

i see okay good good to go good okay let's start i i i lost oh yes i see a review okay okay okay good so let me ask the general question um what was what was nus like before the three of you by three i mean uh uh georgetown and you you know it's actually very interesting i know nothing about nus before the three of you

and and of course when i when i got to know nus is start reading the lectures and speeches of uh twin phone right then i realized things are things actually happening so anyway could you at least give a a brief account of what what was it like before yeah oh well i joined the us in 1989 so and i was a student from 81 to 85. oh okay right uh yeah so uh as a student uh i knew nothing about research

and uh it's basically a big university uh the focus is small on teaching it was it wasn't bokitima wrote right at that time uh no well we moved to the cambridge campus in 1980 oh okay sorry right 1981 my wife was a year my senior she spent one year in bukitima and three years at nus at the cambridge campus she's also a mathematician he's also in mathematics that's why i met her what do you talk at night when you're married to another mathematician i'm not about mathematics though she was a mathematics teacher but she teaches english too okay okay so she's a high school teacher okay or she was a high school teacher so uh my impression when i was student is that well we have uh classes uh classes are not as big as these days because then the proportion of students going into nus is probably about five percent of the birth cohort [Music] right now the proportion of students going into the six universities in uh singapore and this is uh 20 years later 40 years later is 40 wow so you see the big difference right then i guess i am one of the privileged few who have been admitted into university uh but the most of the thing was mostly on teaching the only thing that uh i remembered a lot was that well uh there's a year-end exam so it's a semester a year sort of uh it doesn't have semester it does have two semesters but the main exam is at the end of their academic year and it always happens after chinese new year okay so most students will spend chinese new year studying okay and they they don't get to enjoy the chinese new year during those years that when they were at university right there's always a supplementary exam for those people who fail given the chance to take the test and the different tests but of the same almost of the same level and they must pass the test otherwise they will repeat the whole year so we take three subjects and if you fail one subject we call it the supplementary exam and that's in may you fail the main one then you repeat the whole entire year right okay uh so then i guess that's one key impression as a student the other key impression that who who was the president then or vice chancellor the vice chancellor was professor limping oh it was already limping and he was vice chancellor until professor she came along so he is a long time serving uh vice chancellors is he a mathematician uh no he's a medical doctor oh okay okay he's a medical doctor is he still around yes he's still around he is uh a university professor uh he still teaches a little bit and he does uh one or two clinical consultations a week okay okay good he is already in his 80s yep right and one of the nice things that i was exposed off to there's this uh research in the honest year we have to do a project under a professor and uh we can pick up any topics that we want and do a reading and then finally to write up what you have learned

and that's basically independent learning and it's pretty interesting i remember that i did the differential algebraic geometry okay for my honest thesis

and then i went to graduate school now this is just to basically read books and then write what you have learned is that right or it's actually ingredients that's right but not a not a research per se not a research note not not a research problem per se okay all right not the research problem per se now this is your fourth uh honest year or is the capstone project for the honest yeah the fourth year so it is a so you finish three years and then they decide whether you can take the honors or not right correct and then i was chosen to take my honor so about 30 of the students will go on to honors others will graduate uh after three years yup and then those who are doing honors they would have to take a capstone project which is this uh project that i've talked about capstone a c-a-p-s-t-o-n-e yes that's right we call that the honors project okay god got it so the impression is that it is still very much a teaching university uh i have not talked i mean i've not come across papers then and neither neither did any of the professors introduce me to papers academic papers but the professors all have phds or not most of the professors would have phds okay okay and some of them are from foreign countries i'm mostly from uk uh most of them are from uk and u.s even now i mean are they from are they british people that came over oh no they are they are americans too okay okay they were americans too all right it's it's not as diverse as today uh but still uh quite a substantial group of foreign expatriates and it's all in english yes so i'm indebted to people like professor luis chen yeah taught me his probability and statistics professor chang cheetah who was a former problem and also a graduate from yale yep right professor peng suwan who then was the head of department and uh dr liang yu who supervised my uh honors thesis so this this what is steve who influenced me to do a phd what is the quote unquote intellectual atmosphere of this school at that time well uh i i as a student i don't sort of perceive it because nus we only embarked seriously on research in the mid 90s

