

University leaders' strategies in the global environment: A comparative study of Universitas Indonesia and the Australian National University*

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Abstract. In a global environment in which global, national and local nodes relate freely within common networks, all research universities must pursue strategies for building global capacity and facilitating cross-border staff and student movement and research collaboration. The study compares readings of the global environment, global and international activities and relationships, and global capacity and strategy, in two leading national universities, one in a middle level developing country (Indonesia) and the other in a middle level developed country (Australia). The main tool of investigation was interviews with parallel groups of institutional leaders and leaders of academic units and research centres, in conjunction with study of the national and local contexts. It was apparent that in both cases, while global elements are increasingly important in university strategy, mission and identity, resource capacity remains highly dependant on national government and students. This belies the romantic myth of the 'stand-alone' corporate university in the global marketplace. The two cases also differ in some respects. While both universities are peak national institutions, and each respects the other, the Australian university is more strongly placed in the global environment and practical dealings between them are asymmetrical. The study helps to illuminate the dynamics of global stratification and hierarchy between developed and developing nations and institutions in higher education.

Keywords: Australia, comparative education, globalisation, global strategy, government–university relationship, Indonesia, international linkages, nation-state, university leadership

Introduction

This article compares the developmental strategies of university leaders, especially their global strategies, in two national universities in contrasting and neighbouring countries: Indonesia and Australia. The study focused on strategies of leaders with whole-of-institution responsibilities; and heads of academic units such as faculties and research centres. We are interested in what the two country cases and

the comparison tell us about the global higher education environment, meaning the ensemble of global, national and local practices (not just the global dimension).

We compare parallel national universities at the local level, while accounting for the national funding and policy context, and the global context. By distinguishing global, local and national dimensions, and clarifying the interplays between them, we aim to learn more about relations of power and identity/difference in global higher education. We are interested in educational nodes, networks (Castells 2000) and flows (Appadurai 1996); and the hierarchies and asymmetries between institutions and countries. Held et al. refer to 'stratification', meaning vertical unevenness and inequality in global relationships; and 'hierarchy', meaning 'asymmetries in the control of, access to and enmeshment in global networks and infrastructures' (Held et al. 1999, p. 20). More specifically, we are interested in the capacities of different universities, especially their global capacities, and elements that affect capacity. By a university's *capacity* we mean its ability to receive, contain and produce activities, including the development of academically productive networks. We are also interested in university *potential*, meaning the ensemble of possibilities within reach of the university. We are curious about the degree to which potential is capacity and location dependant, and shaped by global hierarchies, and about the scope for strategic leadership to expand capacity and potential.

The two universities are the Universitas Indonesia (UI) in Jakarta, Indonesia and the Australian National University (ANU) in Canberra, Australia. Both are public universities begun in 1946, located in the capital and designated as a 'national university', with somewhat different meanings in each case. UI is a research university attracting as students much of the Indonesian elite. ANU was established as four research schools with international links and is Australia's strongest research university in scholarly outputs (SJUIHE);¹ though with a lesser role in elite professional education than UI or the larger, older Australian universities. Both UI and ANU have historically close relations with government and nation-building strategies. The comparison allows us to contrast the global capacities and potentials of two parallel universities.

Once the two nations and their universities are globally relativised, i.e. placed in a common global setting, major differences are apparent. Indonesia is a populous developing Southeast Asian nation, economically vulnerable and culturally rich. Australia is a developed nation with modest population, a monocultural English-speaking settler state with nine times the per capita GDP of Indonesia. Australia is extensively and

intensively networked via information and communication technologies (ICTs); Indonesia is not. We are interested in the differences in the type and extent of globalisation, between a strong national university in a developing country, and a strong national university in a developed country. While the UI/ANU contrast is also affected by the idiosyncratic cultures and histories of each university, and by episodic variations in national policies, it tells us something about the global higher education environment.²

The investigation covers university leaders' sources of information and judgment in relation to the global environment; their understandings of the global setting; the global elements in university identity and mission; the global relations of the universities and leaders; the effects of globalisation dimension in local educational practices, management, and in university–government relations; and implications for university capacity and potential. A core interest was to map the signs and conditions of local autonomy and agency, especially the capacity for self-determined global initiatives with shaping effects. The main investigation was an interview program in each university, coupled with study of university and national system documents, and data from global agencies. In each university there were interviews with the Rector/Vice-Chancellor, deputies, officers handling international relations, and a selection of heads of disciplines and research centre directors, with some emphasis on social sciences and Engineering. The two sets of personnel closely mirrored each other. Interviews took place in February 2003 at Universitas Indonesia and June 2003 at Australian National University.³

The remainder of this article outlines the approach to comparative education, drawing on theorisations of globalisation and the nation; and presents background data on Indonesia/UI and Australia/ANU; then summarises the findings from the interviews; followed by discussion and conclusions.

Global/national/local dimensions of higher education

Teichler (1996, p. 431) notes that comparative perspectives 'are indispensable for understanding a reality shaped by common international trends, reforms based on comparative observation, growing transnational activities and partial supra-national integration in higher education'. But as Teichler and others note,⁴ the traditional methods of comparative education now generate diminishing returns. The old assumption that higher education is comprised by relatively closed na-

tional systems, readily separable for comparison, is undermined by the growing inter-dependency of nations, and universities; powered by world-wide flows of technologies, people, finance, language and ideas (Appadurai 1996), especially the instantaneous transmission of data and ideas in real time (Castells 2000). Universities are now global agents, extending themselves beyond the territorial limits of national government. As Sen (1999) notes, we live in a world of 'plural affiliations' in which the nation is only one claim on identity. Universities relate to the world beyond national borders both directly as institutions and through disciplinary networks. Cross-border associations and loyalties can be powerful, including alumni ties, the imagined communities of the disciplines, and full fee marketing to foreign students (Marginson 2003).

'Educational changes in response to globalisation share certain defining parameters but still vary greatly across regions, nations and localities' (Carnoy and Rhoten 2002, p. 6). Because of global communications and flows, and the trend to more autonomous universities, most universities are more open to global pressures and forces. They are also affected by common global policy trends such as the facilitation of skilled migration, downward pressures on public taxation and spending, and emphases on international comparisons and international competitiveness. Yet global effects vary in and among nations, regions and institutions; and are contested in varying ways and to varying degrees. While there are trends to convergence, global effects are uneven, often unstable, and by no means always nationally and locally determining. Theorisation and research have yet to provide a definitive reading of the complex relations between global, national and local elements. But it is clear that cross-border comparisons of universities should be placed in a larger analytical framework. Marginson and Rhoades (2002) argue for a method of investigation and analysis that enables the three dimensions constituting the global environment – global, national and local – to be considered together.⁵ Such a framework should account for phenomena within each dimension, and also for the flows of effects between the dimensions, without exaggerating the role of one dimension in relation to the others, or otherwise prejudging the relations between them.

