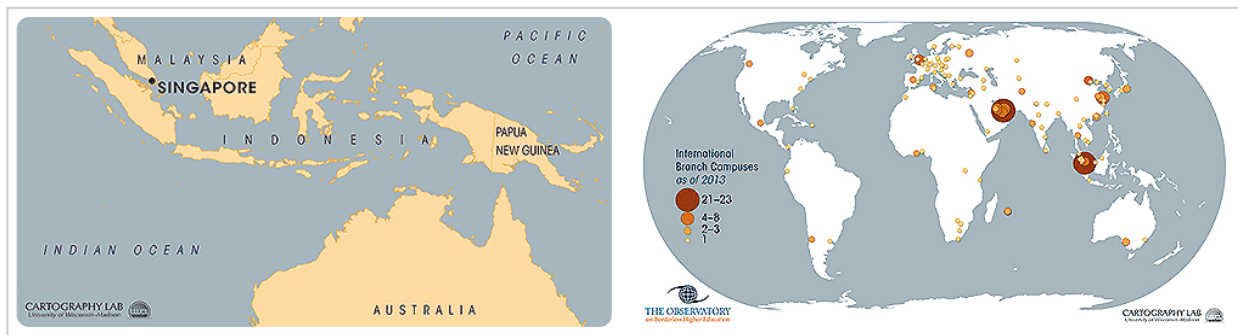


## Week 7: Singapore, Foreign Universities, and the Construction of a Global Higher Education & Research Hub

[Help](#)


As you've no doubt discovered by now, we both love visualizations of all sorts.

Visualizations are wonderful devices to convey information about the geographies of knowledge production and circulation in a globalizing era.

Now take a look at these two maps and focus on Singapore in Southeast Asia. What do you notice when you compare and contrast the two maps, apart from differences in the scales of the maps? Some of you have, no doubt, travelled to Singapore, transferred in the award winning (for good reason!) [Changi Airport](#), or worked in Singapore. Some of you may even be living in Singapore now, or are Singaporeans living and studying or working overseas.

In the first map, who can't help but be blown away by how tiny Singapore is! It's only 276 square miles (716 square kilometers) in size -- the same geographic size of the Île de Montréal in Canada. This said, the population (approx. 5.4 million in 2013) is pretty big for its size. One of us (Kris) used to live in Singapore and was able to traverse the country in an old and shaky [Lada](#) in 45 minutes (or just over 30 minutes when being transported in the powerful BMW a colleagues used to drive, way too fast needless to say!).

Yet, if you think about economic activity, the production of knowledge and high valued-added goods and services, the trans-shipment of goods, inward and outward flows of investment, and [soft power](#), Singapore packs a seriously oversized punch. This is certainly true when you look at the international branch campus map. Funnily enough, the visual symbols in both maps mask the actual presence of Singapore, it's that small.

So what's going on? And what can we learn about the globalization of higher education and research for the knowledge economy through a look at this unique city-state? Let's give it a go, with the caveat even one detailed case study leaves out more than it includes.



## Boston of the East?

On 7 January 2000, [Teo Chee Hean](#), then Minister for Education and Second Minister of Defence, gave the Alumni International Singapore (AIS) Lecture on the National University of Singapore campus. The title of his talk was '[Education Towards the 21st Century: Singapore's Universities of Tomorrow](#).' After framing the context with some words about 'the knowledge economy and universities' (which resonates remarkably well with Week 5's content), he had [this to say](#), and we quote at length (though our emphasis):

For the network to buzz with activity, the conditions must be right. We need a critical mass of diverse talents in a relatively compact area to achieve an impact. Social scientists have a rather cumbersome term for this - the benefits of agglomeration. This agglomeration has to be physical to a large extent. The rise of the Internet and virtual communities has yet to supplant the excitement of human interaction. Exchanging e-mail does not have the same meaning as having a power breakfast with a venture capitalist, or exchanging the latest gossip with a colleague along the corridors in the university, or quite commonly, in the men's room.

Singapore definitely has some things going for it - we are small and compact. We also have good "hard" infrastructure to plug into other networks, in Silicon Valley, Cambridge (Boston and UK), Hsinchu, Cyberjaya. We are working on developing the soft infrastructure.

Our vision, in shorthand notation, is to become the Boston of the East. Boston is not just MIT or Harvard. The greater Boston area boasts of over 200 universities, colleges, research institutes and thousands of companies. It is a focal point of creative energy; a hive of intellectual, research, commercial and social activity. We want to create an oasis of talent in Singapore: a knowledge hub, an "ideas-exchange", a confluence of people and idea streams, an incubator for inspiration.

We will be doing so through a two-pronged approach. The more visible one to most of you is our strategy of attracting top foreign universities to Singapore. We have had some success in this. INSEAD and Chicago Graduate School of Business have set up branch campuses here. They will take in their first students this year. Our universities have also actively formed partnerships with top foreign universities. NUS, NTU and MIT are collaborating in the field of postgraduate engineering education and research through the Singapore-MIT Alliance. NUH and Johns Hopkins University are conducting joint PhD and Masters programmes in clinical research. The youngest of the fold, Singapore Management University is working with the Wharton School of the University of Pennsylvania to set up the Wharton-SMU Research Centre.

The other strategy is to develop our local universities into world-class institutions. We have a firm foundation to build on. Our two "older"

universities, the National University of Singapore and the Nanyang Technological University, have well-deserved reputations in education and research in the region and beyond. NUS has been ranked 2nd in academic reputation among comprehensive universities in Asia while NTU has been ranked 3rd in Asia among science and technological universities.

Both universities have made their mark in research. In terms of research equipment and laboratories, they are now first-rate. We have world-class researchers in specific fields such as advanced materials and high-performance computing. By "world-class", I mean that their work is widely acknowledged to be among the best by peers working in similar fields.

Let's repeat one phrase RADM (NS) Teo said: "we want to create an oasis of talent in Singapore: a knowledge hub, an "ideas-exchange", a confluence of people and idea streams, an incubator for inspiration."

Ambitious? Yes, Realistic? Perhaps. Successful? Look at the second map above! Seamless development process? Err, not exactly, but has there ever been one, anywhere? Notice too the language – talent, hub, incubator....to drive this new initiative (not education, university etc., etc...).

## Some Important Analytical Context

Singapore, a small Southeast Asian city-state, is known worldwide for the economic development trajectory that it has rolled out over the last four decades. The transition from neglected colonial outpost to post-colonial "[air-conditioned nation](#)" has provided ample fodder for [triumphalist sagas](#), relatively even-handed and incisive [analyses](#), and debate-engendering dystopian [reflections](#).

Regardless of one's views on the forceful forms of modernist planning and social engineering undertaken by the Singaporean state (guided by the continually ruling [People's Action Party](#)), a structural change is underway in Singapore's economy; one that helped set the context for the global education hub agenda.



Ayer Rajah Expressway by the National University of Singapore

What to factor in to this ambitious strategy to build a global education hub? The following seem to us to be important.

