

Interrogating global flows in higher education

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The paper critically reviews the concept of ‘global flows’, beginning with the discussions of flows and networks in Appadurai (1996), Castells (2000) and Held *et al.* (1999). Emphasising the need to embed ‘global flows’ in agency and history, and to explore global connectedness in terms of situated cases, the paper develops an analytical framework for analysing global flows in higher education. It then applies that framework in an examination of global ‘scapes’, impacts, transformations, situatedness and relations of power in two national universities, research leaders in their nations but located in contrasting nations: Universitas Indonesia and the Australian National University.

Introduction: the concept of global ‘flows’¹

If ‘globalisation’ is about tendencies to worldwide interconnectedness then concepts of ‘flows’ and ‘networks’ have become primary tools in interrogating globalisation in higher education and other sectors. There has been less interrogation of these terms themselves, particularly ‘flows’. Why has the liquid metaphor of ‘flows’ become central to our understanding of cross-border relations and effects? In the first instance there is the materiality of technology, the emergence of one-world systems operating in real time in communication, information and finance; that momentous change in human affairs that is still reverberating through our lives, our imaginations and our vocabularies. Between them ‘flows’ and ‘networks’, which invoke water and electricity respectively—ways of talking about connectedness that are drawn from rather different parts of our history—carry some of the sensibilities of moving and joining, of soaking and flooding, of linkages, circuits and systems bearing power, that talk to our sense of living in the global. ‘Flows’ and ‘networks’, which are everywhere, have escaped Cartesian notions of linear cause and effect set by a pre-global age. This is no small achievement. More than effects of globalisation, ‘flows’ are carriers of global effects

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and creators of global effects that keep on circulating in continuous feedback loops, so that in a sense the glows flows *are* globalisation and we begin to free ourselves from the notion of an invisible essence. In this ubiquity that is also a refusal of closure (a refusal so threatening for some and so liberating for others) we feel ourselves moving closer to what is distinctive about our present, which is the thing that we seek. But there is more to it than this. Old habits die hard. We evade globalisation as invisible essence only to universalise, all too easily, the flows themselves—as the term in fact encourages us to do. ‘Flows’ carries a pervasive seductive sense of being carried along with gentle motion; so that the other-determined becomes inevitable, irresistible; an imperative to read the trends and go with the times; in other words to surrender to our fate. This ought to set the alarm bells ringing. After all technologies are inscribed in social and economic life, they enable cultural practices, they are deployed by identifiable interests. The words describing those technologies make space for them to bring the imagined social relations into being. Discourses are ‘practices that systematically form the objects of which they speak’ (Foucault, 1972, p. 49). ‘Global flows’ offers the familiar promises of modernity: the prestige and wealth awaiting those who have adroitly positioned themselves under the top of the wave. So agency negates itself. Swept forward by its mighty host which it naturalises as ‘globalisation’ or ‘competition’ or some other structural force, it can forget older questions like ‘is this the kind of world that we really want?’ and ‘whose project am I carrying out here?’ But which university vice-chancellor or president or rector could ever resist an invitation to join the global circuits of power?

These utilities of the concept ‘global flows’ do not destroy its potential as an analytical and explanatory tool. If we condemn a concept by the company it keeps, rather than understanding it as a zone for exploration and conversation, then ‘democracy’, ‘equality’, ‘globalisation’ itself and many others would be lost to theoretical use; and much good work of the last decade would have to be reworked. But what can ‘flows’ tell us about what is distinctive about the global in higher education and where higher education might be heading? What does ‘flows’ say about agents, subjectivities, behaviours and organisational transformation? What can extant theorisations of global flows and the networks bearing flows tell us about the different universities around the world, about their conditions and capacities and potentials? And what—reciprocally speaking—might such an inquiry focused on higher education tell us about the global as flows? In investigating flows, we can also interrogate the concept of ‘flows’ itself.

In this paper the inquiries into the conceptual and the empirical are wrapped together. In sensing and observing the global dimension in higher education and eking out what we see, we find ourselves pushing against and problematising (‘interrogating’) the terminology used to discuss globalisation, and testing its applicability in higher education. In the extensive literature on globalisation there is little theorisation focused on globalisation in higher education. There is a widespread tendency to read globalisation in higher education deductively from more general theories of globalisation. We agree with Deem (2001) that to understand the global in higher education we must situate it historically in terms of local individuals and institutions in contexts, even while ‘agency’ and ‘context’ are endlessly changeable. This paper adapts and

extends concepts drawn from certain theorisations of global flows (Appadurai, 1996; Held *et al.*, 1999; Castells, 2000) to develop a composite set of analytical tools for empirical inquiry in relation to higher education. It then uses these tools to examine global flows in and the globally-focused practices of university leaders at two public research universities in contrasting nations: Universitas Indonesia and the Australian National University (Marginson & Sawir, in press). These universities have similar status and research power within their respective national systems but are in different national contexts and differentially placed in global higher education. After reviewing the evidence the paper reflects again on the concept of global flows.

University practices at UI and ANU are examined in terms of global flows of people, ideas, money, communications and technologies; spatio-temporal aspects of those flows such as extensivity, intensity, velocity and impact; aspects of global connectedness such as openness, competition/cooperation and homogenisation; the global, national and local dimensions of flows (see Marginson & Rhoades, 2002); organisational manifestations in behaviours and infrastructures; and global relations of power in higher education (Marginson, forthcoming). The medium used for the empirical observations was semi-structured interviews. Interviews are particularly useful for this kind of work. By foregrounding agents and their own reflections on the transformations in subjectivity, interviews are a practical corrective to the bias in notions of flows and networks, that tends to position us on the other side of the structure/agency dual. In sum, we hope that the paper contributes to understandings of global flows in higher education, and also to discussion of the potential and limits of 'global flows' as a conceptual device.

Theorisations of flows

Appadurai's global cultural flows

In *Modernity at large: cultural dimensions of globalisation* (1996, pp. 10–37, 178) Arjun Appadurai's central preoccupation is with the effects of globalisation in changing the potentials for imagination and identity. Appadurai reads phenomena that others define as 'economic' or 'political' or 'sociological' through an enlarged lens of cultural analysis. Appadurai describes 'a new global cultural economy... a complex, overlapping, disjunctive order' (p. 32) which involves 'interactions of a new order and intensity' (p. 27). In contrast with analyses of globalisation that suggest the global programming of identities, he imagines a great scope for contingency, mobility, plurality, cosmopolitanism, 'and in general, agency', emphasising always that agencies are institutions are historically, culturally and politically situated. Agencies generate global cultural flows but global cultural flows also generate and regenerate agencies: one of the strengths of Appadurai's work is that both sides of the flow/identity relationship are always effortlessly present. Perhaps the structure/agency dual is easier to manage when talking about culture, which is always agency heavy, than when talking sociology or economics which see in structures, but the point is that Appadurai refuses to close the problem, leaving free play for the imagination: his imagination, the

reader's imagination, the imaginations of the subjects he discusses. For Appadurai both cultural homogenisation and cultural heterogenisation are always at play and in tension with each other (p. 32); and globalisation is not a single process but multiple processes in different sectors or domains of practice (also see Hardt & Negri, 2000, p. xv). A central part of his argument is his 'elementary framework' of 'five dimensions of global cultural flows' (Appadurai, 1996, p. 33) consisting of ethnoscapas, mediascapas, technoscapas, financescapas and ideoscapas. 'Ethnoscapas' refers to people in motion as workers, tourists, students, immigrants, refugees and others. 'Technoscapas' refers to rapidly changing technologies, in traditional production and the ICT sector, 'that moves at high speeds across various kinds of previously impervious boundaries' (p. 34). 'Financescapas' refers to capital movements. 'Mediascapas' are more complex, referring on one hand to the medium, to 'the electronic capabilities to produce and disseminate information' (p. 35); and on the other hand to images of the world the media create: scripts and scraps of narrative that are resources that can be infinitely reassembled. 'Ideoscapas' are also 'concatenations of images' (p. 36) but more explicitly political in origin and intention. Appadurai's different scapes have their own logics, intersecting and conditioning each other in unpredictable ways. The scapes are asynchronous, uneven and overlap (to name one example, ICT capacity in higher education takes in both 'technoscapas' and 'mediascapas'). 'The suffix—scape allows us to point to the fluid, irregular shapes of these landscapes', states Appadurai (p. 33). The scapes are the materials of modernity, 'building blocks' of the 'imagined worlds' (p. 33) that local groups make and remake in distinctive ways for themselves. Diasporic populations use media, communications, and return travel in making and remaking hybrid identities within closer, more mobile and more fluid configurations of space and locality. Framework and flows, solid and fluid: the concepts of global cultural flows and scapes create some of the analytical flexibility (and perhaps also the suggestive ambiguity) that Appadurai is seeking.