Globalisation and the nation

Following Held et al. (1999, p. 2), 'globalisation' is defined here as the widening, deepening and speeding up of all forms of world-wide interconnectedness.⁶ Globalisation refers to the growing role of world

systems, networks, movements and relationships, not just economic and technological but also cultural, social and political. It encompasses cross-border systems of finance and trade; communications and transport; international law and regulation; transfers and exchanges of research and knowledge; and cross-border people mobility for work, business, education, tourism and migration (Tremblay 2001; Adams 2003; OECD 2003b). We distinguish 'globalisation' from 'internationalisation', which refers to relations between nations and is premised on the nation-state as core unit. Globalisation refers to networked relations that often cut across states, where the nation is a part but not always the primary element. These are literal and geo-spatial definitions, not the ideological definitions used in some of the literature.⁷

Held et al. (1999) refer to three broad positions in the debates about globalisation: (1) 'hyperglobalists', who privilege an economic market dynamic and imagine the passing of the nation state; (2) 'sceptics', who also discuss globalisation in economic terms but assert the continued supremacy of national politics over global markets and suggest little has changed; and (3) 'transformationalists' who find that global elements have become more important, without assuming that globalisation is predestined or is predominantly economic. We generally agree with the transformationalist position,⁸ which provides space for cultural and political phenomena, and leaves open the outcome of national/local/global tensions, for example the future of the nation-state. 'Globalisation is a long-term historical process which is inscribed with contradictions and significantly shaped by conjunctural factors'. Nevertheless, the conception of the nation-state as 'an absolute, indivisible, territorially exclusive and zero-sum form of public power' is now obsolete amid the emergence of powerful new non-territorial forms of power (Held et al. 1999, pp. 7–9). States no longer exercise complete control within their borders. At the same time, global forces have triggered a process of 're-localisation' so that regional identities suppressed by modernising national governments are re-asserting themselves (Castells 1997, pp. 42–50; Carnoy 1999). Held et al. note '... a deepening enmeshment of the local and global such that the impact of distant events is magnified while even the most local developments may come to have enormous global consequences' (1999, p. 15). Yet the aftermath of September 11th 2001 reminds us that the nation-state is by no means played out (Rizvi 2003), and is implicated in the global dimension: indeed, in its imperial American manifestation, the nation provides much of the content of global forces. In sum, the conditions and potentials of the nation are both diminished and enhanced. In a

world where almost every site is globally networked via communications and finance, the role of the nation is not to block international pressures but to mediate them. This leaves governments in all nations with many alternative moves at their disposal, from interpreter, broker, relay station and retarder to amplifier of global pressures. Globalisation 'has encouraged a spectrum of adjustment strategies and a more activist state' (Held et al. 1999, pp. 9 and 13) where the power of governments is not so much reduced, as relativised and reconstructed.

The nation-state retains a potential for self-determination. If capable of larger initiative, it can exercise global influence. The old autarkic nation-building project has become another kind of project, consisting in strategies for improving global position in an open environment. Here it becomes apparent that national identity is constructed and conditional, with a broad spectrum of possibilities. The global dimension is fecund with opportunities and resources. For nations other than the dominant American power, and universities other than leading American institutions, for whom national power and international power have always been equivalent, the questions are 'What are the conditions that sustain national (and university) self-determination in the global era?' 'What is the nation's (university's) strategy for building its global role?' But national governments have a varied capacity to retard, filter, channel and generate global forces and pressures to their own ends. It is more than a matter of trading power and raw resource strength. Global capacity is affected also by national strategic acumen, providing coordination and a centred global personality; and by the adaptability and subtlety, fluency and speed of response of public and private institutions. Cultural difference and distance also feed into the strategic setting. Because global systems are dominated by Anglo-American contents, national cultural identity is a two-edged sword. The greater the nation's cultural distance from America, the less its global fluency and its potential for referred power, but the greater the degree of autonomy in identity available to it.⁹

National and global factors in higher education

Individual universities vary in their cross-border activities; and their capacity to manage global pressures and forces and turn them to advantage. Institutional strategies premised on the romantic notion of the university as stand-alone corporation, taking on all-comers in the global market-place, miss the continuing role of place-bound identity in deter-

mining local strength and global position. In higher education, nations are integral to global capacity. While the capacity of modern universities is partly determined by themselves, it is also nation bound. First, present university capacity is the accumulated product of past government strategies of nation-building. All over the world, the public universities (and often also private universities) have been ordered by government and are sustained financially by government. Second, universities remain central to the policies of governments. Universities are primary sites of global networking, research capacity is integral to knowledge-intensive and high technology production, and universities are sites of the highly contested social selection into the professions and the skilled echelons of the labour markets. Governments have learned that devolution and marketisation, and selective regulation, allow them to reduce the fiscal burden without losing control. Third, variations in the global power of the nation condition variations in the global potential of universities. Global competition is not a level playing field where each university has an equal opportunity to win. American universities start from a dominant position that derives not just from their academic competence but from American global power, from the plethora of interlocking public and private institutions and organisations – government, military, business, philanthropic, educational, the leading families, etc – that constitute American power and are constituted by it.¹⁰ Likewise universities outside the USA that go it alone, that eschew the resources of their nation states, will falter at the global level.

At the level of the individual university, global capacity depends on 'infrastructures', on financial resources, physical resources such as communications and transport, facilities and specialist equipment, cultural/linguistic and intellectual resources, and organisational and regulatory mechanisms, including internal cultures and the rhetorics, systems and policies of the institutional and academic leaders. Mission statements can be reinvented quicker than university capacity, which is history-bound and practice dependant. Global capacity is also created and sustained in processes of 'institutionalisation', the regularisation of global relationships and interactions so they are embedded in the life of the institution.¹¹ The university become not just self-referenced and nationally referenced, but globally referenced. Universities absorb leading global university models, and take in isomorphic policy norms, such as the university-as-business. All universities involved in research and doctoral education want to become more globally effective, where they must be pro-active as well as responsive/reactive. Much depends on the foresight, acumen and strategies of their leaders, who can extend

university capacity but never as quickly as they want; and who are duty bound to explore the open-ended potential of the university, but within limits that they cannot control.

The comparison: Indonesia and Australia

The archipelago of Indonesia is the world's fourth largest nation with 209 million people (2001). The economy grew rapidly after the mid 1980s but faltered in the crisis of 1997–1998, followed by political instability. Per capita GDP was \$2830 in 2001 (World Bank 2003a).¹² Funding of education is just 2.3% of GDP (2000). The economy is globally vulnerable, there is a large rural hinterland and urban modernisation is incomplete. Indonesia is a 'predatory democracy' (Robison 2002) where governmental machinery is incomplete and flawed by localism and corruption. The nation is held together by the national language Bahasa Indonesia, Islam and military force. Despite this the land is rich, cultural diversity provides immense resources, national identity is robust and Indonesia cuts a distinctive figure in the world.

