

## 2009 Menzies Oration

### Universities: the Foundation of Civil and Successful Societies

The Chancellor of the University of Melbourne, the Honourable Justice Alex Chernov, the Vice-Chancellor, Professor Glyn Davis, Sir Guy Green, Chairman of the Menzies Foundation, Members of Council, staff and students of the University of Melbourne and Distinguished Guests:

It is indeed an honour for me to return to my old University to deliver this prestigious Oration named in honour of one of Australia's greatest leaders. I thank the Chancellor, Vice-Chancellor and Council for their generous invitation to me to deliver the address this evening.

Early last century, the British mathematician and philosopher Alfred North Whitehead observed: "So far as the mere imparting of information is concerned, no university has had any justification for existence since the popularisation of printing in the 15<sup>th</sup> century".

To the extent that this statement was true then, the invention of the internet and the quantum change in the accessibility of information has made it even more true today. This evening I will talk of the role of universities in creating successful and civil societies, the performance of Australia's universities, and the steps needed to allow them to contribute more effectively to the future of Australia and the world.

Much has been written on the role of universities and I will not recapitulate that except in the broadest summary. Having started as institutions allied to churches and monasteries in Europe in the 11<sup>th</sup> and 12<sup>th</sup> centuries, the modern idea of a university as the site for the advancement of knowledge through research and research-led teaching was initially and most clearly expressed by Wilhelm von Humboldt at the University of Berlin in the early 19<sup>th</sup> century. This was a landmark change. As the 19<sup>th</sup> century British scientist Thomas Huxley remarked: "The medieval university looked backwards; it professed to be a storehouse of old knowledge. The modern university looks forward, and is a factory of new knowledge."

Humboldt's identification of the conjunction of research and education as the defining element of a university combined with the recognition of the need for academic freedom may well have underpinned the enormous contribution of Germany to scientific knowledge over the next one and a half centuries.

In the middle of the 19<sup>th</sup> century, Cardinal John Newman in his treatise entitled "The Idea of a University" emphasised the role of universities as sites for broad and liberal education and discourse. Interestingly, Newman did not define a role for universities in advancing knowledge through fundamental research, reflecting a difference in philosophy in Britain compared with Germany at the time.

Most writers and academics in the 20<sup>th</sup> and 21<sup>st</sup> centuries have supported the Humboldt concept of the defining elements of a university. But it is no longer so simple. Universities have progressively undertaken vocational education roles and it would be disingenuous for anyone to argue that such education is always led by research. Moreover, the growth of on-line providers of education leading to vocational and other degrees and the granting of degree-conferring rights to other tertiary and further education institutions makes it more difficult to define precisely the essential elements that constitute a university. In the USA, a number of people have attempted to

define the distinguishing characteristics of universities. Two of the more succinct and cynical are the definitions by the poet John Ciardi who said that “A university is what a college becomes when the faculty loses interest in its students” and the writer and producer Leonard L. Levinson who defined a university as “a college with a stadium seating over 40,000”.

Many of us would cling to the notion that although we may have difficulty defining what a university is, we know one when we see one – but even there we may be locking ourselves into preconceived notions. Perhaps the semantics are less important than the recognition that we require a diverse variety of institutions to fulfil the educational and research needs at the post-secondary level in the 21<sup>st</sup> century.

At their best, universities play a vital role in society. They lie at the centre of a competitive, knowledge-based economy. They are responsible for the education of our leaders, our innovators, our creators and our highly skilled workforce including our health professionals, lawyers, engineers and teachers. They provide life-transforming opportunities to young people from all parts of our community and stimulate the economy of the centres in which they are located.

Universities conduct most of the research that underpins our innovation system. They form partnerships with industry which should allow our manufacturing and service industries to compete globally on the basis of innovation and quality rather than trying to compete only on price. They help to develop prosperity based on a diverse and sustainable economy, with a highly educated and skilled workforce and innovative manufacturing and service industries.

Working with industry, government and other research bodies such as, in Australia, CSIRO and the medical research institutes, universities undertake much of the research that will allow us to provide clean and renewable energy, combat and adapt to climate change and other forms of environmental degradation and address our intractable health problems. The humanities and social sciences help us to make sense of societies past and present and the creative arts enrich our lives. Universities conduct the research training that seeds our wider work-force with individuals equipped to deal with the unforeseen challenges of the future. They build international linkages that are prerequisites for an equitable and peaceful world.

