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**How good are Australian universities?**

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[OPENING: HOW GOOD ARE AUSTRALIAN UNIVERSITIES?]

Today I will reflect on the universities in Australia, their accomplishments in context, and what seems to me to be the strengths and weaknesses of the national system. I will focus on degree-based higher education and the associated research, specifically on the 40 public and quasi-public universities in Australia where 90 per cent of higher education students are enrolled.

Private higher education in Australia (a partly commercial sector fostered by government subsidies, as in the UK), and Vocational Education and Training (the equivalent of FE in the UK) are topics for another time. The Vocational Education and Training sector has 13.5 per cent of its enrolments at tertiary level, but only 0.2 per cent, about 9000 students, are in degree programmes.

[UNIVERSITIES, AND AUSTRALIA]

My twin themes then are Australia, and the universities. In the question ‘how good are Australian universities?’ there are other questions. How good are the universities in relation to what? To other universities abroad? How good then is Australia itself? And how good have the universities made Australia?

[‘HOW GOOD’]

We might expect that the strengths and weaknesses of Australian universities are the strengths and weaknesses of Australia, that they *must* be the same, but it is not so simple. Though nearly all universities are physically located in a particular territory and embedded in a national society and nation-state, they are also only partly so embedded. They also have roots in knowledge and the larger world. They are not wholly contained by the nation. Universities can move out ahead of their nations, up to a point. We often want them to do so.

[THE LUCKY COUNTRY BOOK COVER]

What is Australia, and what are the *Australian* universities? In cultural matters, the 1960s is often the decade on which everything turns. The most insightful book about Australia is Donald Horne’s *The Lucky Country,* published in 1964. A best-seller. Not bad for a book about ideas, in which the main idea was that the reader had no mind! He wrote about a half-formed national sensibility, transferred from Britain yet out of sorts when it returned to London, oblivious of its geographical location in Asia on which its future turned.[[1]](#footnote-1) Clutching the White Australia policy, which Horne campaigned against.

‘Australia has not been a country of great innovation or originality, he said. It improvised well ‘when pushed’,[[2]](#footnote-2) but ‘has exploited the innovations and originality of others.’[[3]](#footnote-3) ‘Dependent, second-hand, second rate.’[[4]](#footnote-4) It was also profoundly rejective of ideas and intellectuals. ‘Australia has not got a mind’, said Horne. His explanation for Australian anti-intellectualism had two strands. First, Australians had a deeply inlaid scepticism. It made them practical, less prone to self-delusion, and notoriously philistine.[[5]](#footnote-5) Their instinct was to ridicule authority and any claim to distinction, or even complexity. Second, Australians also had ‘a passion for egalitarianism’ that translated not into wanting everybody to be clever, but into ‘dislike of cleverness’, with its power to calibrate the group. The meld of scepticism and egalitarianism led Australians to hide their own talent, to frustrate talent in others, to distrust experts and ‘to oversimplify even the simplest issues’.[[6]](#footnote-6) Talented Australians, said Horne, had ‘to appear ordinary, just like everybody else’ or they were stigmatized as ‘not practical’, except sometimes, in the arts and science.

If science was a partial exception to this harsh verdict the universities were not. The humanities were not ‘invigorating’—‘the middle ranges are adequate but there is nothing much at the top.’[[7]](#footnote-7) Australia produced ‘the smallest proportion’ of science and engineering graduates ‘among the prosperous nations’.[[8]](#footnote-8) ‘There are many Australians who know how to conduct research’, he said, and ‘many of the best go overseas’.[[9]](#footnote-9) R&D spending was abysmally low.

Horne knew less about the universities and research than media, society, politics and public life. At the time he was writing Australian universities were expanding rapidly and indigenous research across a range of fields was beginning to flourish. STEM graduates and R&D spending were starting a long climb upwards. Yet Horne’s larger argument is not so easy to dismiss. ‘Intellectuals’, ‘as a strong and publicly influential type of person… do not exist’, he said.[[10]](#footnote-10) Australia largely lacked a public sphere in the sense of Jurgen Habermas, the network of critical intellectuals, interest groups and strategic thinkers at the edge of the state.[[11]](#footnote-11) The absence of the public sphere left a gulf between campus and government, and in government, said Horne, ‘the sense of the possible is very narrow.’[[12]](#footnote-12) All of this has echoes in the present.