Appadurai asserts that if anything diversification has been enhanced; 'people, machinery, money, images and ideas now follow increasingly non-isomorphic paths' (p. 37); and 'globalisation does not necessarily or even frequently imply homogenisation or Americanisation' (p. 17). He also argues that ethnoscapas and electronic communications have broken the monopoly of nation states over the processes of modernisation—the modern is now global and the global is modern (p. 10)—and more controversially, that 'the nation state ... is on its last legs' (p. 19).² Here Appadurai has uncharacteristically responded to one closure with another, and in making room for the play of the imagination on the global plane he has reified the field of complexity. The prognosis about the death of the nation state looks less convincing after the reassertion of an American dominated military-security globalisation in the wake of 11 September 2001 (Rizvi, 2003).

Castells' sociology of networks

In the *The rise of the network society* (2000, pp. 70–71, 442–445, 500–501) and in *The Internet galaxy* (2001), Manuel Castells provides a sociology of global networks and

flows. The approach differs from Appadurai. Castells uses the word 'culture' only to discuss lifestyle or habits.³ But notion of flows is central to both, and Castells' sociological list of global flows resembles Appadurai's list of global cultural flows. 'Society is constructed around flows', states Castells, which are 'the expression of processes dominating our economic, political and symbolic life' (Castells, 2000, p. 442). These are flows of capital, information, technology, organisational interaction, and images, sounds and symbols. Social relations are configured within the 'space of flows' (p. 442), which Castells defines as the master space, configured by networks. Following Harvey (1989) Castells finds that in the network society, space and time are compressed towards zero. Within networks there is the same distance between nodes regardless of geographical location; and information and capital travel at the speed of light. For Castells a network is 'a set of interconnected nodes' while 'a node is the point at which a curve intersects with itself' (p. 501). The identity of nodes is determined by the kind of network under discussion. In financial networks the flows pass through banks and corporations and regulators; in higher education they pass through universities and academic units, and faculty and students. The heart of Castells' argument is his insight into the dynamics of networking. 'Networks are open structures, able to expand without limits, integrating new nodes as long as they are able to communicate within the network' (p. 501) and share the same codes, for example values or objectives. Networks have an inbuilt expansionary economics which attunes them to capitalist accumulation while at the same multiplying all of their potentials, replicating the network form beyond technology and economy to all forms of social relationship.

When networks diffuse, their growth becomes exponential, as the benefits of being in the network grow exponentially, because of the greater number of connections, and the cost grows in linear pattern. Besides, the penalty for being outside the network increases with the network's growth because of the declining number of opportunities in reaching other elements outside the network. (Castells, 2000, p. 71)⁴

Networks mobilise their own flexible architecture to facilitate continuous innovation. Processes can be reversed and networked institutions modified by rearranging their components, without threatening the balance of the network itself. 'The morphology of the network seems to be well adapted to increasing complexity of interaction', says Castells, 'and to unpredictable patterns of development arising from the creative power of such interaction' (p. 70). The space of flows is vectored by three elements: (1) electronically-based circuits; (2) the principal nodes and hubs located in real geographical places, especially global cities and key institutions such as financial centres and universities; and (3) the dominant social groups, which are highly mobile.

The Internet ... is the technological medium that allows metropolitan concentration and global networking to proceed simultaneously. (Castells, 2001, p. 225)

Castells notes that:

... the use of the Internet is highly differentiated in territorial terms, following the uneven distribution of technological infrastructure, wealth, and education. (Castells, 2001, p. 211)

Those who lack access to the Internet or produce no value for the networked economy are disconnected, marginalised, left outside the 'space of flows' (Castells, 2001, pp. 247, 265–266). These insights into the binary world of ICT haves and have nots are suggestive of the global geo-politics of world higher education, where networking is pervasive. Castells' analysis of networks has no counterpart in Appadurai in either content or method. Yet there is room in Castells for difference and contingency (though only provided that they conform to the logic of networks), and Castells helps us to understand why Appadurai's global social flows are what they are. Not all is reducible to cultural imaginings. These flows are continuously conditioned by social and technological relationships, structured and variable, always contingent and never random; and the network form of organisation, if not as totalitarian as Castells makes out, is powerful and pervasive. What is missing from Castells is any developed sense of agency. He imagines a bald 'opposition between the net and the self', vacillating between identity that is prior to and outside the networks—in the manner of economists for whom consumer preferences are exogenous and owe nothing to the workings of the market—and identity that is wholly trapped inside the logic of networks. This separation of structure and agency within the terms of the former too readily slides into imagining globalisation as a universal unstoppable exogenous force (Sidhu, 2004).

Held et al. on the political economy of global transformations

For David Held, Anthony McGrew, David Goldblatt and Jonathon Pemberton (1999; see also Held & McGrew, 2000) in the *Global transformations* project, the project is the same—a comprehensive understanding of globalisation—but the starting points are different. While Appadurai uses cultural analysis to discuss economic phenomena, Held *et al.* use political economy to discuss cultural globalisation: not cultural analysis so much as analysis of culture. But they largely coincide with both Appadurai and Castells in the centrality of global 'flows' and in the contents of those flows. Held *et al.* itemise global flows and networks in six areas: the military sphere, law and governance; trade, investment and finance; the global environment; global migration, including travel for the purposes of tourism, business and education; media and popular culture; and global communications and transport (Held *et al.*, 1999, p. 432). To Appadurai's scapes they add military/law/governance, and the environment. They miss Appadurai's suggestive notion of 'ideoscapes', though this is partly addressed under cultural globalisation. To Held *et al.* the 'global' means practices stretching across meta-national regions and continents. 'Globalisation' implies more stretching and connectedness. The connections are regularised, intensified and speeded up. The local and global become more enmeshed, and the impact of global systems and distant effects is magnified at the local level. Globalisation is:

... a process (or set of processes) which embodies a transformation in the spatial organisation of social relations and transactions—assessed in terms of their extensity, intensity, velocity and impact—generating transcontinental and interregional flows and networks of activity, interaction and the exercise of power.

In this context, flows refer to the movements of physical artefacts, people, symbols, tokens and information across space and time, while networks refer to regularised or patterned interactions between independent agents, nodes of activity, or sites of power. (Held & McGrew, 2000, p. 55)

Like Castells and unlike Appadurai they are interested in networks and other social structures, and envision data susceptible to measurement. Like Appadurai and unlike Castells they are as interested in the transformation of identity as in the shape and modality of global flows, and do not read the former from the latter. For Held *et al.* 'flows' are connections and connectedness is transformative, changing that which is connected, in one or both directions. This vectors a new set of possibilities for agency (1999, p. 329). Because they start from the structure side of the structure/agency dual, and that side is marked by the origins of nineteenth century social science as a kind of physics of society, Held *et al.* are more external (and less fluent) than Appadurai when talking about cultural matters. Their insights into subjectivity are welded onto the political economy rather than springing from within. Held and his collaborators use a multi-disciplinary approach rather than an integrated 'inter-disciplinary' approach; at times because it is less singular it feels more awkward than Appadurai or Castells, but they achieve a broader reach across globalisation—for example their fecund categories for analysing global flows and transformations, which facilitate the study of higher education. First there are 'spatial-temporal' dimensions of globalisation: 'extensity', 'intensity', 'velocity' and 'impact'. They note that the impact propensity of global flows, networks and transactions is difficult to assess, and they distinguish four types of impacts: 'decisional', the degree to which global forces and conditions affect the costs and benefits of particular policy choices; 'institutional', the degree to which globalisation frames the agenda of policy itself; 'distributive', the impact of globalisation in shaping the configuration of social forces and the material and political balances between groups; and 'structural', the extent to which globalisation conditions domestic organisation and behaviour (Held *et al.*, 1999, pp. 17–18). Second, they note four 'organisational' dimensions of globalisation (p. 19). 'Infrastructures' are the facilities that carry flows and mediate connectivity: ICTs and also transport systems, languages, laws and regulations governing global exchange. Infrastructures determine the interaction capacity of each unit in a university, and the overall level of global connectedness. 'Institutionalisation' of global networks, flows and relations:

... comprises the regularisation of patterns of interaction and, consequently, their reproduction across time and space. (Held *et al.*, 1999, p. 19)

That is, the manner in which global networks and flows, and sensitivity to them, become embedded in local practices. 'Stratification' refers to the way globalisation contributes to uneven and hierarchical relations of power, for example between universities in the developed and developing worlds. Global 'modes of interaction' can also vary, for example between the coercive, cooperative or competitive; the economic, military or cultural (see also Held & McGrew, 2000, pp. 54–60).

