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Rethinking international education engagement in the Asia Pacific region

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Presentation notes

1.0 Introduction

1.1 This paper discusses future directions in the knowledge economy, six trends in Asia Pacific international education and offers a rethinking of Asia Pacific international education engagement.

2.0 Future directions in the knowledge economy

2.1 Kim Jong Ill, North Korea's dictator, has interests in modern technology beyond his dabbling in nuclear weaponry. In 2000 he famously asked Madeleine Albright, then America's secretary of state, for her e-mail address. Mr Kim believes there are three kinds of fool in the 21st century: smokers, the tone-deaf and the computer-illiterate.

2.2 In the last century, the knowledge economy populated mainstream thinking. Unlike the industrial revolution, the new economy comprised knowledge workers who manipulated knowledge symbols rather than machines. In the early part of this century, discussion gravitated towards the idea of a knowledge services economy, where a hardware product sold in one location is complemented by an array of related softwares or allied services offered virtually over the Internet. In the past couple of years however, alternative thinking about what constructs the post knowledge economy seems to be gaining traction. Current discussions centers around what is increasingly referred to as the virtual knowledge economy.

2.3 The idea of a virtual knowledge economy is not new. In fact in 1992, author of science fiction novel *Snow Crash*, Neal Stephenson, described this 'virtual knowledge economy' as 'metaverse', the interface between reality and the virtual world. In Stephenson's freaked out vision of a metaverse, humans interact as avatars with each other socially and economically and with commercial agents hawking softwares, services and real estate in cyberspace. What Stephenson proposed in 1992 is becoming more relevant and implementable in today's modern world. In today's version, the interface between reality and the virtual world is creating a new socialising space, a commercial frontier and virtual university campus.

2.4 A number of applications inspired by the metaverse logic are already available online. Second Life, for example is a 3D immersive virtual space where humans disguised as avatars interact socially and economically. They buy virtual real estate, set up business, sell avatar fashion and even play the stock exchange where US dollars are exchanged for virtual microcurrency, Linden dollars.

2.5 Google is combining satellite maps and 3D software to turn Google Earth into a virtual online playground. Real Estate companies have started showing off virtual versions of buildings for sale in the real world on Google Earth. Open source softwares made available by Google allows companies to build entire models of their apartments, right down to the microwave oven. According to Jerry Paffendorf, research director of Acceleration Studies Foundation, a futurist organisation, consumers could fly into a virtual New York, go shopping in a virtual Times Square, get past the velvet rope at a virtual Studio 54 and chat with an avatar dressed as Andy Warhol.

2.6 The shift from services to virtual knowledge economy is a long way from now. But just imagining the changes raises new and interesting questions about how higher education institutions will respond and adapt to a rapidly changing and uncertain environment.

2.7 What does it mean for international education and the professions? Looking at the higher education sector today, some of the changes to the existing knowledge economy are indeed challenging thinking on the role of higher education institutions. Students are the new drivers of change for more flexible educational delivery platforms – not the universities. New jobs will be dependent on research skills than knowledge.

2.8 Since the mid-eighties the emphasis of Australia's international education sector has predominantly focused on the recruitment of full fee paying overseas students, establishment of offshore campuses, creation of twinning schemes and proliferation of exchange agreements.

2.9 Since the beginning of the 21st century, the international higher education sector is undergoing a radical transformation where the emphasis on overseas student recruitment as a definition and representation of an 'international university' is becoming secondary and outdated as new forms of international activities take root.

3.0 Six trends in international higher education in the region

3.1 Trend 1: Technology in education

3.1.1 Rapid developments in technology is reshaping and diversifying the traditional modes of learning. Students, the chief beneficiaries of advancement in modern communications technology are expecting, if not demanding universities adept quickly in the mobilisation and use of technology in teaching modes. In the next five to ten years, student expectation of how learning is undertaken will radically change. By 2010, students will be accessing their information from electronic libraries; lectures would be available through podcasts; submission of assignments and consultation with lecturers will occur via email; and students will participate in social chat rooms.

