Empowering for the Age of Empowerment

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If you visit Ciudad Perdida in Colombia, and looked down upon its walled terraces, you can't help but sense that this is a special site. Ciudad Perdida was the heart of a network of Tayrona Indian settlements first set up some 1,400 years ago. These covered a large area, as this stone map is believed to show. Here, the Tayronas flourished, and produced rich articles of gold and emeralds.

But in the 16th century, Spanish conquistadors shattered their way of life, and the Tayronas abandoned the Ciudad.

In March this year, Evelyn and I did the hot, humid three-day hike to the restored site. There, we were lucky to meet Romaldo, the shaman of the Ciudad – you can see him here in white robes, chewing coca leaves. The shamans were traditional leaders of the indigenous communities. They also interpreted events and divined the
future. But, understandably, they could not grasp the rapid developments in Europe in the 16th century or foresee the implications for themselves.

It was fascinating to talk with shaman Romaldo. His outlook reflected his jungle village setting, and the fate of Ciudad Perdida is a point in history now long past. Yet, it remains a stark reminder of the dangers of not keeping up. It should cause us to reflect on how vital it is, to stay well abreast of the powerful trends and drivers which are reshaping our world.

There are of course many ways to think about these. This morning, I would like to address just one key aspect of how our world is fundamentally changing and to consider the implications for our University.

In many ways, we are entering an age of unprecedented empowerment. I say this because technology is enabling ordinary individuals, like you and me, to do many things not possible before. For example, all of us have a handphone which gives us access to vast amounts of data. The handphone connects and guides, it is becoming a health device. It can even be used to make phone calls!

Technology is also levelling up skills across many areas – at last year’s address, I was really daring because I spoke about the quality of my wife’s photography. As a photographer, she is much more skilled than me. But, the photos I take now are often better than hers because I had, quietly, bought a much fancier camera.

Recently, I visited the Design Centric Programme (DCP) in Engineering. One of the student projects I saw was called Snowstorm. As you can see, it is a personal flying machine designed for indoor spaces. Snowstorm received extensive media attention. Our student team¹, led by Shawn Sim, and their faculty mentors, were invited to the Founders Forum in the UK, where they had the chance to explain their flying machine to Prince William.

Following this great success, DCP collaborated with the National Geographic Channel to build what they called a “flying car”² as part of its show “Machine

¹ Snowstorm team members: Shawn Sim, Sre Vinod Seenivasan, Prerak Agarwal, Xu Zan, Wang Yuyao, Xue Yushu, Liu Shengmu, Jean-Pierre Castillo, Gao Zhenyu, Zufar Adnan, Chen Zhou, Gao Shengzhou, Ge Xuyan and Tian Zixu
Faculty advisors: A/P Martin Henz, Dr Joerg Weigl and Dr Rangarajan Jegadeesan
² Delta team members: Chan Wai-Yang, Chen Zhuo, Dai Hai-Lang, Gao Zhenyu, Ge Xuyan, Goh Kae-Yan, Sun Zeyu, Thong Wei-Zhong
Faculty advisors: A/P Martin Henz and Dr Rangarajan Jegadeesan
Impossible”. The “flying car” is actually the world’s lightest electric paragliding trike, but as you can see from this video, it can actually fly pretty well!

I think it is worthwhile to take a step back to reflect on this. When I was a kid, we wouldn’t have even dreamed of anything like this. How is it possible that a few bright young students are now able to do such amazing things? One reason is that today, there are many powerful tools and technologies not available before, that allow those with the right skills and creativity to do exciting new things.

Yet, it is not just about having the skills to use available technologies – you must also have the drive and imagination, indeed the audacity, to do something really creative or different – in this case, build a personal flying machine and a “flying car”.

And it is not just individuals who are being personally empowered. Across the world, new business and funding models are empowering start-ups and small businesses with good ideas to pursue them commercially, often without having to go through big companies or established players.

Let me illustrate with two examples.

