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**KEYNOTE SPEECH – PART IV  
CREATIVE EDUCATION:  
PLAN FOR COOPERATION AMONG COUNTRIES IN THE ASIA-  
PACIFIC REGION TO PRODUCE CREATIVE GLOBAL LEADERS**

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There is no denying that our world has been changing very rapidly, especially in the last decade, with globalisation being one of the central drivers of that change. Globalisation has many characteristics, but the most important one is the creation of a deeper and greater interconnectedness than has ever been experienced before in history. This interconnectedness is reflected in the rapid flows of information, goods, capital and people across the world.

At the same time, globalisation has been associated with the rising impact of knowledge economies and societies, which create economic value not just through goods and technologies, but also through ideas. The unprecedented global financial crisis that we are currently going through will undoubtedly have a major impact on the pattern and nature of economic growth. However, despite this, it seems likely that the trends of globalisation and the importance of knowledge economies and societies will continue to gain momentum.

The current global financial crisis has also had the effect of accelerating the rise, or resurgence, of Asia. For more than 2,000 years China and India accounted for more than half of the world's GDP. It was only in 1850 with the advent of the industrial revolution that there was a drastic dip in China and India's share of world GDP, but we are seeing a strong comeback by these two countries in recent years.

What does all this mean for students, and for universities? What should students be prepared for after they graduate?

**Global education for a globalised world**

Naturally, there are a large number of challenges brought about by globalisation that will be faced by the graduate of today, but three are particularly noteworthy.

### ***“A lifetime of careers” and not “a career for life”***

In the past, graduates would expect to have a single career or perhaps up to 3 or 4 jobs in the duration of their working life. This no longer holds true. Rather than preparing for “a career for life”, graduates should instead be prepared for a “*lifetime of careers*”. In 2008, the US Department of Labour reported that the average college graduate will have held 10.8 jobs by age of 42. Nearly two-thirds of these jobs were held before age 27.

Graduates should also expect that the jobs they will take in the future are likely to be in completely different fields from what they initially trained in. In a survey of new NUS graduates in 2008, 41.3% reported that their current jobs were not directly related to their course of study.

With the rapid advances in science and technology today, it seems likely that some of the most in-demand jobs in the future may not even exist today.

### ***Addressing the world’s and Asia’s most critical challenges***

Consider the most pressing problems of the world and Asia today: sustainability despite the rapid pace and massive scale of urbanisation that will occur in Asia in the next few decades; public health and ageing; energy and environment; communications and logistics. All these challenges are highly complex, and their effective management will require new, large-scale cross-disciplinary approaches and solutions. At the same time, social sciences and public policy research would play as important a role as the physical sciences and engineering in driving the solutions in these critical areas.

### ***Education for global settings***

In our globalised world, the flow of human capital and information transcends national borders. Whether you are working in Seoul, Mumbai or New York, you are going to be living and working with people of many different nationalities, cultures and backgrounds. To be successful, it is very critical for graduates to be able to work and live effectively in these diverse cross-cultural settings.

In other words, their university education must prepare them for “global settings” and not only for “local settings”.

For both universities and students, then, the key question is how do we nurture graduates who will be leaders in a lifetime of careers, where they are frequently changing jobs or perhaps taking on jobs outside their original training. Graduates who are effective in dealing with complex, large-scale challenges. And who are successful in diverse cultural settings in a globalised world.

### **Global universities**

Universities, too, need to reflect on how they themselves should best respond to and capitalise on globalisation and the rise of knowledge societies. In this context, many universities are pursuing the course of becoming “global universities”.

A critical question, though, is “what does it mean to be a global university?” How is a “global” university different, and “better”, than one that is not? What are the unique value propositions of a global university?

There are many ways one could define a global university, but I believe that the concept of a global university should encompass the following dimensions.

