direction and performance of all education and training for the US Army. Army's core business is patently the defence of US strategic interests worldwide, and readiness to defend those interests. Hence TRADOC's responsibility is initial training, inservice training of Active Components, and continuing training of Reserve Components. The readiness of the latter is critical in an era of decreased standing forces: 'since Desert Storm we've had a greater than 300 per cent increase in deployments and a 34 per cent decrease in people to send, as well as a 40 per cent budget cut' (Chris Olson, Head Training Developer, TRADOC). Additional areas of responsibility are the Army Continuing Education System (ACES) for soldiers and their families, and Army Education Centers where Reservists are trained.

TRADOC Distance Learning Branch has 63 staff, 26 being contract. From this base, TRADOC plans a massive re-orientation of its training endeavours via The Army Distance Learning Program (TADLP). Already distance training encompasses a distributed network of 200 videoclassrooms, and 27 'schools', or centres of training, most in the US, but international in reach. By the end of 1999, it had completed construction of 107 'digital classrooms' with 800 planned by 2010, including 15 mobile classrooms.

B9.2 Learner demographics

TRADOC provides education and training to approximately 335 000 personnel a year, about a third of the total complement of staff including Reservists. This includes basic training, promotion courses, officer training and Reserve updating. Gender is still skewed to males, and there is a large minority cohort. According to Carr (1999b), Army recruits give the opportunity for free or subsidised education and vocational training as their primary reason for enlisting, and in a sense, this means that Army 'competes' with universities and trade colleges for students. Student attitudes to the increasing use of technology-mediated instruction are of concern, but not a major issue. However, career Army staff are 'used to the traditional way', and so a major cultural shift is required in implementing the distance education initiative. The

'Nintendo generation' is comfortable with the new technologies. But 'they want high speed, and that's costly, but that's what they're used to in games' (Olson).

B9.3 Costs

Total costs of implementing the TADLP were estimated in the Master Plan at nearly $US840 million (now estimated at $900 million), with $269 million for courseware development, and $351.8 million for hardware and infrastructure. However, while the goal is combat readiness, support was predicated on cost savings: 'our economic analysis demonstrates we can save four times that expenditure, simply in per diems and less travel'. One cost reduction was based on time compression of courses. Several organisations reviewed Army courses in 1998, and concluded that the typical university undergraduate course was 16 days long spread over the semester, while Army's was 16 weeks; 'modernising' the course could reduce that to 12 days. Olson is convinced it can be reduced further with digital conversion experience.

To date, the funding covers conversion of 31 subjects per year, and 37 are being produced with the funding for FY98; the typical development cost is $200 000–600 000 per subject. This range is due to wide variation in subject length and complexity.

Although all training is provided by the 'employer', university degree programs are not supported by tuition reimbursement, even though a degree is mandated for promotion to officer rank, and a Masters is required for further promotion. Degree study must be done in the soldier's own time. Interestingly, the University of Phoenix estimates that 7 per cent of its student population is military, and that UoP credits military with 21 credits from their training, of a total required of 120 for a degree at UoP.

B9.4 Organisational/training goals

Almost all our budget is training, every job you do is training unless you're shooting at somebody. (The institution) is here to support the training. It takes too long to make an army, it has to be trained and ready. If you mess something up in our line of work you may get seriously hurt. The corporate people tell us they can do leadership stuff in digital but the threat in corporate is the bottom line. In our kind of leadership, it's a different bottom line, soldiers become casualties. It takes it to a higher level.

(Olson)

When Army foreshadowed a wholesale move to distance education , it did so thoroughly via a long developmental stage, over 10 years. TADLP was approved in 1996, and came as a top-down plan approved by the Chief of Staff, after 'bubbling up from the bottom', in contrast to USAF, where top level support was still in process. By 1997, a DL Annotated Bibliography had been produced, surveying all empirical studies available on distance education. It concluded that distance was 'at least as effective as traditional instruction in most instances' (DLAB p.iii); that course development costs were high but throughput was sufficient, thus recouping costs; that instructors would need additional training in the principles as well as the technologies; and that attrition rates were higher than in face-to-face instruction. Thomas Russell's 'No significant difference' study was a core source. A Master Plan for implementation was completed at the same time. 'Implications for the Army' (p. 20) suggested that in-house training of existing staff would be cheaper than 'contractor conversion'; that low enrolment courses 'might not be cost-effective to convert' and that two-way video would be the most expensive option. In 1998, funding was approved.