3.1.2 By 2015 Smart phones with its capability to host multimedia softwares will be used by students to download their lecture as a podcast to listen at their leisure. There would be online chat room style tutorials. And a growing number of students will enrol at virtual university campuses. A growing number of universities are already using virtual worlds to hold their classes. About 117 universities around the world are now using 3D virtual worlds at teaching tools. They range from Harvard University, Stanford University to Newcastle Upon Tyne in the UK, Singapore's Nanyang University and Sogang University in Seoul, Korea.

3.2 Trend 2: Emerging education hubs

3.2.1 One of the new trends and innovation in the Asia Pacific region is the emergence of international education hubs in Malaysia, Singapore, China and increasingly India. Governments in the region are injecting substantial public investment into its higher education infrastructure.

- The Malaysian government is taking a serious commitment to international education. It aims to double to 100,000 the number of foreign students at local tertiary learning institutions by 2010.

- The Singapore government is pouring millions of dollars into creating an education hub for Asia, the Global Schoolhouse. It aims to triple the number of foreign students to 150,000 by 2012. Part of its strategy involves attracting 10 world-class universities to Singapore within a decade.

- China is spending billions of dollars to improve its higher education infrastructure to cope with anticipated large increase in the number of overseas students. China is fast becoming one of the most popular study abroad destinations for students of developed countries.[1] According to figures released in late 2006, there were 140,000 international students studying in China.

3.2.2 Increasing competition from the emerging new education hubs will have considerable implications on the marketplace for overseas student recruitment, international academic partnerships and research funds.

3.3 Trend 3: Demographic change – aging academics

3.3.1 Aging of the population has emerged an issue of national significance. In Australia, Graham Hugo has identified the aging of the academic workforce as a major challenge to Australia's higher education. Today, Australian academics aged in their 40s and 50s outnumber those in their 20s and 30s by 31.1 per cent. There is a 'lost generation' of potential academics that would currently be in their 20s and 30s and an increase in the percentage of staff aged over 50. Between one-fifth and one-third of academic staff members will be lost to universities during the next decade [2]

3.3.2 In the 1960s and 1970s Australia recruited young academics aged in their twenties and thirties from overseas, especially from the United Kingdom. With rapid internationalisation of universities in the past decade, international competition for young, bright researchers are going to be intense and even more competitive. Australia must not only compete for potential academic staff from other countries but find ways of keeping Australian graduates that are increasingly seeking better opportunities overseas.

[1] AEI Industry Seminar 2007, p.14

[2] Hugo, G 2005a, 'Academia's own demographic time-bomb', Australian Universities Review, vol. 48, no. 1, pp. 16-23

3.3.3 What are the implications for the new education hubs? For China, an unsatisfied demand for education moderated by future impact of one child policy. In Japan, slowed birth rate will create excess education capacity and labour shortages. And in Singapore, the development of new education hub will promote the creation of an export of education industry and the commercialisation of R&D outputs.

3.4 Trend 4: Research and super-funding

3.4.1 Education hubs are not only becoming competitor for overseas student recruitment but are asserting their academic strength supported by super funding from rapidly growing economy in which governments have disposable income to invest in education infrastructure. In January 2006, China's President Hu Jintao declared: "The practice of the world's scientific and technological development shows that only with strong capacity of innovation, can a country win that initiative in the international competition". Only a year before China's declaration that the Indian Prime Minister, Dr Manmohan Singh outlined the essence of India's strategy for development: "Science and technology must pervade our psyche, our way of thinking and our way of working".

3.4.2 China and India recognise that non-linear growth can only be achieved through technology and science. To back its strategy, the Indian Government has made a series of multi-million dollar announcements about scientific research over the last 12 months and is taking steps to build scientific and economic linkages with other governments and global businesses such as the cooperative agreement with the US signed in 2004 and encouraging investment from the world's leading companies such as GE, Microsoft, IBM, and Intel.[3] In the five years to 2004 China added almost 400,000 personnel to its researcher skills base, a 74% increase[4] China's target is 2.5% Gross Expenditure on R&D by 2020 – compared to Australia's current 1.7%[5] While India's target is 2.0% by 2007, and in 2004 passed the 1% threshold[6] The Singaporean government has allocated $7.5 billion from 2005 – 2010 to strengthen Singapore's R& D capabilities. According to the latest data available, between 2004 and 2005, Singapore's Gross Expenditure on R&D (GERD) had increased from 2.24 percent to 2.36 percent of GDP, with the private sector making up 66.2 percent of GERD.

