

the heart to venture therein must first realise that Hong Kong is not a third world country. In fact, it can hardly be described as a developing country — it is developed. To illustrate this contention, it was recently revealed that Hong Kong textile manufacturers were setting up factory operations in northern England, partly because of the low wage rates there.

As already mentioned, there is a large unmet demand for higher education in Hong Kong. The five tertiary institutions (this will soon grow to six with the start of the third university) and the technical institutes have no trouble filling their quotas, and each year turn away hundreds of thousands of suitably qualified applicants.

The result of this situation is that educational institutions from around the world vie for the attention of the huge pool of people looking for qualifications. Represented among the institutions are the good, the bad, the indifferent and the fraudulent. Educational brokers abound, so that competition is fierce in the struggle for the elusive student dollar. Costs of advertising one's educational wares can be very expensive, as any institution that has been able to afford a cubicle at one of the educational fairs will testify.

“... Hong Kong students are becoming street-wise in their search for a good qualification at a nice price.”

This market atmosphere has existed for some years, with the consequence that Hong Kong students are becoming street-wise in their search for a good qualification at a nice price. They know what they want, and will look very carefully at what's on offer before making a decision. An established reputation counts for a lot more than flashy advertising. Once their decision is made, students are willing to make considerable sacrifices in both personal and monetary terms to achieve their aims.

2. The Hong Kong Government

The Hong Kong Government will not welcome foreign institutions with open arms. Unless working in partnership with a local institution, institutions will not, for instance, be allowed to run tutorials in Hong Kong. This policy has made it difficult for overseas institutions to run the types of courses they would like, and to offer their students the full services they need. Thus, for the past few years, the Open College of the University of East Asia has been unable to run study sessions in Hong Kong. Instead, the hydrofoil and

jetfoil services have benefited by transporting large numbers of students and tutors to and from Macau for their tutorials.

Another problem is that foreign courses will not be recognised for entry into Government service, which can reduce potential clientele. However, many students are not concerned with this restriction, and recognition can take other forms. For example, courses may qualify persons for admission to a professional organisation, a vital concern for some enrollees.

So, all is not lost. Further, new opportunities are arising with the release of the Government's Education Report Number 2, which has a chapter devoted to the future of open learning in Hong Kong. The major recommendation of the chapter was that the tertiary institutions should establish an open learning consortium, something in the style of that set up in British Columbia, but of course tailored to local needs. Particular attention was given to the role of overseas institutions, with the need for public safeguards being stressed.

Options

Faced with the above issues, Australian institutions have a choice as to how they offer courses to Hong Kong students. The available options are summarised below, along with recommendations as to which of the options are the most feasible and desirable.

Go it alone

This method is to simply offer a distance education course in Hong Kong, and administer it totally from the home institution. It is the easy way out, and avoids complications. However, it is not particularly recommended, as it displays a lack of commitment, and will probably have a high level of attrition.

Get local help

It is possible to have a commercial organisation in Hong Kong to provide administrative help. This assistance can be given in a number of ways, including distribution and collection of materials, the monitoring of student progress and advertising. It is quite a good solution, but care must be taken in choosing a representative. Obviously, their track record needs to be checked, and knowledge of who else they are currently representing is an indicator of their worth and expertise. The manner in which they charge the host institution also requires close attention — a percentage charge per student is better than a lump sum, especially early on when student numbers are uncertain. Also, one that makes additional charges to students should be avoided.

Set up in Hong Kong

An institution may choose to set up its own office in Hong Kong to administer

the course and provide support to local students. This option is not particularly recommended. Office accommodation is extremely expensive, and an overseas institution operating in this way will be closely watched by the Government.

Partnership

The five tertiary institutions in Hong Kong are able to offer courses in collaboration with overseas institutions and professional bodies. This is a good solution, but is only possible if the overseas institution has something to offer that will complement existing offerings. Partnerships already in operation include links between Ohio University and the Hong Kong Baptist College, and the Henley/Brunel MBA being offered through the City Polytechnic of Hong Kong.

Sell

It will be possible to sell overseas courses to the Open Learning Institute, presently being established in Hong Kong. This future possibility provides quite a challenge to overseas institutions. To succeed with this option, an institution will need to have a course which is of high quality and is portable (that is, can be usefully applied in places other than the host country). Naturally, it would be of considerable advantage if the course is already translated into Chinese!

