

**Speech by Professor Tan Chorh Chuan
President, National University of Singapore
NUS Board of Trustees Welcome Lunch for the new President
8 January 2009**

HIGH BRIDGES OF OUR MINDS

NUS Chancellor, President S R Nathan, and Mrs Nathan
Minister for Education and Second Minister for Defence, Dr Ng Eng Hen and Mrs Ng
NUS Pro-Chancellors
Chairman of NUS Board of Trustees, Mr Wong Ngit Liong and Mrs Wong
NUS Trustees, Excellencies
Distinguished guests and benefactors of NUS
Colleagues, students
Ladies and gentlemen

Good afternoon.

In 1993, my wife and I were doing some walking in Pakistan. One day, we came to this bridge and we stopped. We looked behind us and we could see the village of Hussaini.



As you can see, it's a wonderful place. We could sit there, enjoy the view and watch people harvest their crops. They also had very good apricots – in fact, world-class apricots!

We looked in front of us and there was this bridge – sticks 2 feet apart, wired to the frame, high over the river.



Beyond it was an alluring high valley and beautiful mountain vistas. We stepped gingerly on the first few sticks. Then suddenly, a local girl swept past us and ran across the bridge. Yes, she ran across the bridge with a big bag of potatoes on her back.



Encouraged by this, we walked across more quickly. Interestingly, about halfway along the bridge, I started to enjoy myself. There was a nice breeze and I had an unhindered view on all sides, looking up and even looking down! On the other side, the high valley and mountains did not disappoint – they were stupendous! Along the way, we came to a similar bridge which we crossed without a thought.

Redefining our minds' limits

Recently, I tried to recapture my feelings at that time with this painting. Finding the title was easy – I called it “The High Bridges Of Our Minds”.



Crossing that bridge at Hussaini was *not* a physical challenge; in fact, it was easy to walk across.

What had held me back was the limitation of my own mind.

Here was a great chance to get to a much more interesting place, but my mind said, “Why take the risk? Things are good enough here. There is *no* need for you to do this.” Fear and the urge to stick to the safe and predictable, had narrowed the horizons of the possible for me.

Looking back, I am glad I walked over that rickety bridge because it forced me to cross a “high bridge” in my own mind. In a small way, it redefined the limits I had imposed on myself.

NUS well-poised to be a leading global university

In the past 2 decades, NUS has made a remarkable ascent as a global university. My predecessors, Professor Shih Choon Fong and Professor Lim Pin, had brought NUS up many steep slopes in a series of big upward leaps. Thanks to them, our university is in a very good position today. Like Hussaini, we are now well-placed to scale the stunning peaks so close by.

But the paths up these peaks have daunting bridges, steep cliffs and deep ravines. Several of these are real, but many exist as “high bridges of our minds”. When we come to them, some will advise us to stop and be satisfied with what we have, that we have reached the limit of what we can do.

But we do so at the risk of missing out on much greater things, of falling short of what we are truly capable of.

For me, the positive energy and progress of our university fills me with a growing sense of excitement.

I do believe NUS can be a leading global university – we are within striking distance, and we have what it takes. But we need boldness, self-belief and conviction to overcome obstacles and to grasp this opportunity.

The window is short and we must seize the moment.

We know the competition is very stiff. Last month, I was at 2 meetings, one in Nanjing and one in Boston. At both, we learnt of new programmes being launched by universities in the US, China and other parts of the world. These universities are on the move, pushing forward with ambition and purpose.

If we stand still, we will be overtaken by those more determined or bolder than us.

We are all also very aware of the sharp economic downturn in Singapore and across the world. We are bracing ourselves for a prolonged period of uncertainty. But there are also many opportunities within this crisis – to develop, recruit and retain excellent faculty, students and staff.

If we focus on the long-term, these challenges should not deter us, but instead should spur us on.

What is it that sets the world's leading universities apart? What makes a university great?

Great universities have a strong positive impact on their communities and help shape the world we live in. They do this through transformative education, through the creation and application of vital new knowledge, and by thought-leadership.