One question to consider about Australia is, how much is Horne still right? If there is a continuing anti-intellectualism and something of an intellectual vacuum in public life, what does this mean for the universities?

[HISTORY]

In a forthcoming book on Australian higher education Melbourne Vice-Chancellor Glyn Davis describes the start of the universities in Sydney and Melbourne. Self-governing under the colonial state. Secular. Comprehensive of the disciplines. Not scholastic, preparing professionals. Utilitarian, like the colonies themselves. More influenced by London and Scotland than Oxford and Cambridge. These foundations set the achievement and the limit. Though the two young universities had shaky moments, their design took root and spread, and for the next century, the successive foundations across the country repeated these core features, with nuances here and there. The outcome of this determined path-dependency was a national system with remarkable homogeneity.[[13]](#footnote-13)

The next key moment in the Australian university was the system building era from the late the 1950s to the late 1970s. It began with a report led by the chair of British University Grants commission, Sir Keith Murray, in 1957. In these two decades the universities were lifted from small enclaves, finishing schools for a fraction of the middle class, into the mass educators and research laboratories of today. The number of universities doubled, and all of them, old and new, expanded significantly and kept on expanding. To the founding template, self-governing, secular, comprehensive and utilitarian, the system-building years added *accumulation*; of numbers, of functions, of resources, of prestige: the rubric of never ending growth. Like Australian native flora, with no size limits, spreading upwards and outwards to fill the empty spaces on the map. Growth confirmed rather than transforming the founding template.

A decade later, in the years 1989-1992, Labor’s modernizing Minister John Dawkins took the founding template, with its larger universities, and further entrenched that template by imposes rules about minimum size and a large-scale merger programme, to force all degree-based higher education into large comprehensive multi-disciplinary universities. The colleges of advanced education, the Australian polytechnics, had to upgrade to university status or merge with an existing university, or each other. Small specialist institutions vanished. Dawkins also increased the extent to which research activity was supported by competitive project grants; and established mixed public and private funding, with domestic tuition charges based on income-contingent loans, and up-front fee-paying international and postgraduate students. The Australian university became a competitive corporation and part of Dawkins’s ‘Unified National system’ of such corporations. With universities free to set international student fees levels and enrol as many international students as they chose, international education expanded rapidly and soon became the main source of discretionary finance.

[THE UNIVERSITIES TODAY]

The system building 1960s and 1970s also began the process of continuous transformation of the universities that has pulsated through them ever since.

*[FACTS AND FIGURES]*

Australia enrolled 1.4 million students in 2015, and had 363,000 international students, a massive 26 per cent of all enrolments, onshore and offshore.[[14]](#footnote-14) Funding per student in Australia is now higher than at any time since the early 1990s,[[15]](#footnote-15) but since then there has been a partial shift from teaching to research, within total budgets. Student-staff ratios have almost doubled.

In 2015, 42 per cent the income of Australian universities was from government. Grants based on student fees in the tuition loans system plus other student fees, added to 44 per cent. Of this 20 per cent of income was from international students, $5.3 billion, the same level as that from first degree domestic students.[[16]](#footnote-16) Bureau of Statistics data show that in 2016-17 the total value of higher education exports, including non-tuition spending by students and their families, was $28 billion.[[17]](#footnote-17)

The Australian university system exhibits certain distinctive structural features. First, the preponderance of degree programs: 44 per cent of the domestic population graduates at first degree level or above, with only another 11 per cent in sub-degrees.[[18]](#footnote-18)

[LARGE UNIVERSITIES IN AUSTRALIA, 2015]

Second, Australian public universities are large. None is as small as Princeton which has 8000 students. The smallest public university in Australia has 12,000. Some are gigantic, on the scale of Toronto, and the mid-West public flagships in the United States, bigger than any onsite universities in UK. Melbourne reached 58,883 students in 2015 with an international student load of 15,211, all of it onshore at the University’s main campus—the largest single site international enrolment in the world. Multi-campus Monash had 70,000 students in 2015, with 21,700 in international load, though a significant minority of that was located offshore. RMIT, Sydney, New South Wales, Deakin, Queensland and Curtin in WA exceeded 50,000 students. Another six universities had more than 40,000 students.