Held *et al.* (1999, pp. 432–435) identify the main global modes of interaction as economic competition and cooperation, ideological and cultural. (A post-2001

analysis might add military coercion to this list.) Institutionalisation of globalisation in all domains is 'high'. Finance is the most globalised sector. The new global infrastructures are transport systems, the Internet, telecommunications plus digitalisation, cable systems and satellites. Compared to earlier times, global flows move rapidly in transport and are often instantaneous in communications, and people movement is growing in intensity. Local impact varies by domain but is high in relation to finance, communications and cultural flows. For Held *et al.* (pp. 328–331), similar to Castells, cultural globalisation entails the movement of 'objects, signs and people' across global space. Cultural globalisation is more intense in the public than the private domain (here it might be argued that universities operate in the public domain and are helping to establish a new form of 'semi-public' global space). Like Castells, Held *et al.* focus in detail on global cultural stratification, in which American cultural industries and the English language are dominant. They use several techniques to measure the volume, speed and direction of cultural flows, while noting that the impact of cultural flows is difficult to calibrate; and not all measurable effects are profoundly transformative. Cultural flows invoke homogenisation, transference and imitating behaviours; and they call up contestation and hybridisation, and also indifference and evasion. ICTs, global media and popular culture have reversed the balance between national and global influences so that the latter have become stronger.

The centrality of national cultures, national identities and their institutions is challenged. (Held *et al.*, 1999, p. 328)

However they make an important distinction between global effects in the contents of national cultural institutions (which includes universities) and the undermining or displacement of those national institutions themselves by global effects. The jury is still out on the latter. In any case, the balance between global cultural influences and national cultural influences is not uniform, but varies by nation.

An analytical framework for studying global flows

What then can we draw from all this for the understanding of global flows in higher education? A culturalist reading of global educational markets as works of the imagination, or an economic reading of culture as measurable artefacts, only takes us so far. We need to draw on both kinds of materiality. First, universities are shaped by social and economic competition (Marginson, forthcoming), the endogenous weight of capital movements ('buying power'), and the feverish extrapolations of network sociability. These elements commonly observed as structural have accumulating transformative effects, often subterranean and beyond purview and control by individual agents. Second, universities are shaped by individual and organisational practices, susceptible to imaginings and discourses, and politics formal and informal and public debate. The local potential of all universities is over-determined by relations of power in higher education, which are more constraining in the developing world (Marginson & Sawir, in press) but not completely so. There is *always* room for not just contingency but strategy, the all important scope for self-will and self-determination. Yet these

freedoms to practice are not fixed but vary. Agency is always played out within the ever-shifting limits of capacity, context and conjuncture. Confounding all the methodologies of social science, that freeze-frame relations of structure/agency like a zoologist pinning a butterfly inside a glass case, the ever-elusive relation between freedom and circumstance never reaches closure.

Globalisation is comprised by a heterogenous ensemble of practices. It stretches our capacities to observe and comprehend, taking in phenomena hitherto seen partially as social, economic, cultural or political. In Appadurai 'global flows' are about the imagination and share the fluidity, openness and ambiguity of processes of thought. The openness of Appadurai's reading takes us close to the unevenness, unpredictability and novelty of globalisation; to the extraordinary resources that global flows can provide for new projects and perspectives: strategic options for repositioning and remaking institutions and selves. In the sociology of Castells, who is closest to the endogenous dynamics of networks, and the political economy of Held *et al.*, 'global flows' are structures that might be measured. Held *et al.* extend their reach to the global colonisation of behaviour and changing identities. In our analytical framework for studying global flows in higher education (Table 1) we draw on all three theorisations. This review has also suggested there are three traps to avoid. First (against Castells), there are no global flows without subjects/agents. We will not explore all manifestations of global agency in this paper, such as multiplicity, hybridity and different strategies for centering strategic identity; except to note that university people commonly exhibit a plurality of associations and loyalties, and this plurality is expressed both within and beyond national borders (Sen, 1999). University people can exhibit an advanced capacity to live effectively in more than one cultural zone. Second, agents in high education are always embedded in contexts. Global flows are articulated within institutions and localities as Appadurai notes, and also (somewhat against Appadurai) in nations. Third (again distinct from Appadurai's argument), global flows are shaped by inequalities in resources and prestige. Networks are not flat. Appadurai does not argue that they are, but he is not greatly concerned with hierarchy. To understand global flows in higher education, where resource capacity with its prestige-generating power is concentrated on the world scale (Marginson, forthcoming), we must incorporate a geo-spatial geometry of power.

We will expand briefly on the second of these points. Globalisation in higher education entails 'action at a distance', to use Giddens' (1990) phrase. Global flows involves universities and academic leaders as subjects and objects in a never finished circulation and oscillation of effects. Changes in university templates, organisational practices and academic behaviours pass across the world with accelerating speed, and the changes are often similar. But while tendencies to convergence are obvious, when we look more closely for difference as well as similarity we find the global transformations are not identical by time and place. Rather, they are constituted in each place by an amalgam of global, national and local factors in complex ways. We need to set aside the notion of a 'deterritorialised' universal globalisation of higher education. Sidhu (2004, p. 53) challenges 'the virtual dimension of globalisation' with its 'abstract and dematerialised flows and weightless economies'. A reading of globalisations as TINA,

Table 1. An analytical framework for analysing global flows and their effects

Category	Terms	Description	Origins
Contents of flows (zones of global practices)	Ethnoscapas	Migration and other people movement	Appadurai (1996), as adapted by authors (see text)
	Financescapas	Movements of trade, money and economic capital	
	Technoscapas	Passages of material and social technologies	
	Mediascapas	Circulation of images, ideas etc in popular cultures	
	Ideoscapas	Passage of ideas/ practices in policy and government	
Spatio-temporal aspects of global flows	Extensity	Stretching across borders	Held <i>et al.</i> (1999)
	Intensity	Growing regularity, visibility, magnitude	
	Velocity	Speed of movement	
	Impact	Force, potential to transform*	
Aspects of global connectedness/ not connectedness	Openness	Access of global flows to local/national sites	Authors
	Homogenisation	Creation of sameness within a common network	
	Heterogenisation	Creation of diversity within a common network	
	Othering	Creation of diversity falling outside network	
	Isomorphism	Local/ national installing of imitating, behaviours	
	Convergence	Tendency to single world system	
Organisational dimensions	Modes of interaction	Competitive/ cooperative, military/cultural, etc	
	Conditions/ resources#	Factors affecting capacity for global participation	Held <i>et al.</i>
	Capacity	Conditions and resources, plus centred will-power	Authors
	Potential	Capacity, plus environmental opportunities	Held <i>et al.</i>
Relations of power in the global environment	Institutionalisation	Regularisation of global interactions	
	Stratification	Creation of unevenness, asymmetry, hierarchy	Held <i>et al.</i>
	Differentiation	Creation of hierarchy within a unified field	Others
	Reciprocity	Global flows in more than one direction	from
	Feedback	Flow generated in response to prior flow	authors
	Mandating	Imposition of outside agenda, e.g., by global agency	
Dimensions in the global environment	Global hegemony	Broad domination exercised via range of means	
	Marginalisation	Exclusion from primary networks/flows	
	Global	Practices at world, continental, meta-regional scale	Marginson and
	National	National government, economy, cultures, etc	Rhoades
	Local	Local regions, individual institutions, etc	(2002)

Note: * Held *et al.* (1999) further describe different forms of impact as decisional, institutional, distributive and structural; # in Held *et al.* (1999) 'infrastructures'.