Above all else, it is the quality of the people that marks out the world's foremost universities. Such universities have superb students and outstanding faculty, many of whom are leaders who define thinking in their fields. The academic enterprise is bolstered by top-rate administrative staff and culture. The alumni are passionate about their alma mater and take pride in playing an active part in its success.

But perhaps the most distinctive part of leading universities is their invigorating intellectual and learning environment and culture. One that excites students and faculty, and seeks to bring out the best in young minds and individuals.

This is what NUS must aspire to. This is what NUS must stand for.

Our goal – indeed our responsibility – is to create the energising milieu that prepares, and challenges our students, faculty and staff to reach and achieve beyond themselves, to be self-surpassing.

In my State of the University Address last year, I spoke at length about developing and recruiting excellent faculty and staff, and forging strong bonds with our alumni. This afternoon, I would like to focus on our students, and what NUS' quest to be a leading global university means for them.

Equipping students to scale different peaks at different times in their lives

Each year, NUS admits nearly 6,500 undergraduates, amongst whom are some of the most talented students from Singapore and the region.

When our students look at the mountain range of opportunities around them, each will see different prospects. Some would go for tree-clad summits, others for the high valleys. Regardless, our goal is to help them gain the knowledge, agility and skills that will allow them to succeed in whichever path they choose. We also want them to imbibe a “can do” attitude – to aim higher, reach further, to do more than they believed possible. We want our students to be aware that potential is not defined by ability alone, but also by attitude and determination.



Then there will be some students who want to ascend Mount Everest. We cheer them on. We can't lower the height of the mountain, but we will help as many students get as high up the mountain as they can, confident that several will conquer the summit. Those who don't will still gain; they will gain from the experience and the fact they had the courage to try.



In short, our students will choose different paths, scale different peaks, in different timeframes.

The education we provide and the experience in campus and overseas, must equip our students with the mental and personal abilities that will serve them well as they scale various types of peaks at different times in their lives.

We want their university experience to be transformational, to put them on a different trajectory.

We want NUS to be an enabler of that change.

Let me illustrate with 2 quick stories.

Navtej Singh, graduated from NUS in 1972. His very successful career started in advertising, then shifted to fast-food restaurants and other food ventures, and later, to incubating start-up businesses in Finance and mobile commerce. When he was studying history in NUS, I don't think Navtej could have foreseen the varied types of work he would be doing later.



Liu Tianyao found himself, as a student-intern in a Swedish company, in a new world with unfamiliar technologies, a different culture and a foreign language. He quickly adapted and was able to learn fast while on the go. Tianyao made headlines when he was talent-spotted by another firm and appointed its Chief Technology Officer while still a student. He graduated from NUS in 2008.



Education that is truly transformative

As a university, NUS has made great strides towards creating a more transformational educational experience for our students. Our education is rigorous but also broad-based and flexible. Our many global programmes prepare our graduates for work and life in a globalised world. For example, we have 40 joint- and double-degree programmes with top universities around the world.

We have made excellent progress, but NUS is not there yet. There is still much we have to do, to achieve our goal of providing a truly transformative education.

For me, the key challenge is this.

Clearly, more needs to be done to prepare our graduates to be effective in the diverse situations and settings they will encounter. To be able to continually adjust in a world marked by rapid change, where the answers to yesterday's problems may not apply to the solutions for tomorrow's challenges.

Clearly, more needs to be done but the question is what and how?

How would we also ensure that NUS' education is of enduring value to our graduates, providing them a strong basis to do well in the many interests they will pursue over their lifetimes?

It seems to me that key ingredients include a zest for discovery; the interest and ability to learn continually and across many fields; and an attitude of "daring to try."

To start to answer these questions, I looked for things that we are already doing at NUS which in part address these needs. Let me share 2 examples.

The **Special Programme in Science** allows students to plan their own study programme for part of the course. Over the last 10 years, the outcomes have been very promising. Take **Dr Bernard Leong** for instance. He did a double major in physics and material science, took courses in finance and public policy, and worked on 2 very different research projects. Bernard did his PhD in astrophysics at Cambridge. His first job was in life sciences at the Sanger Institute, then he co-founded a biotech startup company in Cambridge.