Our NUS Law alumnus Tan Min Liang, and his friend Robert Krakoff tested their own gaming mouse in a multiplayer shooting game. Their prototype was so quick and effective in killing off opponents that the game servers almost banned him, thinking he was using computer hack. Min Liang went on to build Razer, a gaming technology company which sells gaming hardware worldwide. The current valuation of his company is $1.5 billion.
A very different example is that of Grace Ciao. When she was a Business School student, Grace started making unique and beautiful designs and illustrations using real flower petals. She got featured regularly in print and social media sites such as Huffington Post. Barely a year after Grace graduated, her Instagram has more than 55,000 followers and her work is commissioned by big fashion houses, such as Chanel, Dior, and Chloé.

These examples underscore my main point: We are today entering an age of empowerment, where it is entirely possible for an individual or small group with new ideas or causes, to pursue and realise them at a local, regional, and even global scale.

But this, obviously, has a flip-side. It also means that competition will become even fiercer. The tools and conditions that can empower us in Singapore are also
available elsewhere. New ideas, products, and services can, therefore, come from anywhere around the world. Indeed, in many major cities, the start-up scene is hotting up. The work of single individuals can disrupt existing ways of doing things.

The upshot of all this is that to thrive and contribute in this age of empowerment, individuals must have the right abilities and the right mindsets, to make the most of current conditions, and to seize or create new opportunities. Universities too need to foster the right culture and build ecosystems which give members of their community the best chances of doing so. Conversely, those who are unwilling or unable to make the appropriate shifts, risk falling far behind.

What then are the implications for NUS? How do we ensure that our community is well poised to compete and thrive? How do we make the best use of the strong but uncertain winds of the age of empowerment to move forward even faster?

Our response, I feel, should be a re-doubled focus on three key directions, namely:

1. Empower students for the future
2. Enable faculty to stand out globally
3. Create new platforms for high impact

I. Empower students for the future

First, empowering students for the future. Universities traditionally stress the knowledge, skills, and technical abilities needed by students for their future careers. These are important but are no longer sufficient.
Our NUS Trustee, Elaine Yew, shared very useful insights on the four drivers of human potential arising from work done by her firm, Egon Zehnder. These are: Curiosity, about the outside world and about your inner self; Insight or seeing things others don’t; Engagement – communicating your ideas and exciting others to want to be part of them, and Resilience. Beyond, Elaine’s four drivers of human potential, I venture to add two others, namely, Drive and Adaptability.

All these underpin NUS’ educational philosophy and approach. Translated into practical directions, this means we must focus even more on holistic talent development. The good news is that NUS has a strong A.G.I.L.E. framework with five synergistic areas of focus that contribute to our students’ holistic development:

- Academic
- Global & experiential
- Industry (and work) relevant
- Lifelong learning
- Entrepreneurial

With the superb leadership of Deputy President (Academic Affairs) and Provost Tan Eng Chye, and the hard work and creativity of our Deans, we have used this framework well to pioneer many innovations. Let me pick out one brief highlight in each area.

**Academic**

Our Academic programme has been boosted by the addition of new courses to build the new foundational skills essential for the future. Quantitative Reasoning (QR) is one of these. Although our Provost is a mathematician, the QR module taken by 5,000 students last year, goes far beyond mathematics and statistics.

To give you a sense, here is a sample of two QR tutorial questions:

- A recent study by Science Daily\(^3\) has found that “Reading Harry Potter lowers Americans’ opinions of Donald Trump”. It goes on to add “in fact, the more books the participants have read, the greater the effect”.

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\(^3\) Science Daily, 20 July 2016
Here is another one - a study by the New England Journal of Medicine\(^4\) reports a correlation between annual per capita chocolate consumption and the number of Nobel Laureates.

While chocolates will not be served at tutorials, our students will still learn to examine how these studies were done; assess the strengths and shortcomings of the analyses; and the appropriateness of the conclusions. In addition, a new General Education pillar is being introduced to help students become better lifelong learners. A module on “Asking Questions” will be piloted next semester by a team of faculty from Arts and Social Sciences, Computing, Design and Environment, Engineering, and Science.