A few parting words

Australian institutions wishing to offer courses in Hong Kong should not assume that they are entering a naive and unsophisticated educational scene. Further, although Hong Kong students are fairly quiet and passive, they are highly ambitious and know what they want. They study for qualifications, not for general interest or self-fulfilment.

As a suggestion, institutions interested in offering courses in Hong Kong can:

- read the Hong Kong Government's Education Report Number 2,
- talk to the educational representatives in the Australian High Commission in Hong Kong,
- contact the existing tertiary institutions to ascertain the possibility of cooperative ventures, and
- talk to the Hong Kong Government.

References

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Offshore education marketing: professional and industrial issues

The Hawke Government's announcement in 1985 that higher education institutions would be allowed to market their services overseas was met with an in-principle response from many quarters. Education, it was said, is not a commodity and therefore cannot properly be bought or sold, either to Australians or to overseas students. The academic unions were among those who adopted this stance. This accorded with their policy positions opposing tuition fees for higher education and against the establishment of private higher education institutions. Both unions, however, have consistently maintained a double-pronged approach to the issue, with strongly pragmatic elements counterbalancing their principled position.

The practical side to the unions' policies encompasses an acceptance that, whatever people may feel about principles, institutions are already selling their courses and services. The need for Australia to expand its export base is also recognized. Nevertheless, leaving aside issues of principle, academic staff have clear and legitimate industrial and professional concerns about the nature and extent of institutions' commercial activities. It is principally because of these concerns that unions have been deeply involved in the issue of education export for well over two years.

“The shift in Australian overseas higher education policy towards trade, and away from aid, is central to the crisis currently facing our higher education system.”

While they may essentially be pragmatic, the unions' concerns are broader than an interest solely in the export of education services. The shift in Australian overseas higher education policy towards trade, and away from aid, is central to the crisis currently facing our higher education system. Its relationship to the crisis is both causal and one of effect; the consequences of the Govern-

ment's education export policies are potentially serious unless both the Government and its agencies, and the higher education institutions themselves, are prepared to exercise caution, restraint and sensitivity in the implementation of marketing initiatives.

Two major political pressures contributed to the Federal Government's decision to allow institutions to market their services overseas. These were, first, **ideological pressures** from the free-market monetarist ascendancy in and around Federal Cabinet and, second, **financial pressures** which included:

- unprecedented unmet demand for higher education, already serious in 1985 but which rose to 20,000 qualified school-leavers who, in 1987, were unable to find a place¹;
- policies entailing the reduction of public expenditure in most budgetary areas and strong resistance to growth in the public sector, including higher education, despite conflict with traditional Labor Party priorities and policies and despite the commitments of the Prices and Incomes Accord of 1983;
- a need to improve Australia's balance of trade;
- within higher education, stagnation in both salaries and employment opportunities for academic staff, caused by real funding cutbacks in the decade 1975-1985².

From the institutions' perspective, therefore, as well as that of the Government, any extra source of income was to be welcomed. Many have accordingly become involved in education export, and no one can blame them from entering the field with all despatch and enthusiasm. Some are already making a profit from the exercise, though to what extent permanent reliance on this source of income is a viable proposition remains to be seen.

But, as well as providing at best temporary and modest respite from the funding crisis, the commercialisation of Australian higher education in the overseas market has also contributed to that crisis and has the potential to become a significant factor in the deepening of the problems facing the system as a whole. Before I turn to examine specifically the professional and industrial issues con-

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nected with offshore and distance education marketing, the more general potentially destabilising effects of the commercialisation of higher education services should be briefly mentioned.

In general terms, overseas marketing poses threats to the reputation, effective co-ordination and regulation of the system.

The Federal Government has allowed developments in overseas education marketing to proceed in an uncoordinated and unregulated manner, subject only to a very weak and general set of guidelines overseen by the Commonwealth Tertiary Education Commission. This is a short-sighted approach. First, it encourages institutions to compete against each other rather than to cooperate and has already resulted in a number of somewhat hasty and ill-conceived schemes which have finally been rejected by overseas clients. It has led also to a loss of credibility for Australian higher education as a whole.

Senator Susan Ryan, former Minister for Education, referred to this general problem in a speech delivered in Hobart on 24 March this year:

“It is important also to the successful marketing of education services that the advertising and promotion by institutions reflect the highest standards of integrity and probity. The experience of both the United States and the United Kingdom is that some institutions may not be entirely scrupulous in this regard. Failure on this point could jeopardise the whole marketing effort.”