‘there is no alternative’, benefits only those agents who want to direct global flows to their own lop-sided advantage. Sidhu calls for a focus instead on “‘real” actors embedded in real places’ (p. 53). Global flows are not just imposed from outside—universities are also actively complicit. Some universities originate global flows, and many rearticulate and redistribute those flows at home and abroad (though to repeat the point, this capacity for proactive strategy is unevenly distributed). Likewise, for agents in higher education, place-based locality is important. In the interviews for this study we met only one individual scholar who was a global cosmopolitan in the fullest sense. He not only drew on global flows to remake his potential, as many do, he could locate himself anywhere in the world where there was space to write and access to the Internet. But he was unusual. And for all universities as institutions, without exception, place-based locality, with all its social and cultural associations grounded in history, is at the core of their being. One part of this grounded identity is nation. In their offshore dealings individual American universities often present as free-wheeling institutions operating on behalf of no-one but themselves. But does anyone in the world actually think that their American identity is insignificant? In our analytical framework we draw on the spheres of activity in Marginson and Rhoades (2002, p. 293), the ‘dimensions’—global, national, local—through which flows in the global environment originate, articulate and pass. While global elements have become more important in local universities and national systems, they are by no means always dominant. Everywhere, national culture and language matters; and in most universities national regulation, policy, funding, performance management, data collection and accountability requirements remain crucial in framing the conditions and resources within which universities operate. Government also often acts as a mediating element between global flows and local institutions; for example in the worldwide spread of common approaches to policy, which plays out somewhat differently in the various national contexts. At the same time, globalisation has foregrounded local academic and institutional personality; and this creates contrary potentials. On one hand it enhances the transformative power of global effects vis a vis the nation. Some global-to-local effects pass directly across national borders without being mediated by national governments: for example via the Internet, which facilitates unmediated global networking. On the other hand it can strengthen local elements. Some flows are reversed. A few strong universities (and in the US a strong nation) directly shape the global configuration of higher education. Again, we find that the respective roles of global, national and local dimensions are a case-by-case question and open to empirically-based reflection.

The content headings (‘scapes’) in Table 1 are adapted from Appadurai. For this paper ‘technoscapes’ include not just changing regimes of machinery but global flows of codified intellectual knowledges. We prefer to combine Appadurai’s ‘technoscapes’ and ‘mediascapes’ so as to overcome the medium/message split implied by Appadurai’s taxonomy. We note that the same worldwide communications system can carry a broad range of cultural meanings. We find the notion of ‘ideoscapes’ particularly helpful in examining universities and tracing flows of cultural messages between the global dimension, governments and universities. As we shall discuss, one prominent ideoscapes is ‘globalisation’ itself in its ‘abstract and dematerialised’

form (Sidhu, 2004, p. 53), invoked to justify a broad range of changes to institutional mission, financing and internal organisational culture; a universalising rubric of modernisation in higher education that works so well because global connections are a primary source of prestige.

In addition to the spatio-temporal notions from Held *et al.* (1999)—extensity (reach), intensity, velocity and impact (force)—we suggest terms for describing different aspects of connectedness: ‘openness’, the access of external flows to local and national sites; ‘homogenisation’, the creation of sameness within a common network; ‘heterogenisation’, the creation (intended or not) of diversity within a common network; ‘isomorphism’, the institutionalisation of imitating behaviours in local or national sites and systems; and global ‘convergence’, the tendency to one-world systems. Heterogenisation is distinguished from ‘othering’, the creation of diversity that falls outside the common network.⁵ Rather than the Held *et al.* (1999) term ‘infrastructures’—which they stretch from machinery to governance and language—we prefer ‘conditions’ (Marginson & Rhoades, 2002, pp. 292–293) and ‘resources’ enabling global flows and agency. Conditions and resources include all factors affecting the capacity of universities to participate globally such as budgets and revenue flows, research resources, ICT capacity and knowledge of the global environment. Conditions and resources also include organisational systems and practices, including openness and flexibility in relation to new practices; the will to cross-border enterprise (Marginson & Considine, 2000), and a certain curiosity and sympathy in relation to global others. ‘Potential’ takes in all of these elements, plus environmental opportunities.

In addition to ‘stratification’, ‘asymmetry and ‘unevenness’ in Held *et al.* (1999), we suggest further terms for describing global relations of power: ‘differentiation’, the creation of a unified field of difference vectored by vertical hierarchy, for example within a single network or within a national higher education system; ‘reciprocity’ (and its opposite ‘areciprocity’), flows in more than one direction (or not); ‘feedback’, a reciprocal flow generated in response to a prior exogenous flow; and ‘mandating’, the setting of local or national agendas from outside, for example by the World Bank, with an element of necessity involved. This is distinct from Held *et al.*’s ‘institutionalisation’, a useful term referring to the more voluntary process of internal adoption by a local agent. More generally, we refer to global ‘hegemony’ as the exercise of a broad ranging dominance exercised from one centre or field of power, in a number of spheres and through a variety of mechanisms. ‘Marginalisation’ occurs when agents or institutions are excluded from the primary networks and flows whether deliberately through a process of othering, or de facto through a lack of national or local resources.

The empirical research: Universitas Indonesia and the Australian National University

The main research for this study consisted of interviews at one major national (public) university in each of two contrasting nations. Ten interviews were conducted at the Universitas Indonesia (UI, February–March 2003) and 12 interviews at the

Australian National University (ANU, June 2003). The two groups of interviewees closely matched, and ranged from the Rector of UI and the Vice-Chancellor of ANU, to Vice-Rectors and DVCs, officers with special international responsibilities, and faculty heads and centre directors with an emphasis on engineering and social sciences. The research was funded by the Australian Research Council.

Interviewees were asked about understandings of 'globalisation', sources of information about the global setting, the international work of their universities, the global dimension in university activity, mission, identity, capacity and resources; and strategies in the global environment.

UI and ANU are similar to and different from each other. They are both autonomous public universities based in their national capitals. In their respective national contexts both are relatively well resourced and at the peak of the national research system, and they exude the confidence that unchallengeable national status brings. Both have historic missions in the nation-building strategies of government and have become key junctions between the nation and global university networks. Founded in 1946, UI has 36,400 students and a major role in professional education and training Indonesian leaders. Because of this it is slightly more prestigious within its national system than ANU. The smaller ANU (9600 students) has a lesser role in preparing national leaders. The national government established ANU, also in 1946, as a specialist university focused on international linkages, research and doctoral training.

The respective national contexts are very different (Marginson & Sawir, in press). Indonesia is a developing country with the world's fourth largest population of 214.5 million and a GDP per person of \$3210 in purchasing power parity terms (2003), and a great diversity of cultures, though the national language and Islam sustain a common identity. Geographical neighbour Australia has a developed economy, 19.9 million people and a GDP of \$28,290 per person (2003), and despite diverse migrant origins is an English language monoculture. National identity vacillates between itself, the UK and the US, though also touched by proximity to Asia. In 2001 Australia spent 1.5% of GDP on tertiary education while Indonesia spent 0.8%. These disparities in national resources, and the domination of research by scholarship in English, determine the different locations of Indonesia and Australia—and hence UI and ANU—within world research networks. In 2001 Indonesia spent 0.1% of Gross National Income on research and development compared to 1.7% in Australia (World Bank, 2004). In 1995 Indonesians published 310 papers in leading journals, Australians 18,088 (Taskforce, 2000, pp. 124–125). Globally UI is a minor research player. In 2003 ANU was equal forty-ninth in world research performance in the survey by the Shanghai Jiao Tong Institute of Higher Education (SJTJHE, 2004), the highest ranked Australian university.

Both nations are increasing the proportion of university revenues drawn from students not government; and Indonesia has followed nations such as Australia in developing a layer of more autonomous self-managing universities, including UI which was corporatised in 2000. Australia is the world's third largest provider of degrees for foreign students after the USA and UK, though the commercial market in foreign

students is less prominent at ANU, which has dedicated research funding arrangements from national government and a limited role in undergraduate education.

Techno/mediascapes: the open information environment

Techno/mediascapes are the materiality of global connectedness. Held *et al.* remark that:

... interaction capacity, understood as the potential scale of interaction defined by existing technical capabilities, is determined primarily, but not exclusively, by technological capacity and communications technology. (Held *et al.*, 1999, p. 19)

Globalisation, peeking out from every screen, is never more visible than this. We can count the computers, messages, web-pages and bandwidth: we can track extensity and intensity in communications to the satisfaction of any quantitative sociologist. Techno/mediascapes were much in the minds of interviewees, particularly at UI.

UI: 'now is the era of information'

Universitas Indonesia personnel focused on the recent and sudden emergence of the open information environment and its impact in Indonesia and in their daily life. This was a decisive change in the university. 'The imagination has become a collective social fact' (Appadurai, 1996, p. 5). As Wardaningsih, Director of the UI International Centre saw it, the 'revolution of the information system' had created universal convergence. 'The whole world becomes one'. 'Now is the era of information', declared the Rector, Professor Dr Usman Chatib Warsa. The Internet, global research literatures, pressures to internationalise and growing offshore traffic had brought about an irreversible extension of foreign relations, and these had turned into something else.

Globalisation has brought Indonesia into a big arena, where the countries become borderless ... Western culture can now come easily into Indonesia. Cultural crossing takes place easily and openly.