From next academic year, this will be complemented by short modules, such as “Learning How to Learn” and “How to Decide”, developed by Professor Ranga Krishnan and our Institute for the Application of Learning Sciences and Educational Technology (ALSET).

We are also considering Computational Thinking as a component under General Education. Computational Thinking is a problem-solving methodology which involves decomposing a complex problem, pattern recognition, abstraction, and algorithmic thinking. This could be followed later by a simple course on coding for all NUS students.

**Global and experiential**

Moving to Global and experiential education – NUS continues to lead the way. One key development in 2017 is the completion of building works at Ridge View Residential College, and the conversion of a few blocks in the Prince George’s Park Residences to offer a one-year residential learning programme. This means that next year, 50% of NUS freshmen can spend at least one year, living and learning on campus, up from 38% in 2015. This will enable them to build fresh skills and networks and explore new interests.

\(^4\) The New England Journal of Medicine, 18 October 2012
I am reminded here of an unusual thing I learnt in Colombia. If you walk in the Cocora valley, you can see many tall Cocora palms, some of them 60 metres high, sticking up into the sky. What is fascinating is that for the young palms to flourish, they must be surrounded by many other plants. Where the forests have been cleared, the young seedlings cannot grow. For our students to develop, and some to become giants in the future, they too should be immersed in a rich and diverse, nurturing yet challenging environment. The many experiential programmes at NUS allow for this, particularly, our Residential Colleges and Halls.

**Industry relevant**

Moving to Industry-relevance – we are making good progress. Internships are now compulsory for Engineering and Computing, and many more students from the other Schools are doing internships every year. An exciting new thrust will be our first foray into co-op education programmes, where students will spend extended time working in a company in their third and fourth years, interleaving this with study in NUS. We are looking to start with degrees, such as Information Security, Business Analytics, and Data Science and Analytics, where industry is hungry for talent. At the same time, the co-op approach will provide our students with unique and useful ways to link what they study with real-world problems and issues.
Lifelong learning

Next, lifelong learning. Technology is changing the future of work. Each graduate is also likely to have many more jobs across different sectors. Hence, lifelong learning will be a “must”, not an option. It is not easy to envision how technology will change education in the future. A speaker at a recent NUS conference, Professor Toyo Iyoshi, showed a slide of how some Japanese in the 1960s, thought education might change in 50 years’ time. A robotic teacher is at the front, and robots are moving around the room – they pick out students who are not paying attention and hit them on the head!

Somehow, I don’t think this will be how NUS education would evolve in the future. Lifelong learning works best when driven by intrinsic motivation, and not by external factors, like fear of being hit on the head. Hence, the key shift in NUS must be a greater focus on cultivating curiosity, and the personal motivation and habit of continual learning among our students, graduates and indeed, the general population.

Our Faculties are stepping up their efforts in these areas. Our new School for Continuing and Lifelong Education (SCALE) is also off to a quick start. SCALE is growing its range of executive development programmes and part-time degree courses. These focus on job skills that are high in demand, and on changes in Singapore’s workforce requirements. It is therefore working closely with employers and with SkillsFuture Singapore.

I see SCALE as a strategic new thrust that will progressively diversify NUS’ educational portfolio, in support of our national SkillsFuture drive. It will also enable a wider and more diverse base of Singaporeans to access NUS education, in ways that are responsive to their work circumstances and changing needs.

Entrepreneurial

Finally, entrepreneurial education. The NUS Overseas Colleges (NOC) are unique and highly successful in nurturing entrepreneurs. At the same time, we have a wide range of courses and experiential programmes that promote the entrepreneurial spirit more broadly among our students. Through these, we hope to help our students to become more enterprising – to grow their capacity and confidence to
seize new opportunities to create value, whether they are working in a big company or on their own.