In adopting distance education as a major training mode, Army believes that it will:

> *provide the mechanism for meeting RC training readiness requirements, partiularly in the areas of military occupational skill qualification (MOSQ) and re-classification. It also provides the capability to deliver training and education to deployed forces when and where needed.*

('Army Distance Learning Program Master Plan' Executive Summary, p. 2)

It is at the level of promotion self-instructional courses, traditionally using the print-based 'correspondence' model, that distance is expected to be most productive in terms of cost and time efficiencies: 'it will be right time right place instead of one year out of four in school' (Olson). The goal is deployment readiness, with the additional benefits being savings from 'manpower, travel, per diems … and reducing the time soldiers are away from their units and their families', a major disincentive to re-enlistment (Olson). The Master Plan is a 10 year evolutionary framework, to 2010. The staged plan is to have DL Centres in units 1998-2004; students studying from home 2000-2005; and modules delivered to soldiers in vehicles 2005-2010. Training goals are aligned to Army Training XXI, the vision of future needs for the new century, 'to support JIT training and training on demand anywhere in the world' (ADPLMP Executive Summary, p. 2). It thus represents a more comprehensive plan than has been developed by any private education and training organisation covered in this study.

Distance Learning in Army is defined as:

> *The delivery of standardized training through the application of multiple means and technologies when and where it is needed. It includes providing individual, collective and self-development training to Army members and units.*
>
> *DL may involve student-instructor interaction in both real time and non-real time. It may also involve self-paced student instruction without bene-fit of access to an instructor.*

(ADPLMP Executive Summary, p. 3)

This definition will surprise many of those long-experienced in distance education in Australia, where distance education has conventionally involved the physical and temporal separation of teacher and student, and the self-pacing of students within the bounds of the academic calendar. Indeed, it is more typical of what is considered a 'converged' educational model, or flexible delivery.

B9.5 Education/training model

Paralleling the USAF model, Army has traditionally followed an instructor-led content-driven face-to-face residential model of training, based on the attainment of particular skills necessary for undertaking certain jobs. There are attendant costs in per diems and infrastructure; program duration is three days to 18 months, depending on the course. There are currently 1 600 courses with 10 000 instructors required; the Master Plan requires that 525 of these be 'converted' to distance education, these being 'high density' courses with large student numbers.

A standardised curriculum has always been necessary because 'when you get told to do something you (can't) get different flavours of doing it'. Hence for Army the advantage of moving to a highly structured distance education environment is consistency in instruction, eliminating 'instructor roulette, where you wonder what the instructors are saying at the far-away places', particularly in Reservist training off-base (Olson).

B9.5.1 Curriculum design process

Army's curriculum design process is by necessity highly structured, systematised and centralised; it derives from the original military-developed ISD process of efficient learning: sequenced, modularised and outcomes-oriented. Olson describes three learning 'revolutions' in Army's training methods: the Automated Systems Approach to Training (ASAT), introduced 20 years ago to Army, and now adapted to the use of software (Designer's

Edge and ToolBookII) which can direct the same process; the Combat Training Centers, which introduced simulated field conditions for battle; and finally the digital distance education initiative.

TRADOC uses a team development process, with two or three contracted Subject Matter Experts, a test scanner specialist (since all tests have to be computer scannable), a 'seasoned developer', and 'a Nintendo kinda guy and a Spielberg kinda guy, the graphics person'. They establish Tasks, Conditions and Standards that must be performable for all job positions, and there is a Regulation (350-70) which specifies sequencing and clustering from course to task level, 'but we don't use the term 'competencies' … it's a culture thing'. TRADOC retains eight 'PhD psychologists' to design optimal learning experiences, and undertake research into learning, 'and they're saying "do it in smaller chunks and do it quicker"' (Olson). Typically, developing a course will take 'several years' worth of work', and re-designing for online delivery 18 months.

Olson is acutely aware of the importance of designing for different media, whether video or multimedia. A re-design will involve examination of every aspect of the course, including the examination questions, to determine if incorrect responses were due to poor questions or poor tuition. Not withstanding these systems, there is still a high degree of latitude allowed to the training schools, as long as they conform to the numbers of conversions required of them. Olson finds that in the first iteration, instructors 'just remodel from print because they don't know what else to do', but by the fourth iteration, they have mastered the potential of the medium. The best courses in Olson's opinion are those where the student is fully occupied; they have to be 'very active, give it pace, keep it lively … a lot of time with the student with his hand on his mouse, making choices, random quizzes … ambush quizzes with so many seconds to answer … if you get so many wrong it freezes up and you've got to go back and start again'.

Reducing training time is a major goal. There are three standards developers should be complying with: officer training in leadership will remain largely face-to-face and have a low technology component, so the aim is a 25 per cent time reduction; in technical training the time reduction should be 50 per cent, while in functional courses, it should be 80 per cent.

Each instructor of a course will receive a comprehensive manual, the Total Army Training System Courseware Management Plan Program of Instruction (CMP/POI). A typical POI manual (eg, 63B10 Light Wheel Vehicle Mechanic) specifies pre-requisites, maximum optimal and minimum class sizes, instruction hours, the courses the instructor must have completed and passed, course objectives, content, performance tasks, equipment needed and instructor evaluation sheets.