Third, as noted, system design rests on uniformity of institutional design. Other countries have more variety in mission: liberal arts in the US, high quality technical and vocational in Germany, South Korea and Taiwan, local colleges focused on teaching, specialist institutions everywhere. Instead of competition in Australia generating a diversity of submarkets and de-bundled specialist products, as in the market imaginary, multipurpose universities jostle for broad market coverage at the centre of large demand pools in each state capital in the manner of free-to-air commercial television. The old path-dependency and the Dawkins size formula have been locked down by economies of size and scope and a pattern of isomorphic imitation. Innovations in mission are too risky. Melbourne and Western Australia maintain an exceptional structure of liberal first degree followed by vocational Masters, but it is difficult: government funding has not been sufficiently flexible to fully accommodate this. It is a largely one-dimensional sector.

[INFORMAL TIERS IN AUSTRALIA]

The result is that Australian universities are strung out in a long vertical line in descending research-intensity, resources and status. Moving down the line, institutions ape the research leaders at the top but the marketing claims become more hollow as value declines, though the price stays the same.

Fourth, whereas many other nations vigorously foster a ‘World-Class’ university layer, in Australia policy, regulation and funding tend to flatten the top universities. The Go8 have the first mover advantage, they are the oldest and strongest and they concentrate much of the research capacity. They have a quarter of the student load but 70 per cent of the academically competitive research funding and 51 per cent of publications.[[19]](#footnote-19) However, they have limited scope to build their position at global level because of the fixed price character of both fees and public subsidies. They can charge higher international student fees than other universities and enrol large volumes. Elite educators at home, mass education abroad. This creates only a modest advantage overall. The second tier universities can also enrol large volumes of international students.

The Go8s’ global competitors have better income streams. The top British research universities receive large-scale grants for research performance via the REF. There is no extra funding attached to the equivalent research assessment in Australia, the ERA. The leading American universities have philanthropic funding and stronger federal research support. In Japan, China, Singapore, Germany, and France there is selective distribution of discrete parcels of public funding to augment research. The Go8 maintains the distance from the next tier, like Macquarie, Newcastle, Wollongong, Curtin or QUT but has limited scope to bridge the gap with Imperial or Tokyo.

Fifth, on the other side of the coin, Australia is notable among national systems for the strength of its middle layer of universities. No less than 23 of the 40 Australian universities are in the ARWU global top 500.[[20]](#footnote-20) This includes the top tier, the group of Eight, and fifteen more. Middle universities are pulled between the conflicting goals of building volume and building research. Some have built niche research profiles, like James Cook and UTS, while others like Curtin are more comprehensive. But they all benefit from the regulatory regime that holds down the Go8. They are also allocated funding for research degrees and research infrastructure a little out of proportion to their share of research performance. The overall effect is to maximise the number of strong branded income earning universities in the global market. The downside is that the quality of the leading universities is somewhat held back.

[INTERNATIONAL COMPARISONS]

International comparisons are a useful discipline. In corporate-minded universities there always the danger that you will start to believe your own marketing. The road to hubris is paved by focus groups. Realistic comparisons foster humility, which is the beginning of wisdom.

Comparison does not mean imitation. It merely helps us to know where we are located.

*System and structure.* There is no other higher education system in which there is only one basic mission and institutional shape. Australia avoids the extremes of quality of the market diverse American system. The top is weaker than the US universities but the lower 98 per cent is considerably stronger Two thirds of all higher education enrolments in Australia are in world top 500 universities. On the other hand, quality in Australia is less uniformly good than in the best Western European systems such as Germany, Netherlands, Switzerland and the Nordics. In the Dutch system, every research university is good. There is no tail. There is no top 50 university in Holland. Some might see that as a trade-off for the system virtues. I don’t think so. The point is not that Dutch quality is uniform, it isn’t, but that the floor is high. It is possible to combine a high floor of quality as in Holland with a top 20 university. Germany’s Excellence Initiative signals the desire to achieve this combination.