1

One, the [1997-98 Asian financial crisis](#), and the rise of China as a manufacturing powerhouse, unsettled Singapore and forced the country's politicians and officials to think more creatively about ensuring Singapore adapts to and benefit from an evolving global knowledge-based economy (KBE). In this context a shift from low value added manufacturing-based export platform status to high value added manufacturing/global city status was launched.

2

Two, statecraft is being used to shape this restructuring process, in part through the targeting of select industrial sectors such as biomedical sciences, chemicals, engineering and environmental services, professional services and, since the late 1990s, education services (our focus in this particular class).

3

Three, discursive reframing is also being used to ensure Singapore becomes credibly known, in selective academic, industry and media circles as a cosmopolitan and creative space, a vibrant and diverse global city integrating into the lattice under girding the global knowledge economy.

4

Four, the Singaporean state has sought to achieve this goal by opening up its territory, and therefore its society, to the presence of foreign institutions of higher education and has sought to target “world class” (highly ranked!) institutions, when at all possible. This class, coming one week after our class titled [World Class](#), should help you better engage with this detailed case study.

5

Five, Singapore's attempts to become Boston of the East, a global knowledge-based hub associated with innovation, creativity, informed debate, and significant university-industry linkages, has triggered a response from several dozen non-Singaporean universities. They have established campuses, centers, research labs, joint ventures with Singaporean universities, and joint degrees, all since the “World Class University” (WCU) programme was launched by the government in 1998. And on this note, recall these mechanisms and models were discussed, in considerable detail, in [Week 1](#) of our MOOC.

## Assembling Singapore

### A DEVELOPMENTAL CITY-STATE

As noted above, Singapore, a Southeast Asian city-state with a 2013 population of 5.4 million, is often viewed as a model with respect to the economic development. Independent from Great Britain since 1959, and Malaysia since 1965, the city-state has seen considerable growth in virtually all of the typical indicators associated with economic development. Table 1 provides highlights of but a few of these indicators over the last 15 years.

Table 1 – Key Economic Indicators on Singapore , 1995–2012

Item	1995	2000	2005	2008	2009	2010	2011	2012
Population (million)	3.53	4.02	4.27	4.84	4.99	5.08	5.18	5.31
Labor Force (thousand)	1749	2192	2367	2940	3030	3136	3237	3362
Employed	1702	2095	2267	2858	2906	3047	3150	3275
Agriculture	3	2	2	3	3	4	2	3

Manufacturing	297	289	275	312	294	291	292	288
Mining	1	1	0	1	1	9	3	4
Other	1081	1191	1370	1536	1571	1658	1702	1745
Unemployment rate (%)	2.7	4.4	4.2	2.8	4.1	2.8	2.7	2.6
Structure of Output (% of GDP at current prices)								
Agriculture	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Industry	33.3	34.5	31.6	26.5	27.4	27.5	26.7	26.7
Services	66.5	65.4	68.4	73.5	72.5	72.5	73.3	73.2
Growth of Output (annual change, %)								
GDP	7.3	9.0	7.4	1.7	-0.8	14.8	5.2	1.3
Agriculture	-3.7	-4.9	2.1	-4.6	3.1	3.9	3.2	1.2
Industry	9.6	12.4	8.2	-1.5	-1.3	24.7	7.4	1.2
Services	6.3	7.6	7.3	4.5	-0.7	10.7	4.4	1.2
Trade (as a % of GDP)	349.3	371.8	430.0	444.1	366.9	377.7	386.8	379.1
Per Capita GDP (at current prices in \$US)	\$20,980	\$24,287	\$28,953	\$30,750	\$29,601	\$33,381	\$34,379	\$33,989

Source: <http://www.adb.org>, accessed 5 February 2014; <http://www.worldbank.org>, accessed 5 February 2014

The city-state is also the third or fourth largest foreign exchange trading center in the world (in the mix with London, New York and Tokyo), and it typically ranks as the first or second most 'globalised' nation in the world. Singapore receives regular accolades for its container ports (it is the busiest port in the world in terms of shipping tonnage), Changi airport (annual passenger flow through equaling Tokyo's Narita Airport), and telecommunications infrastructure. UNCTAD's annual [World Investment Report](#) regularly identifies Singapore as one of the most significant recipients and of annual FDI inflows FDI stocks and FDI outflows in Asia and the Pacific (see Table 2).

Table 2 – Distribution of Foreign Direct Investment Flows Among Economies by Range<sup>a</sup> (2012)

Range	Inflows	Outflows
Above \$50 billion	China, Hong Kong (China) and Singapore	China and Hong Kong (China)
\$10 to \$49 billion	Indonesia and Malaysia	Republic of Korea, Singapore, Malaysia, Taiwan Province of China and Thailand
\$1.0 to \$9.9 billion	Republic of Korea, Thailand, Viet Nam, Mongolia, Taiwan Province of China, Philippines, Myanmar, Cambodia and Macao (China)	Indonesia, Philippines and Viet Nam
\$0.1 to \$0.9 billion	Brunei Darussalam and Lao People's Democratic Republic	Macao (China)
Below \$0.1 billion	Democratic People's Republic of Korea and Timor-Leste	Mongolia, Cambodia, Brunei Darussalam and Lao People's Democratic Republic

<sup>a</sup> Economies are listed according to the magnitude of their FDI flows.

Source: UNCTAD (2013) [World Investment Report 2013: Global Value Chains: Investment and Trade for Development](#), Geneva: UNCTAD, p. 44.

And if you scanned quickly past Table 2 go back and look at the company tiny Singapore is keeping... it's up there in the leagues with huge countries and economies like China and South Korea! Singapore also has the highest percentage share of inward FDI as a share of GDP of any other country (or indeed city) in the world.

These global flows both support and maintain the “twin engines” of services and manufacturing. Approximately 7,000 foreign MNCs have formal presences in Singapore according to [International Enterprise Singapore](#), a Government of Singapore statutory board.

These firms, especially the multinationals with expatriate employees in Singapore and the broader region, draw in and now support Singapore-linked foreign universities (either directly or via partnership arrangements with Singaporean institutions), especially those with strong engineering, science, and business programs.

## The Singaporean State





Central Singapore

The state, in its various institutional and spatial forms, exerts a critical influence on the processes and governance of global city formation (which is what higher education and research is both contributing to, and feeling the impact of).

There are two aspects of the state that need to be addressed to make sense of the global schoolhouse/university-industry linkage phenomena in Singapore: the unique nature of both the “developmental” state, and the global city-state.

1

First, the development process in Singapore has been guided by an authoritarian (sometimes deemed “soft-authoritarian”) government; one controlled by the People’s Action Party (PAP) continually since 1959. The PAP, under the leadership of [Lee Kuan Yew](#) (Prime Minister, 1959-1990), [Goh Chok Tong](#) (Prime Minister, 1990-2004), and Lee Kuan Yew’s son [Lee Hsien Loong](#) (Prime Minister, 2004 to present) has developed, maintained, and used the state apparatus to achieve a wide range of social, cultural, political and economic objectives.