In summary, NUS has a good framework for the holistic development of our students and to empower our graduates for the future. But, for us to really succeed, mindsets have to change. Our faculty need to give greater weight to holistic talent development, alongside academic rigour. Our students must move from overly narrow concerns with grades to empowering themselves for the future.

In this regard, NUS’ unique Roots and Wings programme will play a significant role. The Roots and Wings programme, which covered 5,000 students this year, has two major goals – help students understand themselves better and develop positive personal qualities (Roots), and develop effective interpersonal skills (Wings).

In August, we were honoured to have Minister Ong Ye Kung attend the opening session of one of these courses. The students were very engaged. I particularly liked the focus on helping students understand their own “limiting beliefs” and on cultivating a “growth mindset” – that is, having a positive outlook and overcoming perceptions about themselves that limit their ability and confidence to do something or to pursue a course of action. I would like to commend Centre for Future-ready Graduate’s (CFG) Director Crystal Lim Leahy and her team for their boldness in breaking new ground and intense commitment to nurturing students with a growth mindset.
II. Enable faculty to stand out globally

I have spoken at length about how we should empower our students and graduates for the future. In the same way, we must do even more to enable our faculty to stand out globally. Let me now talk about this second important direction for NUS in the age of empowerment.

In teaching, much progress has been made. We have enhanced support to help our faculty teach even better. Since 2012, the $10 million Learning Innovation Fund – Technology (LIFT) has enabled many faculty members to use technology to redesign courses for better learning outcomes. Today, we have 200 blended learning online courses across our University. Provost Tan Eng Chye also spearheaded the creation of the Educator Track to better support and recognise our faculty who are making an impact in teaching, and educational scholarship and innovation.

Moving forward, our new Institute for the Application of Learning Sciences and Educational Technology, will provide data and innovations for our faculty to pioneer new evidence-based teaching approaches. For example, studies show that students may capture only 20% of the main ideas in a lecture. After three weeks, they remember less than 10%. After this State of the University Address, all you are likely to remember is that I had a vacation in Colombia.
Research also points to simple ways to boost recollection of ideas from a lecture. For example, a meta-analysis found that when students actively participate, for example, by using clickers to answer questions, their exam scores go up. Faced with such compelling evidence, after this Address and before lunch can be served, I am afraid we have no choice but to administer a quiz for all of you!

Enabling administration

For our faculty to stand out, our administrative systems should strongly facilitate and enable our academic mission. However, as is often the case, paperwork has a tendency to go up, particularly in organisations like NUS, which are still growing in size and complexity.

I am very appreciative of the very able leadership of Deputy President for Administration Don Yeo, who has forged a strong collective vision for our administrative systems. We are also lucky that NUS has very good administrative staff who are highly committed to doing their jobs well. Together, Don and his colleagues are working hard on streamlining systems, and simplifying processes. One major project in the coming year is the replacement of our HR IT systems. Our aspiration is to reduce unnecessary paperwork for our faculty and admin colleagues alike, something which I am sure all of us will welcome.

Alongside teaching, it is crucial that we also enable our faculty to stand out globally in research. Under Deputy President (Research & Technology) Professor Ho Teck Hua’s dynamic leadership, we are working hard to better support our faculty to do research that leads to transformative ideas, that open up new areas of inquiry, and that help define their fields.

Each year, the President’s Science and Technology Awards recognise the very best scientists in Singapore. We are very proud that top awards this year were won by NUS faculty.

Associate Professor Liu Xiaogang from Science received the President’s Science Award. Among other things, he synthesised innovative nano-crystals that can emit light, which is more energetic than the light absorbed. This has proven especially useful for studying complex biological systems, for example, the imaging of proteins and the tracking of cancer cells.
Professor Liu Bin from Engineering won the President’s Technology Award for her pioneering work in fluorescent organic nano-materials which emit more light when aggregated. This technology platform has many applications for biomedical and healthcare purposes. Prof Liu’s spin-off company LuminiCell, which engineers fluorescent bioprobes, has been profitable since it was set up in May 2014. She is currently working on a single integrated platform, which involves a carrier for cancer cell detection, drug delivery and release, as well as tracking the therapeutic response.