B9.5.2 Content

As with USAF, the content of courses varies widely, from trade and technical training to high-level strategic planning and leadership. There is a distinction between training and education by grade level: the lower the grade, the closer training is to 'the technical man/machine thing', with more education 'as you go up the grade' (Olson). Current multimedia courses vary in intent and presentation: the Combat Lifesaver course for example, is on CD-ROM, and uses voice narration, with still graphics and photographs, text points, and simple memory tests. It is designed for familiarisation before the (briefer) training period because 'we keep face-to-face for the life-threatening things'. The Staff NCO course was once over six weeks duration in residence; it is now non-resident, and is taken over 60 days on a home base for a few hours a day in a classroom.

The Army has also contracted with vendors for the supply of certain elements of their courses: CBT Systems, an IT training provider, won the contract for access to its library of training materials.

B9.5.3 Delivery

Basic training will remain face-to-face, along with proficiency testing, and much leadership education. Although distance education is a major plank of the 21st century training program, as indicated above, a large proportion of training will be delivered in a classroom setting with a facilitator on hand, for a number of reasons. 'Soldiers don't have computers' and 'the cost of buying them computers was four times the cost of building the classrooms', and minimal helpdesk facilities would be required because of on-site assistance. Those undertaking digital training are fully supported by the technology, which allows the student to interact with the instructor, who is centrally located, and who can track students as they work through the materials.

B8.5.4 Evaluation

Every aspect of Army's training planning and implementation process is carefully investigated through advisory committees (including external experts), benchmarking, and research of the literature, as well as through internal psychological research into learning. However, the true test of training 'is measured in the unit', once the soldier graduates into active service. Unit Commanders are required to report on the 280-person unit's strengths and weaknesses and the training is subsequently refined. Teaching performance is measured through a 'spook booth', a one-way mirror, to assure the quality of instruction. Even the digital training facilities are

evaluated. The ultimate ROI, says Olson, 'is the headcount coming in later'; this acts as a constant reminder of the difference between university, corporate and Army training missions.

B9.5.5 Technology

Like most educational and corporate training divisions, Army has experimented with a variety of media, and made mistakes. However, in developing the Master Plan, they have taken advice from Microsoft, Lucent, Ford, and Dartmouth researchers. They have technical advisory boards staffed from major organisations; they investigate commercial organisations' prototypes, and sophisticated technical systems such as those of the FBI and the Justice Department. Olson is convinced that using commercial tools like Designer's Edge and ToolBookII is sensible, as they are large corporations which will survive, and which give Army the potential to upgrade 'just once' when the Internet has evolved to handle greater bandwidth.

The intention is to use a range of technologies, not merely the Internet, particularly with current bandwidth limitations, which also rules out the Virtual Reality programs being developed at the National Defence University. CD-ROMs, most with hyperlinks, are being widely utilised as an interim measure before courses migrate to the Internet. The classrooms are a necessity for the time being: they have the advantage of allowing high bandwidth courses to be developed for use now, avoiding the difficulties of slow download in a domestic situation. They also ensure that standardised equipment is in use, minimising software difficulties and helpdesk use. Electronic systems are widely used for course registration now, with over 80 per cent of registrations online; the administrative system also allows 56 per cent of current courses to be tested and registered electronically, and over 560 000 soldier training programs are currently tracked to the HR system. Army switched from satellite to fibre-based transmission for continental US delivery, but continues to use satellite for overseas delivery. Given the necessity for global delivery of training in a secure environment, the infrastructure requirements under the Master Plan are awesome from the perspective of a university educator.

B9.6 Sources of teachers

Practitioners drawn from expert staff are selected and undergo three weeks residential training in an apprenticeship model, or 'shadowing' a model teacher, but there are also instructors supplied by Army's contractors.

B9.7 Source of administrators

Army chooses administrators for their practical abilities as managers, not because they have qualifications or experience in education. Olson freely admits that despite his position as Head Training Developer, 'I have no idea why I got this job … I have no background in distance education. I was an iron colonel who was non-digital: infantry, no education background'. It is clear the Army chose well: he is a distance 'convert', and a supreme organiser.

B9.8 Accreditation

Army does not appear to have the ambition of USAF to develop its own degree programs. None are currently offered, though officers can go to the National Defence University in Washington for strategic studies. Nor is there much concern at institutional level to obtain credit for soldiers (although soldiers themselves, as indicated above, do seek credits). There is a practical appreciation that Army courses 'are mostly in how to break things and hurt people. It's not something a university is going to recognise! … The military don't care about certificates except for promotion and what relates to the job'. In any case, once the infrastructure is fully in place, soldiers will be able to access conventional distance education programs from any institution to undertake degree programs on Army facilities. This challenges the current attraction of the University of Maryland University College, which has contracts with Army to support its distributed learning programs for service personnel in many overseas operations.