As a result, the state form is typically characterized as a ‘[developmental state](#)’; one guided by an elite bureaucracy, focused on medium-to long term economic objectives, and frequently prone to eclectic and effective forms of social control in the stated interests of national development. There are some great books out there on developmental states – see, for example, Meredith Woo-Cumings’ [‘The Developmental State](#)’ (Cornell University Press, 1999).

2

Second, Singapore is a global city-state. Unlike the global city that we discussed in [Week 2](#), global city-states have the political capacity and legitimacy to mobilise strategic resources to achieve (national) objectives that are otherwise unimaginable in non-city-state global cities. Amongst the most important roles vis a vis the global schoolhouse/university-linkage development process are:

- Management of territorial boundaries (e.g., immigration laws vis a vis foreign faculty and students)
- Production and reproduction of labor (e.g., education-labor market planning)
- Provision of basic infrastructure (e.g., funding for new campuses, campus expansions, or linking mass transit systems to new sites of higher education)
- Legal frameworks to maximize economic cooperation (e.g., intellectual property rights)

The politics of city/nation-building tends to be focused on the strengths and weaknesses of policy options rather than which intra-national territorial unit or institution is deserving of attention and resources. This is any techno-modernist planner’s dreamscape or utopia!

It is also worth noting that the most prominent global city-states – Singapore and Hong Kong (until 1997) – are the products of colonialism, and thus postcolonial political dynamics. Colonial origins helped to shaped urban destinies that were (and still are) tightly intertwined with the evolving global economy. This colonial history has helped to engender openness to constant change, and an outward-oriented and relatively cosmopolitan sensibility. Colonialism also

helped to lay the legal, linguistic, and technological (esp., transport) foundations for integration into the contemporary global economy. The post-colonial era is relatively short, and can engender obvious and legitimate desires to control one's own destiny and the rules of the game. This is one of those taken for granted historical factors always worth thinking about.

## Towards The Global Schoolhouse

[Saravanan Gopinathan](#), one of the most informed analysts of Singapore's higher education system, has framed the historical development of Singapore's higher education and research system this way:

- 1965 to 1986: Building technological know-how
- 1985 to 1995: Expanding science and technology education
- 1995 to 2005: Fostering creativity and innovation

Now listen to this podcast with Professor [Lily Kong](#) where she helps situate the key changes in Singapore's higher education landscape. Professor Kong is Vice President (University and Global Relations) and Vice Provost (Academic Personnel), National University of Singapore. She also holds the Provost's Chair Professorship. In her capacity as Vice Provost, she works with the Provost in academic personnel matters including recruitment and development, benchmarking and resource allocation. She is a graduate of the National University of Singapore and University College London.

[mp3](#) | [transcript](#)

Given what Professor Kong has to say, it appears to us that there is a fourth broad stage:

- 2005-2013: Deepening, broadening, and diversifying the institutions constituting the city-state's innovation system

Singapore has single-mindedly sought to fashion education as a tool for rapid economic development and medium-term resiliency. In addition, given the relatively small population, and lack of natural resources, economic crises (especially the Asian economic crisis of 1997/98) always trigger changes in policies.

Practically, this socio-economic transformation had to be implemented. Denationalization is, after all, an internally constructed process.

Singapore used a number of arms of the state to open up Singapore's territory to foreign universities:

- The [Ministry of Trade and Industry](#) (MTI), including three MTI statutory boards:
  - [Economic Development Board](#) (EDB)
  - [Standards, Productivity and Innovation Board](#) (SPRING)





- [International Enterprise Singapore](#) (IE)
- The [Ministry of Education](#) (MOE)
- The [Ministry of Manpower](#) (MOM)

It was the EDB that [launched the "World Class Universities" \(WCU\) programme in 1998](#). This program was designed to attract "at least ten World Class Universities (WCU) to Singapore within ten years" via a variety of linkage mechanisms (from joint ventures to autonomous campuses). A series of linked higher education reforms were then extended or initiated including:

- Comprehensive and integrated reviews of university governance and funding systems, including via the establishment of an [International Academic Advisory Panel](#) (IAP) that meets biannually
- Greater autonomy for universities, though linked to a need for greater "accountability"
- The diversification of financial resources for universities, including private endowments designed to draw in corporate and private (alumni) monies
- Greater differentiation and model diversity in the higher education landscape

While the EDB is the shaper and mediator of most economic change within Singaporean territory, select committees play a powerful guidance role on a one-off basis or ad-hoc basis. An example of the latter is the [Economic Review Committee](#) (ERC), a Singapore-based network of state and private sector representatives responsible for making recommendations to generate structural shifts in economy and society.

The most relevant (to this class) ERC was set up by Prime Minister Goh Chok Tong in October 2001 with a mandate "[to fundamentally review our development strategy and formulate a blueprint to restructure the economy, even as we work to ride out the current recession](#)". The Committee's composition is revealing: nine members of the government or government functionaries (including the President of the National University of Singapore), two union representatives, and nine private sector representatives (including [Arnoud De Meyer](#), the first dean of [INSEAD's Asia campus](#)). Arnoud De Meyer also served on the Sub-Committee on Service Industries in the ERC. He has served as the president of [Singapore Management University](#) (SMU) since 2010.

In line with the goal of transforming Singapore into "a vibrant and robust global hub for knowledge-driven industries", the EDB announced its detailed Industry 21 strategy, a strategy whose product would be a Singapore capable of developing:

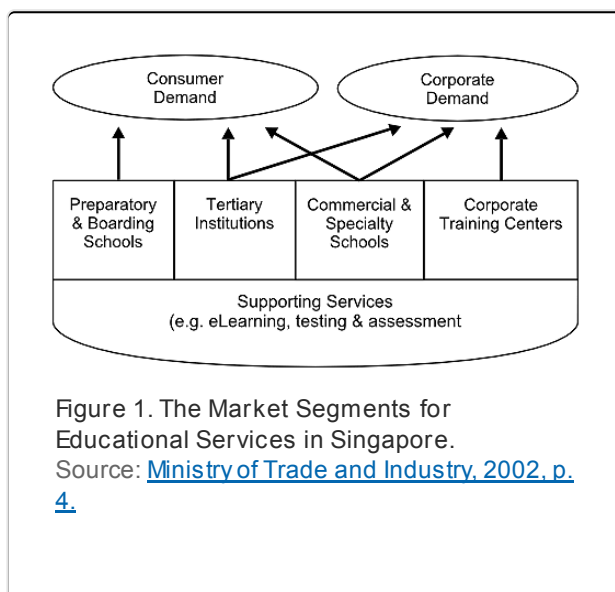
- [M]anufacturing and service industries with a strong emphasis on technology, innovation and capabilities. We also want to leverage on other hubs for ideas, talents, resources, capital and markets.
- The knowledge-based economy will rely more on technology, innovation and capabilities to create wealth and raise the standard of living. For our knowledge-based economy to flourish, we will need a culture which encourages creativity and entrepreneurship, as well as an appetite for change and risk-taking. (cited in [Thrift, 2005, p 100](#), our emphasis)

Such comments illuminate the connection between structural reform (in a sectoral sense) and the need to construct new citizen-subjects.