Australia has almost the opposite configuration of strengths and weaknesses. Its 20 million people occupy a large land area. Its regulatory financial agencies are synchronised with global finance and despite a vulnerable currency and chronic trade deficit Australia has averaged 4.1% annual growth since 1991. Per capita GDP was \$24,630 in 2001 (World Bank 2003a, b). It is politically stable, uses 'advanced liberal' techniques of government (Rose 1999) and spends 6.0% of GDP on education, slightly above the OECD average. Despite multicultural roots and three decades of migration from East and SE Asia it is an English-language monoculture with an uncertain national identity. Australia is located on the edge of Asia, and trades heavily in East Asia, but occupies a subordinate and ambivalent place in the Anglo-American group.¹³ The global politics of border protection, terrorism and trade agreements have pulled Australia closer to the US and increased implicit tensions with Indonesia.

Universitas Indonesia and The Australian National University

Australia spends much more on research and is well networked in ICT terms. In 2001 Australia had 707,000 personal computers in education while Indonesia had only 58,000.¹⁴ In Indonesia spending on tertiary

education, and tertiary participation, were low (See Table 1). Australian tertiary participation was above the OECD average, though its public spending of 0.8% of GDP was below the average, indicating the pressure to generate private spending, which was relatively high¹⁵ (OECD 2003a; World Bank 2003a). Though Indonesian universities are administered centrally by the Department of National Education, in

Table 1. National contexts of Universitas Indonesia and the Australian National University

Data for 2001 unless otherwise indicated	Indonesia	Australia
Population	209.0 million	19.4 million
National language	Bahasa Indonesia	English
Other languages with more than one million speakers (Sneddon 2003)	14	Nil
World ranking on UNDP Human Development Index (UNDP 2001)	102 (1999)	2 (1999)
Gross Domestic Product	\$145.3 billion	\$368.7 billion
Gross National Income p.a. per head, PPP method [and global ranking]	\$2830 [142]	\$24,630 [24]
Government revenue as % of GDP (CBP 2003)	20.7%	36.8%
Total assistance from World Bank in 2000–2001	US\$2.708 billion	0
Personal computers per 1000 people	11	516
Internet users per 1000 population	19	371
Expenditure on ICT as % of GDP	2.2%	10.7%
Research & Development as % of GNI	0.1%	1.7%
Number of published research papers 1995	310	18,088
15–19 year olds in education as % of population of 15–19 year olds 2000	44.8%	81.1%
20–29 year olds in education as % of population of 20–29 year olds 2000	3.4%	28.3%
Graduation rates (sum of net rates by age) in 3–6 year first degrees 1999	4.8%	36.2%
All public expenditure on education as % all public expenditure	5.2%	14.6%
All expenditure on education as % of GDP 2000	2.3%	6.0%

Table 1. Continued.

Data for 2001 unless otherwise indicated	Indonesia	Australia
Public expenditure on tertiary education institutions as % GDP 2000	0.4%	0.8%
Private expenditure on tertiary education institutions as % GDP 2000	0.4%	0.7%
Expenditure on tertiary education per student, PPP 2000	\$1799	\$12,854
Proportion of tertiary institutions' funds derived from government	44% (1999)	46% (2001)
Number of tertiary students in the nation (approx.)	3.1 million (1999)	2.8 million
Number of tertiary students studying abroad in OECD countries 2000	26,615	4805
Number of foreign students studying in national system 2000	377	110,789
Number of students at Universitas Indonesia/Australian National U	36,399	9636
Number of doctoral students at UI/ANU	530	1155
Number of international students at UI/ANU	46 (0.1%)	1292 (13.4%)

PPP method, Purchasing Power Parity. US dollars.

Sources: World Bank (2003a), and OECD (2003a).

December 2000 four institutions, including UI, received partial financial and organisational autonomy, and are expected to raise some funding from fees, research and industry services. Australian universities achieved autonomy more than a decade earlier, while remaining subject to government in selected areas.¹⁶ Business models of education are influential (Marginson and Considine 2000), though less at ANU than elsewhere. In 2001 Australian governments paid 46% of the costs of higher education, in Indonesia 44% (DEST 2003; World Bank 2003b, pp. 2–3).

The Australian National University is much wealthier than Universitas Indonesia in global terms, but both enjoy superior resources and status within their national systems. Internal governance and management are broadly similar. Both have a chief executive (Rector/Vice-Chancellor), several deputies, and organise in discipline-based units. Both devolve internal management responsibilities, though this

has gone further at ANU. Both manage their own budgets. Neither is commercially aggressive in the recruitment of local or foreign students, or in their research programs, compared to some Australian institutions.

The designation 'national university' is held by several Indonesian institutions. In Australia it is confined to ANU and signifies a specialised mission and funding base. UI is a comprehensive elite provider of professional education and research with 36,399 students in 2001, including 530 doctoral. According to its Vision Statement UI is 'an autonomous-modern research university' with 'an internationally reputable academic standard' (UI 2001). Its goals include the modernisation of management and generation of private income. The much smaller ANU has 9636 students, 1155 at doctoral level. ANU was founded as four research schools to develop national capacity in research and doctoral training and maintain international linkages. Later, undergraduate studies developed on a modest scale. The structure is unique in Australia and has few worldwide parallels. ANU still receives extra funding for basic research¹⁷ where it outperforms other Australian universities.¹⁸ Significant resources are concentrated in Pacific and Asian Studies, where ANU has more specialists on Indonesia and China than any other English-speaking university.

There are significant differences between UI and ANU in patterns of international people movement, knowledge transfer and collaboration in higher education. Most Indonesian doctorates are completed abroad, Indonesia lacks a full capacity for doctoral training, but nearly all faculty are Indonesian. In Australia some faculty complete their PhDs abroad, the majority are trained locally,¹⁹ and a high proportion are foreign born. There is a net outflow of students from Indonesia and a net inflow into Australia: Australia is the world's third largest exporter of degree courses and the second largest exporter to Indonesia after the USA. Education and training constitutes 13% of Australian exports to Indonesia. However, UI and ANU are somewhat atypical: UI enrolls more international students than other Indonesian universities; ANU has a below average ratio of full fee students and a high proportion of doctoral students, one international student in every five.²⁰ In published research, Australia is globally active in most disciplines. In Indonesia academic knowledge is often codified in local/national journals rather than global ones. In 1995 Indonesia produced 310 globally published papers in the sciences and social sciences, compared to 18,088 by Australia (Task Force 2000). Australian universities have extensive cross-border partnerships in relation to fee-based programs, and

research and scholarly collaboration. In 2002 they signed agreements for 2631 collaborations with Asia-Pacific institutions compared to 1129 such agreements in 1995 (AVCC 2003). There are about 300 formal links between Australian and Indonesian institutions (AEI 2002), mostly initiated from Australia.