Malaysia's major English language newspaper, the *New Straits Times*, has also editorialised on this problem. In a series of articles in 1986, Education Editor John Pillai raised questions about the academic standards of courses marketed to Malaysian students by overseas institutions, including Australian universities and colleges. He also referred to community concern about the welfare of the Malaysian student clientele of marketing institutions and accused some of them of being ignorant of Malaysia's cultural, social and economic needs. They were, he alleged, content to treat Malaysian students as “guinea pigs” in their commercial operations³. It must not be

forgotten that Malaysia's response to the UK's shift to full-cost fees for overseas students was an extensive, successful "Don't Buy British" boycott of consumer goods.

The deregulatory effects of commercialisation in overseas higher education policy are also potentially significant. First, the way is opened for the establishment of private institutions, catering initially to the overseas market but with the potential to expand into the home arena, taking in fee-paying Australian students. This, of course, has already happened with the establishment of the Bond University of Applied Technology on the Queensland Gold Coast, and also an 'academy' in Western Australia offering degrees from Curtin University to an exclusively overseas clientele. The divisive problems in the schools sector guide us in assessing the future for higher education if private institutions are allowed to proliferate. Not only will they inevitably demand — and receive — government subsidies, reducing the size of the pool of funds available to public institutions, but they will play havoc with planning powers and priorities. Wasteful duplication of expensive resources, which Australia cannot afford, will result.

Apart from the dangers posed by private institutions, the public higher education system could become subject to serious problems associated with uncontrolled, unplanned growth and distortions both inside and between institutions. Successes and failures of commercial operations might lead large, well-known or entrepreneurial institutions to prosper and expand while small or regional institutions go to the wall. Planning for the fulfilment of overall Australian needs for higher education could become irrelevant as extraneous considerations and fortunes become determinants of institutional welfare or indeed survival.

Within institutions, attention to market considerations could easily lead to distortions in the balance of course offerings, inevitably leaving those disciplines unpopular with vocationally-minded overseas clients as the poor relations in terms of funding and emphasis.

Unless stricter controls and co-ordination measures are applied, all of these developments could take place beyond the effective reach of Federal and State Governments. The responsibilities and concerns of these legislative bodies, and the legitimate interests of the Australian public at large, would be irrelevant. Access for Australians to higher education, particularly rural Australians and other disadvantaged groups, is threatened.

Turning specifically now to offshore higher education marketing, it is important to distinguish at the outset between

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its different forms. Distance education, as we normally understand it in Australia, is merely one of these two modes. More usually, offshore education initiatives are conceived as hybrid forms involving a mixture of two or more of the following:

- **distance education**, offering essentially the same courses externally to those offered on campus; in a sense an extension of on-campus study and at least partly derivative from it;
- **contract arrangements with existing public institutions overseas** involving supervision of the running of Australian courses from Australian institutions, overseeing of assessment, frequent visits by Australian staff as guest lecturers and consultants;
- **"twinning"**, in which an overseas institution offers, under supervision, the early years of a particular course and students travel to Australia for the final years and receive Australian qualifications;
- **partnerships with private organisations** in overseas countries whereby Australian courses of study are offered, in whole or in part, in the country of origin of the students with the local company responsible for buildings, facilities, administration and the employment of local staff.

Most of these varieties are problematic from industrial and professional perspectives as far as academic unions are concerned.

First, the educational and professional issues:

- There are questions about the compatibility of Australian and overseas educational philosophies, styles and theories. The Australian Development Assistance Bureau, ADAB, (now known as the Australian International Development Assistance Bureau) has drawn attention to the problems faced by overseas students from Malaysia and elsewhere in adjusting to Australian educational conditions, particularly the less authoritarian approach of teaching and learning in this country, the requirement that students develop their own points of view and justify them, and the encouragement of a questioning attitude on the part of students. Many

overseas students are used to a system in which teachers are regarded with utmost respect and their opinions accepted without question.

In practical terms this gives rise to a need for considerable assistance for many overseas students in the early years. If those early years are provided in the home country, taught partly or largely by local staff, serious divergence could occur between the curriculum and ambiance of offshore studies compared with those offered in Australia. In situations where students are to proceed to Australia for the senior years, their previous study offshore may not be easily translatable into the Australian context.