[EFFECT OF INTERNATIONAL STUDENTS ON RATE OF ENTRY INTO DEGREE PROGRAMMES BY AGE 25]

*Participation.* In international terms Australia is a high participation country. The participation rate of the 20-24 year age group was 59 per cent in 2015 compared to the OECD average of 42 per cent. But at that age the participation rate is boosted by Australia’s large international student population, which increases the rate of entry into first degrees by 16 per cent. Take that out and Australia moves halfway back to the OECD average. In older age groups the participation rate is very high in international terms—though many students aged over 30 years are in their second degree programmes.

*Funding*. Student tuition fees are less than those levied in the UK but higher than in the public sector in the US and China, and higher than the whole of Europe. Tuition is free in the Nordic countries and Germany and very low in France. Fortunately for Australians, as is also the case in the UK, there is no charge at the point of entry because fees are covered by income contingent loans, underwritten by the government, that are repaid through the tax system only when income reaches a threshold level. This protects access.

[PROPORTION OF RESEARCH PAPERS THAT HAD INTERNATIONAL CO-AUTHORS, 2008-14]

*Internationalization.* Australians have higher than average levels of international co-publication, though not exceptionally high levels. Australian researchers have especially frequent partnerships with researchers in New Zealand (most of all), South Africa, Singapore, UK, China and Taiwan. Science in Australia has a much stronger relationship with science in China than is the case for British science.[[21]](#footnote-21)

The internationalization of students is more lopsided. The OECD measures stays of one year or more for study purposes. Australia’s number coming in is comparatively high, the number going out is exceptionally low.

[INTERNATIONAL STUDENT MOBILITY]

In terms of incoming students in 2015, 14 per cent at Bachelor level, 43 per cent Masters level and 34 per cent doctoral level were international. International students were 51 per cent concentrated in business studies and law. In terms of outgoing students, only 0.7 per cent of Australian students were enrolled aboard in 2015. Australia’s ratio of incoming to outgoing students at 24.6 was even higher than 21.3 in the US.[[22]](#footnote-22) It seems that Australian universities need to travel but their students do not. The main opportunity for internationalization is mixing between the international students coming in, and the immobile locals, but unfortunately, while local students are tolerant, they have no special need to open up to new cultures and languages.

[AUSTRALIA IN THE SHANGHAI ARWU TOP 500]

*Research*. The ranking of Australian universities in the ARWU shows Australia punching above its weight in the top 500 and 100 but not the top 50. Well over half of the public universities are in the world top 500 research universities.

The Leiden University ranking provides data on papers published in 2012-15 in the top 10 per cent of their field by citation rate. This is a good simple indicator of research firepower—of the quantity of research quality in the university. Melbourne produced 1518 such papers, 31st in the world. Queensland was 38, Sydney 41, Monash 62 and New South Wales at 65.

[PAPERS PUBLISHED 2012-2015 IN TOP 10% OF THEIR FIELD BY CITATION RATE]

Given size and historical factors, useful public university comparators for the leading Australians might be Toronto and UBC in Canada, UCL, Wisconsin-Maddison, UC Davis in California, and the National University Singapore.

Harvard’s 7134, more than double Stanford’s 3372 at number two, is mind-blowing. Any global university ranking that says Harvard is not the world’s Everest is either tailored to limited criteria or, like Times Higher and QS, playing commercial games with the sector. But my main point is that the top Australian universities are not Annapurnas.

At discipline level, Australia’s strong meta-cluster is life and medical sciences. In biomedical and health Melbourne is at 22nd in the world with 909 high citation papers, followed by Sydney at 27, and Queensland at 46. Since the first Leiden ranking six years ago Melbourne has risen from 33 to 22. In Life and Earth sciences Queensland is 11th, followed by Melbourne 40, ANU 48, UWA 57 and James Cook, with a niche specialization in tropical and marine sciences, at 58. Australia does less well in physical sciences STEM and mathematics and computing, where UNSW is the strongest institution.[[23]](#footnote-23)

In 2014, the Chief Scientist published a report that benchmarked Australian science and engineering, including life and medical, on citation performance. This included the government research laboratory, CSIRO. Between 2002 and 2012 Australia produced 3.1 per cent of the world’s publications in all fields of science. Looking at top 1 per cent publications by citation rate, the most important papers, Australia produced 9 per cent in earth and planetary sciences, 8 per cent in agricultural and biological sciences, 7 per cent in environmental sciences, 7 per cent in veterinary, 6 per cent in medicine and 5 per cent in immunology and microbiology.[[24]](#footnote-24) At a sub-field level, in addition to these fields, Australia had particular strengths in aspects of environmental science, and engineering (civil and aerospace).