Although the realities of political priorities dictate that much of our advocacy for universities centres on their roles in professional education and in research leading to short or medium term economic benefit, it is important that our nervousness about being perceived as elitist and marginal does not prevent recognition of a more subtle role in a civil society. This was eloquently expressed in a recent article by Geoffrey Boulton and Colin Lucas in a publication by the League of European Research Universities, “It is important to remember that whatever policy-driven demands are placed on universities and whatever the desire to mandate particular outcomes, the space of university endeavour is essentially one where discoveries cannot be determined in advance and where the consequences of the encounter between minds, between a mind, a problem and evidence, and between the minds of successive generations are profoundly and marvellously unpredictable. They are the very conditions of creativity.”

Boulton and Lucas go on to argue that many of the functions of universities that are most valuable are by-products of their deeper qualities – those associated with fundamental, curiosity-driven research, original scholarship and a broad and liberal education unleashing curiosity, tolerance of complexity, analytical capability and creativity. One of the difficulties confronting public funding agencies and international ranking systems is that of establishing measures which evaluate these characteristics. As Einstein said: “Not everything that counts can be counted, and not everything that can be counted counts”.

Given these reservations, it is difficult to give any verifiable estimation of the performance of our universities in the aspects that really matter. We are left with a range of surrogates. These would suggest that, considering the progressive decrease in government funding from 1995 which will be arrested but not reversed from 2012, the performance of our university system has been creditable. Australian university graduates in the professions are recognised around the world as having had an excellent education and have no difficulty obtaining prestigious positions in many different forms of occupation. The evaluation by students of their educational experience shows that at least in their perception, the quality of their education has improved over the last decade.

Using conventional research metrics, our performance in research has been good with Australia producing almost 3% of research publications despite having only 0.3% of the world's population. The proportion of publications ranking in the top few percent on the basis of impact is high on a pro rata basis. The world ranking of universities, assessed either entirely by research metrics by the Shanghai Jiaotong University, or by a more subjective but more broadly-based system by Times Higher Education shows Australia's universities performing moderately in the first system and quite well in the second. Finally, the success of our universities in attracting international students has been exceptional. This has developed substantial income for the universities and is a most important source of export dollars for Australia. Indeed, it is the income from the international students which has cross-subsidised research in our universities and the cost of education for undergraduate Australian students and thereby allowed our universities to remain internationally competitive in research and to deliver a quality education for our students.

So, accepting that we lack measures for the most important aspects of educational performance and the evaluation of research performance is biased and incomplete, the indicators we do have suggest that Australia's universities are performing well. But the important point is that there is an opportunity to do so much better. We should not delude ourselves that the foregoing evidence indicates that our university system is performing at anything like the level that is required if we are to achieve the benefits that it can deliver.

The Shanghai Jiaotong Ranking shows no Australian university in the top 50 and the latest Times Higher Education ranking showed only one Australian university in the top 25 and a decline from 14 to 9 in the number in the top 200. As pointed out in the Bradley Review of Higher Education, the level of student engagement with their universities appears to be declining compared with universities in North America .

Nor should we deceive ourselves about the significance of the international student numbers, remarkable though they are. Compared with the USA and the UK, we attract a much higher proportion of undergraduate international students and a relatively lower proportion of research higher degree students. Moreover, the numbers are swelled by students seeking permanent residency. A very large proportion of the students study business and finance courses and an unhealthily high proportion now come from just two countries, China and India. We are not attracting many of the brightest students who still prefer to go to North America or the UK. We are gaining financial benefit but not the level of intellectual input that we would if we were to attract the best PhD students and postdoctoral fellows.

It is also clear that this market is fragile and threatened. A study in 2003 by IDP showed that the three most frequently cited reasons international students choose Australia were the perceived quality of the education, the value for money and the relative safety of Australia. The swamping of the international media with stories of disreputable colleges in Australia swindling or

disappointing students and of violence against international students combined with the climbing value of the Australian dollar shows how vulnerable is our dependence on this source of income to support our university system and, for that matter, the Australian economy.

Moreover, we have only to look at the quality of the facilities in the best universities in other countries in our region and the investment that is occurring in both educational and research infrastructure to realise that we are in danger of falling seriously behind. In addition, our student staff ratios are far higher than those in the best universities in Asia and the US.

So the report card is that we have done well in the face of declining government support but that we are deceiving ourselves if we feel that our best universities are in a position to compete with the best in the world. Indeed, a step change is needed if we are even to keep pace with the best universities in our region.