Findings from the interviews at the two universities

Sources of information on the global dimension

We now consider the data from the interviews with leaders at UI and ANU.

First, interviewees were asked about their main sources of information in the global environment. Taking the UI and ANU leaders together, the sources of information most often cited were the Internet including e-mail; personal networking and contacts with colleagues; and academic knowledge circuits including journals, books, meetings and networks. Some mentioned specific international organizations. The Rector of UI, Usman Chatib Warsa, who mentioned a broad range of sources, focused mostly on his networking with peers overseas. Likewise at ANU the Vice-Chancellor Ian Chubb focused on people interaction. He was privy to 'a rich set of information resources that are not available to ordinary people', including Embassy staff, senior government officials, and international visitors to Canberra who routinely called at ANU. There were also differences between the groups. Generally, ANU leaders used the Internet more than the leaders at UI and were more strategic, tailoring information sources to fit specific purposes. Many ANU leaders emphasised local and international media as sources, whether by conventional or Internet delivery. Leaders at UI noted the weakness of local ICT infrastructures and skills; and none mentioned the media as a source. At UI, though not ANU, several leaders cited as sources students and staff from UI currently based in overseas universities.

It seemed that for UI leaders it was necessary to be outside the country, or network with others outside the country, to develop a perspective on the global. For ANU leaders, the global dimension was inside the University in many ways, not only via ICTs but through meetings and seminars happening locally at ANU or elsewhere in the national capital Canberra.

Foreign university models

Interviewees were asked whether there were universities in any other country that provided a useful example or model for them. Both UI and ANU leaders mentioned many examples. Neither group was wedded to particular national models, though Harvard was often cited. Leaders in both groups mentioned the National University of Singapore, where each university had active relationships, and also Chinese universities. Differences between UI and ANU were three-fold. First, UI respondents chose a broader range of examples from Europe/UK, Asia, North America and Australia. 'We are polycentric' as one Vice Rector put it. International Relations Director Wardaningsih noted that UI did not follow one foreign model fully because of cultural differences. ANU respondents were more likely to mention British and American cases, particularly Cambridge, named by seven out of 12. Some Indonesian leaders mentioned Australia, seen by one as 'very advanced in its technology'. Second, Indonesian leaders talked mostly in terms of national characteristics, while ANU leaders often discussed individual universities in detail. Several UI leaders appeared to base their judgments on the PhD training experience – one UI leader in Engineering noted that every graduate favours her/his university as a model – whereas ANU judgments reflected current networks. Third, at UI interviewees freely advocated cross-national modelling and borrowing, without concerns that UI would lose the capacity to control its evolution or be distinctive. ANU leaders were more wary of borrowing, and more inclined to emphasise their own claim as a unique model.

Understandings of globalisation

Interviewees were asked what they understood by the term 'globalisation'. Both groups talked about one-worldness, convergence, open borders, and global phenomena in local affairs. Nearly all leaders mentioned the impact of ICTs in sustaining a global communications environment. Many discussed aspects of people mobility. There was ambivalence or concern about economic globalisation and competition, and varying views, especially at ANU, on whether economic transformation was inevitable. Only some focused on cultural or political aspects, though these were often the most exploratory and complex responses. Whether their academic discipline was focused on globalisation or not, few offered a strategic overview, and it emerged more in

fragmented remarks about Americanisation or first/ third world relations, than by synthesis.

The ANU Vice-Chancellor did more work on the definition of globalisation than others. He distinguished between a hyperglobalist notion of 'globalisation' as economic competition, and a positive notion of 'internationalisation' as cultural exchange. In its 'more extreme form' globalisation meant competing for staff, students, resources and research on a global scale. This created 'a level of uncertainty which adds an unnecessarily difficult dimension to managing complex institutions'. He stated: 'I'm not a person who believes a free market will solve all our problems... I don't think there's a free global market anywhere, except where the rich pound the poor into the dust'. ANU could survive in a more competitive environment, 'but if it's totally deregulated no Australian university would survive'. In contrast, 'internationalisation' meant ensuring that the ANU curriculum was contemporary and as good as the best universities. It meant international students and foreign staff at ANU, exchange agreements, ANU staff and students working offshore. 'I am pro-internationalization – strongly so'.

There were three main differences between the UI and ANU leaders. First, UI leaders talked about the novel impact of an open information environment. At ANU this was taken for granted. Second, again, UI leaders saw globalisation as proceeding 'outer/in'. For ANU leaders, global phenomena were not always welcomed, but were as much 'inside' as 'outside'. Third, ANU leaders were more likely to talk in terms of one-world systems, for example global knowledge flows, global sustainability and mutual inter-dependence.

While UI leaders were positive about opening to the global dimension, which was seen as modernisation, several emphasised the implications for Indonesian cultural values. Globalisation was disruptive, fragmenting and transformative. It challenged traditional assumptions about religion, public display and politics, families and the conduct of daily life, and ways of thinking and working in the university setting. One UI Engineer felt that at UI people were not prepared for globalisation. Another from Engineering stated that 'we cannot be relaxed or passive otherwise we are left behind'. The UI Rector noted that in the global era 'cultural transmission occurs easily and openly'. Globalisation affected all countries, but the degree of national preparedness for globalisation varied. Indonesia might be less prepared than other countries. Though Western culture now flowed freely into Indonesia, 'our roots are in Asian traditional culture. These traditions are different from European culture'. Indonesia was at risk of becoming a 'consumer'

of the developed countries. Indonesia had to keep abreast of the West without losing its own cultural identity. For this reason there were UI courses in arts and culture, such as speech, dance or painting, that strengthened students' national identity. At the same time, because the cultural differences were visible, the project of advancing Indonesian identity was clearly defined.

Indonesia is known for its strong Asian culture. It is actually something that can be sold. If I look at countries such as Japan and China, what they sell to other countries is their cultures. In technology, maybe, we are left far behind, but we are rich in culture.

– Usman Chatib Warsa, Rector, Universitas Indonesia

With Australia at a lesser cultural distance from the US, globalisation was less obviously transformative, but there were more subtle dangers for self-determining national identity. A number of ANU leaders expressed concerns about global standardisation and American power. 'Globalisation profoundly affects Australia. ... We borrow from the US, we feed off the US more than I would like', remarked one centre director. He and another centre director both forecast the rise of 'virtual Harvards' which would out-compete local universities such as ANU. One feared that a few prestigious American institutions would gain immense worldwide mind-setting powers. The other stated that:

A. Globalisation is the process whereby things get standardised and everything looks the same no matter where you are on the planet.