Another example: the **Formula Race Car Project** in our Department of Mechanical Engineering. In 2001, some students decided to build a race car for an international competition among universities. They've never looked back since. In 2008, out of 121 teams, our team ranked number 22 overall, and number 10 and best in Asia for race car design. The students in the team get special classes on race car principles and engineering, and build their own race cars. They have a strong incentive to build the cars well because they also double up as race car drivers!

Formula
Race Car
Project,
2008



To summarise, I would use 3 phrases to capture the educational value that these examples illustrate:

“The thrill of discovery”

“Learning how to learn”

“Multi-disciplinary team learning”

Throughout NUS, there are many more such examples. But one major issue is that these tend to be special programmes involving quite small numbers of students. The challenge is to extend and integrate the best features of these different models into our wider curriculum.

I see us doing so through residential college learning in our new University Town, and by reviewing our curricula, starting with Engineering and Computing. The Engineering course, for example, will be reshaped around a design-centric curriculum with students working on multi-disciplinary projects and research. We will also develop distinctive joint programmes with our overseas partners, which would give our students unique opportunities to learn in NUS as well as in some of the best universities in the world.

Be where others aren't going to be

Educating graduates who help advance the world we live in is one of the most important contributions which universities can make. To a large extent, the impact of its graduates defines the great universities of the world.

But leading universities can do even more. From Google to the vaccine against cervical cancer, the new knowledge and applications produced by the research in leading universities can transform our societies and power our economies.

This is certainly the aspiration for NUS.

But to be a leading university, NUS cannot just follow in the wake of others. Instead, we must forge new pathways to academic distinction. We have to be “where others aren’t going to be”.

Where could we best find this differentiation?

I believe that we should leverage on our location and understanding of Asia, to distinguish NUS as a leading global university, centred in Asia.

The reasons are compelling. Asia’s importance continues to increase dramatically. As it grows, Asia will also face great challenges. More research and scholarship is needed to understand critical issues within Asia and to find suitable solutions. Over time, we can expect that Asia will become more dominant in research and development, and in global thought-leadership. For NUS, there is an opportunity – to assume leadership in research and scholarship in selected areas of importance to Asia and the rest of the world.

What will it take to be a leading global university, centred in Asia?

I believe there are three critical dimensions.

First, our students should gain a strong appreciation of global issues, alongside perspectives from Asia. For this, we must design new educational programmes that allow our students to explore such issues and perspectives.

Second, we must have world-class faculty in strategic academic areas, who also have special expertise in relation to China, India, and other parts of Asia. The proposed NUS Global-Asia Institute would be a new flagship thrust in this direction.

Third, NUS must be a magnet for talent from within and outside Asia, and be a preferred academic partner for those seeking collaborations in Asia.

The end result should be this: Through the quality of our people and our work, NUS should have a positive global impact and influence, and reflect Asian views and perspectives.

In short, when people think “Asia” in terms of cutting-edge research, scholarship, ideas and solutions, NUS must come to mind.

These aspirations are captured in our new Vision and Mission statements, to be launched shortly.

Our Vision:

“Towards A Global Knowledge Enterprise

A leading global university, centred in Asia, influencing the future”

And our Mission:

“To transform the way people think and do things, through education, research and service”

An invitation and a challenge

Ladies and gentlemen, colleagues, students and friends of NUS: The peak we wish to scale is clearly in view. We are close enough to the top and the paths up appear clear.

Whether we succeed depends not just on our individual abilities and collective strengths, but on the force of our resolve.

What do you want our university to be?

A university that dared to dream and dared to try, always reaching for ever higher peaks?

Or a university that is quite content with what we already have?

What are the high bridges of your own mind? Do each of us – students, faculty, staff, alumni and friends of NUS – have the conviction and self-belief to cross these bridges?

The goal we have set ourselves will stretch us but I cannot think of a more worthwhile goal.

I am fully aware of the weight of this responsibility, but the prospect also excites and energises me. It is a great honour for me to serve NUS and as the new President, I invite you to join me in this grand quest.

The fruits of our efforts may only be fully realised in the years to come. But we can all take pride in doing our part to make the National University of Singapore a leading global university, centred in Asia.

Thank you.