- The educational resources available to those studying Australian courses overseas may not be commensurate with those available in this country. In particular, libraries and scientific equipment need special attention to ensure that similar circumstances exist for all students, wherever they are located, in any Australian award course. While highly motivated students may succeed despite difficulties in these areas, questions of educational quality and equality could arise. Private colleges offering Australian Year 12 qualifications in Malaysia, for instance, would probably be the first to admit that their library and laboratory facilities did not match those of most Australian secondary schools. Class sizes also differ considerably.
- It is important that locally-hired teaching staff have qualifications and experience similar to their Australian counterparts. Like Australia, many South-East Asian countries are experiencing a shortage of engineers, accountants and computer scientists. It may be difficult to recruit adequately trained staff in these disciplines.
- Schemes involving the export of Australian academics to offer courses overseas, especially for short periods of time (six weeks' intensive teaching, for instance), might be attractive to the staff members concerned but would also lead to fragmentation and a loss of continuity both for Australians and students overseas. Overseas students would be unable to consult those staff at other times of the year — near exam time for instance — and the withdrawal of staff from their Australian duties may cause courses at home to be restructured in educationally undesirable ways.
- There are many financial pressures — to keep tuition fees as low as possible — which would tend to threaten academic quality. For example, the ex-

penses involved in maintaining Australian academics in foreign cities could lead to offshore courses being offered in short, intensive bursts, so that academics are overseas as briefly as possible. Not all courses or subjects are suited to such an approach.

- Standards are at risk because of economic imperatives to increase revenue. Entry criteria could be compromised, and pass rates could be put under pressure, in response to these pressures. Whilst this sounds alarmist, it must be pointed out that several British institutions have been criticised for lowering entry standards for fee-paying overseas students and some proposals already seriously considered here in Australia have involved accepting students who at least prima facie do not have academic backgrounds comparable with their Australian counterparts. The strict English language requirements associated with the subsidised Overseas Student Program are also likely to be relaxed in commercially-operated courses. All of these practices disregard the welfare of overseas students as well as threatening the academic standards of Australian institutions.
- Access to higher education is, of course, an important question wherever fees are charged. The 10% reduction in external students in Australia, following the introduction of a modest \$250 fee⁴, is a salutary lesson.

Finally, there are two considerations which raise most directly some fundamental questions about the educational nature of Australian courses offered offshore. The first is the issue of local political and religious restrictions on course content and on academic freedom. Academics and universities in at least some South-East Asian countries operate in an environment far more circumscribed by law, regulation and religious custom than we experience in Australia. In many disciplines these prohibitions would act as impediments to open discussion and a comprehensive approach, raising again questions of comparability between courses offered offshore and those available in this country. The private companies and agencies in partnership with Australian institutions, or those which are clients in the sense that they are providing sponsorship for students, might also place restrictions on what is taught.

Secondly, where courses are offered in the students' home country, especially courses 'tailor made' for the export market, the question of local content and local suitability are important and are highlighted in a way different from the situation where overseas students simply come to Australia and enrol in regular degree courses. Outside its Australian

context, much course material may appear completely inappropriate for overseas students. But, on the other hand, if course content is adapted to include substantial Indonesian or Malaysian material, at what point does the course cease to be the same as that offered at home? Does it, in some cases, cease to lead unequivocally to the 'same' Australian award?

In Australia, we offer distance education within a particular accepted educational and social context. It is at least worth asking how far we can extend our concept of distance education — or 'out-post' education — beyond that common background. And, if considerable alterations are made in teaching style and curriculum for the foreign situation, is the course really a part of the Australian institution at all?

Clearly, a completely Australian course, exported *holus bolus* to some overseas country, is simply a commodity to be bought. It may, however, be a commodity of limited usefulness and relevance to the overseas customer.

An Australian university or CAE degree is, perhaps, something which we cannot regard as separate from the educational, cultural and political system in which it is embedded and in which it plays a many-sided role. It is an educational, economic, cultural, psychological and political phenomenon. Overseas education marketing — exporting this phenomenon beyond its context in return for money — tends to divorce higher education from its context in a fundamental way. It might lead us further to deny the social, personal and cultural definitions of higher education and to regard it in an instrumentalist, exclusively economic framework. Some people might argue that this trend is already apparent.

Lastly I will examine briefly the industrial concerns of education unions with offshore education marketing.

"The interests and demands of client governments and corporations are likely to influence not only course content, but even the direction of the private research of academics involved with marketing."

The first and most frequently raised industrial problem associated with overseas marketing initiatives is that of permanency of employment for academic staff employed to work in marketed programs. Institutions are reluctant to hire tenured

staff where there is uncertainty about the future of the venture and when fluctuations in student demand are likely. The unions maintain, nevertheless, that any significant growth in contract staff numbers would have a detrimental effect on institutions' staffing profiles and the morale of academics. The employment of contract staff is a wasteful, destabilising and essentially unfair practice which does not use academic talents and experience to best advantage.