Education in our universities is at a tipping point. Our universities must be in a position where they can undertake the transformational changes to introduce the latest educational technology and associated sophisticated pedagogical approaches which this enables. This is the real education revolution. Humboldt and Newman recognised that university education should consist of more than talking heads transmitting factual information, but logistics and economics have often encouraged a regression to this lowest common denominator of the education process. We must move on from there. Inspiring lecturers will still have a place, but given that information can be accessed so easily through the internet, modern technology must be used to develop context-specific reasoning, problem solving and critical analysis, the core skills required for a flexible, creative workforce able to adapt to the rapidly changing demands and challenges in the frenetic and threatened environment of the 21<sup>st</sup> century. More and more education will be on-line and the time spent in face to face teaching on university campuses must be interactive with students and tutors actively engaged together in a process which encourages the deeper aspects of the development of all the intellectual capability of the students. This transition in the education process is resource intensive in every sense, but it must occur if our universities are to serve our students and our communities adequately.

What of the government's "education revolution". It is fair to say that unlike its predecessor, the Rudd Government does recognise the benefits that come from a strong university sector. It has made some additional investments in university infrastructure through the Education Investment Fund building on the Howard Government's Higher Education Endowment Fund, a belated recognition by that Government that maybe the deliberate squeezing of the sector over the previous decade was not in the country's interest.

Following the Bradley Review of Higher Education and the Cutler Review of Innovation, the last budget contained some additional funding which, in the financial setting of that budget, must have been hard fought and represented a major achievement by the relevant ministers. But let's be realistic about the potential impact. Most of the increased expenditure in higher education is directed to expanding the number of university places rather than in increasing the funding per student.

The introduction of a realistic form of indexation of government funding from 2012 should prevent the progressive erosion of public funding but will not reverse the deficit from the last dozen years. The gradual increase in funding for the indirect costs of research will partially reverse a progressive erosion of this funding which has occurred over the last decade and reduce the need to cross-subsidise research from other funds but it will not provide a serious boost to research funding and certainly not enough to lift the performance of our universities to the level

required to keep pace with those in our region let alone in the rest of the world. Offset against this is the loss of funds coming from full-fee paying Australian undergraduate students, a class outlawed by the current government on so-called equity grounds. This loss will amount to over \$30m per year at universities such as this when the full pipeline effect is felt. Moreover, as described above, the 20 to 25% of operating funds which come from fees from international students at our larger universities is under threat.

What is needed?

It is self-evident that more funding is required if our universities are to be able to deliver the benefits to our students and our community that they could and that Australia needs if it is to flourish. International comparisons plus even a cursory study of what is happening in our universities makes this obvious. But although desirable, it is unlikely that this will be delivered from the public purse – we all know the pressures on this following the recent state of the global economy. In addition, despite the overwhelming economic evidence of substantial public returns from public investment in university education and research, these are delayed in time and even committed governments in representative democracies can relegate the priority of such investment in the face of other financial pressures. Even so substantially increased government investment remains the desired outcome.

If this is not forthcoming, where else can the extra funds come from?

The Bradley Review advocated, and the Government enacted, the uncapping of the number of Australian undergraduate students that universities could admit, hoping that this would allow the percentage of university graduates to reach 40% of 25-34 year olds by 2025. But the fees that can be charged for these students continue to be capped and will be identical at all Australian public universities. This leads to some striking anomalies which should make it obvious that despite the evidence that the private contribution to university education is already relatively high in Australia, the appropriate circuit breaker should be a deregulation of university fees as well as numbers with appropriate provisions to safeguard equity concerns.

First let me point out some of the paradoxes. If you are a foreign but not an Australian student, you can be admitted to an out of quota undergraduate place at an Australian public university and charged whatever fee the university sets. If you are an Australian student, you can choose to take an undergraduate place at a private university which unlike the public universities can charge whatever fee it likes, with the students being eligible for government-subsidised income contingent loans and the university also having some government-subsidised places. If you are a graduate and wish to pursue initial professional training in a number of areas such as law or business, you can be admitted to a full-fee place to undertake a graduate but not an undergraduate course giving you the relevant qualification. The setting of uniform undergraduate fees at levels less than the cost of delivering the course provides a major disincentive for increasing the number of undergraduate Australian students and instead will encourage universities to shift more of their courses to graduate level and to take more undergraduate international rather than Australian students. It also discourages the differentiation of roles that needs to occur if we are to have some universities resourced to compete with the best universities in the world in research and in attracting the brightest international students and researchers to our shores.

The experiences offered to the students should be different in kind and the cost of the different programs for the university would also be different. The fees charged should reflect these differences and the students could then choose between the different products and the different fees as they do for postgraduate courses. In the international and post-graduate coursework area,

competitive pressures have ensured realistic fees related to the cost of delivery and the demand for the courses.

Equity issues are addressed in part by our innovative income dependent loans system which means that there is no requirement for upfront payment and the repayment occurs over time on a sliding scale dependent on income with a threshold above \$40,000 per year. This scheme requires a private contribution reflecting the private benefit at a time that the graduate's income reflects that private benefit. Residual equity concerns could be addressed by a requirement for universities to reserve a defined percentage of their places for fee-remission scholarships for economically-disadvantaged students and increased government living support for such students.