B9.9 Challenges

As with most organisations grappling with the cultural changes attendant on new technologies, Army finds cultural change the greatest challenge to its TADLP: 'platoon sergeants learn face-to-face, they don't see a reason for changing'. The worst are 'iron colonels like me, we're really bad news, we're dead set against it. But we're building a training system for 2005, 2010 … all these people who are nay-sayers, they're going to be gone then and they know it. It is a system of the future'. Olson points to a major advantage of a bureaucratic organisation in a time of cultural change: 'The Army's a reluctant change thing, but once they get over it they get over it, and we can get over things in two years rather than thrash about it for a generation. Also when the Army does change, the change influences many organisations outside'.

Cost controls will be an issue, although the Master Plan specifies that maintenance costs must be included, ensuring that technology-assisted programs are sustainable, and not confined to this generous funding round. A five-year refresh of both courses and equipment is built in to the costs. However, network costs have not yet become a major contributor to overall costs, and these can only be estimated at this stage of development.

As with the university sector, current levels of staff and student computer skills are a problem, but this will change over time. Access is still a problem, with 56 per cent of soldiers without Internet access, and 27 per cent without PC access. However, there are proposals to supply soldiers with laptops (Carr 1999b).

B9.10 Future plans

As with Air Force, Army is developing the reusable objects technology to eliminate unnecessary duplication and greater efficiency in development of courses. With the move to distance learning and standard modules, there is already the potential to be able to deliver a module on 'Russian grenades' to a mobile digital classroom in the field on a JIT basis, and eventually the possibility that each soldier will be equipped with a portable computer and able to access such a module on as as-needed basis anywhere in the world. Army is testing this now. 'My aim is to make the Army paperless'. Olson does not foresee that the digital classrooms will be superseded immediately by personal computers and home-training, both because of the cost to individual soldiers earning a low wage, and because his:

> *Chain of Command are going to have to see the soldiers in the classroom for a while; it's a transition, and a culture issue, it's also a bandwidth issue. These classrooms have T1 lines which a home will never have. Simple modules will be going home soon, but the more complex will remain in the classroom.*

Documentation

1997. 'Army Distance Learning Program Master Plan'
Howard, F. 1997. 'Distance Learning Annotated Bibliography'. TRADOC Department of the Army, White Sands Missile Range, NM.

References

Adelman, C. 1999, 'Crosscurrents and riptides: Asking about the capacity of the higher education system', *Change*, Jan/Feb, pp. 21–27.

Alexander, S. & Blight, D. 1996, 'Technology in International Education', Report for IDP Education Australia, Sydney.

Andrews, A. & James, T. 1999, 'OTEN readiness quiz', in Open, Flexible and Distance Learning: Challenges of the new millennium, Collected papers from the 14th Biennial Forum of ODLAA Deakin University, Geelong. pp. 12–21.

Athey, T. 1998, Non-traditional universities challenge twenty-first century higher education. *On the Horizon Online*, 6(5), pp. 1,5–7.

Australian Education International 1999, 'Overseas Student Statistics 1998', (http://aei.detya.gov.au/industry/publications/OSS98_sum.pdf, accessed 31/12000).

Australian Industry Group 1999, *Training to compete: The training needs of industry*, AIG, Sydney.

Bacsich, P., Ash, C., Boniwell, K. & Kaplan, L. 1999, 'The Costs of Networked Learning', Telematics in Education Research Group, Sheffield Hallam University.

Baldwin, L. 1997, The NTU: A pioneering 'virtual university'. Paper presented at Tokyo Institute of Technology, July 16.

Barone, C. & Luker, M. 1999, 'The role of advanced networks in the education of the future' *Educom Review* 34 (6) pp. 44–46, 68–744.

Becher, T. 1989, *Academic Tribes And Territories: Intellectual Enquiry And The Cultures Of Disciplines*, Milton Keynes, Society for Research into Higher Education & Open University Press.

Berg, G. 1998, 'Public policy on distance learning in higher education: California State and Western Governors Association initiatives', *Education Policy Analysis Archives* 6 (11) (olam.ed.asu.edu/epaa, accessed 1/6/1999).

Berg, G.1999, 'Digital Copyright Policy Issues in Higher Education' *WebNet Journal* April-June pp. 5–6.

Berge, Z. & Schraum, L. 1998, 'Linking strategic planning with program implementation for distance education', *CAUSE/EFFECT* 21(3) (www.educause.edu/ir/library/html/cem1836.html, accessed 23/12/1998).

Birkerts, S. 1994, *The Gutenberg Elegies*, Faber & Faber, Boston.

Block, H. 1999, 'Bank of America Securities' Education Analyst Tells Investors the Learning Business has a bright future' www.quicken.com/investments/news/story/?story=/News/stories/pr/19990930/SFTH001D.htm (accessed 21/12/1999).

