

THE STRAITS TIMES

Asia report

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- Duterte's vision for Asean
- Beijing's Chinese charm offensive
- MIT's Andrew McAfee on the future of jobs

Asean@50: WHERE DO WE GO FROM HERE?

Half a century after its founding, Asean faces internal fault lines. But while there are potential obstacles ahead, there is also much to cheer.



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Choppy waters as Asean turns 50 and there's disruption all round

Dear readers,

Asean turns 50 in a few months' time. That's a major milestone in the life of a person, organisation or nation.

Hence, we thought it would be a good time to pause and reflect on how the much-underrated regional grouping has fared over the years.

In this edition, we turn our attention to the group, which has grown from five members in 1967 to 10 now, and whose influence goes beyond.

In our cover story, our Associate Editor Ravi Velloor ponders what lies ahead for Asean, while our Philippine Correspondent Raul Dancel shares Philippine President Rodrigo Duterte's vision for Asean, which the Philippines will chair this anniversary year. Lee Kuan Yew School of Public Policy Dean Kishore Mahbubani also shares his insight on how best to understand Asean.

Another highlight of this issue is our report on the disruption that is unfolding all round in the face of rapid and relentless technological change.

This was the topic we focused on in this year's Straits Times Education Forum, organised in partnership with the Singapore Management University (SMU) in March, on the topic of what the future of jobs might look like.

SMU board of trustees chairman Ho Kwon Ping delivered a thought – provoking opening address – an excerpt of which we have reproduced on page 24 – in which he challenged universities to go beyond simply repeating the mantra that the future is too uncertain to predict which jobs will disappear.

A lively debate followed, which set me thinking, and I set out my reflections on the discussion in a Thinking Aloud column, which can be found on page 22.

Also part of this package is our Senior Education Correspondent Sandra Davie's interview with Massachusetts Institute

of Technology research scientist Andrew McAfee on the future of jobs, and a commentary by our Opinion Editor Chua Mui Hoong on the need to attend to the well-being of citizens, amid mounting job insecurity.

The Straits Times has been covering developments in Singapore and around Asia since 1845. Our network of correspondents and contributors provides insights and an insider's view of these events. And our ST Asia Report is a regular publication which compiles some of our best work, which is also available online at www.straitstimes.com

A PDF version of the magazine is also available online to subscribers of The Straits Times.

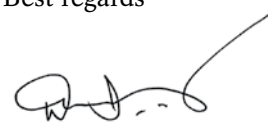
In this issue, you will find:

- A special report by our Senior Writer Cheong Suk-Wai on international relations scholar Leo Suryadinata's new book *The Rise of China and The Chinese Overseas* and an interview with pre-eminent scholar Wang Gungwu on the issue.
- A feature on Singapore's quest for a robust water supply by our journalist Lin Yangchen.
- A look at Changi Airport's effort to build Jewel, a multi-storey retail complex, slated to open in 2019.
- A special feature by our Regional Correspondent Tan Hui Yee on Thailand's daughters of Buddhism

We hope you will enjoy this publication and will return to The Straits Times across our various platforms.

Why? To put it starkly and simply: You need to know Asia. We do.

Best regards



Warren Fernandez

Editor-in-Chief
The Straits Times
& SPH's English, Malay and
Tamil Media Group





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April - May 2017

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We welcome your feedback and views

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Ravi Velloor

Associate Editor, The Straits Times



Asean: The next 50 years

Religious extremism is just one problem the grouping faces, but on balance, the future is bright

These days, with Britain poised to exit the European Union, and fear that other nations may take a cue from its go-it-alone ways, the EU is not the preferred template for regional integration. Yet it cannot be denied that this has been the most successful regional organisation in modern history, even though the 28-member union doesn't yet include Ukraine, the biggest European nation whose landmass is entirely on the Continent.

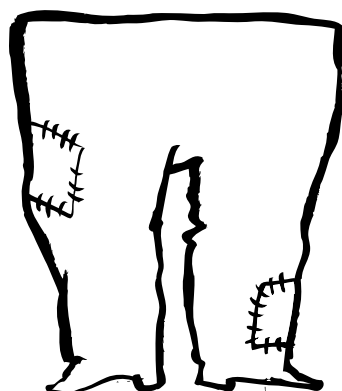
Who's in second place as a model for regional integration? Asean, surely.