For their outstanding research, please join me in congratulating Xiaogang and Liu Bin! It is also heartening that Liu Bin is a home-grown talent, having done her PhD at NUS; while Xiaogang did much of his best work over the past decade, in our University. Spurred by their example, we will push even harder to enhance our research environment and to enable even more of our faculty to be leaders in their fields.

Enabling physical infrastructure

A key part of this enabling environment is high-quality research space with state-of-the-art equipment.

This July, we opened the new AS8 Building in the Faculty of Arts and Social Sciences (FASS). Two interesting bits of trivia about this building. First, it boasts the first and only escalator in our Kent Ridge Campus. Second, we number our
buildings by when they were built, not by where they are in relation to other buildings. So AS8 is next to AS6 and nowhere near AS7. I was joking with FASS Dean Brenda Yeoh, who is a renowned geographer, that it shows that history trumps geography.

The AS8 building has allowed the co-location of all the Asia-related programmes in FASS as well as the Asia Research Institute. I am sure this will further raise the high quality and impact of our research on Asia.

We have also in AS8 created new student spaces which dovetail into the upgraded spaces in the Forum. In the next two years, we will be making substantial physical improvements to the Central Library. Together, these will rejuvenate and uplift the major hub status that this precinct has always enjoyed.

Over at Engineering, the upgrading of the old Data Storage Institute (DSI) building will provide very good new space in 2017 to grow major programmes in flexible electronics, robotics, and spintronics. At the site of the Visitors Lodge, construction of a new Engineering research building will begin soon. This will provide additional state-of-the-art lab space by 2019.

At the ridge, work on the Deepwater Ocean Basin is in full swing. This national research facility, hosted by NUS, will provide cutting-edge facilities for physical simulation studies in this field. Over at the School of Design and Environment
(SDE), I am pleased we have started work on the new and much needed SDE 4 building, which will be a net-zero-energy facility.

Finally, we are fast tracking the construction of a new Wet Science research building in the Science-Medicine precinct. When finished in 2019, it will frame part of the new Academic Green, which will really transform the entire precinct by giving it a much-needed new heart.

III. Create new platforms for high impact

Infrastructure is very important, but to enable our faculty to achieve high impact in research and application, and to empower our students, it is crucial that they work and learn in an energising environment, which promotes innovation and offers many opportunities to do consequential things. To help drive this, we are setting up new institutional platforms for our University to produce high value and impact – platforms
that allow our faculty to work effectively with academic, industry and public sector partners to tackle the most important societal issues.

It is also vital for us to collectively build the right institutional mindset. One of the places I visited in Colombia, was Cartagena. It is a beautiful city full of charming colonial buildings. In the 16th to 18th century, Cartagena was a Spanish stronghold, protected by a formidable fort. Near the fort, there is a monument marking the attack by a huge British armada in 1741. On it are large replicas of coins the British had minted celebrating their success. The inscription on the coins read “True British heroes took Cartagena”.

There was only one small drawback. The coins had been minted before the battle actually started. The British had a much larger force and were so confident that they underestimated the clever preparations made by the Spanish to defend the city. As a result, the British suffered a disastrous defeat.

The lesson for us? Complacency is the enemy of future readiness. For NUS to continue its strong progress, we must avoid complacency at all costs; we must have the right mindset that is always focused on how we can do better, and how we can ensure that our work really matters.

One major way NUS can achieve a significant and consequential impact is to make powerful contributions to tackling difficult societal challenges. We are very fortunate that the Singapore government is pushing forward with major, future-oriented national priorities, such as the Smart Nation Initiative and Healthcare innovation.
NUS must and will bring together our wide-ranging strengths and connections to strongly support these and to contribute to their success. At the same time, by so doing, our faculty will gain unprecedented opportunities to do game-changing research and translation that will mark them out internationally. In turn, these will further enhance NUS’ differentiation and standing globally.