Blumenstyk, G. 1999, 'The Marketing Intensifies in Distance Learning' *CHE* April 9, 1997.

Brigham, D. 1999, US distance courses: What's out there? What's hot, what's not? Paper presented to ICDE 99 World Conference on Open learning and Distance Education, www.regents.edu/~dbrigham/icde.htm.

Bunn, M. and Barnes, R. 1999, 'Market segmentation for improved distance education program planning', *Distance Education* 20 (2) pp. 274–294.

Bureau of Labor Statistics, Office of Employment Projections 1997, *National Industry-Occupation Employment Projections 1996–2006*, US Department of Labor, Washington.

Butler, E. 1999, reported in *Campus Review*, June 9–15, p. 10.

Carlson, S. 1999, 'U. of Phoenix Reports 22 per cent Rise in Enrollment', *CHE* October 29, A56.

Carnevale, A. P. 1999, 'A college degree is the key', *CrossTalk* 7(3), pp. 10–11.

Carnevale, D. & Young, J. 1999, 'Who owns on-line courses? Colleges and professors start to sort it out' *CHE* December 17.

Carr, S. 1999a, 'For-profit venture to market distance education courses stirs concern at Temple' *CHE* December.

Carr, S. 1999b, 'Army proposes to help soldiers earn online degrees' CHE December 13

CHEA 1998 'Assuring quality in distance learning: A preliminary report', Prepared for CHEA by the Institute for Higher Education Policy, Washington DC.

CHEA Annual Report 1998. Washington DC.

Clegg, S. 1998, 'Globalizing the intelligent organisation: Learning organizations, smart workers, (not so) clever countries and the sociological imagination', Sydney: School of Management, University of Technology, Sydney, Working Paper No 15.

Coaldrake, P. & Stedman, L. 1998, *On the brink*. University of Queensland Press.,St Lucia.

Coaldrake, P. & Stedman, L. 1999, 'Academic work in the twenty-first century: Changing roles and policies', Canberra, DETYA Occasional Paper 99H.

Coopers and Lybrand 1998, 'The transformation of higher education in the digital age', (consulting.us.coopers.com/clcsite/clcpress.nsf/ef404aelaac513e7802564db007a9625/e8acd47cb3278cf852566010069afl3? Open Document, accessed 27 May 1998).

Council of Ministers of Education, Canada. 1998, 'Technology-mediated learning: Current initiatives and implications for higher education'. Prepared by Simon Fraser Telelearning Policy Initiative, Simon Fraser University, Vancouver.

Crainer, S. 1999, 'Corporate views of university', *Management Skills and Development,* (www.managementskills.co.uk/articles/univer.htm, accessed 2/11/1999).

Cunningham, S. et al. 1998, *New Media and Borderless Education*, AGPS, Canberra.

Currie, J. & Newson, J. (eds) 1998, *Universities and Globalization: Critical Perspectives*, Sage, Thousand Oaks, California.

Daniel, J. 1999a, Distance learning in the era of networks, *The ACU Bulletin of Current Documentation* 138, April, pp. 7–10.

Daniel, J. 1999b, 'Distance learning in the era of networks: What are the key technologies?', Paper presented at the Pan Commonwealth Forum on Open Learning, Brunei, March 1999. pp. 1–6.

Davis, S. & Botkin, J. 1994, *The monster under the bed*, Touchstone, New York.

DeBats, D. & Ward, A. 1998. *Degrees of difference: Reshaping the university in Australia and the United States*, Australian Centre for American Studies, University of Sydney, Sydney.

Densford, L. 1999a, 'Motorola University: The next 20 years'. *Corporate University Review* 7(1) (www.traininguniversity.com/magazine/jan_feb99/feature1.html, accessed 24/3/1999).

Densford, L. 1999b, 'Many CUs under development' *Corporate University Review* 7(1) (www.traininguniversity.com/magazine/current/front1.html, accessed 21/1/1999).

Department of Employment, Education and Training 1995, *Australia's Workforce 2005: Jobs in the Future*, AGPS, Canberra.

Department of Education, Training and Youth Affairs 1998, *Selected Higher Education Student Statistics*, AGPS, Canberra.

Department of Education, Training and Youth Affairs 1999, *Selected Higher Education Statistics (Preliminary 1999)*, AGPS, Canberra.

Desruisseaux, P. 1999, 'Canadian professors decry power of companies in campus research', *CHE* November 12 A59.

Dirr, P. 1999, 'Distance and Virtual Learning in the US' in Farrell, G. (ed) *The Development of Virtual Education a Global Perspective*, Commonwealth of Learning, Vancouver, pp. 23–48.

Dolence, M. & Norris, D. 1995, *Transforming Higher Education: A Vision for Learning in the 21ˢᵗ Century*, Society for College and University Planning, Ann Arbor, Michigan.