First, the vision and aspirations of the institution must be global. This is not as self-evident as it may appear. A part of this is certainly innovation and the extension of educational and research programmes beyond national boundaries. Some universities may choose to establish overseas campuses and facilities to increase access and choices for prospective students in those locations and facilitate high-impact research. As the national university of Singapore, we at NUS believe that by being a global university, we can bring additional value to Singapore by serving as a talent magnet and thought leader.

Second, global universities recruit from across the world for the best students, faculty and administrators. This is necessary in order to contribute and to compete effectively in the world arena.

Third, global universities should take the lead in innovating education that is adapted for and capitalises on the opportunities presented by a globalised world.

Fourth, these universities are necessarily research-intensive because of the importance of creating new knowledge that will be disseminated and applied in knowledge societies.

Fifth, universities which are global would pursue, and contribute to, international benchmarks in education, in research, in service, and best practices. They would be leaders and models of innovation in education, research and service.

Sixth, global universities would be key nodes in influential global networks, whether of an academic nature, or as part of a consortium of academic institutions and industry.

Finally, they would also contribute towards thought-leadership on global issues.

### **Innovating education for a globalised world**

In the interests of time, I would like to focus on only one of these characteristics, namely “innovating education for a globalised world”. For this, I will draw from the experiences at NUS, because it is the institution that I know best.

NUS aspires to be a leading global university centred in Asia. In other words, being a global university, as we have defined earlier, AND being centred in Asia. This means that apart from having world-class faculty, NUS should also have special expertise, insights and partnerships in Asia, and that our students and graduates have a strong appreciation of globalisation with appropriate Asian perspectives. NUS also aspires to be a thought leader from out of Asia.

For NUS, education for a globalised world focuses on several key goals.

First, to develop critical thinking. This includes being able to think critically about issues, as opposed to knowing how to solve pre-defined problems; learning how to learn – long-term and across disciplines; and developing the ability to “zoom-in and zoom-out”, that is being able to perceive the big picture clearly (e.g. knowing where the pitfalls and difficulties lie – and what they imply), while being able to zoom-in on critical issues with sufficient depth and rigour.

Second, through experiential learning, to nurture graduates with an explorer spirit with a boldness to break new ground, who are resourceful and resilient.

Third, to ensure that graduates are effective communicators – and in the Singapore context, the use of English is deemed to be of critical importance.

Fourth, we seek to nurture responsible global citizens who are effective in different cultural settings.

In nurturing responsible global citizens, our approach has been two-pronged, namely: Bringing the world to NUS, and bringing NUS students to the world.

In bringing the world to NUS, we have consciously created a very diverse environment on the NUS campus in Singapore. 20% of our undergraduate students, and 70% of our graduate students come from overseas, as do 50% of our professors. They hail from more than 100 countries.

Adding to this are the many joint- and double-degree programmes which are run out of Singapore. For example, the Duke-NUS Graduate Medical School enables students to obtain a joint MD degree from Duke University and NUS. Other examples are the Master of Business Administration (Asia MBA) degree between NUS, Fudan University and Korea University, and a Masters of Arts in Chinese Language (by research) double-degree between NUS and Peking University. NUS students are thus offered many opportunities to participate in programmes jointly run with overseas partner universities while studying at NUS.

NUS also has a very active student exchange programme. Each year, more than 1,200 exchange students from all parts of the world come to NUS and add to the buzz and diversity of the student community. In addition, they help to globalise the learning environment within the NUS campus in Singapore.

In parallel with this, we also bring NUS students to the world. We have a very active study abroad programme: 50% of our undergraduates will have some overseas education exposure, and 20% will spend 6 months or more in exchange programmes around the world. In addition, with more than 50 joint and double-degree programmes with top universities around the world, many of our students are given the opportunity to spend significant time attending classes at the campuses of our overseas partners. What students obtain is access to high-quality courses in some of the world’s best universities while experiencing immersion in a rich cultural environment overseas.

### **Path-finding programmes**

There are three programmes on which NUS is focusing, that we feel represent potentially path-finding initiatives in global education.

