

FROM THE DESK OF ...

Some thoughts on global education[†]

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Some thoughts on global education

The world has changed fundamentally, particularly over the past 2 decades, and it continues to do so with great rapidity. A major driver, globalisation, has led to the close integration of, and interconnection between, national economies. As a consequence, people are brought more closely together, in the real world and in cyberspace. This global interconnectedness means that today's graduates are more likely to be working and interacting with people of many nationalities, from different cultures and backgrounds.

We are also moving rapidly into the era of knowledge societies and economies, reflecting the rising importance of knowledge and innovation as key drivers of economic growth and societal development. Interestingly, Sir Winston Churchill foresaw this when he said that “the empires of the future are the empires of the mind”.¹ It follows that the particular training that we as university educators provide, with emphasis placed on global education, will shape minds that are well equipped to cope with the uncertainties of the future.

The critical question for us is how universities should respond to this rapidly changing landscape? To reframe the question in a more proactive way: - how can universities help to shape the evolving landscape, indeed, contribute to shaping the future? This can only happen if we 1) provide a transformative global education, 2) create a positive impact through thought-leadership, high-quality research and its application and 3) become more global.

Transformative global education may be thought of in terms of 3 critical shifts that we need to make in how we think about higher education in a globalised world.

The first involves a shift from preparing our graduates for “a career-for-life” to preparing them for “a lifetime of careers”. In the past, the average graduate might work at perhaps 3 or 4 jobs in his/her lifetime.² Today, the average graduate can expect to change jobs several times, often in completely different sectors. Furthermore, the graduates of today do not necessarily begin their “lifetime of careers” in jobs directly related to their course of study. In a survey, nearly two thirds of recent graduates of the National University of Singapore (NUS) reported this.³ The implications of this first shift for education are profound. It means that we have to emphasise broad-based education over narrow, specialised training geared for a

1 Winston Churchill (1874-1965), Speech at Harvard University, September 6, 1943.

2 The US Department of Labor reported in 2008 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.

3 2008 NUS survey of new graduates: 41.3% reported that their current jobs were not directly related to their course of study. In fact, science and technology are changing so fast, that some of the most in-demand jobs in the future may not even exist today.

particular industry. This translates into achieving both rigour and depth in a field of study, as well as sufficient exposure to a range of other disciplines and more global skills, in particular critical thinking, intercultural and effective communication skills. Students must also “learn how to learn”, and cultivate a positive attitude towards lifelong learning, so that they can continue learning throughout their careers and be able to “re-tool” or “re-skill” periodically along the way.

The second shift entails cultivating a balance between the training of the mind and the development of the whole individual. We live in a world of rapid and often, difficult, change, much of which is driven by spectacular advances in technology. Our graduates need to be resilient to the vicissitudes of life and have a “can-do” attitude to seize new opportunities. Good people skills are even more essential ingredients for success than ever before. These qualities cannot be fully developed within curricular structures, but have to be acquired outside classrooms, through lived experiences. Universities must, therefore, carefully consider the right balance between “learning in the classroom” with “learning outside the classroom” or “in the field”. To this end, we must create co-curricular opportunities for our students to go out of their comfort zone, to test themselves, to experience failure and to learn to pick themselves up again.

The third and final shift requires us to cultivate a more global outlook in our students. We must therefore move from educating students for the more immediate and familiar local settings of home to educating them for the more heterogeneous global settings of the wider world. Our graduates must learn to appreciate different cultural perspectives and be able to operate effectively in different socio-cultural and political contexts. To do so, students must learn to value and respect diversity. To be constructive members and leaders of society, we need to inculcate attributes such as moral values, professional ethics and good global citizenship in our students as early as possible in the education process, and integrate these within the standard curriculum.⁴

How do these 3 critical shifts impact and inform the development of educational programmes in our institutions?

As we write, many universities are already actively educating or planning to educate their students for a globalised world. At NUS, our adopted approach is “to bring the world to our students and to bring our students to the world”. Our undergraduate programmes are deliberately broad-based, multi-disciplinary and flexible. We also offer a wide range of options of increasing complexity and rigour. These include double major programmes, double degree programmes, and University Scholars Programme. We have about 60 joint and double degree programmes with foreign

⁴ In his book, “Our Underachieving Colleges”, Derek Bok (2006, 233 ff) argued that preparing our students for a global society also necessitates the introduction of and emphasis on (foreign) languages and strengthening existing language programmes in the college curriculum.

partner universities. Some are located within NUS or in Singapore, such as the Duke-NUS Graduate Medical School, whilst others are with partner universities overseas. For the more entrepreneurial students, we have an additional 7 [NUS Overseas Colleges](#) (NOCs) located in Silicon Valley, Bio Valley, Beijing, Israel, Shanghai, Stockholm and Bangalore. Through these partnerships, we aim to cater to students with different abilities and inclinations and infuse in them a more global outlook.