Dudley, J. 1998, 'Globalization and education policy in Australia', in J. Currie and J. Newson (eds) *Universities and Globalization: Critical Perspectives*, Sage, Thousand Oaks, CAL. pp. 21–43.

Eaton, J. 1999, 'Advancing quality through additional attention to results', *The CHEA Chronicle* 1(11) pp. 1–2.

Erickson, J. 1998, 'Online—and in fashion'. *Asiaweek* December 25. (www.pathfinder.com/asiaweek/current/issue/cs6.html, accessed 28/12/1998).

Evans, T. & Nation, D. 1989, 'Critical reflections in distance education' in Evans, T. and Nation, D. (eds) *Critical reflections on distance education*, Falmer Press:,London, pp.237–252.

Evans, T. 1997, Prologue, in Rowan, L., Bartlett, L. & Evans, T. 1997 *Shifting Borders: Globalisation, Localisation and Open and Distance Education*, Deakin University, Geelong, pp.1–3.

Farrell, G. 1999, 'Introduction', in G. Farrell (ed) *The Development of Virtual Education: A Global Perspective*, Commonwealth of Learning, Vancouver, pp. 1–11.

Fenn, D. 1999, 'Corporate universities for small companies', *Inc.Online* (inc.com.incmagazine/archives/02990951.html, accessed 20/8/1999) pp. 1–3.

Fusco, G. 1998, 'HEA 98—Summary of Accreditation Provisions', (www.chea.org/Government/HEA/98_10Summary.html, accessed 11/1/99).

GartnerGroup 1999, 'IT Management Scenario: Navigating Uncertainty', RAS Services, Brisbane.

Gibbons, M. 1998a, Higher education relevance in the 21ˢᵗ century. Paper prepared for the UNESCO World Conference on Higher Education, Paris, October 5–9, 1998.

Gibbons, M. 1998b, 'A Commonwealth perspective on the globalisation of higher education' in P. Scott (ed) *The Globalization of Higher Education*, Society for Research into Higher Education and Open University Press, Buckingham pp. 70–87.

Gladieux, L.E. and Swail,W. 1999, 'The virtual university & educational opportunity: issues of equity and access for the next generation', The College Board, Washington.

Gluyas, R. 1999, 'Uni revolution', *The Weekend Australian*, November 6–7 pp. 37–38.

Goddard, A. 1999, Media exerts magic, *Times Higher Education Supplement*, July 30 (http://www.thesis.co.uk:80/tp/1/19990730/PRN/EDITION/edition.html, accessed 12/7/1999).

Green, K. 1999, 'TLT Group Webcast Series—Fall 1999' (www.tltgroup.org/casey/caseycastinfo.htm, accessed 12/12/1999).

Gross, D. 1999, 'Not for profit? Not exactly'. *University Business*. April, pp. 31–36.

Griffiths, J-M. & Gatien, G. 1999, 'The role of the traditional research university in the face of the distance education onslaught', *The Technology Source*, Feb. (http://horizon.unc.edu/TS/vision/1999–02.asp, accessed 12/3/1999)

Hart, G., Ryan, Y., Williams, H. & Lunney, P. 1998, 'Improving the practice of mental health nursing in rural and remote communities'. Unpublished report for the Rural Health Support, Education and Training Grants Program of the Commonwealth Department of Human Services and Health, Canberra.

Heyneman, S. 1999, 'How large is the international market for educational technologies and services?? *TeckKnow Logia* Nov/Dec, pp. 12–14.

Hibbs, J.W. 1999, 'Will Universities Be Relics? What Happens When an Irresistible Force Meets an Immovable Object?' *On the Horizon On-line* vol.7 issue 1 (horizon.unc.edu/horizon/online/html/7/1/social.asp).

Higher Education Council 1996, 'Professional education and credentialism. National Board of Employment Education and Training', AGPS, Canberra.

Hixson, A. 1998, 'Klor de Alva: Changing the rules', *The Hispanic Outlook on Higher Education* 9(3) pp. 21–25.

Hon. J. Hockey MP 1999, *A Policy Framework for Electronic Commerce: Exposure Draft*, Department of the Treasury, May 1999.

Irby, A.J. 1999, 'Postbaccalaureate certificates: higher education's growth market', *Change* 31(2) pp. 36–43.

Irving, C. 1999, 'California Virtual University: Highly touted experiment falls short of expectations', *CrossTalk*, 7 (3) pp. 8–9.

Jackson, G. 2000, 'University of Phoenix: A new model for tertiary education in developing countries?', *TechKnow Logia* Jan/Feb pp. 34–37.

Jaffee, D. 1998, 'Institutionalized resistance to asynchronous learning networks', *Journal of Asynchronous Learning Networks* 2 (2) pp. 1–9.