but the people that i'm associated with people like louis chen yep they are very research active so they was publishing in a department where publishing is not a key requirement right right [Laughter] can i imagine that nowadays huh yeah correct yeah and and and uh i joined the department of 89 right uh then i think there was a focus uh because um who was charging again

okay so professor ping was trying to push the department into a more research active uh department and at that time uh i think the requirements for tenure after six years right uh first of all we don't have a rigorous process for tenure all right it was a deliberation where the head was surfaced to the dean and the hit and the dean and the vice chancellor would consider and then make a decision whether to a so-called tenure a person i mean there was no tenure per se in the sense that it was a contract that uh basically you are employed by the university and the first two contracts are just three years ah okay that's your contract first time for three years yes first time so you didn't take a postdoc after yale right i did not write that that that in a way was the practice there was a scheme called the senior tutorship scheme and they identified good students to do phds in top institutions overseas and after their phd they are to return uh to uh nus okay right and they are bonded so for me i'm bonded for 11 years i see

11 years can you pay back uh yes okay anyway but that's uh scheme which is uh set up at the suggestion of professor luis chen and professor chong chita i recommend it to uh professor limping i see and which became a a mechanism for us to attract local uh talents to do phds right by the way is lewis still around luis has retired but uh yeah he still goes back to the department because he's an emeritus professor okay okay still serving he is now the director of the institute for mathematical studies right right right okay then uh 90s it's still very uh teaching intensive although several heads of departments including mathematics and chemistry are very research oriented

right and for faculty of science faculty of science was the very first to put up a promotion and technical process a rigorous promotion and 10-year process where the evaluation is done by the department and then done at the faculty level and then at the uh provost office level

there's a sampling semblance of a process and at that time i remember i was a vice dean in the 1995 to 97 98. all right

trisham came in in 1998 as a deputy vice chancellor he assumed the position i believe in 2001

right and while he was a deputy vice chancellor

he sort of introduced the core curriculum [Music] right which is a very broad-based intellectual foundation for all students and that morphed into what is the current university scholars program right right cheetah was also a deputy vice chancellor and one of the key things that cheetah did was to set up the promotion and tenure system

so president xi became president and cheetah became his pro boss i see right in 2001 right i think it is a 201. oh let me see here let me check

i think it's 201 or two

2000 let's see here oh two thousand okay two thousand professor she became became the president and then chitak became his provost and cheetah was the first promos and professor she was the one who changed the title of the president yup he changed it from cc to p he was first a vice chancellor and president yeah then later on he dropped the vice chancellor [Laughter] so when you came in 1998 the university 1989 or 1989 so at that time your contract involves a a ten year clause that you have to go through no no no i i was special because i was bonded i wanted to serve the university for 11 years but they can sort of uh let go of me after 11 years if i don't perform okay but i was tenured in 1996. okay okay i was standing in 1990 so who started the idea of tenure in nus uh so cheetah was the one who formalized the idea of tenure wow uh and he took uh guidance from what we did at the faculty of science and what year is that he started it in 2001 oh okay the same oh when he has approached provost you asked provost okay okay when he was provost he set up the promotion and tenure system so our promotion at 10 years is 20 years this year uh-huh were were there it was it easy going or were there some pushback uh it was not easy going because uh when i was vice dean then so i was

advising in the faculty of science uh remember i told you that then professor lee soon was the dean from chemistry it was pushing on research very hard right and uh we already have our own tenure system in the faculty of science okay and i was actually a vice dean in charge of academic affairs okay and basically appointments come through me and a lot of people uh who saw our contract in the past was only up to 55 years right all right we exhibited a lot of people at 55 oh ah

basically when you reach when you reach when you reach the age of 55 yeah you leave yes with with uh a retirement benefit no retirement benefit in singapore we have a central providence fund okay and that's for our retirement wow we don't have the equivalent of the 401k and all this in the us i see in singapore we have central providence fund or cpf now if you leave at 4 55 you have generally you have not stayed long enough to accumulate enough money or enough financial strength for you to continue the lifestyle you're used to right i i don't think so i i would say that a lot of them are actually fairly well why because most of them would have bought properties i see a lender property can cost a hundred thousand when those people are like lecturers or senior lecturers and now they are worth millions yeah yeah and you find that people like me i've not owned a lender property