As a body set up at the height of the Cold War, meant to ensure that Indonesia, Philippines, Thailand, Malaysia and Singapore weren't dominoes that could be knocked down by Communism's iron ball, it has evolved spectacularly. From five members at its founding in 1967 to six in 1984 when Brunei signed on, and eventually ten as Cambodia, Laos, Vietnam, and finally Myanmar, came on board, the group has only expanded.

And it's not done growing: Timor Leste could be next on board. While once-role model the EU is straining at the seams, Asean's hemlines are getting broader. What's more, every major power on earth, from the United States to Russia and Australia, sees value in snuggling up closer to this outfit, the reason they make it a point to attend the East Asia Summit held on the sidelines of Asean's annual gathering of leaders.

Indeed, people from outside the region sometimes tend to see its significance more clearly than those within.

In January, in a major foreign policy speech in the US, Australian foreign minister Julie Bishop declared Asean not only "the geographic centre of the Indo-Pacific (but) also its diplomatic



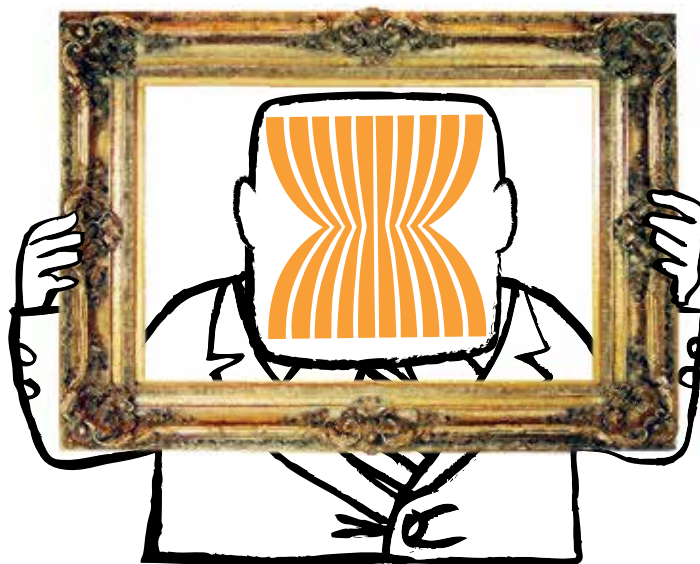
ST ILLUSTRATION: MANNY FRANCISCO

centre". Asean, she went on to say, "has an influence throughout Asia that is not always well-understood".

Fifty years after its founding as a political bloc that would quickly also turn its attention to economic relations, it is interesting to ponder what lies ahead for Asean. In that there is as much to cheer as to ponder.

The creation of the Asean Economic Community is no doubt a remarkable achievement, especially given the varying levels of development in the region, from first-world Singapore to least developed nations such as Laos. This has helped Asean become a major manufacturing and investment destination. Indeed, foreign direct investment inflows to Asean have outpaced flows to China since 2013.

Yet, it cannot be denied that most of the economic integration through



slashed tariffs and so on has been in the low hanging fruit. Serious matters such as harmonisation of standards, free movement of labour, and the financial industry's access to markets in the region remain work in progress. Air carriers within the 10-nation grouping do not fly the Asean flag, even as their liveries announce their allegiance to Star Alliance, OneWorld or other aviation groupings. A shared visa policy, as in the Schengen countries, would give a boost to inter-regional travel and tourism. But that is a long way off. Indeed, Asean itself has moderated its ambitions for an economic union; from aspirations of a single market and production base, the talk, increasingly, is of a 'highly integrated economy'.

The creation of the Asean Economic Community is no doubt a remarkable achievement, especially given the varying levels of development in the region, from first-world Singapore to least developed nations such as Laos. This has helped Asean become a major manufacturing and investment destination. Indeed, FDI inflows to Asean has outpaced flows to China since 2013.