Kaplan, L. 1994, 'The European Community's "Television Without Frontiers" Directive: Stimulating Europe to regulate culture', *Emory International Law Review*, 8

Karmel, T. 1999, *Financing Higher Education in Australia*, DETYA, Occasional papers Series 99D.

King, J. 1999, 'Knowledge—the industry of tomorrow', *Business Higher Education Round Table News*, 5, June, pp. 8–9.

Kirkpatrick, D. 1994, *Evaluating training programs*: The four levels, Berrett-Koehler, San Francisco.

Kull, M. 1999, 'Corporate universities: Just-In-Time learning', *On the Horizon*, 7 (2) pp. 13–14.

Laurillard, D. 1993, *Rethinking University Teaching: A Framework for the Effective Use of Educational Technology*, Routledge, London.

Leatherman, C. 'University of Phoenix's faculty members insist they offer high-quality education', *CHE*, 16 October 1998, pp. A14–A16.

Lee, J. & Harmon, R. 1999, 'Faculty salaries: 1997–1998', *The NEA 1999 Almanac of Higher Education*, Washington: NEA. pp. 9–26.

Levine, A. 1999, 'Comment', *AAHE Bulletin* 50 (9) p. 10.

Lewis, L., Farris, E. & Alexander, D. 1997, 'Distance Education in Higher Education. Statistical Analysis Report. Postsecondary education.' Report No NCES–98–062. Rockville, MD, Westat.

Lingard, R. & Rivzi, F. 1998, 'Globalization, the OECD, and Australian higher education', in J. Currie and J. Newson (eds) *Universities and Globalization: Critical Perspectives*, Sage, Thousand Oaks, California. pp. 257–273.

MacColl, J. 1999, Platform on a Pedestal, *Times Higher Education Supplement* October 1 (http://www.thesis.co.uk:80/tp/1/19991001/PRN/EDITION/edition.html, accessed 12/10/1999).

Maitland, C. & Rhoades, G. 1999, 'Technology issues in bargaining: The new unionism', *The NEA 1999 Almanac of Higher Education*, Washington: NEA pp. 55–61.

Mangan, K. 1999, 'Medical professors see threat in corporate influence on research', *CHE*, June 4, A14.

Marchese, T. 1998, 'Not-so-distant competitors: How new providers are remaking the postsecondary marketplace', *AAHE Bulletin* 50 (9) pp. 3–7.

Marcus, J. 1999, 'DE: British OU sets the standard worldwide' *National CrossTalk* 7(3) p. 1, 14– 15.

Marginson, S. 1998, 'Nation-building universities in a global environment'. A paper presented in the series 'The role of the university in Australia—2010'. 10 September, University of South Australia.

Marginson, S. & Considine, M. (in press) *The Enterprise University: Governance*, Strategy, Reinvention.

Mason, R. 1998, *Globalising Education: Trends and Applications*, Routledge, London.

Mason, R. 1999, 'European trends in the virtual delivery of education', in G. Farrell (ed) *The Development of Virtual Education: A Global Perspective*, Commonwealth of Learning, Vancouver. pp. 77–87.

Matthews, D. 1999, 'The origins of distance education and its growth in the US'. (www.thejournal.com/magazine/vault/A2222.cfm, accessed 9/10/99).

McCarty, T. 1999, 'The next generation corporate university'. Presentation to Corporate Universities Week '99, Walt Disney World Resort FLA, November 14–18.

McConnell, K. 1999, 'Distance education: Where are we now?', *Via Satellite,* September 1999, pp. 16–22.

Meister, J. 1998, *Corporate Universities: Lessons in building a world-class workforce*, McGraw Hill, New York. 2nd edn.

Mills, J. 1999, 'Strategies adopted by organisations in their transition from a training culture to a learning culture'. In *Open, Flexible and Distance Learning: Challenges of the New Millennium*. Papers from the 14th Biennial Forum of ODLAA. Deakin University, Deakin. pp. 315–324.

Moe, M.T. 1999, *The Book of Knowledge*, April, Merrill Lynch & Co.

Moodie, G. 1999a 'Too many campuses spoil the system', *HES*, 8 December p. 43.

Moodie, G. 1999b, Keynote address. ODLAA 14th Biennial Forum, Geelong.

National Commission on the Cost of Higher Education 1998 'Straight talk about college costs and prices' NCCHE: Washington

(www.acenet.edu/programs/DGR/CollegeCosts/costreport.html, accessed 11/1/99).

NCES 1999, 'Distance education at postsecondary education institutions 1997–98' Publication No. 2000013, NCES: Washington.

NCES 1997, 'Postsecondary persistence and attainment. NCES: Washington.