Q.: So it's homogenisation?

A: Homogenisation.

Q.: Convergence?

A: Domination, rather than convergence, I would say. I haven't noticed the Americans and the Indonesians meeting halfway. I haven't noticed the Americans and the Australians meeting halfway. Hollywood or nothing.

– Centre Director,
ANU

Several ANU staff noted that Australia's location on the geographic and strategic periphery created difficulties. One Research School Director remarked

It makes it much more difficult to interact to the level that is becoming necessary with globalisation. ... It is a little bit ironic; these days we have the Internet and we have instant communications

across the globe so it shouldn't be so important that Australia is remote, but I think it becomes important because, in order to develop trust between countries and individuals, face-to-face contact is still extremely important.

– Director, Research School
ANU

On the other hand, being on the global periphery also had strategic advantages.

You need space. ...here we have space. Here we have a kind of independence. We can plug into the world in a second, but we can disengage. Many places you can't disengage. Being able to disengage is profoundly important.

– Centre Director, ANU

Globalisation, higher education and the University

The leaders were asked how globalisation affected universities in the nation. They were also asked a locally focused question about how globalisation had changed the work of the University, or Faculty/Centre, depending on interviewee. Answers focused largely on the second question. Both groups discussed the impact of global openness, competition and ICT systems on the University, its academic cultures and student and staff movement. Both mentioned international benchmarking. Both noted the new opportunities created by ICTs, for example in distance education. Nevertheless, at both UI and ANU there was a spectrum of affective responses to globalisation, from the zealous embrace of global 'inevitableities', to scepticism and a hint (though not much more) of refusal or disengagement. In both universities individuals varied in their assessment of trends associated with globalisation as positive or negative. They also varied in the extent, pro-activity and energy of their personal engagement in the global sphere. The senior leaders tended to be more knowledgeable and more engaged.

The more the discussion about globalisation stayed at a general level, the more the remarks made at UI and at ANU were similar, indicating that one aspect of globalisation in universities is the propagation of common discourse about globalisation itself. The more the discussion moved to locality and detail, the more that differences emerged between the cultural effects in Indonesia and Australia: between the developing nation and the developed nation; between a university long an arm of

the state (UI), and a university long administered as autonomous (ANU); and between a history of moderate international engagement (UI), and a history of extensive international engagement (ANU).

As the UI leaders saw it, the primary institutional issue posed by globalisation, in association with UI's recently acquired autonomous autonomous, was the imperative to transform internal systems and cultures to operate more effectively in the new setting, where UI raised part of its own funding.

University management has to be changed, away from the old model of departmental bureaucracy, which has now been transformed into university autonomy that allows us to manage our own systems... Now we have to create and develop the budget.

– Chatib Warsa, Rector, UI

Though the immediate change was triggered by a government reform program, the Rector and others connected the autonomy decision to globalisation. As they saw it, the UI needed to be free to be active on its own behalf, and more entrepreneurial in the global and local spheres, to be effective. At UI, global pressures and forces played a double role. On one hand they were starting points for UI's organisational transformation, through the immediate and daily impact of globalisation in the university, and the effect of international norms on government policies: the autonomy policy was endorsed by a World Bank loan program (World Bank 2003b). On the other hand globalisation provided an ideological rationale for corporate reforms with national rather than global roots. No doubt at ANU this same combination of the effects of globalisation on the University – direct, indirect, inferred, rhetorical – was playing out. Some ANU leaders attributed the business model of the university to globalisation, as at UI. One ANU centre director noted tensions between corporate and academic values, arguing strongly against the business model. Another felt that ANU was not business-like enough. But at ANU globalisation was old news, and the debate about managerialism was older still, predating the Internet. There was less interest in the alleged connection between globalisation and organisational reform.

Another difference was that most Indonesian respondents understood the impact of globalisation on the university in terms of culture, values and human needs, to an extent not evident at ANU. According to one Vice-Rector it was essential for UI to prepare its staff mentally for the challenges, or they would have difficulties and UI would have insufficient funds. Leaders at UI were thinking actively about how to

install the necessary expectations and behaviours. This was not just because of the newness of globalisation or the cultural distance between Americanised globalisation and Indonesia. UI leaders were more pastoral. At ANU, at an earlier point than at UI, the responsibility of the institution stopped, and individuals had to manage global pressures and value tensions themselves.

There were also differences of emphasis between the universities in relation to people mobility. The main concern at ANU was to increase the number of international students, whether for commercial purposes or research purposes. In Engineering the overwhelming concern was to raise revenues. According to one of the faculty leaders:

In my faculty we would be hardly surviving without the international student numbers and the international dollars that come in... I would think that every Engineering faculty in Australia is facing the same issue, that they are forced to ever expand their international income simply to stay afloat.

– Leader in Engineering, ANU, 20 June 2003

Some ANU personnel also mentioned the expansion of outward student movement. In ANU Asian Studies undergraduate students spent up to one year in Asian universities. ANU had negotiated jointly badged degrees with the University of Singapore in Engineering, whereby students would complete part of the degree in the partner country. Several ANU staff expressed concerns about sustaining an inflow of quality academic staff and paying local staff enough to head off brain drain to the USA. At UI there was little interest in inward student movement, a broad commitment to outward student movement, and the potential outflow of staff was a major problem. There was a larger number of international competitors than at ANU: Indonesian salaries were further down the comparative scale.

At ANU the costs of global operations were factored into normal business though more resources were needed, particularly for travel and student scholarships. At UI the global dimension was an ‘add-on’. The costs, including books and scientific materials, ICT systems and research, inhibited potential global activity. There were also differences about the impact of globalisation in teaching and research. Several UI staff advocated the internationalisation of both research and curricula. Graduates should be ‘capable of adjusting themselves to globalisation’, stated one research centre director in the social sciences. Students should learn skills of ‘inter-partnership’, and critical and creative thinking, and needed better English language skills – a problem also

among some staff – and better ICT skills. She also suggested cross-cultural studies programs to facilitate future international understanding. At ANU there was discussion of the effects of globalisation on research, for example the trend to larger scale collaborative international research projects, facilitated by the Internet, but potential implications for curricula were ignored, except in Engineering where the need for fee-paying international students was paramount. Elsewhere, ANU's local curriculum was seen as an always-already global standard.

Cross-border relationships and activities

Interviewees were asked to describe the cross-border activities of the University (or Centre/Faculty). Both UI and ANU maintained an increasing number of contacts and collaborations, formal and informal. Research relationships played the largest part. In both universities cross-border collaborations were primarily driven by academic not commercial goals, though academic projects needed revenues to support them. Often, postgraduate study was the first stage of a longer-term pattern of cooperation. In the case of UI this began with staff studying off-shore; at ANU it more often begins with international students studying at ANU. In both cases the country pattern of collaborations was broad, though ANU had a stronger orientation to the English-speaking countries than did the UI. For example, no UI staff member mentioned a specific collaboration in the USA, though there were a large number of relationships with Australian institutions. Both universities had active relationships in East and Southeast Asia.