The withdrawal of certain academics to teach in marketed programs or to travel overseas could increase the workloads of their colleagues. This has the potential to create divisions within departments and it is likely to encourage greater exploitation of junior untenured staff. In some cases the involvement of one department or faculty in a marketing venture can cause spin-off increases in workloads in service departments. Since these departments generally have not been consulted about the venture, and stand to gain little, further dissension within the institution can result.

Since women are most seriously under-represented in engineering, computer science and related areas — the very areas likely to grow in a commercial environment — expansion of institutions in these disciplines can reduce women's academic employment opportunities, in a relative sense. Affirmative action principles are further undermined by the necessity for academics involved in some entrepreneurial activities to travel overseas. For many women, family responsibilities preclude them from taking advantage of the opportunities created by commercial ventures.

A further doubt about the long-term effects of commercialisation in higher education was raised by Roger Scott at a conference in Canberra in May⁵. He pointed to the trends already in evidence in the mounting of marketing proposals, which throw doubt on the future of traditional academic decision-making through Council, Board and Committee structures. Commercial demands for speed and secrecy often bring those involved to circumvent normal procedures and to avoid academic scrutiny. The role of senior administrators can become more powerful and prominent, while the part played by academics in running their institutions is reduced. The commercial imperatives of the education marketing world could in the longer term change the entire structure of decision-making in universities and CAEs.

Academic freedom is also at risk. The interests and demands of client governments and corporations are likely to influence not only course content, but even the direction of the private research of academics involved with marketing.

These pressures may be direct or indirect. They are likely to be particularly obvious in the cases of local staff employed in an overseas country who, indeed, may have limited opportunity for research of any kind. The need to retain "customers" for education services will possibly influence the entire research profile and direction of departments, faculties and even institutions, mindful of the need to please corporate clients or foreign governments and agencies.

Finally, the question of principle, laid aside at the beginning of this paper, must be faced. Australia cannot avoid its responsibilities to provide education aid to countries in its region which are not as economically advanced as our own. The danger is that, with the growth of overseas marketing of education services, this developmental support role will be lost — swallowed up by financial incentives and the search for the export dollar.

I would contend that, when it comes to issues of this kind, a position of principle is the only proper one to take. Financial and pragmatic arguments for providing overseas aid — including education aid — have been put forward, but they are weak and largely unconvincing. Put simply, Australia ought to provide education aid within its region because it clearly has a responsibility to do so, given our comparative economic and social advantage.

Anything which undermines this role must therefore be regarded with vigilance and caution.

The difficulties and potential problems set out at length in this paper can, we believe, be avoided. This can only be achieved, however, if goodwill exists on all sides and if institutions and Governments show a willingness to talk openly, to develop comprehensive guidelines and codes of conduct, and to abide by those standards in all of their commercial ventures. From a union perspective extra funds for higher education are to be welcomed. But a co-ordinated approach to overseas marketing, regulated by the Federal Government or an appropriate agency, is essential. The involvement of academic and other campus unions in the development and implementation of acceptable safeguards and codes of practice will ensure that commercial ventures proceed as smoothly as possible. In particular, academic unions support the development of contractual arrangements for the marketing of education services, established at government-to-government or government-to-agency level. The involvement of co-ordinating bodies such as the International Development Program in these initiatives is particularly to be welcomed, since by these means unnecessary and destructive competition between individual institutions can be

avoided. Most importantly, contractual developments of this kind avoid the problems associated with the marketing of education to individual students on a fee-for-service basis.

Higher education institutions and their staff are valuable resources. Their standards and their reputations must be protected if they are to succeed in selling themselves on the overseas market.

Notes

1. Australian Vice-Chancellors' Committee and Australian Committee of Directors and Principals, "Unmet Student Demand in Universities and Colleges in 1987" Canberra 1987.
2. The decline in funding over the years 1975-85 is detailed in Commonwealth Tertiary Education Commission, *Review of Efficiency and Effectiveness in Higher Education*, Report of the Committee of Enquiry, AGPS Canberra 1986, ch.2.
3. *New Straits Times*, Kuala Lumpur, July 8-11 1986.
4. See the Report of the Higher Education Administration Charge Monitoring Committee, Commonwealth Department of Education, Canberra April 1987.
5. Roger Scott, "Bicycles, Biscuits and BScs" — paper delivered at the conference "Private Initiatives in Higher Education" held at the Australian National University, Canberra, 20-22 May, 1987.