i came in a bit late i'll see but the earlier ones uh most of them live on landed properties i see which are worth a lot okay yeah yeah yeah yeah that's good yeah so we actually exited a lot of faculty at age 55 and the promotion and tenure system was very painful we basically looked around and cheetah adopted the uc system

right adopted the uc system and uh we always use the uc system as a sort of a benchmark

right and we have so uc system if you are familiar they have the department evaluation the faculty or school evaluation and then it goes to say in uc berkeley a budget committee right and that budget committee is a huge committee that basically scrutinizes all p t cases right right and then finally to the provost and the president right so we adopted the uc system of promotion and tenure ah i see yeah and uh uh one one interesting exercise that i did was when i was provost in 2011 so i became provost in 27 07 when i was provost in 2011 after 10 years i decided to do a benchmarking exercise so i got some current members of the uc berkeley budget committee then and some former members of the uc berkeley's budget committee

at that time tegua was in uc berkeley tegua who is my current provost so he he knows the people there so we managed to really get a group of former or current budget committee members and i picked up six departments and i pick up five from each of the six departments cases that have been tended or non-tenured who i mean decision has been made and basically i show all these 30 cases of dossiers to the budget committee and we asked the budget committee if you calibrate our standards uh at nus and for the six departments i did some calibration or roughly where they stand in the context of u.s university departments so one of the apartments chosen was psychology department

and we basically do a calibration where is where does our psychology department stand within the us ecosystem and then we ask the budget committee is this the right calibration on our decisions whether we should tenure this person or whether we should not have tenure this person and so on and so forth and that exercises was quite revealing so biological sciences was another department that we use for benchmarking and calibration and we we actually spent about one week uh we went over me and a few senior colleagues went over and we discussed each of the 30 cases right with the uc so-called a shadow budget committee

just to have a very qualitative understanding of how well our promotion and tenure system is now i'm saying this because we care a lot about quality

all right and uh we need to understand how to look for quality because that is one of the key attributes of say a head of department or provost or president how do you know this person is good and why is he good

yep and that that is very important because if you look at in the university context we depend on talents of course right our stature depends on how talented how many talented faculty members do we have how many talented students that we have and how many talented alumni who basically impacts the world right so it's really talent we are a talent organization right and the promotion and tenure is actually one of the key mechanisms so we put in the promotion antenna of cheetah [___] the promotion antennae across the whole university in 2001 and when chochung became provost so then we actually use the retirement age of the uh of singapore as a calibration for promotion and tenure

what does that mean the retirement age was uh 60 i think at that time

right it was 60 at that time so how does that work well if you are ten years you are employed until age 60 the retirement okay yeah torch one uh later on change it to 65 to to to more or less uh uh aligned it all right with uh uh i i guess the the growth of the uh or rather the the the the practice in in most of most universities we didn't i think one critical thing that we did did not follow the us is the uh indefinite tenure in the u.s you have indefinite tenure right but we did not we did not think that that was a wise thing to do so what did you do uh so we only tell you up to 65. oh i see i see u.s you can stay forever in the universe us has no retirement yeah no retirement age well at least no official you can stay until you you cannot stand it anymore

i see you you're up to 65 and then at 65 you will be evaluated every year yes if you are good we will continue to give you uh sort of another one year two years five years contracts so faculty members who who stay on until their 70s or 80s

provided they can bring impact to the university

okay okay so i i will say that the promotion and tenure is one of the key mechanisms that we have put in and it's easy to put in the promotion and planning but the challenge is to make sure that you always calibrate it to have the high standards that you want and to let departmental

politics not to play a significant role yes exactly which is always hard to do so what i've asked when i was provost i asked the departments to do their own benchmarking

so we have adopted uh the visiting committee to departments so these are conducted once in five years every five years we will form an international panel say department of mathematics they'll form their international panel and the panel has to be approved by the provost