The main difference between UI and ANU was in the number, depth and scale of international collaborations. International Relations Director Wardaningsih stated that UI had about 70 collaborative agreements, with emphasis on Japan, Australia and the Netherlands. UI was holding training programs on building international links, for administrators, lecturers and researchers. International collaboration was mostly small scale, such as meetings of international university associations²¹ and one-to-one projects, for example the international work of one of the leaders in Engineering:

I have received a research grant from the government in my field since 1997. We maintain a cooperative arrangement with the University of Manchester Institute of Science and Technology (UMIST), the university I used to study in Manchester. We normally

communicate via e-mail because of the distance. Recently I had the chance to visit the university to meet my ex-professor and to access knowledge. We also have maintain a cooperation with the University of Technology, Malaysia . . . We normally have a visit once a year - an exchange of tutorials on new developments. Last time we had a visit by the professor from Malaysia who provided a lecture on curriculum development. It happened that the professor used to be my colleague when we were in England.

– Leader in Engineering, UI

In contrast, the ANU Research School of Physical Sciences and Engineering alone had 150 active research collaborations, with partners in 27 countries. The ANU had long been very active internationally and had accumulated experience in many countries. It had more resources for international work, including linguistic capacity and a staff relatively mobile and internationalised in origins. One ANU leader noted that ANU had 1400 research-only academics that ‘spent a lot of time abroad’. In the ANU’s Contemporary China Centre the work, which was largely government funded, was primarily international. Often, international postgraduates remained in contact with the Centre after they graduated, and there was a full program of conferences and journal work. The Faculty of Asian Studies not only sent undergraduate students to Asia, trained foreign doctoral students and conducted cross-country research projects, it also coordinated non-academic projects, for example a government-financed scheme to bring Islamic leaders to Australia, a foundation-financed dialogue in several Asian countries, and security activity with Indonesia.

Preferred University policies and strategies

Leaders were asked to specify policies and strategies their University should adopt to be more effective in the global environment; and about the main challenges facing the University in the future.²² Many interviewees simply advocated more global mobility as an end in itself, rather than focusing strategically on how to build global capacity or use global opportunities more effectively. Despite occasional remarks about the need to establish priorities, and to minimise exposure to risk, the dominant approach to the global was that ‘more is better’.

Both ANU and UI, and their individual academic units, had policies and strategies designed to build cross-border activity. The principal approaches were better ICT systems, changes to research and curricula

(particularly at UI) international agreements and collaborations, and international marketing (particularly at ANU). At UI strategies designed to enhance global competence and activity were conflated with reforms designed to create more business-like and performance-focused forms of organisation. At both universities the main challenge for the future, in relation to all work, was to secure more and more stable resources; which was crucial to international travel, student scholarships, research collaboration, the quality of teaching; the quality and quantity of research; and ICT system capacity.

At both universities there were questions about the willingness of staff to adjust to a more global era, though this was felt more widely and deeply at UI. Interviewees discussed the obligation of the University to professionalise internal communications and management systems, including vision and strategy, performance management and quality assurance, and training and mentoring staff. One faculty head argued for coherent values and shared beliefs among staff, stating that all individuals should realise the need for a change. One Engineer argued that UI needed a road map for becoming a global research university, explaining to staff how to implement their mission. Another leader in Engineering suggested that 'by applying a reward and punishment system we can standardise our quality and our performance' Several, including the Rector, focused on holding and attracting good staff.

At ANU, where the University was already internationalised, the priority was not systems transformation but more of the same. In addition to resources, interviewees focused on staffing, quality and capacity in teaching and research, attracting international and domestic students, and research collaborations and priorities. Deputy Vice-Chancellor (Research) John Hearn argued for flexible research management, including broad-based engagement from a position of strength, as 'you can't predict where research is going'. The University's research plan was grounded in its strategic plan, national research priorities and ANU's areas of strength, which were mostly international. In research training, it was 'absolutely vital' to maintain a strong international student presence, despite the financial disincentive to do so. ANU wanted 20% of both undergraduates and postgraduates to be internationals, but there was a shortage of scholarship funding. In framing international education as a market, the Australian government had downplayed foreign aid and research objectives. Hearn also argued that sections of ANU outside the specialist Asia-Pacific units needed to become more committed to research networking in the Asian-Pacific region, as distinct from North America/UK/Western Europe.

ANU PVC (Information) Robin Stanton noted that information infrastructure was essential to long-term capacity. It was often neglected because it did not generate much revenue, but a quality information base had to be nurtured, just like the human resource base. There was little other discussion of communication strategies, which for most people boiled down to creating desk-based ICT capacity and on-line courses (UI), or individualised work patterns (ANU).

Discussion and conclusions

Similarities between UI and ANU

UI and ANU have much in common. Both are nation-building universities engaged in a process of self-globalisation. This draws momentum from the institutionalisation of global flows and signals, and is supported by government and university policies, revenue and prestige incentives, people movement and disciplinary conversations. The central mediums of globalisation are ICT-linked systems, an open information environment and cross-border collaboration between scholars and researchers. Both universities network confidently and broadly with international universities. Global engagement is driven primarily by academic not commercial objectives, except in Engineering at ANU. In both universities global activity has become more extensive and intensive, and is strongly supported by almost all leaders despite some defensive concerns about global economic competition and Americanisation in culture. Both groups want to improve global capacity, and see this as integral to local identity and capacity, and the national position of the university. Senior leaders globally reference their universities automatically, adding 'other-referencing' to universities long inner-referenced and nationally referenced. Leaders focus on building cross-border collaborative research and staff and student mobility, with varying emphases. Within the universities, especially UI, global activity has a more universal significance, so that global connectivity or 'internationalisation' functions as an all-purpose indicator of modernisation, performance and university quality.

While UI and ANU are self-globalising they are also self-financing and resources are a central concern. Though this is new to UI, in Australia government finance has declined as proportion of revenues since the mid 1980s, with a sharp reduction since 1996 (Marginson 2001). Both are creating performance managed environments and quasi-

corporate organisation though the change is less raw at ANU. This conjunction of trends has two effects. First, in the minds of some leaders, especially at UI, it seems that globalisation is identical to the business model of the university, or one derives from the other, and the business model has been invested with the modernising ambience and sense of inevitability attached to globalisation. There is a danger here that generic corporate reform and hyperglobalist ideology will function as proxy for a more locally nuanced global strategy (Deem 2001). Second, in both universities there is a growing disjunction between goals and strategy emphasising global elements; and resource capacity derived from national government and local students.