I wish to highlight three exciting Institutional Platforms for research that will enable us to do this:

**Smart Nation Research Cluster**

The first is our Smart Nation Research Cluster. The Institute of Materials Research and Engineering (IMRE) building, which has been returned to NUS, is currently being refurbished and modernised. If you walk by it at the end of next year, and sense a pulsation in the air, don’t be alarmed. It might be emanating from the dense concentration of brainy faculty doing very “brain-heavy” research in our Smart Nation Research Cluster. It will really be a “smart building”!

One big area of research will be in big data. We are investing $16 million to establish a new Institute of Operations Research and Analytics. This and our Institute of Data Science will consolidate experts across NUS to do cutting-edge basic research, and tackle complex real-world problems in areas, such as, healthcare, talent analytics, and smart systems.
Another key research area is cybersecurity. NUS is hosting the National Cybersecurity Lab and the Singapore Cybersecurity Consortium. In addition, the new $43 million NUS-Singtel Cyber Security R&D Lab allows us to work with Singtel, a global industry leader in cybersecurity solutions, on a wide range of exciting areas, from the Internet-of-Things to future-ready cyber security systems.

**Heath System Innovation Cluster**

The second institutional platform is our Health System Innovation Cluster, which works in close partnership with the National University Health System (NUHS) and the Ministry of Health. Singapore has a top-rate health system, which combines high-quality care with good access and affordability. Even so, we need to start making some fundamental changes now, to keep our health system first-rate well into the future.

Earlier this year, I had the pleasure of having lunch with Mr Robert Kuok in Hong Kong. We had a most enjoyable conversation, during which we also talked about how he had been able to achieve such phenomenal success as a business leader. He was very kind and acceded to my request to inscribe a scroll with one of his well-known quotes on this subject. It reads: “chéng gōng nǎi shǐ bài zhī fù” - that is: “Success often breeds failure”.

When we look at Singapore’s excellent health system today, it seems clear that key shifts are needed for the future, in particular, from our current hospital-centred model, to holistic care largely based in the community, with a transformative focus on health promotion and disease prevention. The Ministry of Health is working on all these changes.

One of our goals is to provide the trans-disciplinary research fire-power that would strongly facilitate this. Alongside the clinical and public health strengths in NUHS, NUS has set up several complementary research centres.

The NUS Health Innovation Financing Centre will help us better understand the key drivers for rising healthcare costs, and analyse whether these costs could be moderated for patients and the health system. For example, the Health Innovation Behaviour Science Centre does research which aims to postpone or stop the onset of chronic diseases by nudging Singaporeans to adopt healthy lifestyles.
Technology will play a major driver in changing healthcare delivery. We have several world-class programmes addressing this, including the outstanding “Lim Lab” led by Professor Lim Chwee Teck, and the Biomedical Institute for Global Healthcare Research and Technology (BIGHEART), led by Professor Luke Lee. Both are pioneering very creative, smart new diagnostic systems.

**Strongly enabling ecosystem**

Our third institutional platform is the creation of a strongly enabling ecosystem for translation and commercialisation of research. Here, we are lucky to have two wonderful colleagues with boundless energy, who are working very hard on this, together with our Schools and Faculties.

Dr Lily Chan, who has taken up mountain climbing, has been busy pushing the NUS Enterprise ecosystem to new heights. Our NUS Overseas Colleges programme is taking in record numbers of students, and has moved to Version 2.0. This includes nurturing undergrad and graduate students in deep tech start-ups, with new sites to support these in Munich and Lausanne. In addition, a new incubator for deep-tech start-ups is being seeded in Science Park One, and new overseas launch pads are in advanced stages of development.