and then they'll visit the department and they would give comments on how the department has developed in terms of teaching in terms of research and in terms of service these are people that actually fly in from everywhere in the world to come and evaluate each department so we did uh before we do that too uh i've asked departments to do an internal self-evaluation right an internal self-evaluation and to do their own internal benchmarking what does that mean so i would say that if your department were a department in the u.s for instance so we find that for instance u.s has the most data right in terms of education in terms of research so and and it is a very developed uh academic system of course and and uh we can always use us as a sort of a reference right right right uh in europe of course we have many good departments too but the data is not as pervasive not as sort of available so for instance in u.s your national science foundation they do sort of the rankings of graduate programs in u.s according to different disciplines right that provides huge amount of data we should celebrate so i asked departments to say if you were a department in u.s where would you place your department okay and justify it so we have this concept of peer peer department so if i'm ranked if my department mets department is ranked 50 in the u.s then your peer departments will be those roughly 45 to 55 all right and we can use let's say the nsf graduate program ranking because graduate program ranking has a very strong correlation with the research right of course of course of course right and and so i asked them okay pull out indicators from your department and compare with your peers to justify that you are in that category and then i want them to identify who are your aspiring departments so i ask the head of department usually i ask them three questions all right where are you now and that's basically how they they they sort of uh calibrate themselves then i say where do you want to go stay in another 10 years where do you want to be uh where you want to be are these are your aspiring departments right all right and then the last question i asked what resources do you need to get that right

so our departments do that and they also identify their aspiring departments so the question the selection of the visiting committee they must be members of the aspiring departments of course of course you want to get a department that is lower in the rank but if you have to do this for every department the amount of funding that is needed just to do this is non-trivial uh well the departments have their own department funds it's not too expensive to fly people in because usually they have three or four and to fly them in that that's once every five years it sits once every five years oh okay once every five years not every year no i we rotate the department so i have about 70 departments so every year we'll do about 14 14. okay oh that's no big deal yeah and the the visiting committee must meet up with the dean and give the report to the dean and also must meet up with the provost and give the report to the provost right and so we get an external view of how department each department is progressing right i usually want our external committee members to focus on how we hire and how we develop right people so once

you hire a person you must find ways of how do you actually allow this person to grow right of course or her maximum capacity

so so this is very very i would say refined talent development talent recruitment and development so i always emphasize to the heads that recruitment and development and retention these are three very important aspects for department you must learn how to recruit them you must learn how to allow them to grow and make them grow as fast as possible and then you must be able to retain them and provide the you don't have any environment in the department you may grow all these people and they will leave that's right that's right and provide them with the right resources to grow yes and we have resources so we have resources and we will give resources to um well i would say uh deserving departments who have done well yeah and also singapore's uh funding agencies yeah actually singapore has a lot of funding agencies now yes uh uh uh uh uh relatively comparable to many other countries are well funded so that they can actually provide enough resources for research projects at individual faculty level yeah i think we are very hearted too the prime minister has just announced the new budget for the next five years yup this is for the research innovation and enterprise 2025 which covers the years 2021 to 2025 right and because of kovit we thought that there could have been a cut back yep but i think all of us were very pleasantly surprised when the prime minister announced a 30 increase yeah so from 19 billion it's going to go to 25 billion

wow ah yeah 30 increase the 6 billion increase but also the number of people have increased significantly in singapore right uh well we are actually focused more on quality okay all right although the quantity matters uh uh it's the quality at the threshold the threshold has not been dropped yeah the threshold continues to rise yeah well to mix i think it's in singapore dollars to convert to u.s dollars you have to uh use 1.3 singapore dollars is equal to 100 30 yeah yeah oh yeah something like that you know yeah this is all fantastic what you're telling me is that um structurally uh singapore's higher education started off with a very broad mission of transforming its higher education into a very high quote-unquote quality and that you even define for yourself what quality is where talent is the central part yeah now first of all you know if that it sounds easy well it's easy in the sense that this is motherhood you know if you why you not do that but it's not easy in the sense that few few countries in the world can can can can do this with such enthusiasm right so what what is the eco system in singapore in the last 20 25 years i think that's the right time right in the last 25 years that allows singapore to make this transformation you know i you and i don't believe at least don't take it that seriously about ranking but i suspect if you look at the ranking in 2000 year 2000 of nus right i don't know what it is it must be i don't know 300 400 if not higher than you could yes okay and so in other words it went from three to four hundred to 11 of today that even just ignoring all the noise it tells you that nus has transformed so what what made and you people in singapore realize that that's what we need to do and that we never let go and continue to move in the same direction despite the fact that you know prime ministers have changed and and university presidents have changed and and so on and so forth that that determination seems to be the same direction the vector is always there well uh i i can attribute this to a few reasons um so what one one is that we are fortunate to be in singapore and we're also fortunate to really have within us the dna of singapore all right what do i mean by this