It is in this complex policy context that the 'Global Schoolhouse' concept was developed, with education services (at all levels – from primary to postsecondary) being perceived as a vehicle to diversify the economy, spur on restructuring in indigenous institutions of higher education, while also re-branding Singapore as a hub of the global KBE.

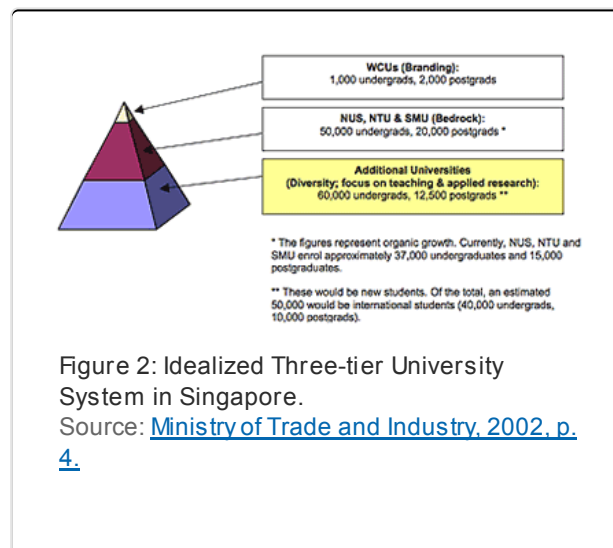
The education market was segmented, with demand perceived to come from both consumers (i.e. students) and corporations (recalling that Singapore is a major regional headquarters base for multinationals). Four broad supplier categories were delineated, with acknowledgement that

the supporting services sub-sector (e.g., testing and assessment services) could also be attracted to locate in Singaporean territory. Figure 1 conveys this segmented conceptualization.



In the context of the emergence and then implementation of the 1998 WCU program, and the issuance of the [final report of the Economic Review Committee](#) in 2003; see especially the education section in Chapter 11), a relatively liberal yet strategically diversified well-crafted regulatory framework for foreign providers of higher education (also deemed tertiary education) emerged. Practically, this new framework suggested territorialized forms of foreign university involvement via recognition of the value of Mode 3 (Commercial Presence).

There is a clear differentiation component, however, to the higher education component of the Global Schoolhouse development policy (see Figure 2 to the right). The National University of Singapore, Nanyang Technological University, and the newly established (in 2000) Singapore Management University were targeted as the bedrock (or filling?) of a three-tier university system, though NUS clearly feels, and deserves to feel, that it is the preeminent “local” institution of higher education.



## Opening Up Singapore to Foreign Universities (1998-2014)

After the WCU program was initiated in 1998, a large number of Singapore-foreign university initiatives have been established (see Table 3):

Table 3 – Substantial Singapore -Foreign University Initiatives (1998-2014)

## Global Assemblage : Singapore , Foreign Universities, and the Construction of an Education Hub

Year	Foreign University & Discipline(s)	Type of Linkage
1998 - 2006	Johns Hopkins University – Medicine (JHU)	Joint biomedical program with NUS. Failed to meet performance goals, closed.
1998 -	Centre National de la Recherche Scientifique (CNRS) - Engineering	Laboratories established at NUS to facilitate joint research. Other partners include the Institute TELECOM and the University Pierre et Marie Curie ( <a href="#">Link</a> )
1998 -	University of Adelaide – Nursing, Entrepreneurship, Comp Sci, Education, Business	Partnership with Ngee Ann Kongsi ( <a href="#">Link</a> )
1998 -	Massachusetts Institute of Technology (MIT) – Engineering and Computer Science	Joint graduate programs with NUS and NTU via video-conference, exchanges, conferences ( <a href="#">Link</a> )
1998 -	University of Newcastle (Aus.) - Various	Teaching 1500 students in partnership with PSB Academy ( <a href="#">Link</a> )
1998 -	Georgia Institute of Technology (GIT) - Engineering	Joint graduate programs with NUS via in situ teaching and exchanges ( <a href="#">Link</a> )
1999 -	Manchester Business School – Management, Finance, Marketing	“tailored and flexible MBA programmes for professionals in finance, engineering and construction” ( <a href="#">Link</a> )
1999 -	INSEAD - Business	“the first business school to have two fully-fledged campuses with permanent faculty - one in Europe, the other in Asia.” ( <a href="#">Link</a> ) Penn’s Wharton School of Business is a partner
2000 - 2014	Booth School of Business, University of Chicago – Business Admin	One of three international branch campuses. Executive MBA offered, and, with SMU, joint conferences, business and customized programs for Singapore-based corporations. Asia Executive MBA Program being relocated from Singapore to Hong Kong in 2014 ( <a href="#">Link</a> )
2001 -	US Naval Postgraduate School (NPS) - Military	Joint graduate programs with NUS via in situ teaching and exchanges (Temasek Defence Systems Institute -

		<a href="#">Link</a> )
2002 -	Technische Universität München (TUM) – Industrial Chemistry, Engineering, Logistics	Joint graduate programs with NUS via in situ teaching and exchanges. Independent research via the German Institute of Science and Technology (GIST), a private university affiliated with TUM – “the first German academic venture abroad”. TUM Asia partnered Singapore Institute of Technology (SIT) in 2009 ( <a href="#">Link</a> )
2002 - 2008	Technische Universiteit Eindhoven (TU/e) - Engineering	Joint graduate programs with NUS via in situ teaching and exchanges. Joint research via the Singapore-based Design Technology Institute (DTI), then the Design Technology Institute (DTI). ( <a href="#">Link</a> )
2002 -	University of Illinois, Urbana-Champaign (UIUC) - Engineering	Joint graduate programs with NUS via in situ teaching and exchanges ( <a href="#">Link</a> )
2002 -	Shanghai Jiao Tong University (SJTU) - Business	Joint graduate programs with NTU via in situ teaching and exchanges. ( <a href="#">Link</a> )
2003 -	Carnegie Mellon University (CMU) – Information Systems	Consultancy to establish School of Information Systems in SMU, then the Living Analytics Research Centre (2011-). ( <a href="#">Link</a> )
2003 - 2009	Stanford University – Environmental Science and Engineering	Joint graduate programs with NTU via in situ teaching, video conference teaching and exchanges. Phased out in 2009. ( <a href="#">Link</a> )
2003	Cornell University – Hospitality Management	Joint graduate programs with NTU via in situ teaching, exchanges, and research ( <a href="#">Link</a> )
2003 -	Johns Hopkins University – Music	JHU's Peabody Institute collaborated with the National University of Singapore to create the Yong Siew Toh Conservatory of Music (YSTCM). ( <a href="#">Link</a> )
2003 -	Karolinska Institutet (KI) – Bio-engineering	Partnership w NUS and NTU: Joint graduate programs and research in stem-cells, tissue engineering and bio-engineering. No intake – program