Norris, D. & Olson, M. 1997, 'Preparing for virtual commerce in higher learning'. *Cause/Effect* 20 (1) pp. 40–44. (educause.edu/ir/library/html/cem9710.html)

Padilla, A. 1999, 'The University of Phoenix, Inc', *On the Horizon* 7 (4) 1, 4–6.

Postman, N. 1995, *Technopoly: The Surrender of Culture to Technology*, Vintage, New York.

Purdom, L. 1998, Transcript of Evidence to the House of Representatives Standing Committee on Employment, Education and Training Inquiry into the role of institutes of TAFE, 19 February, EET86–87.

Ralston Saul, J. 1997, *The Unconscious Civilization*, Penguin, Ringwood.

Ramsden, P. 1998, *Learning to Lead in Higher Education*, Routledge, London.

Reeves, T. 1999, A research agenda for interactive learning in the new millennium, A paper presented at EdMedia 99, June 19–24, Seattle Washington.

Richard Katz & Associates 1999, *Dancing with the Devil*, Jossey-Bass, San Francisco.

Richardson, J. 1999, 'Mining digs deep for universities', *HES* October 6 p. 28.

Rodriguez, E. 1992, 'Building a quality workforce: An agenda for postsecondary education', SHEEO, Denver, Co.

Rodriguez, E. & Ruppert, S. 1996, *Postsecondary Education and the New Workforce*. US Department of Education, Office of Educational Research and Improvement and SHEEO: Denver.

Rucci, A., Kirn, S. & Quinn, R. 1998, 'The Employee-Customer-Profit Chain at Sears', *Harvard Business Review*. January-February: 83–97.

Scott, P. (ed) 1998a, *The Globalization of Higher Education*, Society for Research into Higher Education and Open University Press, Buckingham.

Scott, P. 1998b, 'Massification, internationalisation and globalization' in P. Scott (ed) pp. 108–129.

Schmidt, P. 1999, 'Applications to California's Public Colleges Predicted to Rise 36 per cent by 2010', *CHE* October 1, A50.

Senge, P. 1992, *The Fifth Discipline: The Art and Practice of the Learning Organisation*, Random House, Sydney.

Sennett, R. 1998, *The Corrosion of Character: The Personal Consequences of Work in the New Capitalism*, WW Norton & Co., NY.

Shields, C., Cross, J. & Hall, L. 1999, Lessons from reality: A 'how-to' of learning. Presentation to Corporate Universities Week '99, Walt Disney World Resort FLA, November 14–18.

Siebers, P. & Griese, J. 1998, 'Virtual organizing as a strategy for the 'Big Six' to stay competitive in a global market', *Journal of Strategic Information Systems* 7, pp. 167–181.

Slaughter, S. 1998, 'National higher education policies in a global economy', in J. Currie & J. Newson (eds) *Universities and Globalization: Critical Perspectives*, Sage, Thousand Oaks, California. pp. 45–70.

Smith, P. 1999, 'Client focussed flexible delivery—an empirical study', in *Open, Flexible and Distance Learning: Challenges of the new millennium*, Collected papers from the 14th Biennial Forum of ODLAA: Deakin University, Geelong. pp. 471–478.

Smith, T. & Sapsford, T. 1998, Higher education private providers—the new ball game. A paper presented at the 2nd ATEM Conference, Darwin, September.

St Leger, L. 1997, 'The education and training framework for health-promoting environments', *Australian and New Zealand Journal of Public Health* 21 (4) pp. 420–424.

The Rand Corporation. 1997, *Breaking the Social Contract: The Fiscal Crisis in Higher Education* (www.rand.org.publications/CAE/CAE100/ accessed 15/6/99).

Thurman, L. 1995, 'Ford takes the fast lane to dealer communication and training', *ED Journal* 9 (2) J7–J10.

Trombley, W. 1999, 'A new British invasion? Open University struggles in the United States', *CrossTalk* 7 (3) pp. 1, 6–7.

Tysome, T. 1998, 'Controls planned for activities abroad', *THES* December 11 (http://www.thesis.co.uk:80/tp/1/19981211/PRN/EDITION/edition.html, accessed 12/12/1998).

Upbin, B. 1999, 'Beyond burgers', *Forbes Global*, November 1, pp. 28–30.

US Department of Education 1997 *US Department of Education Strategic Plan*, 1998–2002. Washington. (www.ed.gov/pubs/StratPln.html, accessed 21/9/99).

US Department of Education *1999 Digest of Education Statistics*, 1998. (www.ed.gov/pubs99/digest98/, accessed 21/10/99).

West, R. 1998, *Learning for Life*. AGPS: Canberra.

Winston, G. 1999, 'For-profit higher education: Godzilla or Chicken Little?' *Change* Jan/Feb. pp. 13–19.

Zumeta, W. 1998, 'Fiscal prospects for higher education', in J. Currie & J. Newson (eds) *Universities and globalization*. Sage: Thousand Oaks CLA. pp. 71–91.