3.4.3 In response to the new challenge from Asia, the United States announced in January 2006, the establishment of the American Competitiveness Initiative which includes US$136 billion over 10 years to increase investment in research and development; strengthen education; encourage entrepreneurship and innovation.

[3] PMSEIC, p.9
[4] PMSEIC, p.9
[5] PMSEIC, p.9
[6] PMSEIC, p.9

3.5 Trend 5: Internationalising student experience

3.5.1 More undergraduate, postgraduate and higher degree research students are seeking opportunities to undertake joint degrees, research or short study tour overseas. Demand for an 'international' experience is becoming more acute as students are increasingly conscious of the need to be 'globally skilled' to be competitive in the global employment market.

3.5.2 Universities and governments are increasingly identifying ways of promoting student mobility. China for example has established a China Scholarship Council Scheme to promote cooperation and exchanges in the fields of education, science, culture, economy and trade between China and other countries. Universities are forming network and 'consortium structures' such as the Academic Consortium 21, International Alliance of Research Universities and Association of Pacific Rim Universities to facilitate staff and students mobility. Transnational e-tutorials are becoming a norm in most curriculum as institutions look at new ways of internationalizing student experience.

3.6 Trend 6: International education rankings

3.6.1 Another very interesting development in the past few years is the rise and importance of international rankings. Rankings such as the Times Higher Education Supplement and Shanghai Jiatong, are having a deep and reverberating impact on universities.

3.6.2 Universities are increasingly becoming self-conscious of the need to be 'international', relevant and research driven to maintain or improve their position in the rankings. This has had significant influence on how universities view themselves. Whether we like it, rankings are here to stay. Ranking will force institutions to focus on league table criteria, which will inform their strategic goals, annual plans and resource allocations.

3.6.3 The pressure is intensifying. In 2004 the oldest public university in Malaysia, the University of Malaya, was ranked by the Times Higher Education Supplement at No.89 in the world. The vice-chancellor ordered huge banners declaring "UM a world's top 100 university" placed around the city. But last year the THES changed the definition of Chinese and Indian students at UM from international to national and the university's position in the reputational surveys that comprise 50 per cent of the THES index also declined. The result was that UM dropped from 89 to 169. The university's reputation abroad and at home was in free fall. When the VC's position came up for renewal by the Government last March, he was replaced. UM had dropped 80 places without any decline in its performance.

3.6.4 Key Performance Indicators will be standard in many universities where research, research and more research will dominate. Researchers will not only be forced to teach, research and produce publications, but source international funding and secure the best higher degree research students.

4.0 Rethinking international engagement

4.1 In the past 50 years, the flow of students from developing to developed countries characterized student mobility. Australia's successful education aid program, the Colombo Plan is an example of such a framework that governed the flow of overseas students to its higher education institutions and strengthened regional relations through scholarships.

4.2 In the 1990s with the introduction of full fees, education aid program has been radically transformed into a new export education services plus the number of scholarships have increased in the 'old education hubs'. Australia's education services sector is valued at $10 billion with over 280,000 overseas students. Britain generates about £3 billion a year.[7] The number of overseas students to the UK has grown from 12,410 in 1960 to over 270,000 in 2004.[8] While in the United States, the number of foreign students increased from 53 107 in 1960 to 565,000 in 2005.[9]

4.3 In the 'old education hubs', new mechanisms are being used in their international engagement. Besides recruiting international students from developing to developed countries, 2 plus 2 courses are being promoted. Students spend two years in their home institutions and another 2 years in a foreign institution as part of their undergraduate degree. Some institutions are establishing overseas campuses and promoting distance education based on paper and CD-rom as teaching tools.

4.4 For the 'new education hubs' there are new and diverse drivers for international education. For example, increasing quantum for skilled labour force; increasing research and development outputs for industry; developing new export education industry; and absorbing excess domestic education capacity.

4.5 The changing regional education landscape is characterised by an increased competition due to increased supply of high quality educational providers; reduction in demand from fee paying international students with the increase of high quality domestic educational providers; and demand from students for greater flexibility in time and distance represented by the virtual world.