Director of the UI Research Centre for Culture and Society Anggadewi commented that with the open information environment and worldwide transport 'no single person, country or institution can escape from that foreign impact'. Yet in the globalisation era, as the Rector stated, everyone had to maintain their 'self-identity'. For Appadurai the collective imagination, mediated by technology 'is the basis of the plurality of imagined worlds' (1996, p. 5); and the Rector too saw the potential for more reciprocal global flows and the assertion of Indonesian culture—'it is actually something can be sold'—but this was a longer term project. In the foreground was not the new potential for global difference, but the more dangerous imperatives of global standardisation. To opt out was unthinkable. It meant marginalisation. Somehow the nation and the University had to open up and modernise, respond and compete while sustaining their Indonesian-ness. Herein lay the problem. As the Rector and others saw it, UI and Indonesia were little prepared for globalisation.

Several UI leaders dwelt on the intensification and velocity of global flows and the magnified impact that resulted. For Vice Rector Edie Toet Hendratno:

Globalisation is the phenomenon where social and economic interactions of all kinds occur with tremendous speed on a worldwide scale. Thirty-four years ago Marshall McLuhan introduced the term ‘global village’ to describe a world inhabited by people in touch with each other by rapid communications technologies. We can now watch American, European or Australian television here in Jakarta; our students can communicate immediately with other students anywhere around the world with a computer, modem and telephone line, they can also have face-to-face video-conferencing. ... Globalisation is profoundly significant for universities and universities are the prototype for global organisation. (Edie Toet Hendratno, Vice Rector, Universitas Indonesia)

Convergence and openness also brought destabilisation, ‘exchange without end’ (Vice Rector Martami Husein); and potential for intensified tensions. Anggadewi suggested that students should ‘be introduced to cross-cultural studies to reduce inter-cultural conflicts in the global environment’. Several talked about the need to strengthen UI’s IT infrastructure and skills. Whereas Australia is extensively ICT networked, with 482 Internet users per 1000 persons in 2002, Indonesia is not. In 2002 it had 38 Internet users per 1000 (World Bank, 2004). (See Table 2.) UI is somewhat ahead of the nation but its ICT capacity is weaker than that of ANU. No one picked up the irony that intensified communications and globalising practices would more effectively institutionalise global flows inside UI, thus installing a treadmill none could escape.

ANU: ‘I am an addict for the news’

At ANU the open information environment was more taken for granted, the sea in which everybody swam. Some were more reflexive about it than others. In contrast with UI, where the flows were felt as ‘outer-in’, at ANU the global dimension was as much inside as outside the University; not simply because of a more advanced ICT capacity but because of the familiar Anglo-American contents of global cultural flows. For Deputy Vice-Chancellor (Research) John Hearn it meant 120 emails a day,

Table 2. Communications networking capacity in Indonesia and Australia Nation

Nation	Number of people 2003	Telephone lines and mobiles # 2002	Broadband Internet access 2002	Number of personal computers 2002	Number of Internet users 2001	Number of Internet users 2002		
	millions	per 1000 people	rating 1-7 (7 is high)	per 1000 people	millions	millions	per 1000 people	2001 = 100
Indonesia	214.5	92	3.4	12	4.0	8.0	38	200
Australia	19.9	1178	5.0	565	7.3	9.6	482	132

Note: * = 2000 data; # number of fixed phone lines and mobiles. Source: World Bank (2004).

including several organised global networks; five television news services ('I'm an addict for the news') and a constant diet of magazines and data sources in print and the Internet. For Political Theory Head John Dryzek, as for Held *et al.* (1999), it meant 'an increase in the intensity of all kinds of interactions across borders' whether inter-national borders or institutional borders inside nations. In his own work it had encouraged large-scale cross-country teams engaged in ongoing collaborative projects, a phenomenon becoming common across ANU. For Engineering's Michael Cardew-Hall, and the Head of Asian Studies Tony Milner, it was about the growing velocity of flows. For Research Centre Head Andrew Blakers and for Vice-Chancellor Ian Chubb it meant instant messaging everywhere:

I've got a computer full of emails from around the world from colleagues with whom I once would not have communicated because it would have taken two weeks for the letter to arrive, and two weeks for the response, and they would have waited another two weeks, so by this time you've forgotten what the issue was about. It doesn't happen like that now. There would be very few staff and probably very few students on this campus who do not interact with another country on a daily, certainly on a weekly basis. (Professor Ian Chubb, Vice-Chancellor, Australian National University)

'Email means that I can talk as easily to someone across the corridor or across the world' (Blakers). As another Research Centre Head Allan Snyder put it, 'any idea a person gets is everywhere immediately'. More than at UI, ANU personnel talked about global flows as convergence or what might be called 'one-worldism', understood in often ecological terms. Some ANU also qualified one-worldism, suggesting it was exaggerated. Milner noted the loosening of economic relations and the expansion of communications had not greatly furthered a 'world society' based on a convergence of values and political systems. China Research Centre Head Jonathon Unger was careful to talk about growing exchange between more open national zones as distinct from one-worldism. Regardless, global flows at ANU had been thoroughly institutionalised. The imperative was no longer that of UI, to build ICT skills and infrastructure so as to more effectively engage with global flows. Infrastructure issues were discussed only by Pro Vice-Chancellor (Information) Robin Stanton at the macro-level. At the micro-level the problem was more how to manage the intensity of global communications, even to decouple from them. Snyder said much about this. Concerned to maintain his own distinctive perspective he found global standardisation 'terrifying'. 'I don't watch television'. 'I don't use email'. The Internet was 'stifling originality'. 'I try to keep away from journals because they mindset you'. Unger was worried that by liquidating its activities into global data bases, the ANU library had surrendered a distinctive information personality grounded in local scholarly agendas. Americanisation, a more subtle problem for Australians, preoccupied some ANU interviewees. ANU's history has shaped a robust operational independence and a confidence beyond national borders but not real cultural distinctiveness. (Perhaps the Australian tree was planted too close to the Anglo-American giants and will always be overshadowed.)

Techno/mediascapes impacted UI and ANU directly with no mediation by governments, except that public funding affects ICT capacities. Techno/mediascapes not

only help shaped to global institutional personality—in the first instance the simulated university-as-web site *is* that personality—they also increased the autonomy of the university and multiplied its cross-border dealings. In turn techno/mediascapes, especially the explosive growth of email-mediated linkages, were a powerful medium for further isomorphism in academic matters (Schugurensky, 2003, p. 298). As we shall see, this new facilitation of isomorphism has also opened UI and ANU more directly to global ideoscapes in policy and organisational design. Above all, techno/mediascapes, if lacking the pungency of face-to-face encounters, are *the* medium for the institutionalisation of global flows inside universities. The relentless ubiquity and instantaneity of global communications secures the continuous transformation of subjectivities at an intimate level;’ and the global referencing of local performance and practice becomes impossible to avoid. Screen-based imaging, with its visual power and ease of manipulation supplies ample resources for each to imagine the global in their own way, the permutations played out within the reified templates that software supplies. Yet the interviews found ANU and UI at different points on this trajectory of capacity and institutionalisation, and positioned differently (and differentially) by global convergence. UI was less able to engage globally on its own terms.

Ethnoscapes: dreams of universal mobility

For the ANU Vice-Chancellor and UI Rector the sense of the global was institutionalised more in the perpetual mobility of travel and meetings than the flickering screen. Though personal mobility varied, all interviewees at both institutions agreed that academic ethnoscapes (temporary and permanent) were becoming more extensive, intensive and diverse; and that cross-border people mobility was a collective good and should be encouraged. But there was a dark side. Though ethnoscopic interaction was mostly cooperative, convergence had heightened global competition for academic labour. ANU and UI were place-bound but their best staff and doctoral students were not. Though academic jobs and student scholarships remained subject to national and local structures, and barriers to inward people movement could be frustrating, it was easy for good scientists to leave for America. Every leakage of talent fed into imaginings of a single global pool of academic labour; and it became easier for other ‘brains’ to dream and ‘drain’. Here ethnoscapes became like techno/mediascapes, other-determining forces beyond local control. Global competition created ‘a level of uncertainty which adds an unnecessarily difficult dimension to managing complex institutions’ (Chubb, Vice-Chancellor of ANU).

UI: the bright side of brain drain

At UI the most important ethnoscapes were outward movements of academic staff, temporary and permanent, and the movement of good first degree students out of Indonesia at postgraduate stage. Some people returned and some did not. It was essential for Indonesia to engage globally but academics go and ethnoscapes flow where the economic and social gravity pulls them.