We have also created a very diverse campus environment with international students and faculty from more than 100 countries. In addition, we have a very wide range of co-curricular activities, many organised and run by students – these provide opportunities for students to challenge themselves beyond the academic curriculum.

Universities can also become more global institutions to the benefit of their educational, research and overall impact. One conceptual model is what I term “mutually beneficial academic outsourcing” at a global level. This is a useful way to create educational programmes which are unique and of exceptional quality, built around complementary academic strengths that exist in 2 universities. In other words, if University A excels in a particular area and University B has great strengths in a complementary area – and if the 2 universities work together to put up a joint programme, this could yield a unique educational experience with exceptional outcomes.

The [NUS-Karolinska Institutet joint PhD programme](#) in genetic and molecular epidemiology is one such example. This joint effort began several years ago when NUS academics started working with Karolinska scholars to compare the risk of breast cancer between cohorts of Swedish and Singaporean women. It was found that Singaporean women born in 1963 have 3.5 times higher risk of developing breast cancer compared with Singaporean women born in 1928. This was not seen in Swedish women. The researchers also found that the biology of breast cancer in Singapore had important differences compared with that in Sweden. This sparked off a series of joint research projects to study these differences. After a couple of years, the faculty felt that it would be very useful to develop a joint PhD programme. The Joint PhD students would help bridge the research in Singapore and Sweden, studying local databases and tissues at the 2 sites. The presence of the joint PhD students also allowed the research to be extended into studies on imaging and genetics. The structure of the joint PhD programme is quite simple. There are 3 blocks of coursework. The first 6-week block is in NUS, the second 6-week block in Karolinska and the final 6-week block back in NUS. In addition, the students spend at least 6 months doing research in the partner university. The added academic value proposition of this joint PhD programme is that the students have greatly facilitated the joint research projects and allowed new collaborations to be forged. The students get to work on a unique set of data

and materials from 2 different countries. They have a first-hand understanding of ethnic differences in cancer susceptibility and are able to explore some of the underlying genetic and environmental reasons for this. The students also have an excellent cross-cultural experience, and benefit from tailored coursework taught by some of the best professors in 2 universities.

Beyond global education, universities can contribute to shaping the future through the impact of their research and its application and through providing thought-leadership. Every university will have many such initiatives. For NUS, one example is the [NUS Finance and Risk Management Research Cluster](#). This research cluster carries out cutting-edge basic research, as well as applied research and training for the finance industry, in Singapore and beyond. It endeavours to provide thought-leadership through lay articles on the financial crisis and through scholarly work on what the post-crisis financial system may look like. More recently, the cluster has created 2 novel indices for credit risk rating for Asian firms, as well as a Residential Price Index for Singapore.

For universities to fully seize new opportunities in a globalised world, 3 conditions are critical. The first is autonomy – the autonomy to set directions and to be nimble. The second is to have flexible and performance-based human resource practices and the third is a singular focus on quality, excellence and a strong global outlook.

In this regard, over the course of the last 15 years, NUS has made a number of major transitions. Firstly, NUS moved from a primarily teaching, to a research-intensive, to a global university where research and education play equal part. Secondly, we were originally part of the civil service, then evolved into a statutory board with substantial autonomy, and since 2006, we have become a not-for-profit company with a very high degree of autonomy. As a company, the NUS Board and management sets its own directions and goals, and has the budgetary and academic control to pursue them. Very importantly, we have flexible and competitive HR practices which are performance based. As a balance for the high degree of autonomy, NUS is also subject to a robust accountability framework. Compensation for our staff is internationally benchmarked and performance-based. All our programmes are referenced internationally in terms of quality assurance. In short, we endeavour to keep our focus on quality and excellence.

Globalisation and the rise of knowledge societies have fundamentally changed the higher education landscape. Universities have a vital role to play in contributing to the future by providing a transformative global education; and to do this, there is a need for us to move away from tried and tested method, to experiment and do things differently than before, so as to nurture an environment that is conducive for future growth and development that are consistent with the needs of a 21st century world.