Filipino students wave flags during an event to raise awareness about Asean in Cebu. PHOTO: EPA

Politically, Asean could be said to have made haste slowly. More and more nations in the group, including the largest, Indonesia, are steadily building democratic societies after initial decades spent defending “Asian values” to explain why they couldn’t have political liberalisation sooner.

The latest to join that fold is Myanmar, a nation of some 55 million people, which, following Indonesia’s lead, is looking for ways to keep its military in the barracks. Some other Asean states still operate under strongmen or military dictators. But the trend is clear, and for now, seemingly irreversible, especially as the digital world democratises thought and opportunity.

Beyond lie megatrends whose influence is hard to map at this stage. The melting of the polar ice cap and the consequent opening of the Northern Sea Route for container shipping could potentially give a second wind to East Asian manufacturing to the detriment of South-east Asia, and its pole position in the fairways of global commerce and the waterway that hosts more than US\$5 trillion (S\$7 trillion) of global commerce. At the same time, new rail connections to mainland China that are being planned or implemented add healthy opportunities for many nations, particularly those in mainland Asean but also peninsular ones such as Malaysia.

Meanwhile, Mr Narendra Modi’s rise as India’s leader and the likelihood that he will hold power for a while, have added to India’s allure. Foreign investment in 2016 surged to US\$46 billion from US\$28 billion the year before and is accelerating. For Asean, India’s rise at a time when Chinese growth is moderating is therefore both a huge opportunity and challenge.

The big nations of Asia – China, India and Indonesia – are also fervently lengthening their domestic supply chains. Mr Donald Trump’s ascendancy

in the US has added legitimacy to power elites in the big markets of Asia who insist that more be done on their home territories by companies seeking to tap their markets. This works against the concept of a grid system of manufacturing where primary goods, equipment parts and finished products move easily back and forth between nations.

Meanwhile, automation and robotisation are adding scale and efficiency to markets where labour costs were once considered prohibitively high, depriving low-wage Asia of trickle down investment important to find jobs for the millions entering the work force every year.

Geopolitically, Asean is heading for a fraught period as China’s increasing assertiveness in its neighbourhood fetches a response from Japan and India, the strategic bookends of Asia.

Geopolitically, Asean is heading for a fraught period as China’s increasing assertiveness in its neighbourhood fetches a response from Japan and India, the strategic bookends of Asia.

In the past, Asean’s fault lines were reckoned to be between mainland states and maritime ones such as Indonesia, Brunei and the Philippines. But China’s willingness to flex its muscle is proving to be a strain on Asean unity. Some, like the Philippines under President Rodrigo Duterte and Cambodia under Prime Minister Hun Sen, have caved in. Others, such as Indonesia, are nervously watching Beijing’s every move and pondering how to balance the interests of feeding off China’s growth while staying independent of its strategic grasp.

New worry points are emerging too.

Militant Islam is fracturing societies and weighing on regional ties. Buddhist majority states are under scrutiny over their treatment of Muslim minorities. Investors are aware that much of this is driven by politics, and make allowances for it. At the same time, any indication that things are going too far will raise concern, and influence their decisions.

There’s no question that on balance, Asean’s future is undoubtedly bright. Incomes are steadily expanding. According to the United Nations Population Division, its population will increase from 633 million in 2015 to 717 million in 2030 and 741 million in 2035. With the exception of Singapore, every Asean state has miles to go before completing its urbanisation process – thus ensuring a long pipeline for headline growth. It helps too that most of Asean has a young and vibrant population and old-age support ratios are at still-healthy levels. According to the consultancy firm McKinsey, almost 60 per cent of total Asean growth since 1990 has come from productivity gains as sectors such as manufacturing, retail, telecommunications, and transportation grow more efficient. Vietnam has shown that industrial employment can still expand in the era of robotics and automation.

That said, much of what lies ahead depends on how it manages a few tracks. The first is for Asean nations to be able to grasp the sweeping changes in the technology landscape and build skills to match the times.

Second, it needs to turn its diversity – Indonesia is 90 per cent Muslim, the Philippines is dominantly Roman Catholic and Myanmar is mostly Buddhist, for instance – into advantage. This can only be done by clamping down on extremism, ensuring the flintier edges of faith are dulled by deft handling.