Science Parks

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The two extreme views

I find that debate on this topic is not infrequently conducted in loud tones across a substantial chasm between the holders of two extreme views. Let us call these the Enthusiasts and the Opponents.

Opponents take a principled stand against any co-operative enterprises between universities and private companies. They regard as regrettable both off-campus developments, and private arrangements between companies and individual academics or research groups, though both have been going on for many years. They especially oppose the setting up of on-campus research and development facilities for private companies, and the major escalation of commercial funding of university research projects currently being so strongly encouraged by both state and federal governments.

Enthusiasts give unqualified support to just these developments. Governments, often largely supported by the public, insist upon them. Some universities and some academics within them enthusiastically accept the idea of money from industry.

These two extremes are not lunatic views, though they are lopsided. They are held in many instances by intelligent people of good faith who believe (perhaps even with truth) that they have the interests of universities at heart. The arguments that they put forward for their positions are at least sometimes respectable arguments.

The enthusiasts' arguments

(I include only those arguments which I count as at least largely respectable. My judgement in this matter will doubtless displease many.)

1. Governments reason thus:

Increasing university/private sector research co-operation, and more generally, increasing the proportion of funding for research that comes from the private sector will

- (i) Bring Australia more into line with other OECD countries;
- (ii) Relieve the considerable burden currently placed on overstretched public funds;
- (iii) Force researchers into areas of research more likely to bear the economic/commercial fruit urgently needed in the national economy. (The centrality of this to the government's whole strategy for the revival and

development of the economy can scarcely be overstated.)

(iv) Remove funds from those researchers whose work is of no commercial value (for some, read 'no value') in favour of those whose work is of commercial value, or is able to be redirected into areas of commercial value. To be strict, this point strictly falls below the respectability threshold.

(v) In conjunction with other measures designed to make researchers compete for funding, favour projects of 'high quality'.

2. Some universities, and some of the academics in them, reason thus:

(i) The process is inevitable, so we had better tie up some promising companies in joint ventures, and avoid being left out in the cold, relatively unfunded;

(ii) Co-operation with the research sector of a private company offers not just more money to fund research, but constitutes a genuine broadening of research horizons: a chance to work with other very good scientists, on interesting projects. There are not just monetary but intellectual gains to be had, and gains not only for staff, but also for students;

(iii) Some individual academics, confident of the quality and commercial relevance of their own research, welcome both the entry of the private sector to research funding, and increased competition for research funding, on the ground that they are likely to prosper under such arrangements. They relish the challenge, and believe they are likely to succeed. Regrettably, this attitude is sometimes associated with an unlovable willingness to pass stunningly ill-informed judgements denigrating the work of others. (I would have to add that it is quite clear that some tertiary institutions show the same willingness to exploit the developing situation to what they take to be their advantage, at the expense of other institutions.)

It is worth commenting that governmental pressures on universities in this and other research-oriented matters are very much part of a grand design. This grand design is not a vision for the future of higher education, nor for education generally: it is a vision for Australia, its

'Science Park' means many things. For present purposes, let the term refer to research facilities set up by or for private companies on or at least adjacent to university campuses. The development of science parks in this specific sense is just part of a wider range of developments including off-campus industrial areas with some form of university connection, special relationships between universities and individual companies involving no physical presence on university land, such as dual employment provisions, consultancies, and so forth. All these are instances of university-industry co-operation of a sort being encouraged, indeed enforced, by the present federal government. Most involve private sector funding of research which is to some extent at least carried out by university academics, or which uses university facilities. The discussion which follows deals generally with private sector funding of university research, and with science parks relatively narrowly understood as above, reflecting the particular experience of La Trobe University since late 1986. The views expressed are my own, and are in places at variance with the official views of the university. (In a few places I have plundered those of our official formulations which I have found particularly appropriate.)

development, its throwing off the past, its growth into the future. Higher education and research is an essential part of this vision but it is a means and not an end. The end is of vastly greater importance, significance and breadth, being the whole economic development and prosperity of the nation.

We academics have perhaps been slow to see the implications of this point. One implication is that if the whole thing fails, if the economy does not take off, driven by a newly skilled workforce working in new industries arising out of newly researched developments, then the higher education sector will get the blame. We will be told that we refused to move ourselves, refused to help our country when it needed us, and so forth. And we shall doubtless be punished accordingly. A second implication is that, in the face of the vision being put forward by the