		under “renegotiation” ( <a href="#">Link</a> )
2003 -	James Cook University – Business, env sci, IT, psychology, tourism	Owned by “the leading tropical research university in Australia” ( <a href="#">Link</a> )
2004 -	Australian National University (ANU) – Actuarial Sciences, Economics, Mathematics, Chemistry, Physics	Joint graduate programs with NUS. (e.g. <a href="#">Link</a> )
2004 -	Waseda University – Business and Technology Management	Joint graduate programs with NTU ( <a href="#">Link</a> )
2004 - 2007	University of New South Wales - Comprehensive	Full breadth campus being established for up to 15,000 students (Closed)
2004 -	Ecole Supérieure D’Electricité (Supelec) - Engineering	Joint graduate programs with NUS ( <a href="#">Link</a> )
2005 -	Duke University - Medicine	Joint graduate medical school with NUS ( <a href="#">Link</a> )
2005 -	University of Warwick - Comprehensive	Detailed proposal for full breadth campus for up to 10,000 students by 2022 (Declined)
2005 -	Cardiff Metropolitan University – Business	Partnership with East Asia Institute of Management ( <a href="#">Link</a> )
2006 -	Ecole Supérieure des Sciences Economiques et Sociales (ESSEC) - Business	“the perfect foothold for ESSEC Business School to be part of the vibrant growth of Asia and to share its expertise in the developing region.” ( <a href="#">Link</a> )
2006 - 2015	University of Nevada at Las Vegas (UNLV) – Hospitality Management	“UNLV’s branch in Asia....currently offers international and American students the College’s curriculum leading to the UNLV Bachelor of Science in Hospitality Management.” Campus likely to close in 2015 ( <a href="#">Link</a> )
2006 -	SP Jain Center of Management (SPJCM) – Business Admin	Indian business school with three international branch campuses ( <a href="#">Link</a> )
2006 -	Carnegie Mellon University (CMU) Entertainment Technology Center – Interactive Media	Partnership with NUS ( <a href="#">Link</a> )
2007 - 2014	Tisch School of the Arts, New York University (NYU) – Fine Arts	“the university’s first degree-granting campus outside New York City....A haven for artists of all ages.” Closing



		in 2014 ( <a href="#">Link</a> )
2007 -	Sacramento State College of Business Administration - Business	Partnership with Aventis School of Management ( <a href="#">Link</a> )
2007 -	Arcadia University – Business	Partnership with Aventis School of Management ( <a href="#">Link</a> )
2008 - 2014	New York University (NYU) - Law	Established joint NYU@NUS Masters in Law Program. Closing in 2014. ( <a href="#">Link</a> )
2008 -	Curtin University of Technology - Various	Public university in Perth w 2 international branch campuses ( <a href="#">Link</a> )
2008 -	Queen Margaret University – Tourism, Nursing, Business	Partnership with East Asia Institute of Management ( <a href="#">Link</a> )
2008 -	Newcastle University (UK) – Engineering, Nutrition	Partnership with the Singapore Institute of Technology ( <a href="#">Link</a> )
2008 -	Temple University, Fox Business School – Business	Partnership with International Executive Education Center ( <a href="#">Link</a> )
2008 - 2011	University of New Brunswick	Partnership w Singapore Institute of Commerce and Stansfield College. UNB link severed after negative review.
2009 -	Digipen Institute of Technology – Game Design	“the world’s first college to offer a bachelor’s degree program dedicated to game development...DigiPen’s presence will also contribute to the Singapore government’s vision of turning the island into a ‘Global Digital Studio.’”( <a href="#">Link</a> )
2009 -	Massachusetts Institute of Technology (MIT) –	Guided the development of the Singapore University of Technology and Design (SUTD). China’s Zhejiang University (ZJU) also played integral development role. ( <a href="#">Link</a> )
2010 -	University College London (UCL) – Facility and Environmental Management	Partnership with BCA Academy Singapore. “Ideal for practice-based facility professionals with a variety of experience and backgrounds from all levels of management across a variety of sectors” ( <a href="#">Link</a> )
2010 -	Imperial College London – Scientific	Joint PhD program w NUS ( <a href="#">Link</a> )

	Research	
2011 -	Ecole des Hautes Etudes Commerciales (EDHEC) – Management and Finance	Part-time work-study programmes ( <a href="#">PhD in Finance</a> , <a href="#">MSc in Risk &amp; Finance</a> ), along with EDHEC-Risk Institute's Asian headquarters. ( <a href="#">Link</a> )
2011 -	Yale University – Liberal Arts	New liberal arts college established in partnership with NUS. NUS degrees issued. ( <a href="#">Link</a> )
2011 -	Culinary Institute of America – Culinary Arts	“specifically for diploma holders from one of the five Singapore-based polytechnic institutions.” Partnership w Singapore Institute of Technology, on campus of Temasek Polytechnic ( <a href="#">Link</a> )
2011 -	University of Glasgow – Engineering	Partnership with the Singapore Institute of Technology ( <a href="#">Link</a> )
2012 -	University of Manchester – Nursing	Partnership with the Singapore Institute of Technology ( <a href="#">Link</a> )
2012 -	Kings College London – Biology, Physics	Joint PhD program w NUS ( <a href="#">Link</a> )
2012 -	Panthéon-Assas University & INSEAD	Sorbonne Assas International Law School ( <a href="#">Link</a> )
2013 -	Hebrew University of Jerusalem – Biomedical Science	Joint PhD program w NUS ( <a href="#">Link</a> )
2013 -	Imperial College London - Medicine	Joint medical school with NTU ( <a href="#">Link</a> )
Unsure	Baruch College, City University of New York (CUNY) – Finance, Marketing, Psychology	One of two international branch campuses. ( <a href="#">Link</a> )
Unsure	University of Hertfordshire	Partnership with BMC International College ( <a href="#">Link</a> )
Unsure	University of Wolverhampton – Sports, Business, Hospitality	Several local partners ( <a href="#">Link</a> )
Unsure	Indian Institute of Technology Bomban/Madras/Kanpur – Engineering, Science	Joint degree programs w NUS ( <a href="#">Link</a> )
Unsure	Trinity College Dublin – Physiotherapy	Partnership with the Singapore Institute of Technology ( <a href="#">Link</a> )
Unsure	Glasgow School of Art – Communication Design, Interior	Partnership with the Singapore Institute of Technology ( <a href="#">Link</a> )

	Design	
Unsure	University of Liverpool – Criminology	Partnership with the Singapore Institute of Technology ( <a href="#">Link</a> )
Unsure	Wheelock College – Early Childhood Education	Partnership with the Singapore Institute of Technology ( <a href="#">Link</a> )

It is also important to note that foreign universities have been reaching into Singapore for several decades via a series of locally registered institutions. For example, the [Singapore Institute of Management](#) (SIM) currently works with a number of international universities to coordinate a variety of undergraduate and postgraduate programs. Numerous corporate and business media organizations such as the [Center for Creative Leadership](#), [Lucasfilm Animation](#), [DigiPen](#) (the digital media school) and [Boeing](#) (their pilot and flight attendant training unit) have set up training programs in Singapore over the last ten plus years.