Third, by not pushing the pace of political integration too quickly – indeed, it may not even be possible – it is improving the chances of common roots going deeper.

There is a final point, and that is Indonesia. If Asean is indeed the epicentre of the Asian continent, Indonesia is the epicentre of Asean. Keeping Jakarta fully engaged in Asean and open to the world therefore is critical. An inward-looking Indonesia makes for an orphaned Asean.

The last 50 years have shown Asean members that the whole is greater than the sum of their parts. They now need to convince themselves that in steady, measured integration lies salvation.

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Seven interesting things about Asean

Asean is expected to experience robust economic growth throughout the next decade, with some predicting it could overtake the European Union within a generation. Whether or not that happens, there is consensus that the region will grow rapidly, both in terms of its economic might and its influence on world trade.

1. If Asean were a single country, it would be the seventh-largest economy in the world

With a combined GDP of US\$2.5 trillion (S\$3.49 trillion), the region is already an economic powerhouse and is set to grow to become the equivalent of the world's fourth-largest economy by 2050.

If Asean were a single country, where would it rank compared to other countries?



SOURCE: ECONOMIST INTELLIGENCE UNIT 2014

2. Asean is the fourth-largest exporting region in the world, trailing only the European Union, North America and China/Hong Kong

Asean countries account for 7 per cent of global exports, while trade with the United States has risen 62 per cent since 2002.

The region is an important consumer of US goods, too. The average Asean consumer purchases nearly 1.75 times as many American goods per capita as the average Chinese consumer, and nearly nine times as many as the average Indian consumer.

3. The number of consumer households in Asean is expected almost to double by 2025

Asean has dramatically outpaced the rest of the world on growth in GDP per capita since the late 1970s. Already some 67 million households in Asean countries are part of the "consuming class", with incomes exceeding the level at which they can begin to make significant discretionary purchases. That number could almost double to 125 million households by 2025.

4. Asean is home to 227 of the world's largest companies

Back in 2006, Asean was home to the headquarters of 49 companies in the Forbes Global 2000. By 2013, that number had risen to 74.

Asean now includes 227 of the world's companies with more than US\$1 billion in revenues. Singapore is a standout, ranking fifth in the world for density of corporate headquarters and first for foreign subsidiaries.



5. Asean is an exceptionally culturally diverse market



Indonesia is home to the world's largest Muslim population: almost 90 per cent of the nation's people belong to the Islamic faith. The Philippines is more than 80 per cent Roman Catholic and Thailand is more than 95 per cent Buddhist. Asean is unique in bringing together such diverse nations into a single political and economic region.

6. Asean is unique in terms of biodiversity

Although the region occupies only 3 per cent of the world's total surface, 20 per cent of all known species live deep in its mountains, jungles, rivers, lakes and seas.

The region also contains seven of the world's 25 recognised biodiversity hotspots – biologically rich areas under greatest threat of destruction.

7. Asean countries accounted for a quarter of global fish production



Of the world's top 10 largest fish producers, four are from Asean – Indonesia, Thailand, Vietnam and the Philippines.

SOURCE: WORLD ECONOMIC FORUM
PHOTOS: ST FILE

Raul Dancel

Philippines Correspondent, The Straits Times



Duterte's Asean vision

The Philippine President hopes to help regional bloc realise promises of full economic integration

President Rodrigo Duterte of the Philippines may seem like everything an Asian diplomat is not. At times brash and often outlandish, he finds the rituals of diplomacy too rigid, even superficial. His mercurial, unpredictable streak has got everyone wondering: Is Asean, under his stewardship, up for a wild ride?

The short answer: He isn't planning any surprises; nothing provocative or unexpected, even as his own foreign policy, marked by a pivot to China, is unsettling the fulcrum on which the current regional security architecture balances.

This is not to say Mr Duterte, 72, is not out to make a splash, especially as this year marks Asean's 50th anniversary. When he hands over the chairmanship of Asean to Singapore next year, he hopes to have already bagged something that has eluded Asean for over a decade: a binding deal with Beijing to keep the peace in the South China Sea that may, in turn, help guarantee uninterrupted prosperity across South-east Asia.