When considering developmental *strategies*, while both sets of leaders ranged across all three dimensions they emphasised global elements, such as ICTs, cross-border research and fee-based places. Global competitiveness, effectiveness and capacity have become more important and nationally bound objectives less important; partly because national policy objectives are reframed in global terms. In the construction of university *identity*, the balance was somewhat different. Both sets of leaders still understood their institution in terms of its historical role as a national educational leader. Neither group would for a moment consider setting aside the prestige, power and resources they derive from this (Table 2). In their *mission* statements, UI and ANU envisage a balance between national and global dimensions.²³

Yet in relation to *capacity*, the nation (including its students) was the central determinant in both universities, confirming theorisations of the continued relevance of the nation to universities in the global environment (see above). There was much interviewee discussion of public funding cuts, local fundraising and the inhibiting effects of regulation. The global dimension offered little revenue. Some at UI hoped for offshore research grants in future. ANU research schools derived a few offshore monies via collaborative projects. International student fees generated only 4.3% of ANU income in 2002, though crucial in Engineering (DEST 2003).²⁴ Australian governments directly provided three dollars in five, and local students over a dollar more.

The nation regulates the global university and continues to pay for much of it, though finance-driven reforms are driving public spending down worldwide (Carnoy 1999, p. 42) as in Indonesia and Australia. This growing disjunction between globalising university strategy and (declining) national capacity creates problems for both parties. Governments resent having to foot the bill for universities that are always moving beyond the horizon. Universities doing the nation's work out in

Table 2. Universitas Indonesia and the Australian National University: Global and national elements in university strategy, identity, mission and capacity

	Global dimension	National dimension
University strategy	Global objectives and external benchmarks are increasingly important in framing strategy.	National policies and nation-building tasks still matter, but do not set the horizon of strategy.
University identity	University self-identity is partly derived from the international role [more at ANU than at UI].	National leadership remains central to identity, not just as a role but as a resource [especially at UI].
University mission	Both the UI and ANU mission statements foreground internationalisation objectives.	Increasingly, the national mission is pursued through the international mission [more directly at ANU].
University capacity	Global costs exceed global revenues, though 4% of ANU income is from foreign students.	National government policy and student fees, remain decisive in determining resource capacity.

the wider world are continually brought back to earth with a thud by cuts in public funding. They can create a culturally independent identity, but despite business rhetoric, devolution policies and revenue raising at the margin they lack financial independence. The net costs of globalisation are difficult to meet, especially in developing countries.

Differences between UI and ANU

There are also significant differences between UI and ANU. They are at different points in the trajectory of self-globalisation, under different conditions. Though they are broadly similar in global ambit, ANU's global networking is 'thicker', much more extensive and intensive, long institutionalised, and supported by much better financed infrastructure. Two factors are crucial here. First, in the Australian context ANU is remarkable for the number, depth and fluency of its global engagements, built on its long-standing national mission as an internationalised research university, compared to the narrower self-globalisation of

those Australian universities driven largely by full fee revenues (Marginson and Rizvi, forthcoming). Second, like other Australian universities, ANU enjoys a developed ICT capacity. For ANU staff the networked environment, that incorporates global, national and local nodes on the basis of equivalence, is the principal working medium. UI's ICT infrastructure is advanced in the Indonesian context, but there is less day-to-day Internet use, and global media are marginal. Cultural and linguistic distance also plays a role: at ANU, ICT systems and global contents are user friendly. Resource constraints in relation to books, equipment, travel and the development of global and research competences are also more apparent at UI than at ANU.

The most telling difference is that while at UI interviewees Americanising globalisation is external and culturally 'other', at ANU it is largely internal and familiar, though Australia's geo-strategic position on the Anglo-American periphery means it is also strategically remote. At UI, globalisation challenges traditional university culture, which UI leaders are unambiguously committed to change; and traditional national values, where they are more ambivalent and worried, supporting greater openness but deeply committed to Indonesian identity.

Hierarchy and asymmetry

This comparison between two parallel national universities exposes the global hierarchy that the theorisations of globalisation by Held et al. (1999) and others suggest. When the perspective is shifted from national context to global context, the capacity and potential of UI and ANU change, in three ways. First, both gain status within their nations, being more internationalised than their fellows. Second, both UI and ANU are overshadowed by the strongest institutions in the Atlantic countries. It seems unlikely an Australian university could reach the global top 20, and impossible at UI. Third, ANU from a developed nation has a much greater global capacity and potential than UI from a developing nation. Global openness and competition exacts a harsh price from strong universities in the developing world, that suddenly find the game is slipping away from them, and they must make a sudden leap forward to bridge the gap. While they might have the strategic acumen, they lack the resources. Building UI's capacity in the global environment is an urgent and anxious task, one much in the minds of UI interviewees.

Universities in developed nations hold most of the cards. They have a superior public and private resource base, much better ICT systems and research capacities – arguably, the two most crucial elements in constituting global university networks – and a greater capacity to attract and hold students and staff. They have better English-language and PhD training capacities and more staff with global competence. At present UI can fund little basic research and attracts few foreign students and staff. It is globally vulnerable because of brain drain; and because the cultural challenge of globalisation might deconstruct local academic identity faster than a confident, autonomous global capacity can be created. UI's present global role is confined to its role in Indonesia and as gateway between Indonesia and the world. It could lose ground, in Indonesian eyes, vis-à-vis foreign universities, so that global weakness feeds back into the fragmentation of national position. In contrast, because ANU is globally proactive and competent, and fairly well resourced, it can play a part in its own right, mostly in Asia-Pacific, in constituting global relations in higher education. While UI is the Indonesian gateway for the World Bank Global Development Learning Program for on-line education in the developing world, ANU is helping to design the web platform for the whole venture.

Global hierarchy shows itself also in the asymmetrical relationship between the universities.²⁵ Both groups mentioned the other university with respect, but whereas for ANU leaders Indonesia is predominantly a site for ANU research, UI leaders see Australian universities as a model. ANU personnel mentioned collaborative research and other ventures, all initiated from Australia. Students move from Indonesia to ANU to study, but none move from Australia to UI. ANU recruited staff from Indonesia, but UI recruited none from Australia.

Concluding remarks: The ultimate performance indicator

There are no iron laws here. The impact of globalisation in individual universities – like the impact of neo-liberal policy and the new public management²⁶ – are contingent and variable, being practised, contested and interpreted in numerous ways. Nevertheless, local and national history and context are important, and universities in the global environment are not starting from positions of equivalence. Capacity and potential are framed by geo-strategic power.