Singapore has been viewed as an attractive location to be linked to, or based in, because of a number of interlinked factors including:

- The city-state's strategic geographical position within Southeast Asia (boosted by Changi Airport), with close proximity to South Asia, and the southern parts of East Asia
- The quality of life for visiting and permanent faculty and students
- A significant and often well placed alumni base in Singapore
- The large number of transnational corporations with presences in Singapore
- Singapore's relative political stability
- The presence of high quality and well resourced [post-secondary institutions](#)
- The presence of other foreign universities
- Singapore's well-known commitment to education

Are there any other factors we might be missing?

It is also important to note the foreign universities are being attracted by the substantial resources being allocated into R&D by the Government of Singapore. The Government is guided by its [Science, Technology & Enterprise Plan 2015](#) (2011), and directs resources via its [Agency for Science, Technology and Research](#) (A\*STAR), via funding funneled through the national universities (especially NUS & NTU), and a number of other mechanisms.

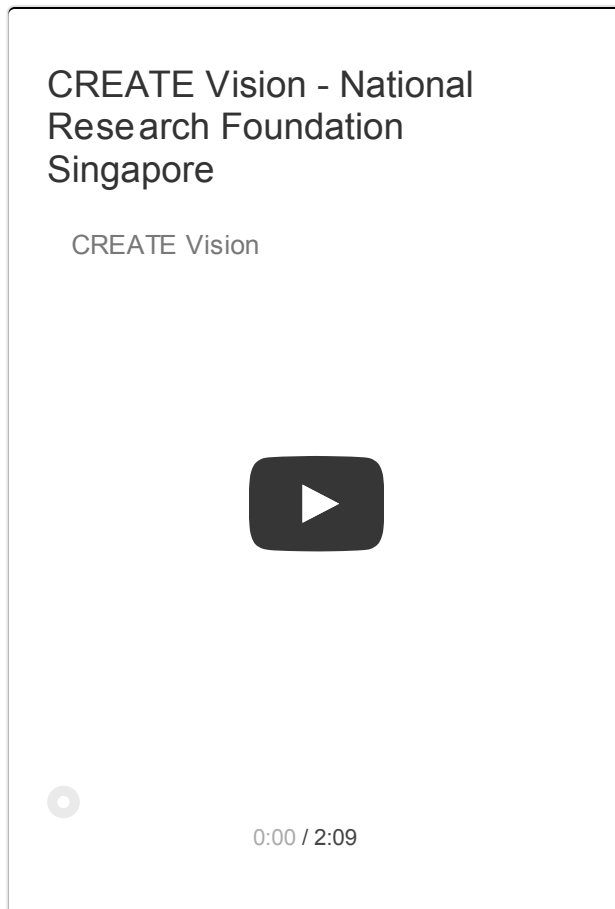
The Government has also established a very important [National Research Foundation](#) (NRF) in 2006 within the Prime Minister's Office. The [mission](#) of the NRF is to set "the national direction" for R&D.

Amongst the more innovative initiatives that the NRF has pursued is the [Campus for Research Excellence and Technological Enterprise](#) (CREATE), an "international collaboratory that houses research centres set up by top universities in collaboration with our local universities and research institutes". The foreign universities with a presence in this state provided but collective and hybrid (local/foreign) research space include:

- Massachusetts Institute of Technology
- Swiss Federal Institute of Technology (ETH), Zurich
- Technical University of Munich Technion-Israel Institute of Technology Hebrew University of Jerusalem
- Ben-Gurion University
- University of California, Berkeley
- Peking University

- Shanghai Jiao Tong University
- Cambridge University

What do you note about this lineup of universities? Hint: go back to Week 6's materials, and see where they are ranked in the three schemes we profiled. And watch this promotional video about CREATE, and reflect back upon the Chambre 124, Cité Internationale Universitaire de Paris (dir. Fabio Brasil, 2006)



CREATE is clearly different in some key ways to the Cité U campus we explored in [Week 1](#), and yet it exudes some of the same aspirations to create a multinational & inter-cultural space within the city, and to serve broader developmental agendas.

## Grounding and Stabilizing is a Challenge, Even for a Strong State!

The grounding of the foreign universities was and is far from guaranteed. Policies do not beget the stabilization, even if only temporarily, of the heterogeneous elements which make up the Global Schoolhouse assemblage. What also matters is statecraft via the powers and capacities of a Pacific Asian developmental state (e.g., large scale targeted financial subsidies), doses of bureaucratic persistence and persuasion, and commitment on behalf of the foreign universities, ideally at the highest levels.

For example, the EDB played an important role in courting select universities in R&D rich contexts (e.g., Boston, Baltimore). In order to tempt the universities, the EDB

played up Singapore's cosmopolitan nature, and then used tangible material resources in the form of financial and other incentives.

The University of Chicago's business school, for example, received several million dollars worth of subsidy via the renovation of the historic House of Tan Yeok Nee building they are using as their campus until 2014.

The University of New South Wales (UNSW) received upwards of \$80 million of direct and indirect subsidy from the EDB before it collapsed just a few months after opening in 2007. And the Government of Singapore effectively funded the Wharton-SMU Research Center at SMU, providing monetary and in-kind support for research projects, seminars, scholarships and the like. While the exact scale of the



House of Tan Yeok Nee building



subsidies is confidential, and tied to 4-5 year Memorandums of Understanding (MOUs) and other contractual forms, suffice it to say a highly ranked and proactively courted foreign university in the first five years of the WCU received several million dollars of direct and indirect subsidy.

Overall, what we see is differentiation in this localized global higher education and research landscape. The state recognizes and often subsidizes (at least for a while) highly ranked brand named universities, and welcomes or is willing to at least accept the presence of less highly ranked universities, in part for the economic impact they generate with respect to the broader services sector (recall the Nations week discussion about 'export earnings' via, for example, expenditures on housing, food, hotels, etc., and the bottom segment of the pyramid in Figure 2 above).

As hinted at, above, and is evident in the long table, there have been problems stabilizing this development agenda. These problems include programs, campuses, and development plans associated with:

- Johns Hopkins University (Medicine) – program shut down
- University of Chicago (Business) – campus moving to Hong Kong
- Technische Universiteit Eindhoven (Engineering) – center shut down
- Stanford University (Environmental Science & Engineering) – program shut down
- Karolinska Institutet (Engineering) – program being reviewed
- University of New South Wales (Full spectrum campus) – campus closed
- University of Warwick (Full spectrum campus) – offer rejected by Warwick at last minute
- University of Nevada at Las Vegas (UNLV) (Tourism) – campus closing down
- New York University (Fine Arts) – school closing down
- New York University (Law) – program closing down

This said, there have been many successes, most notably the increasing number of joint ventures (e.g., Duke-NUS, the CREATE campus), and focuses stand-alone campuses (see Box 1 on INSEAD), highlighting the importance of careful and strategic planning and development when globalizing and partnering.

### Box 1: INSEAD & SINGAPORE





[INSEAD](#) was founded in 1957, an Asian business program was established in 1974, and the Euro-Asia Centre at its Fountainbleau campus in France was opened in 1980.