We must not allow our desire to address equity concerns to prevent universities having the means to deliver excellence in education and research and to compete with the world's best. This is not about the desires or reputation of individual universities. It is about what Australia and indeed the world need our universities to deliver. Equity and quality should not be polar issues – they should be developed in parallel. But each will need to be funded. Having more students doing second-rate courses at under-resourced and second-rate universities does neither the students nor the country any favours.

The Bradley Review and the 2009 Federal Budget both expressed outcome objectives in terms of the percentage of the population with a bachelor degree by a defined time point and the percentage of those students who should come from the lowest socio-economic quartile. Much of the extra funding for university teaching and learning in the last budget was dedicated to achieving these outcomes. But rather than focussing on these numerical outcomes, we should focus on the drivers of a high quality, differentiated system. Some of the expanded access opportunities will be provided by on-line providers and TAFE institutions rather than the development of a large number of additional campus-based comprehensive research-intensive universities, or a large increase in the number of undergraduate students at the existing campus-based universities. Indeed the number of traditional universities may well decrease through amalgamations to achieve critical mass or through an alteration in roles and modalities of education. An environment should be created where our best universities are able to compete for the best students in a deregulated funding environment that allows them to deliver the quality of education and research that the students deserve and our country needs.

It should be recognised that educational and personal development at universities is greatly augmented by a range of leadership, sporting and cultural activities outside the lecture theatres that can only be delivered in universities which are adequately resourced. The ridiculous debate about and the subsequent introduction of the misleadingly labelled “voluntary student unionism” legislation has reduced the ability of our universities to deliver such activities and experiences.

Another requirement is the recognition that great universities operate in a largely autonomous way without micromanagement from government. Along with decreased funding, a characteristic of the last dozen years or so has been a degree of government regulation and control which has been truly inhibitory to the academic exercise. The tight centralist regulation of universities by the Federal Government led Max Corden in Quadrant to describe Canberra as “Moscow on the Molonglo”.

The benefits that accrue from universities come from the coalface – from talented and creative staff and students. Although universities require broad strategy and direction from their senior management, the major role for that senior management is to provide an environment which enables and encourages innovation and creativity in research and scholarship and inspiration in

education. To the extent that senior management is not in a position to micromanage, so much less so is government. The government and public reasonably expect accountability in exchange for public funding, but this should be based on outcomes in the broad sense rather than on process and meaningless and endless metrics. In this context, the current rhetoric by Government relating to compacts and standards will have to be accompanied by accountability systems which are carefully managed. If they are not, we will reproduce the errors of the recent past where the things that can be easily measured rather than the things that really matter become the determinants of both evaluation and behaviour.

The need to avoid micromanagement relates also to research. It is tempting to direct all our limited research funding to the solution of pressing national and global problems or to research that might underpin directly our manufacturing or service industries. But history shows that the quantum leaps that allow us to solve the big problems are difficult to foresee. In the aforementioned article by Boulton and Lucas (footnote 1), the authors pointed out the ineffectiveness of Roosevelt's 1937 Commission which was given the task of advising on the likely technological innovations of the next 30 years. The Commission identified many technologies that remain unrealised and failed to predict nuclear energy, lasers, computers, xerography, fibreoptics, jet engines, radar, sonar, antibiotics, unravelling the genetic code and many other technologies which have transformed our world.

So although we need to develop processes to encourage demand-driven interaction between university staff and industry to enhance innovation, we also need to support generously creative fundamental research which will lead to the big advances. The combination of the research function with the industry portfolio and its separation from tertiary education in the ministerial and departmental responsibilities in Canberra at present produces real challenges in achieving this, although I believe the relevant ministers and departments recognise these challenges and are determined to overcome them.

Let me conclude by emphasising the importance of our university sector to the future of our country and of the world. Benjamin Disraeli's words to the House of Commons in 1874 are relevant to Australia today: "Upon the education of the people of this country the fate of this country depends".

To realise a prosperous, healthy and sustainable future for our country, our universities must be enabled by enlightened government policy to deliver excellence and diversity as well as to provide access for talented and committed students regardless of their financial status.

**Professor Richard Larkins**  
**27 October 2009**

Geoffrey Boulton and Colin Lucas "What Are Universities For?" League of European Research Universities, September 2008

W. Max Corden: Australian Universities: Moscow on the Molonglo, Quadrant, November 2005, 7-20; based on the Sir Leslie Melville Lecture given at the ANU, September 21, 2005