5.0 Potential collaboration in international education within the Asia Pacific region

5.1 In an increasingly transforming and competitive environment universities need new ways of thinking about international engagement and what it means to be a 'truly international university'. I believe there are three important elements that form the core of international research and international education: mobility, collaboration and contribution.

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[7] See Austrade, 2007, Education overview, Market Information - http://www.austrade.gov.au/Education/default.aspx and Dr Brendan Nelson, $113 million to strengthen international education, Media Release, 13 May 2003 - http://www.dest.gov.au/ministers/nelson/budget03/bud24_130503.htm

[8] See, Peter Williams, 1981, Overseas students in Britain: the background, in Peter William (ed.), The overseas students question, studies for a policy, Heinemann, London; Jolley, A., 1997, Exporting education to Asia, Victoria University Press, p. 18 and Shola Adenekan, 2004, Foreign students experience of the UK, BBC News - http://news.bbc.co.uk/1/hi/education/3625306.stm

[9] See, International Information Program, USINFO, United States , 14 November 2005 - http://usinfo.state.gov/xarchives/display.html?p=washfile-english&y=2005&m=November&x=20051114174330aawajuk0.2308466
and Howard LaFranchi, 2006, Foreign students trickling back to the US, The Christian Science Monitor, http://www.csmonitor.com/2006/1116/p03s03-usgn.html

5.2 Mobility

5.2.1 I believe mobility is about creating opportunities for students and staff to travel beyond their borders. It is about nurturing 'global citizens with global outlook'. It is critical in today's highly competitive environment that we provide platforms and opportunities for our students and staff to move with minimal difficulties beyond their borders, immerse themselves in a foreign culture and develop key communication skills to survive in an increasingly 'globalised' world.

5.2.2 Some examples of mechanisms that encourages opportunities for staff and student mobility includes joint academic appointments between partner universities; standardised degree structures; mutual recognition of degrees and units within degrees; and an Asia Pacific style Bologna Accord.

5.2.3 At Monash we attempt to pursue this through our offshore presence in Malaysia, South Africa, Italy, United Kingdom and soon in India. We pursue this also through our strategic international alliance. Monash actively engages industry and has a global network of research alliances and strategic partnerships. We pursue short-term stints with government, businesses and multilateral organisations through our internship programs to help improve student employability. We encourage staff exchanges and fellowships to broaden and deepen educational content and links. We strive to create opportunities for our higher degree research students to spend considerable time overseas at our campuses, centres and partner institutions.

5.3 Collaboration

5.3.1 Collaboration is about forging new partnerships based on collaboration and mutual respect that produces 'win-win' outcomes to ensure that relationships going forward are sustainable.

5.3.2 Some examples of mechanism to promote new and sustainable partnerships include joint research projects and joint research academies; dual badged PhDs with co-supervision across borders; global undergraduate degrees where semested offered by universities in different countries for one degree either via student mobility or virtually; and greater collaboration with industry in R&D, curriculum design and delivery, internships and scholarships.

5.3.3 At Monash, we encourage joint development and teaching of curriculum on our campuses, centres and institutional partners. We strive to leverage on ICT to add value to our international curriculum. We pursue joint research collaboration with governments, businesses and universities. We are currently developing the first joint venture research academy in India with the prestigious Indian Institute of Technology, Bombay. The joint venture focuses solely on research and consultancy with research clusters and PhD students working in areas of Advanced computational engineering, simulation and manufacturing; infrastructure engineering; clean energy; water; nanotechnology; biotechnology and stem cell research.

5.4 Contribution

5.4.1 And finally contribution. Contribution is not only about equipping our future generation of leaders with the relevant skills and values to contribute to society but universities leading by example in providing educational opportunities beyond monetary gains.

5.4.2 It is about making a contribution to global well-being with pressing issues such as climate change, international security and economic inequality.

5.4.3 Our campus presence in Malaysia and South Africa are not about generating an additional source of income for Monash Australia. Our aim is to embed both campuses within their national higher education system and help raise a new generation of leaders with the unique Monash 'international' experience and perspective. Recently we launched a new scholarship program in South Africa, the *Monash Education fund for South Africa*. With the help of businesses we aim to raise $10 million in scholarships to provide opportunities for South African students.

6.0 Conclusion

6.1 Universities today have a social responsibility for making the future a better place for our children.