### ***NUS Overseas Colleges***

The NUS Overseas Colleges immerse NUS students in some of the most entrepreneurial hubs in the world. Students who are selected spend one year in these hubs, working as full-time interns in high-tech start-ups or innovative companies. These are carefully chosen to provide students opportunities to learn directly from the founders and entrepreneurs in these start-ups. At the same time, the students take entrepreneurship-related or discipline-based courses at NUS partner universities at these overseas locations.

There are currently six NUS Overseas Colleges. The first NOC, which was started in Silicon Valley in 2002, focused mainly on technology start-ups, with students taking courses from Stanford University. In Asia, we have NOCs in Shanghai with Fudan University; in Bangalore with the Indian Institute of Science; and in Beijing with Tsinghua University, which took in its first batch of students in July 2009.

The NOC programme, though new, is showing promising results. The students who have gone through this programme have described it as “life-transforming”. NOC alumni have started up 33 companies, while others have collaborated with their host companies to set up branches in Singapore.

### ***NUS Global Engineering Programme***

The NUS Global Engineering Programme was launched in August 2009. Not only is this programme built around a new design-centric curriculum, but it also allows the very best students to accelerate their studies so that they can finish the entire Bachelor of Engineering course at NUS in three years, including one year spent overseas. They do so through the great flexibility built into the programme, utilising Advanced Placement Credits as well as Independent Study Modules. In the one-year overseas component, students can choose to pursue a specially tailored Undergraduate Research Opportunities Programme with one of NUS’ partner universities.

After the GEP students have finished the 3-year Bachelor of Engineering course, they can, with credit recognition, go on to do a Masters programme in either Cambridge University or MIT in their fourth year. So at end of four years, the student will have obtained a Bachelor of Engineering degree from NUS, and a Masters from either Cambridge University or MIT.

### ***NUS University Town***

A programme that we are most excited about is the new NUS University Town. When fully completed in 2013, University Town will comprise five residential colleges for undergraduate students and a graduate student residence, an Educational Resource Centre and an Edusports complex. Work is already under way, with the first phase scheduled for completion in 2011. Located just across the road from the main NUS campus, University Town will house about 4,500 students when fully developed.

What distinguishes University Town is its rich diversity. The student community will comprise about 60% local students and 40% international students from the four corners of the world. Students will come from all disciplines, including Science, Engineering, Humanities and Social Sciences, Medicine, Law and Music. Uniquely, University Town will have programmes that will foster close interactions between graduate and undergraduate students.

University Town will transform undergraduate education in NUS by providing residential college learning. The undergraduate students in the residential colleges will take a number of modules together in their Colleges, including freshmen seminars, senior seminars as well as special programmes. Leveraging on the very diverse student population, the special programmes will have students working in small groups to explore issues of global importance while exploring relevant Asian perspectives. They will also have many opportunities to interact with world-class scientists in University Town, as well as to pursue Undergraduate Research Opportunities with them in research space located in close proximity.

## **Conclusion**

Globalisation and the rising impact of knowledge societies are creating many challenges as well as exciting opportunities in higher education. Not only has the global financial crisis accelerated the resurgence of Asia, it is also leading to fundamental changes for which new paths need to be blazed and new responses found.

Global universities can rise to the challenges thrown up by this evolving landscape through innovation and leadership in global education – education that will transform their graduates and prepare them to succeed and make a positive impact in a complex globalised world.

NUS' vision and approach to innovative global education, which I have discussed in this lecture, reflects our thinking about the nature of education in a globalised world. While there are signs that an end to the economic downturn may be in sight, the severe disruption has left in its wake fundamental shifts and changes to the world's economy, financial systems and balance of power. In striving to provide a transformative and innovative educational experience, global universities can nurture bright young women and men who are adept at successfully navigating the complexities of a changed world, seizing the rich opportunities available and making a real impact in whatever they choose to do.

Thank you.