INSEAD established its “Asia campus” in Singapore in January 2000. A US\$ 40 million 12,000 sq. m. building was built to enable Singapore-based faculty, and European campus visiting faculty, to offer full- and part-time courses, as well as executive seminars and an EMBA program. European and Asian campuses are fully integrated (a ‘global learning network’), with student exchanges a common component of the MBA program. On average, no more than 10% of the student base is Singaporean. Numerous executive education courses are offered on campus. INSEAD announced its Singapore campus broke even in 2003, and expanded in 2005 with an additional 6,000 sq. m. of floor space, which will enable up to 450 MBA students to be based in Singapore at any one time.

The decision to pursue a relatively embedded campus model sprang out of a relatively long history of research on Asian business systems and INSEAD’s commitment to “a non-dogmatic learning environment that brings together people, cultures and ideas from around the world, changing lives, and helping transform organisations through management education”.

Listen to this brief podcast with [Gabriel Hawawini](#), Professor of Finance and former dean of INSEAD (2000-2006). He held the Henry Grunfeld Chair in Investment Banking from 1996 until 2013. His previous appointments include: deanship of the school's Development Campaign (1998-2000), deanship of the Doctoral Program (1998-1999), directorship of the Euro-Asia Centre (1988-1994), the Yamaichi Professorship in Finance (1989-1994), and coordination of the Finance Area (1985-1987 and 1996-1999). Gabriel, if you recall, was a key voice in Week 1 on Globalizing Universities. In this podcast he operationalizes some of his ideas and models that were discussed in Week 1, and he relates them to INSEAD’s decision to open up a second (Asia-based) campus in Singapore.

[mp3](#) | [transcript](#)

The institutional paradigm that shapes the curriculum also logically led INSEAD to establish a site in the center of Asia. The capacity of this version of the Network model to enhance university-industry linkages is relatively strong given that it requires a significant commitment to being embedded in space, and therefore geographically specific institutions and networks are generated over time (assuming the campus is well managed).

INSEAD received \$10 million in research funding over the first four years of its Memorandum of Understanding (MOU), plus soft loans, reduced land values (about 1/3 of the commercial price), easier-to-get work permits, housing access, and so on.

MBA Participants (Asia Campus)	Executive Education Participants (Asia Campus)
2000 = 53	2000/2001 = 996
2005 = 301	2004/2005 = 1583
2010 = 384	2009/2010 = 1845
2013 = 419	2012/2013 = 3158
PhD Students (Asia Campus)	Breakdown by Nationality of MBA Participants (Asia)
2008 = 4	

2009 = 9  
2010 = 10  
2013 = 8

Campus)  
2000 = 26 nationalities  
2005 = 45 nationalities  
2010 = 64 nationalities  
2013 = 80 nationalities

Source: INSEAD (2014)

## Now to the Thorny Question of 'Academic Freedom'

The significant development of bilateral arrangements giving shape to the emergence of these truly fascinating global education hubs -- with universities and their faculty in one country extending out and being embedded in another country (in this case Singapore) -- in turn also raised crucial questions about the core 'idea of a university' -- that of academic freedom.

In Week 2 we showed that the idea of academic freedom emerged with the medieval university -- with scholars being given a degree of autonomy over their affairs in order to protect them from political interference. Guarantees over academic freedom were eventually enshrined in both the ways in which a university governs itself, and also in laws -- largely in national and sub-national state legislation. But globalization changes these things in that the question becomes -- whose regulatory body holds -- the home campus, or the outpost? And if these things are negotiated, how and where does this take place, and what are the outcomes?

So how does this all play itself out in Singapore?

## Economic development strategies and a drift toward academic freedom

We've been arguing that Singapore's development strategy - to become the 'Boston of the East' - is underlain by structural change in Singapore's economy, and a related perception that a 'new breed' of Singaporean is needed. In an overall sense, this development agenda is designed to help reshape society and economy, while discursively branding (it is hoped) Singapore as one of the 'hotspots' in the city-region archipelago which fuels, and profits from, the global knowledge economy.

One outcome has been that since around 1998, there is an enhanced acceptance of academic freedom in Singapore (in comparison to the 1980s and early 1990s). This is a point that was made in a 2005 chapter in [Global Assemblages: Technology, Politics and Ethics as Anthropological Problems](#) that Kris co-authored with the University of Warwick's Vice-Chancellor, [Nigel Thrift](#) (though we do not speak for Nigel Thrift here). In Singapore over the last decade plus, local universities have acquired considerably more autonomy regarding governance matters. Faculty now have historically unprecedented freedom to shape curricula and research agendas, and students have greater freedom to express themselves, even taking on ruling politicians in campus fora from time to time. This can also be seen in recent developments -- such as the [Yale-NUS College](#).

This said, Singapore is a highly charged 'soft authoritarian' political milieu: if certain conditions

come together regarding the focus and activities of a faculty member (or indeed anyone else in Singapore, be they expatriates, permanent residents, or long-term citizens), a strong state guided by political elites has much room to maneuver – legally, administratively, procedurally, symbolically – in comparison to most other developed countries. In this kind of context, a focused form of [‘calibrated coercion’](#) can be exercised, if so desired, and an analyst’s life can be made very difficult despite the general practice of academic freedom on an average day-to-day basis.

There are discussions about ‘OB markers’ (out-of-bounds markers) regarding certain topics, some forms of self-censorship regarding work on select themes, and perhaps a lift of the eye when CVs come in with Amnesty International volunteer experience listed on them. And at a broader scale, the [Public Order Act](#) regulates ‘cause-related’ cause-related activities that “[will be regulated by permit regardless of the number of persons involved or the format they are conducted in.](#)”

In short, Singapore is a complicated place, and like all places (Singapore and the US included), there are many shades of grey. On this point it worth [quoting](#) the ever insightful [Cherian George](#):

Singapore is not for everyone. Compared with countries at a similar income level, it is backward in the inclusiveness it offers to people with disabilities. It is a relatively safe country for families – but an innocent person who is wrongly suspected of a crime has more reason to fear in Singapore than in countries that treat more seriously the rights of the accused. And those who care enough for their society to stand up and criticise it have to be prepared to be treated as an opponent by an all-powerful government, enduring harassment and threats to their livelihoods. Being a writer immersed in Singapore has not blinded me to the system’s faults. But, one common form of critique in which I find myself unable to indulge is caricature, reducing Singapore to a society ruled by a monolithic elite, served by a uniformly pliant media, and populated by lobotomised automatons. Such essentialised accounts of government, media and people may satisfy the unengaged, but they generate too much cognitive dissonance for me. The Singapore I know – like any human society – is diverse and complex...

It’s worth noting that Cherian George was [denied tenure](#) by Nanyang Technological University (NTU) in 2013, a controversial decision that continues to generate ripple effects on multiple levels. See, for example, [‘Academic speaks out after ‘forced exit’ from Nanyang’](#) (University World News, 13 May 2014), [‘Outspoken academic Cherian George takes up post at Hong Kong Baptist University’](#) (South China Morning Post, 10 May 2014), and [‘Moving on’](#) (10 May 2014) by George himself.

## Foreign universities and the drift away from academic freedom

But what about the many foreign universities with a presence in this Southeast Asian city-state doing about academic freedom? If there is a lack of clarity about the nature of academic freedom especially given that guidelines are not codified, rules are unclear, and there appear to be no formalized procedures for dealing with serious contests, do foreign universities just accept the same conditions local faculty and students cope with?