singapore is a country that is not meant to survive

right but i think our first generation of leaders has actually turned it around and to quote our dpm taman that you know it's turning from a permanent disadvantage to a continuing advantage

and part of this dna is that

we we want to try and we will work and we'll be very focused to work towards making sure that we succeed and we were able to leverage a lot on talents within the whole system and we are also able to leverage on the talents from outside of singapore so our global orientation for instance helps us tremendously uh we initially do not have enough of our local talents even right now we don't have enough of the local talents but we have a very open mentality that we are attractive to talents from all over we bring them here and we get them to grow with us and to grow us so i think that has been a a dna and a practice of uh singapore which i think fortunately nus and in fact ntu and many of the universities have acquired so i think that's one one one important point now the second point uh is also that we have a very far-sighted government

right and in 2006 all universities in singapore are given autonomy

now in the past

the ministry of education has oversight of us uh currently like many like many asian countries yes but it has actually very very a strong oversight uh even promotion of professors goes to the minister

and of course one very enlightened minister for education then says that i know nothing about discipline x why do you have me to decide whether we should oh this person who is that uh let me see i think it's uh i think it's tarman did the current the current deputy prime minister uh just stepped down as deputy prime minister he's now i know i know it is that is that's the same person yes he was the minister hang on let me see

by the way he's he's brilliant oh he's brilliant he's brilliant and he's got to be the next prime minister of singapore

let's see yeah uh yes you're right this is this is uh he was minister of education from 2003. to 2008 wow so he was the one who gave autonomy to the universities

and basically the long and short of it is this uh we were incorporated as a private not-for-profit company yep all right uh we have two agreements with the ministry of education the first agreement the policy agreement it articulates the ministry's plan for higher education for singapore right and it also articulates how the ministry will fund universities and currently is funded on the per-student basis right and uh the ministry sort of manpower uh sort of targets are very much sort of based on what they see in say the next five years what where what type of

jobs are available and what sort of expertise are required so they would work together with the ministry of manpower to say that okay i need so many engineers i need so many uh graduates from law and so on and so forth right so they they basically will articulate outcomes for the university then the second agreement is one of the performance agreement where the university articulates how it should be measured so if the university has done well what are the indicators that universities feel that they should be measured against so this comes from the university and we have to convince the ministry that these measurements are accurate and use and also globally accepted right so for instance the ministry will rely a lot on what what we tell them how how we measure research for instance right and the those sort of uh comments that i made earlier on promotion and tenure right right uh i will say that the ministry they are not experts so they would actually depend on the universities to guide them so this is basically a sort of an agreement that said by the university on how we should be measured and based on this agreement every year we provide a report to the ministry on how we have accomplished so we we do not for instance regularly the moe doesn't ask for feedback and all these things right we provide a yearly report and then there will be a yearly meeting between us and the ministry on how well we have achieved our targets all right so it's very target driven so and once you meet the target then you will get the funding that has been assured in the policy agreement and other than that the the the ministry does not interfere with many of our decisions so promotion now don't go to the ministry right if i want to spend five million dollars i don't need to go to the ministry i see yeah and also so what does so that's partially what autonomy means right yes this is but i think to us and when we compare with many countries where where so-called universities were given autonomy uh there's a big difference and i like to sort of explain it in this way that some governments when they give autonomy to universities they do not know how to let go right they still would ask for the same sort of justifications or clarifications so it is is is korea one of those countries i i wouldn't wouldn't want to