Though at UI foreign training and plural locations (less so plural identities) had long been a recognised part of academic biographies, interviewees agreed that temporary ethnoscapas and oscillations between different places were increasing. UI provided several forms of institutional support for staff and student exchange. It had negotiated in-principle agreements with more than 70 partner universities; there was a one-year postgraduate twinning program with a range of partner institutions; some theses were completed in Japanese or French or German. The constraint on officially-supported mobility was always resources, so that staff and students from wealthy backgrounds had many more options. Academics often returned to their doctoral universities. Temporary movement was seen in very positive terms: Engineering's Research Coordinator Wahidin Wahib talked about global borderlessness as a deregulated freedom to interact with overseas colleagues. Each such encounter brought the outside world back to UI, with an impact more transformative than email messages; unless there were no facilities at home to sustain the offshore research orientation; or unless the staff member failed to return. Permanent movement had different emotional resonances. The Rector and Manager-Leaders in Engineering were preoccupied by the problem of holding good staff but brain drain seemed beyond control. Yet the two kinds of ethnoscapas were less separable than this suggests. Temporary movement ('good') created conditions for permanent relocation ('bad'); while good ethnoscapas for individuals might be bad for UI. Given this ambiguity, the discussion readily slipped between temporary ethnoscapas and their permanent cousins; between ethnoscapas as policy-determined, as market-driven, and as self-propelled; and between on one hand reporting mobility trends, on the other hand celebrating mobility dreams and arguing for mobility norms. For Vice-Rector Hendratno:

... in the globalisation era the need to promote such cooperation is even greater, so it is important for Universitas Indonesia to conduct academic exchange not just for staff but for students.

Universal student travel was a long way off, but abstracting ethnoscapas as a universal global good allowed ambiguity and dark side to be evaded.

There was considerably less movement into UI than out. Inward foreign student movement was increasing from a low base. Permanent movement of foreign staff to UI was inhibited by salaries relatively low in international terms and the tradition of reserving prestigious positions in the flagship university for national citizens. It was not a burning issue. There were no schemes to attract foreign staff such as salary loadings or recruitment incentives.

ANU: preparing for work anywhere

Though ANU Vice-Chancellor Chubb celebrated people movements in both directions, the flows into ANU were broader than flows out. Inward staff exchange was widespread; in world terms there was a high proportion of foreign-born academics; students from 93 countries broadened curricula. While ANU had always been internationalised, in the last 20 years the impact of ethnoscapas had much increased. Like

Table 3. Ethnoscapes: Indonesia/UI and Australia/ANU

2001 data	Indonesia/UI	Australia/ANU
Nationals studying abroad in OECD	26,615	4805
Foreign students in country	377	110,789
Total students at university	36,399	9636
Doctoral students at university	530	1155
Foreign students at university	46	1292
Foreign doctoral students	5	270
Academic staff studying overseas	53	n.a.

Note: n.a. = not available.

Sources: DEST (2004); ANU statistical publications; UI statistical publications.

UI's Hendratno Chubb wanted to normalise offshore experience for all students but only a small minority were involved: 'at any given time 200–300 of our students are studying in Asia'. Nevertheless, this was high for an Australian university. In Asian Studies students spent a year in chosen Asian nations stretching from the Middle East to Japan and Korea. Staff travelled to negotiate agreements with the partner university of study, encouraging other links. Engineering was developing a joint degree with the National University of Singapore. All of these activities continually referenced the University against high calibre foreign institutions. 'Our staff think internationally' (Chubb).

Again there was the slippage between dreams of universal mobility and the more prosaic situatedness of ethnoscapes with their partialities and limits, and the slippage into the dark side. When ANU interviewees imagined the global as a one-world pool of opportunity, with its talent to be exploited and collaborative projects to explore, they talked up an ever-increasing mobility with unqualified enthusiasm.

Globalisation helps. It helps us to attract staff. It helps us to attract students. It allows our students to go and experience other cultures, other ways of working, either as part of their course or after their course. (Michael Cardew-Hall, Engineering)

But the same interviewees were also conscious of resource gaps and regulatory blockages and competitive pressures that affected ease of passage. Cardew-Hall and Chubb noted that scholarships were hedged with conditions that restricted ethnoscapes. For example AUSAID scholarship holders had to return home immediately on graduation. Chubb and Hearn pointed out that under the policy settings ANU had a financial disincentive to enrol international research students, despite the externalities they generated: there were few international scholarships; and while a local Ph.D. student brought in \$30,000 per annum in government funding the university could not charge that to international students. Visa restrictions on the inflow of fee-paying students was a major concern. Milner pointed out that despite 'a great deal of talk about globalisation' there had been 'less money around in recent times' for conferences, meetings and project travel. Above all, labour markets were becoming more integrated, and ANU could no longer afford see itself as *sui generis*, but nor could it

afford to compete with wealthy American universities. Dryzek remarked that ‘we increasingly compare ourselves with the best universities in the world’ and:

... we increasingly see ourselves in competition with them for recruiting staff. ... We just lost one of our professors; he’s on his way to Princeton. They’ll pay him about three times as much.

Global ‘brain circulation’ is uneven in its impact on local universities with unequal power and resources. In both universities outward and inward ethnoscapcs were asymmetrical for both staff and students, and these asymmetries allow us to map the differential positioning of each university within global networks. At UI the main direction of traffic (especially staff) was outwards from Indonesia. At ANU, where there was more movement in all respects, the main traffic was coming into ANU. At both universities there was an ever-present possibility of people loss, but only ANU had a broad potential for gain. Yet UI and ANU shared a common imagining of global mobility. Both sets of interviewees wanted temporary mobility to be institutionalised in staff profiles. At both universities academic travel was already widespread, more so at ANU. More improbably, many people wanted to see mobility as part of the student experience before and after graduation. At UI Anggadewi said that ‘we have to be able to produce graduates capable of adjusting themselves to this globalising environment’, and staff and students needed to become more competent in English to aid mobility. ANU Engineering was preparing graduates to work anywhere in the world (or at least anywhere where professional English was spoken). Though ANU and UI were far short of achieving universal student travel as part of the degree, and despite the dark side, in both universities global mobility was understood as a universal field of freedom.

In reality fuller freedom was accessed only at the top of the pyramid where buyer–seller relations flipped over, and high quality people could leverage global demand for individual advantage, picking and choosing their place ties. Yet with the increase in the volume of global ethnoscapcs, both the size of this elite group and the options before it had expanded. Correspondingly, the bargaining power of local managers had been weakened. Below the elite layer, a much larger group of staff and postgraduate students in both countries benefited from an expanding partial mobility. Perhaps in essentialising ethnoscapcs, UI and ANU had merely turned necessity into virtue. For every student or staff member supported by university travel programs, programs that could never satisfy the resource demands placed upon them, another crossed borders on her/his own behalf. Stimulated in private access to techno/mediascapcs and often self-financed, particularly by the students and their families, and the younger academics, global ethnoscapcs were powered less by organisational dreaming than by individual desires.

Financescapcs: hints of economic determinism

Financescapcs flourish in an open trading environment in which the mode of interaction is as much competitive as cooperative; commercial infrastructures facilitate

marketing, packaging and quality assurance; and the objectives are market share and profit. This description only partly fits higher education and was less true of UI and ANU than many other universities. Both operated largely outside the global trading economy, though there were significant exceptions.

The recent corporatisation of UI had created a new imperative to raise entrepreneurial income from research grants, the sale of services to industry, and student fees. 'Now we have to create and develop the budget', as the Rector put it. 'Commercial wings have to finance academic wings' (Wardaningsih, International Office). Organisational practices were yet to be rebuilt around revenue drivers. It was planned to expand the number of international students at UI but on the whole global relationships were conducted as academic collaboration, focused on personnel exchange and research with little thought for market niche or market share.

For its part ANU—or most of ANU—was the least commercial of Australian universities, raising just 4.3% of income from foreign student fees in 2001 compared to 11.4% in Australian universities overall (DEST, 2004). Its leaders were keenly aware of revenue streams but did not exhibit a trading mentality. It was globally competitive in the traditional academic sense. The dedicated government funding of ANU research schools, which underpinned their complex pattern of global initiatives and collaborations, inhibited the drive for international student fees which powered other Australian universities; and sustained cultures of basic research in which business activity was a detour from the core mission. Nevertheless, in and around engineering and technologies there were signs of a different outlook. Blakers, whose centre specialised in commercial solar cell research, wanted a more market-driven approach. The Faculty of Engineering was outside research school funding and was dependant on international student fees. For the Dean of Engineering, global flows had been reduced to one factor:

- Q: What do you understand by the term 'globalisation'? What does it mean to you?
A: The flow of students is the first thing I identify with the term and while there are excellent reasons for having lots of international students, the fact is that (given) the dwindling number of dollars per student in federal government funding, in my faculty we would hardly survive without international student numbers and the dollars that come in ... every engineering faculty in Australia is facing the same issue. They are forced to ever-expand international income simply to stay afloat. (John Baird, Dean Faculty of Engineering, ANU)

And when asked about government policy and its effects at ANU, Baird focused on the regulatory obstacles to foreign student recruitment. The Head of the Department of Engineering Michael Cardew-Hall said that his work had changed. He now spent much of his time recruiting students offshore. He too read issues through the prism of global trade. The focus in curriculum policy was now to prepare all students—local and foreign—to work off-shore. The intensity and impact propensity of global trade in Engineering suggests the transformative potential of financescapes, the way that they subordinate all other conditions once they really get a grip.