Looking at citation rates by research field, Australia’s citation rate was higher than the average for 15 strong EU research countries, in four out of 11 broad research fields: earth sciences, physical sciences, mathematical sciences and the biomedical and clinical health sciences. In six other fields the Australian citation rate was above the world average rate but below the EU-15 average. This is not a stellar outcome for Australia. Sweden and the UK were above the EU-15 average in all 11 fields, the United States in almost all fields.

[THE INNER UNIVERSITY]

International comparisons are not the only standard of value. How good is the Australian university in itself, what we can call the inner university? And how good is the Australian university for its society, the outer university?

The inner and outer university are not wholly separate. The inner Australian university is partly shaped by its management. In turn management is much affected by government, by the dense lattice of laws, rules, capital flows, distributional formulae, parcels of money, visa decisions and the rest in which the university is embedded. Government is a more complete presence in the Australian university than it is in, say, the American university. Australia is more British than American there.

The state-manager nexus was fundamental to the development of a more professional academic management during the new public management reforms of the 1990s. Australian universities are now well run. Management reform has underpinned the remarkable business success of international education, and enabled universities to be efficient at a higher level of scale, while maintaining continuing structural changes and a plethora of organizational initiatives and outreach, with less public money per capita.[[25]](#footnote-25)

But Australian universities have become stronger in management and professional services than in academic cultures. We see here traces of what Horne talked about—the practivist bias, the instinctive side-lining (or hiding) of the intellectual.

As I see it—though there are notable exceptions to this statement—Australian academic cultures are not as resilient and reproductive, or as intellectually energetic and exciting, as academic cultures in the UK, the American doctoral universities, the leading Dutch universities, or perhaps Singapore. I am sure of this in social sciences, and humanities. It is suggested in the research citation data in some other disciplines. It may not be true of Medicine, where Australia seems on par with the UK, though smaller.

In Australia, disciplinary cultures are strongest in the top research universities. There management is often more circumspect, professors who raise serious money and win major academic prizes are valued, and some almost write their own rules. This is the triumph of the academic entrepreneur not the college. The collective professoriate and the scholarly meeting have more power in Cambridge, Oxford, the Ivy League and the University of California than in Australia.

What of teaching and learning? Australia, like other English-speaking countries, has expanded quality assurance, student assessment of staff, nomination-based rewards for best teaching, certification of university teachers, research in classrooms, technology-based applications. This has installed a reflexive culture in which improvement in learning is embedded. There are downsides—like grade inflation and the reluctance some academics feel to challenge their students intellectually in case their ratings fall.

[THE OUTER UNIVERSITY]

Despite the inclusive potential of growth it has proven difficult in Australia to change the social balance of the enrolment, as in other high participation higher education systems. In each phase of expansion the middle class families make best use of the new opportunities. In the last decade, despite rapid growth before and after the open demand-driven enrolment system began in 2012,[[26]](#footnote-26) the share of students from the bottom socioeconomic status quartile moved modestly from 16 to 18 per cent. Indigenous students were enrolled at half the rate their share of the Australian population would suggest. In the Go8 in 2014 only 11 per cent of students were from the bottom quartile. As in the UK the high fee independent schools are the royal road to academic success, dominating high demand courses such as law and medicine in the elite universities and blocking broader social mobility.

However, equity is not the only broad public good produced by universities. Much of the larger contribution of the universities is through the disciplines, for example to scientific literacy and capacity, to medicine and pharmaceutics in many areas, and through policy advice via the social sciences. The larger potential contribution is when an activist government is in power, as during postwar reconstruction in the 1940s,[[27]](#footnote-27) or under the Whitlam government in the early 1970s, when university researchers may be asked to tackle housing and urban development, or inequality and poverty,[[28]](#footnote-28) or Indigenous issues. When governmental torpor sets in, as at present, the social sciences have limited scope for the big, transformative projects.