right well i was going to ask you the difference between your autonomy and so national university's autonomy is do you do you know enough about i i i i can i i can sort of describe to you a conversation that i have with peter matthewson ah okay he was the pro former vice chancellor of hong kong

right so he was talking to me one day and we were talking about autonomy and he made the remark that he before he went to hong kong you would have thought that uh hong kong universities have a lot of autonomy compared to singapore right then is is the other way around right that's right that's right yeah and so universities in singapore actually have a lot of autonomy so you ha does that mean that the minister of education at that time uh sunderman yeah uh he played a key role right yes that he is he understood enough about the meaning of autonomy yes and starting from a very very ground level namely you know why am i making decisions about a tenure on chemical engineering when i know nothing about it yeah i mean this this this is a very profound there's a very profound uh a concept yes i mean if it if you replace him by another person it may not have gone through so easily correct so so some sense singapore is lucky to have him at that time i think we we have some very good alignment of stars yeah yeah yeah so you know i know in the within the university administration it's probably easy to understand that you want autonomy yes but but at the ministry level it may not be that easy in fact most most

moes in the in the asian countries don't understand that correct they don't understand that but it's very important for the minister to understand that and to push it down so let me ask how did he understand it oh he's brilliant well okay but but you know there are lots of brilliant people in asia but but most don't understand that so somehow something about the singapore water that you drink allow allow him to think in a different way yeah i i i can't comment on that i just know that he's far-sighted is brilliant so yeah and i think we benefited and that that is the key right so the second point is autonomy the third point is uh the alignment and also the resources that the government has actually uh put into universities and i think the government sees the importance of universities right and for a long time they see universities as one of the

key providers of economic power and particularly i think when we move over to the knowledge-based economy they see us as the key engines right because the graduates that we train they we the ones the talents to drive all right the next stage the next level of the economy and and so like all asian countries uh they have been very very supportive of universities but i would say that the singapore government also have very creative schemes right other than actually providing a good support on uh per capitation basis uh you may have heard that they also want the universities to try to raise and build an endowment yes yes so in the past the government provides 75 percent of the costs of a student and 25 percent will come from the fees of the tuition fees of the students tuition fees are kept low uh our tuition fees for instance uh in general is about 8 000 singapore dollars per year per year 8 000 singapore dollars per year singapore citizen or not singapore citizen oh no foreigners they pay double sixteen thousand bucks the cost is actually four times that's right right that's right so in the past 75 and the government introduced this scheme of matching for for donations race because they said we want to slowly move your budget from 75 of the cost to 60 of the cost and you have to raise money but for every dollar that you raise the government will match it by one and a half dollars wow so for instance if i raised a hundred million the government would 155 me with 150 million but i can't touch the 150 million of course that's 100 50 goes into an endowment right and we invest the endowment uh so 100 million rates will give rise to 250 million and imagine that you put in a investment uh of say four percent returns then you would have with 10 million dollars every year so the dollars that matched by the government is also becoming part of the endowment is that right yes correct or in other words the government is giving you money but you cannot spend that money correct it must be in an endowment okay so you can only use the interests that come out of it correct correct but you can raise for instance an expandable

sort of a donation so somebody provides me with 100 million to build a building right but i still attract 150 million of matching from the government but while i can spend 100 million to build the building i cannot spend 150 million i must invest it to give me a return of say six million a year right right so what do you what is is that can you tell what is the endowment now of the schemes which helps university of course and uh and uh so you know in in many countries governments will just trim budgets you know if we look at the uc system yeah in the past the california government provides about seventy percent of the support right now he has been eroded to about eight to four percent that's right right that's right and and and uh i do hear that uh for the eight to 12 percent uh even i think the state government would want to show or make sure that they have a lot of influence well it's the same in michigan university of michigan's state

support is about nine percent yeah yeah so what is can you say what endowment you have now uh my endowment and reserves uh it's uh close to about 10 billion singapore dollars 10.5 billion singapore dollars