Ideoscapes: the narrative imperative

If technomediascapes and ethnoscapescapes were mediums for institutionalising global impacts, and financiescapes lurked at the edge of global thought, then ideoscapes often comprised it. Above all there was 'globalisation' itself in the form of unstoppable deterritorialised force, as modernisation writ large: a narrative more alien, more raw and more obviously apparent at UI. Its advocates had fervour. 'Globalisation is a must!' declared Hendratno. The ideoscape of 'the global university' promised freedom of a kind, positioning it as an autonomous institution providing passage to financiescapes unimpeded by national government. Once embraced, and it seemed that the only option was to embrace it, ideoscapic 'globalisation' had clear implications for values and work practices. Here 'globalisation' was the Trojan Horse for other imperative ideoscapes with transformative impacts, isomorphs of the university as corporation; global higher education as a world-wide field of competing university corporations or of virtual institutions in a single global network (Marginson, 2004). Vice-Rector Husein wanted Indonesia to follow the EU universities into the UK's Bachelor/Masters system. If these ideoscapes were less obvious at ANU, it was partly because they were already thoroughly (albeit partly) absorbed into Australian conventions, and in raw form also more contested.

UI: 'if UI does not change...'

At UI 'globalisation' as convergence and global competition were core reasons for university reform. The impact of ideoscapes at UI were primarily 'institutional', in framing the agenda of both government and university policies; and 'structural' in conditioning domestic organisation and behaviour (Held *et al.*, 1999). Reform measures included the corporatisation of UI and other leading universities which was mandated by the World Bank as a condition of its loan to the Indonesian government for higher education; more emphasis on local income raising; emphasis on applied research and industry needs; 'more corporate' models of internal management and entrepreneurship (Rector Warsa); a performance culture and an intensified work ethic.

All interviewees talked about these reforms. There was much concern that this essential transition was proving difficult. 'If in the next five years UI does not change, UI will be left far behind other universities overseas' (Rector). 'We have to examine our culture in Indonesia with regard to globalisation', including 'efficiency and effectiveness', said Tresna. 'In fact we in Engineering are not ready'. However, he added, 'by applying a reward and punishment system we can standardise our quality and our performance'. The goal was to adjust to global pressures by building systems to normalise and institutionalise global flows in the Indonesian context. Again, as with techno/mediascapes, no one noted that institutionalising global flows, speeding them, intensifying them and magnifying their impact, would install a problem that could never be solved at UI with UI's resources. The way through was to reinterpret flows within local situatedness: to reimagine the global blueprint for UI as local agency

made globally competent—not global agency made locally powerful, as the World Bank required. But despite the fact that as Vice-Rector Hussein noted it had proved ‘difficult to switch the mind’ of UI staff into global mode, UI manager-leaders understood global flows in largely generic terms. This enhanced the impact-authority of foreign models rather than suggesting a new kind of Indonesian university.

ANU: ‘it will happen rather quickly’

At ANU performance measures, professionalised management and selective markets had long been taken for granted. Global university ideoscapes had been working their way through Australian universities since the system reforms of 1987–1992 (Marginson, 2003). One sign of this covert institutionalisation of ‘globalisation’ was that many ANU interviewees saw global connectedness and mobility as ends in themselves, prior to local articulation, strategy or capacity, just as UI advocates of global flows had done. If only ANU’s centre director Blakers articulated a full-blown narrative of ‘globalisation’ as corporate reform and marketisation; only centre director Unger took the trouble to critique the ideoscape. There was little hesitation at global benchmarking despite the enhanced potential for isomorphism. More explicitly, two ANU centre directors were adamant that global ‘virtual Harvards’ would displace face-to-face institutions despite the failure of actual global virtual universities to take root (Marginson, 2004). ‘It’s a process that will happen rather quickly’ (Blakers).

They have enormous power, they have billions of dollars ... globalisation (is) ... education being dictated by a few. (Snyder)

None of these ideoscapes had indigenous origins in either country. Their conditions of possibility were openness, convergence and the techno/mediascapes and ethnoscapescapes that carried them into UI and ANU—directly and also mediated by national government—while marginalising alternative narratives. Ideoscapic ‘globalisation’ positions universities within a shared language of power but in a role inescapably subordinate. Global neo-colonisation rests on the partial evacuation of situated agency and educational personality, and the translation of institutions into a disembodied realm in which things that matter are other-determined.

Situating global flows

The global relationships among ethnoscapescapes, technoscapescapes and finanscapescapes is deeply disjunctive and profoundly unpredictable because each of these landscapes is subject to its own constraints and incentives ... at the same time as each acts as a constraint and a parameter for movements of the others. (Appadurai, 1996, p. 35)

Appadurai’s disjunctures between uneven, atemporal, ‘scapes’ creates spaces for an infinity of separated and mutual effects. Why ‘disjunctive’? Because the different scapes have their own agents; and their own histories, origins and trajectories. They are coming from different angles and moving at different rhythms. They overlap and gap in particular times and places. Sometimes scapes are in tension: for example

'international education' is more and differently transformative for the student subjects of ethnoscapescapes, than for the universities, the subjects of financescapescapes, that provide the courses and secure the revenues. At the same time intersecting scapes also provide conditions of possibility for each other, with the disjunctures opening a larger set of possibilities. If techno/mediascapescapes and ideoscapescapes are the architects of the global imagination in higher education, then ethnoscapescapes and financescapescapes explore and exploit the terrain real and virtual that imagination makes visible. Techno/mediascapescapes, here the most universal in reach of all the scapes (in other sectors it might be trade and finance), provide passage for e-business financescapescapes and for the narrative ideoscapescapes. Ethnoscapescapes constantly draw on technomedia/scapescapes; the parallel mobile world educational travellers take with them and find everywhere: their surrogate global home amid the global. Yet if techno/mediascapescapes are the more ubiquitous, ethnoscapescapes offer the deepest possibilities for self-transformation, opening educational travellers and temporary migrants to hybrid and multiple identities.

Not always. University personnel on foreign business can also draw from the ideoscapescapic Anglo-American narratives of 'globalisation' common to cross-border networking in university executive and business circles. Within these pre-given explanations bounded by the linguistic walls of global English, they are protected from the diverse encounters that ethnoscapescapes make possible; confined within the hotel room (4/5 star determined by personnel rank) with its Internet connection and universal global ambience. Financescapescapes always threaten to narrow the boundaries of agency, deploying all of the other scapes in their service. Shared ideoscapescapes smooth business relations, shorter ethnoscapescapes provide conditions for negotiation, techno/mediascapescapes speed and intensify monetary transactions. Global financescapescapes reciprocate, providing fee-paying students to swell the tide of ethnoscapescapes, and underpinning the ideoscapescapic 'globalisation' narratives with the economic substance of a real market.

At UI and ANU global flows take on different meanings in each case, and this underlines the point that to comprehend scapes and their possibilities for transformation, we must situate flows/agents in time and space. Amid every agent—individual or institutional—is a half hidden infrastructure of history, imperatives, desires and narratives constantly rearticulated via relations of power. Global flows in higher education and other sectors are nurtured in desires for or desires to move technologies, money, images, ideas, systems or selves: desires for intellectual and cultural encounters ('educational tourism' as some unkindly call it), desires for change and excitement, the more conventional desires for opportunities, for institution-building and for revenues. 'I am pro-internationalisation', said ANU's Chubb, 'strongly so': and you can see that he means it. For half the interviewees cross-border connections had become an end in themselves. But every take on global flows was a little different. Powerful global flows are sustained across time and space but their impact is *always* locally articulated. Something happens at every academic node, especially major junction points like global research centres and international student offices where many lines of flow intersect. Sometimes local sites intensify, amplify or speed up global flows; sometimes they retard them. Flows play out differently by nation and

university, and by university status and mission; and by field of study, a rich variation little explored here.