There is little the universities can do to wake a sleeping government. The problem apparent in Horne’s time, the absence of a larger public sphere around government, which might debate, rework and transmit ideas from the universities or elsewhere, in some measure continues. The vacuum protects the narrowness of the public agenda in Australia, also discussed by Horne. Government is freed from obligation to address a larger set of policy concerns.

In Australia there is no equivalent of the *The Economist,* the *Financial Times* and *The Guardian*. Discussion of ideas in the media mostly takes a shallow ideological and combative tone, for example in the Murdoch press. Almost before a new issue appears it is simplified and arranged into a left/right polarity, like a tennis match where the sole meaning is to determine a winner. In highly simplified and ideologised debates there is little apace for specialized knowledge, few points of entry for university-based intellectuals.

[THE REGION AND THE WORLD]

Horne argued in relation to national identity that Australians knew they were no longer truly British, but ‘the momentum towards concepts of independent nationhood had slowed down, or stopped.’[[29]](#footnote-29) Also, they needed to discover they were in Asia. Horne stated that focus on Asia could unlock Australia’s stuck-in-transition national identity. That was a prescient overall assessment.

Some matters have changed since *The Lucky Country* was written The geo-strategic weight of Asia has increased, specially China and East Asia. The White Australia policy has been dismantled and the demography is being transformed—Australia’s three major sources of migrants, about equally weighted, are China, India and UK/Ireland. National engagement with Asia has vastly expanded on many fronts, with the universities playing a key part.

[COMBINING ALL HIGH CITATION PAPERS IN MATHS, COMPUTING, PHYSICAL SCIENCES, ENGINEERING, 2012-2015 (LEIDEN DATA) ]

Let’s consider for a moment the rise of Asia, especially China. China surpassed the Purchasing Power Parity GDP of the United States in 2014-15. Aggregate R&D spending in East Asia passed North America five years ago. China’s annual output of science papers moved from 25 per cent that of the US in 2005 to 80 per cent in 2014.[[30]](#footnote-30) Quality is improving along with quantity. The table combines high citation science across the Physical Sciences, Engineering, Maths and Computing cluster. *Tsinghua just shades MIT as the world’s top university*. China has very nearly caught up in physical sciences STEM, though it is less strong in biological sciences and medicine.[[31]](#footnote-31)

Among universities from the English-speaking countries, the Australians were the first into China. Some have developed formidable practical expertise. The universities have moved out ahead of Australia to an extent, and this has helped to bring Australia along. The universities’ Asian engagement is also subject to the same limitations as Australia’s general relationship with the region, to a lesser degree—the tendencies to focus on short-term returns not long-term relationships; to see East Asia as a commercial opportunity without regard for cultural engagement; and to under-estimate the need for Asian languages, especially Putonghua. Much of the hard work is still ahead.

The long-term encounter and hybridization between the Chinese civilizational zone and the Anglo-American-European zone is where future world society will emerge. India will also play a role, as yet unclear. Australia’s own Europe/Asia tension and resolution are a sub-set of the larger problem. Some of the issues are arising early in Australia. That’s a potential advantage. The East/West sensibility that Australians acquire could equip them to play a larger global role—*if* they do engage fully in East Asia and build a partly hybridized outlook. The universities are essential to that national project. But do the universities contain sufficient originality and independence of thought to contribute to a new kind of nation at the forefront of historical change? That’s ‘how good’ Australia need its universities to be.

[CONCLUDING THOUGHTS]

In summary, how good are Australian universities? They are large, often multi-site, comprehensive and internally diverse, with multiple roles. They are good at managing large international student intakes from Asia, at least on the servicing side. (The educational side is less clear). Some are effective in Asia. On the whole, they are well led and managed. Australia has 23 universities in the world top 500, exceptional given the size of the country. There is a large robust group of second tier universities that bring research-informed degrees to a broad segment of the population. The universities harbour pockets of high global excellence in parts of research, including plant and animal research, medicine, related biological sciences and earth sciences. Overall citation quality is less consistent than the UK and parts of Western Europe.