so that's about 8 billion us dollars okay so you're you're closer to to colombia now uh i think colombia is probably higher than us oh yeah okay okay yeah but we are we are definitely amongst the top 30 in us if let's say right within u.s that's right that's right that's right maybe at the top 20 even yeah and are you scared against endowment per student because we are state university then actually we are way down yeah yeah are you are you spending a lot of your your professional time in fundraising uh yes i have to raise a hundred over a million dollars a year [Laughter] okay that will keep you up at night [Laughter] will tell you that this is one dimension of the job of the president a professional beggar oh well yeah yeah well that's why they have this uh fancy place in new york city called the harvard club [Music] yeah yep so the last the last point that i would say is really our focus on talent yeah and again i have described to you what we did for promotion and tenure and how we emphasize uh recruitment development and retention of talents uh and that's something which uh it really it's at the execution part right it's it's not every very just uh talk but you need to make sure that the entire system heads of department faculty members all right they are actually very aligned in terms of recruitment development and retention and i think this part is what i think differentiates us too

why we can actually do so well over a short period of time how how do you keep the department heads and the deans aligned by meeting them regularly talking to them regularly and hey this morning i was late because i just had a walk with my head of department of chinese studies okay so one of the things that i do is that i like to walk and i do walking as part of my exercise okay usually from 7 30 to 8 30. so today i took a slightly longer walk with the department of head of the department of chinese studies wow okay okay well that's that's very interesting uh i learned a lot today about so autonomy is a big factor of nus yes or or singapore universities right not just nus right that's the same in ntu right um it is same the autonomy applies to all six universities okay okay and uh what uh the all the department heads and the deans have terms uh his and this they are appointed on three year terms and we normally want them to stay for six years good ones 9 years some very rare ones 12 years but no one more than 12 years okay and and when you have a a position vacant in the in the department head level do you go global search or do you just use find someone internally uh we always do a global search for heads of department okay yeah and for deans uh there are some cases where we would do a global search but there are some cases where we would prefer to do an internal search but this is where i think the when we talk about development of talent uh there's another special subset which are academic leaders

that we also pay a lot of attention on how to develop academic leaders

what does that mean people who can become heads or departments or deans or faculties i see i see i see well okay i think i i ran out of questions at the moment i think uh this this uh makes us a question what's anywhere's biggest challenge uh is it the same challenge as uh 10 to 20 years i think it's not unlike many other universities uh one one of the things that

i think would be nus biggest challenges the environment outside it's changing so fast yeah yeah and uh kovit 19 has basically accelerated this change

right and so it begs the biggest question our business is in knowledge creation and in uh providing uh a talent pipeline right for the country and the world right and with that rapidly changing environment out there are our talents adaptable and agile all right and are they positioned so that they can continue to thrive in a rapidly and evolving and my personal sense is that there are some things that we are doing right that has to change because it no longer works right so one thing for instance is that we find that universities we are organized along uh very disciplinary lines department of mathematics department of psychology department of electrical engineering these days our colleagues have been doing very multi-disciplinary and interdisciplinary research however teaching is largely still very silo

right and i don't think that we are doing good i mean we are doing the right thing to students who are potential people who need to have a lot of exposure to multi-disciplinarity and we may not be preparing them and equipping them with the right interdisciplinary skill sets to thrive in a changing world right so i'm now actually embarking on a big systemic change for the whole of nus i have just established the college of humanities and sciences which is a collaboration between the faculty of science and faculty arts and social sciences so that students no more actually go into science or arts and social science they come into the college and they are actually exposed to a common curriculum that covers humanity social sciences mathematics and science and that common curriculum stretches one and a half years and they choose their their majors only after they have done their common curriculum so we are basically like uniting the offerings of the two faculties uh and uh pushing them uh to uh giving them a broader foundation and an interdisciplinary sort of a foundation so that they can actually have more options as they proceed on to life uh the change is not only for arts and science in fact it's a cross so i'm i'm also reviewing and revamping medical and the legal curriculum because of the impact of technology right and because of globalization so every and everyone would be impacted so this is one big change that that uh nus is pushing through in the next few years very interesting well we expect to see that big experiment like come to a frustration or see like initial results because it's quite a big of a change of mindset and structure when do you think that big change of mindset uh it's a big change of uh structure uh and that's the singapore way i'm implementing the college of humanities this august