Global flows are touched by global agents and the reciprocal also applies. New kinds of agency form and flourish within this fast-moving setting of jagged uneven techno/mediascapes, ethnoscapes, finanscapes, ideoscapes and in the nooks and crannies between: the fast-talking offshore marketeer, the pastoral student adviser, the perpetual professorial traveller, the cross-border student with mobile in hand. All global agents are rooted in localities (temporary as these might be). ANU's Snyder imagined a placeless cosmopolitan identity for himself; but even this identity comes from somewhere and takes different meanings from place to place: it is less a substitute for local situatedness than an adjunct to it within the larger frame of plural identities (Sen, 1999). The micro world of local situatedness and the macro field of global dreams and resources are both in play and both are implicated in global invention. Here there is no lack of common global ideoscapes to draw from; and an infinite set of imaginings we might make for ourselves. Universities reshape themselves to their imagined global setting, like UI which was in the process of reinventing itself, and the globally-embedded personalities of individuals and institutions seep into local and nationally embeddedness. Here global flows/agents create their own conditions of possibility; opening a vast new field of action with its ever-growing array of strategic options and networks of possible partners, the logic behind Hendratno's 'globalisation is a must!'. But to access capacity needs capacity. There are tensions in global imagining, for those adrift of global norms, who find that flexibility and multiplicity have their limits. 'We have to be able to manage our own soul' as Widinarko of UI Engineering put it. 'We have to know when we can be active, and when we must restrict ourselves'. We need to know when capacity becomes potential and we must seize the moment. These are difficult choices.

Asymmetries of power

Amid disjunctive scapes, networks of flows between equivalent nodes like the original Internet (Castells, 2001) coexist with concentrations, dominant nodes and vertically ordered hierarchies. In interview centre director Unger at ANU found himself vacillating between his understanding of the global as positive (scholarly association, open two-way flows of knowledge) and the global as negative (global ideoscapes, economisation of the university-as-business). But in the more global universities configured by autonomy and scapes, which have retained their older mechanisms of authority and status, flat networks are situated in relations of power, more than vice versa. To borrow a point from Fernand Braudel (1985), social and economic hierarchy secures the dominance of hierarchy itself as the determining systemic force. Determination does not mean closure, and global flows remain open to both sets of potentials. Flat networks better provide for cultural relationships based on equal respect and allow universities in nations such as Indonesia with more space to develop. Nevertheless, the brutal fact is that poorer nations have less capacity to participate in either kind of relationship, whether collaborative and flat or competitive

market hierarchy. UI remains a leading national university in the world's fourth most populous nation, but abroad its resource and capacity limitations (especially in research), linguistic barriers and narrower strategic options are exposed. Global referencing strips it of some authority. Global tempo is relentless: UI's readiness seems inadequate, its engagement less intense, its reciprocation lags behind the signals it receives. The asymmetries are obvious.

The impact of the global is also differentiated within nations, as John Hearn of ANU pointed out. In both national and global competition the sorting device is research; which is always at the core of world university power and status (Marginson, forthcoming). Research is the one quality measurable in a standard manner across borders and provides the cultural currency for cross-border exchanges, aside from basic degrees. Research, which often takes pathways of imitative innovation, is a ready medium for cross-border isomorphism and standardisation and this is confirmed by formal benchmarking. Along with ICT infrastructure, research is one of the two elements key to self-managing global agency and to lifting global position. Yet unlike ICTs, research is not explicit in ideoscapic narratives which imagine universities in developing nations as research dependent. As leaders of a peak university and knowing how the world worked, UI's leaders did not buy this for a moment and focused closely on improving research performance, training and collaborations. Again, at every turn there were resource limitations: travel, scholarships, books, materials, lab equipment, and academic pay. In future much will depend on the potential of Indonesia to finance the capacity of UI.

Conclusions

At UI and ANU cases global flows are becoming more extensive and intensive, and moving faster with greater impact propensity. The impacts are mostly institutional, global flows affect policy agendas; and structural, ditto local organisation and behaviour. The impacts are also decisional, changing the costs and benefits of mobility; and distributive, empowering globally active local personnel such as academic researchers, international officers and the marketing department. We base these conclusions only on the witness evidence from interviews, but we are confident that a count of travel days, electronic messages and offshore research collaborations would confirm them. In relation to modes of interaction, we suspect that the widespread attention at both universities to research capacity and performance, the concerns about attractiveness to doctoral students and staff, the emphasis on quality assurance and global referencing, and at ANU the cross-border benchmarking, indicate the rise of competition.

Global flows often have identifiable origins but the flows and ripples never seem to terminate. Some pass from international agents to UI or ANU through the filter of national regulation and policy, while others secure direct passage. Though this difference is important it will not be further explored here. Which of the 'scapes' are most important in the universities under study? In their different ways, mutually conditioning techno/mediascapes and ethnoscapes are the flows most evident in the institutionalisation of the global, confirming the relevance of analyses like this that start from the

culture side of the culture/economy divide. Techno/mediascapes are the more rapid and extensive while ethnoscapings magnify the intensity of flows. Ideoscapes are powerful in shaping individual dreams and supplying blueprints for institutional reorganisation. Financescapes are not as directly important at these two universities with their minor commercial dealings.⁶ The main role of financescapes plays out indirectly, in the effects of global financial disciplines on national fiscal policy. Both Indonesia and Australia share the widespread trend to self-financing driven by reduction in the government share of funding. Financescapes do play a direct role in some quarters and have found their way to the heart of ANU Engineering.

Despite their diversity of history and circumstance there is much common imagining of the global across UI and ANU and we might argue it is too much. Global convergence could lead to more diverse cultural encounters and forms, and make more visible crucial boundary issues such as othering, exclusion from global networks; not to mention the potential for parallel global systems (financescapes in Islamic banking? the exchange of academic knowledge in Malay/Indonesian language in Southeast Asia?). Whether this happens and why it does not happen more is a matter that we cannot settle in this paper, but when global ideoscapes shape the imagination, standardisation tends to be uppermost, blocking a more nuanced and situated approach to global strategy making.

This is not the case with ethnoscapings; and not always the case with techno/mediascapes despite their common templates and language. Nevertheless, across both UI and ANU higher education is too readily imagined as a single field of cooperation/competition dominated by the global icon universities with one economically defined standard of cultural value. What a temptation this simple, accessible, widely accepted explanation of globalisation provides! Only the handful of senior leaders, including the UI Rector and the ANU Vice-Chancellor, evaded its charms. But once flows are separated from agency and gain universal explanatory power, they are emptied out of meaning. In explaining everything, 'global flows' or 'globalisation' explain nothing. Fortunately there is no closure of agency, and ideoscapes are constantly challenged by practice.

'Global flows' works for analytical purposes, provided that the flows are historicised in situated agency, so evading the dualisms of structure/agency and materiality/mentality (identity) that bedevil social science. Of course organic metaphors such as 'flows', based on the denaturalisation of familiar phenomena, have their limits. Electricity moves faster than water but it is less comfortable an environment in which to swim. Perhaps the idea of water makes the global attractive, while electricity stands for modernity and necessity. The strange combination holds, because water and electricity both satisfy our desires in different ways, and both speak to our need to move forward (or is it our need to be carried?). But 'global flows' obviates those who cannot swim and are not empowered. Relations of power—the social not natural kind—must be factored back in. Nor does 'global flows' capture the visual addictiveness of screens (visual imaging might provide the next metaphor for the global). Perhaps all our theoretical metaphors are bound to reproduce the limitations of lived experience. We can only hope that each successive theoretical metaphor opens up just enough space for something new to appear.

Notes

1. The spirited engagement from both sets of interviewees, the perspective gained in a dual Indonesian/Australian approach to the UI/ANU comparison, and discussions with Fazal Rizvi and with Ravinder Sidhu, were all important in the preparation of this paper.
2. Later however he appears to modify this position and acknowledge an active present role for the nation state in identity formation, where he asserts that ‘the three factors that most directly affect the production of locality’ and ‘the nation state, diasporic flows, and electronic and virtual communities’ (Appadurai, 1996, p. 198).
3. Castells’ bibliography ignores Appadurai, who was published four years before the second edition of *The rise of the network society*, which is Volume 1 of Castells’ trilogy *The information age*.
4. Technically, the value of a network increases as the square of the number of nodes in the network (Castells, 2000, p. 71).
5. This paper makes some use of the four descriptors of the impact or force of global flows used by Held *et al.* (1999)—decisional, distributive, institutional and structural—but we note that the distinction between the last two terms is hard to discern, and that both overlap with the useful notion of the ‘institutionalisation’ of global flows at the local or national levels.
6. While at UI and ANU it is appropriate to use a framework in which financial flows are understood first of all in cultural terms, in some other types of educational institution an economic analysis of global flows might be more relevant: for example Central Queensland University which draws more than 40% of its income from foreign students (DEST, 2004).

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