The weaker features of Australian universities are the reverse of the strengths. Outgoing student mobility is abysmal. The uniformity in institutional mission, structure and culture, though similar to Australian public provision in other spheres, is unique in the higher education world, and a serious problem, especially the absence of specialist public institutions. Market competition and government policy and regulation both foster uniformity. In addition, the system settings flatten the leading universities somewhat; while below the large middle second tier group there is a long tail of third tier institutions that are nominally research universities but have modest evidence for the claim.

All is not well, either, in the broader context. Horne’s 1964 charge that Australia lacks originality and creativity in many domains, and has no respect to talent, has become ‘lacks *sufficient* originality, creativity and respect for talent.’ There is still not enough regard for intellectual achievement. Strident American anti-science politics are unlikely to gain traction in Australia. The problem is, rather, marginalization and indifference. The public sphere surrounding government—the sphere of intelligent discussion and debate about matters of science, policy and the public interest—is under-developed, by comparison with, say, the UK, United States and parts of Western Europe. This inhibits the potential for autonomous Australian intellectual culture and limits the scope for universities and their people to exercise strong agency in government. Though universities make many contributions to government at an instrumental level, there are invisible barriers to deeper influence, except perhaps in relation to Australia’s engagement with Asia.

If the larger public sphere can be successfully fostered, the conditions for a more advanced university role open up. There are also issues of values to address. Though the universities are connected to society at many points, public, policy and university discourse in Australia now place undue emphasis on the contributions of universities in the form of private benefits for individuals. Much as in the UK, this has become a barrier to lifting the contribution of the universities to the broader public good. Universities can move out ahead of society but only so far. Their fundamental role lies in producing and disseminating knowledge. Unless this is positioned as a collective function, higher education—and intellectualism in the wider Australian society—will remain as they have always been in Australia. As they were inherited form British colonisation, in which the coloniser was educated and the colony was not. That is, higher education and intellectual distinctions that are seen predominantly as claims to social status for individuals, rather than as means of reflexive self-transformation of the whole society.

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1. Horne (1964), p. 96. [↑](#footnote-ref-1)
2. Horne, p. 140. [↑](#footnote-ref-2)
3. Horne, pp. 24-25. [↑](#footnote-ref-3)
4. Horne, p. 11. [↑](#footnote-ref-4)
5. Horne, p. 45. [↑](#footnote-ref-5)
6. Horne, pp .47-48, p. 50. [↑](#footnote-ref-6)
7. Horne, pp. 223-224. [↑](#footnote-ref-7)
8. Horne, p. 149. [↑](#footnote-ref-8)
9. Horne, pp. 142-143. [↑](#footnote-ref-9)
10. Horne, p. 232. [↑](#footnote-ref-10)
11. Habermas (1989). [↑](#footnote-ref-11)
12. Horne, p. 189. [↑](#footnote-ref-12)
13. Davis (forthcoming). [↑](#footnote-ref-13)
14. DET (2017a). [↑](#footnote-ref-14)
15. Norton (2017). [↑](#footnote-ref-15)
16. DET (2017b). [↑](#footnote-ref-16)
17. ABS (2017). [↑](#footnote-ref-17)
18. OECD (2017), p. 74. [↑](#footnote-ref-18)
19. DEET (2017c, 2017d). [↑](#footnote-ref-19)
20. ARWU (2017). [↑](#footnote-ref-20)
21. NSF (2014). [↑](#footnote-ref-21)
22. OECD (2017), p. 306. [↑](#footnote-ref-22)
23. Leiden University (2017). [↑](#footnote-ref-23)
24. Chubb (2014), p. 23. [↑](#footnote-ref-24)
25. Marginson and Considine (2000). [↑](#footnote-ref-25)
26. Kemp and Norton (2014). [↑](#footnote-ref-26)
27. Macintyre (2015). [↑](#footnote-ref-27)
28. Macintyre (2010), p. 201. [↑](#footnote-ref-28)
29. Horne, pp. 97-98. [↑](#footnote-ref-29)
30. UNESCO (2016). [↑](#footnote-ref-30)
31. Leiden University (2017). [↑](#footnote-ref-31)