The answer is a clear and resolute “no,” at least for highly respected universities like Chicago, Cornell, Duke, and Yale. Rather, what they do about academic freedom depends upon the outcome of negotiations between each of these foreign universities and the Singaporean state (sometimes in conjunction with local partner universities). One of the more intriguing things about the development process is that most of the highly ranked foreign universities that have engaged with the Singaporean state have developed what are effectively bilateral understandings of academic freedom.

Yale University, for example, bargained to include [these statements](#) in its agreement with the Singaporean state, and on its website:

Yale-NUS College is committed to the following with respect to academic freedom and non-discrimination:

#### Academic Freedom

The College upholds the principles of academic freedom and open inquiry, essential core values in higher education of the highest calibre. Faculty and students in the College will be free to conduct scholarship and research and publish the results, and to teach in the classroom and express themselves on campus, bearing in mind the need to act in accordance with accepted scholarly and professional standards and the regulations of the College.

#### Non-Discrimination

The College is committed to basing judgments concerning the admission, education, and employment of individuals upon their qualifications and abilities. The College's policies in respect to admissions, educational and extracurricular activities, and employment of faculty and administrative staff, are consistent with Yale's and NUS' policies on non-discrimination.

It also flagged this statement:

#### Faculty statement on the freedom of expression

We are firmly committed to the free expression of ideas in all forms—a central tenet of liberal arts education. There are no questions that cannot be asked, no answers that cannot be discussed and debated. This principle is a cornerstone of our institution.

What we are seeing here is the creation of a strategically delineated understanding of academic freedom; one specified by just two parties in this case, and one that applies is a narrowly circumscribed geographic context (for example, the Yale-NUS campus).





Yale-NUS campus rendering  
Source: Yale-NUS College

In the global higher ed context, this pattern is not unique to Singapore. The same case could be made regarding Qatar, Abu-Dhabi, Dubai, and China (albeit to a lesser degree). What is noteworthy is that the current experts regarding the globalization of academic freedom are monarchs and political elites associated with ruling regimes, not the people associated with the higher education sector, for they are too focused on their own institutional agendas.

Another interesting aspect of this development process is the absence of any form of collective representation regarding academic freedom in these hubs. Universities (e.g., Yale, Cornell, MIT, NYU, Texas A&M) active in global higher education hubs informally share information, to be sure, but their capacity to share information, and model practices, depends on proactive and savvy administrators who know what to think about, what to ask about, and where the 'non-negotiable' line should be drawn.

Once they forge their agreement with the state in these hubs, they move on to the implementation phase. And then 1-3-5 years later in comes a new university, and this pattern starts afresh (and a new spoke is added). But the lines connecting the foreign universities are thin. For example, it is worth considering how many of the recent negotiations about academic freedom in Singapore have been informed by a critical analysis of the pros and cons of the University of Warwick's deliberations about opening up a branch campus in Singapore circa 2005, including Dr. [Thio Li-ann](#)'s substantial [report](#) about academic freedom in Singapore.

## Is bilateralism regarding academic freedom really the most effective approach?

One issue to contemplate is whether the absence of a national arrangement in negotiating academic freedom, and the presence of a case-by-case/ bilateral-by-bilateral arrangement, is the best strategy for Singapore? Does this level of uncertainty, and the multiplicity of arrangements, generate greater instabilities in terms of economic development? Uncertainty is a problematic factor that can inhibit or skew the development process, partly because of misinterpretations.



A second issue is the absence of a global mechanism that has 'bite' to ensure that the core principles associated with academic freedom are protected and realized as best it can be for the global community of scholars in Singapore – and also more generally (including Bristol, Madison or where any of you are located).

## Final Thoughts

### SINGAPORE – A GLOBAL EXPERIMENT IN HE

Singapore is a truly fascinating case of the changing global higher education landscape – not just because of the speed at which it has been built (in comparison with the medieval universities which continue today), or the very different spatial organization of the modern university, but also the rather different social and political questions that become more visible about universities and their role in societies and economies.

The Singaporean state is also playing a fundamental role in restructuring the economy via the refashioning of the local citizenry, while simultaneously providing retooling opportunities for the hundreds of thousands of professional migrants who use Singapore as a temporary base.

While the structural pressures to create a 'Boston of the East' are immense, and the Government of Singapore has sunk enormous resources into generating complex of active universities and affiliated institutions, it is clear that foreign universities themselves play a critical role in shaping the development process.

These are early days in the most recent higher education reform era of Singapore's history, and in the globalization of higher education (especially the variants involving the establishment of commercial presence in foreign territories). Regardless of one's views on this approach to development, the experiment is certainly worthy of greater attention and illumination.

Kris & Susan

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## Week 7 Activity

There are three main discussion exercise options this week. The first two are focused topic discussions, while the third is an open-ended forum for discussing and debating any topic related to Week 7.

Choose from one or more of the following options:

### Option A: CREATE – Is it a Global Higher Education Solution for the 21st Century?

Watch [this promotional video](#) about Singapore's [CREATE](#), and reflect back upon the *Chambre 124*, Cité Internationale Universitaire de Paris (dir. Fabio Brasil, 2006) which we took you on a walk through in [Week 1](#).

Now CREATE is clearly different in some key ways to the Cité U campus, and yet it exudes some of the same aspirations to create a multinational & inter-cultural space within the city, and to serve broader developmental agendas.

Is CREATE a solution to the question posted in Week 2: Is this higher education model more fit for a global urban era? Why? How? For Whom?

[Go here to post your Option A contribution](#)

## Option B: Academic Freedom in a Globalizing Era – Changes and Challenges

Singapore is just one of the fast changing places where debates about the futures of academic freedom are unfolding. All of the higher education 'hubs' identified in the international branch campus map (e.g., Abu-Dhabi, Qatar) we introduced to you in Week 2 on universities and city regions, as well as other globalizing places (e.g., Astana, Kazakhstan), are associated with debates about what academic freedom is, how it might or should be protected, its value to the production of knowledge, what to do about practices like 'self-censorship,' etc., etc.

What are your thoughts about the future of academic freedom in a globalizing era? Please discuss, and if you can, please draw in actual examples from the places you know best.

[Go here to post your Option B contribution](#)

## Option C: Open Debate/General Discussion

Generate a discussion and debate about any aspect of this week's content. Your task is to develop an insightful argument and/or develop an informed reaction to someone else's posting.

[Go here to post your Option C contribution](#)

### How to submit your contribution:

1. Submit your response as a new posting in the corresponding discussion sub-forum (linked above) by 10:00 a.m. (CST) on Monday, 19 May.
2. Read and debate with your fellow students. You are encouraged to discuss in all three topic areas.
3. Vote-up the posting(s) that you feel provide(s) the most insightful contributions.
4. For those seeking a Statement of Accomplishment, please click the button below to attest your completion

Tip: Copy the URL of your thread before submitting your activity completion record.

★ Click to Attest Completion

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