wow uh i i was sharing with peter salovey yeah it was telling me that wow to set up a school in yale needs 12 years

i want to do everything within two years right right yeah well you know the work go ahead the world is moving that fast yes and um the the idea of interdisciplinary is sort of permeating in many places it would be really interesting to see how many can really succeed yeah it is not easy it's not easy i always say that the interesting fact is that all the interdisciplinary disciplines now that's been developed are by people who did not go through interdisciplinary trainings

so so it is in some sense what you're saying is i want you to not be a physicist to begin with but be a scientist and a humanist to begin with and still do what the physicists have done into becoming biophysicists and so on and so forth um it's an interesting challenge oh yes also go ahead sorry and are you at what point you have to evaluate whether your route your the depress the the proposal that you're doing or you're proposed to do is running into trouble and correct your your vectors what how do you do that uh actually whenever we have a plan we always put in mechanisms to test and measure ourselves

one of the part of the dna of singapore is that we are very good at execution i think everyone can have the ideas but in terms of actually delivering on the ideas i think singapore actually does extremely well so that's part of the dna of singapore and when we actually have a proposal and a plan all right you can be as assured that we would have many milestones many mechanisms to track how how well it has progressed and if it veers off we better push it back you know to the right direction okay okay so and that's the hard part the the easy part is talking about it and getting a sec the hard part is actually doing it that's right that's right that's right and also convincing your faculty to do it yes so like what i told you about promotion and tenure right if you it may seem easy that okay just just apply promotion and then just copy from the uc system right why do i need to go back to uca and then appoint a special committee and pick up 30 dossiers have them evaluate for me and then collaborate against my evaluation why do i do that right right right right right wow okay ain't chai i'm i'm ran out of questions at least at the moment oh thank you very much uh if you don't mind wait you know i will continue to send you emails if i have further questions and so on sure because this is this i hope well this is going to be an important uh article that i'm writing right you know why i'm so interested in this is because as i said the reason why we're doing this dial at daus is because i see that the world don't seem to recognize to realize that asian higher education is transforming yeah and nus transformation is particularly spectacular in the sense like i said if you don't believe even if you if you accept that the ranking is just a calibration uh singapore has gone from literally from nothing to what it is today in a in about 20 years right that that's that's a very very very short time for and using university yeah and and how you're going to be able to continue this drive in the foreseeable future that itself is going to be a challenge for inus

okay at one last question let's follow up on what we just finished discussing which i find you know it's actually it's been on my mind for a while you know singapore from the book i read and the talk i listened including most recently from kishore you know the success of singapore over the past several decades partly came from its super pragmatic method of looking at what works across the world and just take the best part and put it together make it work for singapore but i see what's going on with singapore and us both as you are sort of running out of examples in some ways like like who else you're trying to copy in asia and now you're literally like keith said singapore has been the best copycat in some sense for many years but they're going forward i don't think you have too many things to copy from do you know thank you uh that's one of the challenge but uh if we can't copy then we create that's right you cannot always copy at some point you have to be the leader you cannot be follower or you're right yes yes yes yeah so the my recent push for interdisciplinarity i don't think i'm copying uh i i would have just to start afresh and create exactly exactly and i thought that this

it's easy to say that you want to do intensive disciplinary it's very hard to come up with a scheme that is implementable yeah correct and we have to pay a lot of attention on that on the details yes i mean to give you an example uh i personally was taking charge of a course of the quantitative okay which is an introduction to data science yup right and currently we are still teaching data science like the statistics module right but the paradigm has changed right because if you look at really all right you you have a big population you can't have access to all the things in a big population so you take a sample and you always use a sample to to make guesses on the population right now with big data you're given the whole thing there's no concept of samples anymore that's right you can't teach data science like you teach statistics that's right that's right right and and and how how to get them to teach data science in the right way uh that's interdisciplinarity [Laughter] that's right that's right okay thank you thank you so much thank you again yup bye-bye i'll get mailing to send the the video to you thank you thank you all right take care good night