Then we have Prof Ho Teck Hua, who routinely leaps over wildly complicated math mountains in a single bound, and this is before he takes his morning coffee! Teck Hua is driving highly strategic industry partnerships. He and the Deans and faculty in our Schools, particularly Engineering and Computing, have in the past 12 months, set up the Sembcorp-NUS Corporate Lab in sustainable energy, water, and waste-
to-resource technologies; and the NUS-Singtel Cyber Security R&D Laboratory. Teck Hua has also been instrumental in securing the £10 million gift to set up the Lloyd’s Register Foundation Institute for the Public Understanding of Risk at NUS.

One crucial point is that all these efforts are highly complementary – they are creating a physically concentrated, large critical mass of start-ups and big companies that are working closely with the NUS community. This clustering will encourage and enable students, faculty, and industry experts to mix, collaborate, and circulate between programmes. All this will make for a very vibrant and empowering ecosystem. It will enable us to attract even more talent, and generate many new ideas, applications and commercialisation. Ultimately, all these will help position NUS well to excel, influence, and contribute, even as we move into a future, which is much more volatile and unpredictable. As Winston Churchill said: “I always avoid prophesying beforehand because it is much better to prophesy after the event has already taken place”.

If you visit the Gold Museum in Bogota, one of the star exhibits is the poporo quimbaya. The poporo is a vessel unique to South America, used for carrying powdered lime. It typically has a stick to transfer lime to the mouth when chewing coca leaves, to increase the release of active compounds. There is a long tradition of shamans using coca and other plant materials to divine the future, as these enable them to be “transported” to other places or see things from a height.
Yet, the shamans have found, as renowned physicist Niels Bohr noted: “It is difficult to make predictions, especially about the future”. So, even as we try to discern what the future may bring, it is also necessary for us to raise our general ability to cope well with the future.

This year, the NUS community was deeply inspired by three remarkable people. We were privileged to confer Honorary Doctorates upon Madam Halimah Yacob, the Speaker of Parliament, Singapore, and United Nations Secretary-General, Mr Ban Ki-moon. In August, with the rest of Singapore, we mourned the passing of former President SR Nathan, but also recalled with pride, his many achievements.

Although they each pursued different paths and made dramatic contributions in different ways, there are striking similarities in their lives and outlooks. All three came from very poor families and had very tough childhoods. Yet, all three had incredible drive, tremendous adaptability, and a deep commitment to addressing major societal problems. Finally, their outlook to life was not limited. They were big-thinkers, unconstrained, and undeterred by the many challenges they faced.

All of us in NUS can learn much from their inspiring examples, particularly at this time, when the news around us can be quite discouraging. Many economies are slowing. Concerns are mounting about the availability of jobs, the changing nature of work, demographic trends, and geopolitical problems. There is little that most individuals can do about these. But if we have the right mindset and keep empowering ourselves for the future, these would help us better weather such uncertainties, and see and seize the opportunities within.
The NUS community can also learn much from the example of Mr Wong Ngit Liong, who will be stepping down as Chairman of NUS’ Board of Trustees after more than 12 years of superb leadership of our University. Mr Wong too constantly challenged us to think strategically about the big shifts that impact education and our mission, and helped us to understand how the world of business and entrepreneurship is fundamentally changing.

There will be an occasion later to pay proper tribute to his immense contributions, but I would like to take this opportunity to thank Mr Wong for his visionary leadership and selfless dedication and hard work. These have been instrumental in NUS’ rapid rise as a world-class global university.

With hard work and the support of many, we have indeed made great progress. As we move forward in this age of empowerment, there will be many more opportunities for NUS, and for Singapore, to really fly. At the same time, the challenges ahead will be more complex and daunting.

For us to continue to do well, we have to empower our students and graduates for the future. We must do even more to enable our faculty to truly stand out globally. We need new institutional platforms to create high and lasting impact.

Above all, as individuals and as an institution, we must have the right mindset – one that looks forward with hope and optimism, eager to seize opportunities to make a real difference; to help address major societal challenges; to be truly consequential and valued in Singapore and the world, and to enable NUS to help influence the future as a leading global university, centred in Asia.

Thank you.

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