Both of these universities have competent leaders aware of their strategic setting. In large part UI and ANU have a different global

capacity because their nations have a different capacity. While neither positioning (nation or university) is fixed in stone, and both are slow to change, it is easier for a nation to lift the relative position of its universities via changes to funding and regulation, than to lift its overall competitive economic position. But contemporary governments want self-financing universities, and global activity is subsidy dependant. Neither ANU nor UI is assured of its globalisation trajectory. ANU has long 'leveraged' international activities to sustain national academic capacity and mission, accumulating more global capacity in a feedback loop, but this strategy depends on continued government willingness to provide special funding for globally linked basic research. In the Australian policy environment, this is uncertain. Meanwhile UI has a harder road. It must develop its global role and non-government funding at the same time. Autonomy is necessary to effective global strategy, but by itself will not deliver global competence or global revenues. Indonesia attracts few fee-paying foreign students; and global networking will become more expensive. Unless the Indonesian government subsidises UI's evolution as a global university, as at ANU, UI will fall short.

The difference between UI and ANU in global capacity translates into a difference in potential, in what is possible for each university in the foreseeable future. At the same time, globalisation calls up specialised skills and attitudes within reach of any institution. In an open global environment, all universities can work to improve their global capacity and potential. For autonomous universities many strategic options are in reach: neither UI nor ANU has exhausted the possibilities before it. This strategic openness of the global realm, in the context of limited resources and situational specificity, demands imaginative realism of the highest order and is one of the factors that makes university leadership difficult. As the ANU Vice-Chancellor remarked during the interview with him, maximising the effectiveness of the university in the global environment is probably 'the ultimate performance indicator'.

Notes

* This article is the revised version of a conference paper under this title presented to the International Forum of the annual conference of the Association for Studies in Higher Education, Portland, OR USA, November 2003.

1. In 2003 the Shanghai Jiao Tong University Institute of Higher Education published a ranking of the world's top 500 universities based on measured research performance, including Nobel laureates, citations and publications. ANU was ranked

- 49th with the next best Australian institution the University of Melbourne at 92. There were no Indonesian universities in the top 500. The only SE Asian universities in the top 500 were the National University of Singapore and Nanyang Technical University in Singapore (SJTUIHE 2003).
2. This study of university strategies in the local/national/global context is limited in that it covers only two universities in two countries. A more extended program of research is being pursued, based on national universities in 6–8 countries. Despite limitations of scale and variation, the data analysed here, when effectively interrogated, are illuminating at many points.
 3. Universitas Indonesia: ten interviews in Bahasa Indonesia and English. Australian National University: 12 interviews in English. The core questions in all interviews were nearly identical, with open-ended variation in the follow-up questions. All interviewees agreed to be audio-taped, and were provided with a copy of the study findings. Aside from one ANU interviewee (not quoted here) no-one requested a review of the quotations selected for publication. We are most grateful to the interviewees in both institutions for their time, cooperation and trust; and the careful consideration given to the answers to our questions.
 4. e.g. Enders and Fulton (2002).
 5. Marginson and Rhoades (2002) define this as a ‘glonocal agency heuristic’, (*glonocal* = *global* + *national* + *local*).
 6. Held et al. (1999, p. 16) later define globalisation in more precise terms as ‘a process (or set of processes) which embodies a transformation in the spatial organization of social relations and transactions – assessed in terms of their extensivity, intensity, velocity and impact – generating transcontinental and interregional flows and networks of activity, interaction and the exercise of power’.
 7. Carnoy (1999) distinguishes the processes of globalisation from its ‘ideological packaging’ and ideologically driven policy demands. This contrasts with the normative notions of ‘globalisation’ as the world-wide spread of capitalist markets, and/or ‘internationalisation’ as the exchange of cultures or enhanced mutual awareness, that are expressed in popular culture and academic literature (for a recent example see Welch 2002). Interestingly, both pro neo-liberal and anti neo-liberal positions often draw on this normative notion of globalisation, leaving themselves without a term that readily describes world systems or combines cultural and economic phenomena.
 8. The transformationalist position also has some support in the literature on higher education; for example Enders and Fulton (2002, p. 6).
 9. For example, independent agency is lessened when there is a high level of cultural integration between leading national government and private actors, and world finance, global agencies such as the World Bank and American institutions. Australian elites are more closely integrated into global elites than are Indonesian elites.
 10. SJTUIHE (2003) placed 35 United States institutions in the top 50, with eight of the top ten.
 11. The terms ‘infrastructures’ and ‘institutionalisation’ are derived from Held et al. (1999, p. 19).
 12. US dollars, PPP. The GDP data adjusted for Purchasing Power Parity (PPP) allow comparison between the national purchasing power of the local currencies.
 13. Shaped culturally and politically by Britain, Australia is now positioned on the American periphery. American capital inflow is crucial to the stability of the foreign account; American-led credit rating agencies and money markets set the limits of

fiscal and monetary policies; American products, icons, communications and entertainment dominate Australian popular culture; American business practices are increasingly imitated.

14. Neither nation is a significant exporter of ICT hardware and software. Australia has the highest trade deficit on ICTs in the OECD (OECD 2003c).
15. In Australia charges for domestic students in public universities are high and foreign student fees provide 13% of university incomes (DEST 2004). OECD averages are 1.0% for public expenditure on tertiary education and 0.3% for private expenditure (OECD 2003a).
16. Australian universities control their budgets and self-accredit degrees and programs, while subject to government legislation in relation to public mission, commercial conduct, aspects of work relations, financial management and accountability, data collection, quality assurance and access to special groups.
17. In 2000, 46.3% of ANU's research was classified 'pure basic', and 27.9% as 'strategic basic', a total of 74.2%. This compared with 54.5% in the 'basic' categories in Australian universities as a whole. Correspondingly, applied research and the commercial development of research at ANU were relatively weak (DEST 2003).
18. See SJTUIHE (2003). Another indicator is that ANU faculty won the most Australian Research Council 'Discovery' grants in 2003 and 2004.
19. There were 30,074 enrolled doctoral students in 2001 in Australia (DEST 2003).
20. In 2001, ANU had 1292 international students, 13.4% of the enrolment, with 270 at doctoral level (DEST 2003).
21. Including the Association of South East Asian Institutions of Higher Learning, the Asian University Network funded by ASEAN, the Australia–Southeast Asia University Network and the Asia–Pacific Rim Universities.
22. While much of the discussion about future challenges related to globalisation, ANU leaders also discussed strengthening the national catchment role of the University, and commercial research; UI staff talked about fund-raising, closer relations with industry, and more student-centred learning.
23. In the interviews the national responsibilities of the university were shaded by global aspects, especially at ANU. This bias was partly due to the methodology of the study, which asked about both global and national aspects but emphasised the former.
24. This compared to 13% in Australian universities as a whole (DEST 2003), underlining the relatively non-commercial character of the ANU.
25. From time to time this arose during the interviews, though no specific questions had been asked.
26. The contingent and variable impact of the New Public Management emerges in studies of the emergence of managerialism in eleven countries collected by Amaral et al. (2003).

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