Mr Duterte in January said he intended to build on the "enduring ties" that bind Asean, "affirm shared cooperations" and "secure Asean's future". He listed six themes: peace and stability; maritime security and cooperation; inclusive, innovation-led growth; Asean's resiliency; a people-oriented and people-centred Asean; and Asean as a model of regionalism and a global player.

He and his top aides have since been elaborating on these points, beginning with where he intends to take Asean by year's end.

Philippine Defence Secretary Delfin Lorenzana said Mr Duterte, in keeping with his tough-guy persona, believes



PHOTO ILLUSTRATION: BRYANDT LYN

Asean should not be made a "proxy" for rivalries among the world's superpowers.

He said Mr Duterte believes Asean should stay above the fray, even as it continues to engage the rest of the world on an equal footing. Asean has, after all, overwhelming leverage when it acts singularly, with an economy valued at US\$2.5 trillion (S\$3.49 trillion) and a single market of 633 million.

Mr Duterte's centrist leanings have allayed concerns that he may take the group with him in his ebullient slide towards China and Russia, and alienate the United States and Japan, sowing disagreements rather than building consensus.

So far, two of the major meetings held under the Philippines' stewardship of Asean – those of the region's foreign and finance ministers – have been a reflection of Mr Duterte's directions: building on consensus, rather than needling on unresolved conflicts, so that the Asean Economic Community (AEC) can flourish.

The region's foreign ministers are now on the home stretch of their efforts to conclude a "framework" on a code of conduct (COC) meant to serve as a

mechanism to prevent conflicts in the contentious South China Sea.

China's claim to nearly all of this vital waterway has led to tensions with three Asean member states: the Philippines, Vietnam and Brunei, which have their own claims. Taiwan is also a claimant.

Philippine Foreign Secretary Enrique Manalo is hopeful Asean and China can reach a deal at meetings set in Beijing in May, and that the framework can be signed by June.

This framework will likely spell out broad statements reaffirming principles outlined 14 years ago in the "Declaration on the Conduct of Parties in the South China Sea", including an agreement to "exercise self-restraint" to prevent actions that could "complicate or escalate disputes".

Its significance is that it marks the first big leap in years since Asean first set out to try and adopt a COC in 2002. That, in turn, is seen as providing "a certain momentum, a certain confidence... going into the really big challenge, which is actually to settle the legally binding COC", said Singapore's Foreign Minister Vivian Balakrishnan.

“We can’t control the agenda of the superpowers. But we do need to make sure, to the best extent possible, that we maintain an oasis of peace and stability in this part of the world,” said Dr Balakrishnan.

In Mr Duterte’s calculations, that is the key to unlocking Asean’s full economic potential.

Sources inside his government say he has been leaning on Manila’s new rapprochement with Beijing to coax it into negotiating with a more reasonable stance. His decision to set aside an international tribunal’s ruling striking down China’s claims to the South China Sea and to take it out of Asean’s agenda altogether, for instance, was seen as key to breaking a long-running impasse between Asean and China over items to be included in the COC.

Mr Duterte’s goal, some analysts say, is to level as much as possible of the speed bumps slowing the march to fully realise the promises of Asean integration.

Very little progress has been made since the AEC kicked off on Dec 31, 2015.

An HSBC research note said intra-Asean trade had even contracted at nearly the same rate as that of total Asean exports to the rest of the world. Trade within the economic bloc fell by 3.5 per cent in the first nine months of last year since the AEC’s implementation, matching the 3.9 per cent slump in regional exports in the same period.

Banking integration has also been off to a slow start.

In early April, the Philippines, Malaysia and Thailand firmed up agreements to open up their banking sectors, in line with the Asean Banking Integration Framework.

The target year is 2020, for a project that began in 2014. It is still a long way off, and there are a lot of loose ends to tie up.

Banks in the Philippines, for instance, are taking a cautious approach.

“All other banks are considering investing and expanding, but we’re also being careful... We always walk before we run,” said BDO Capital &



When President Rodrigo Duterte hands over the chairmanship of Asean to Singapore next year, he hopes to have already bagged a binding deal with Beijing to keep the peace in the South China Sea.
PHOTO: REUTERS

Investment president Eduardo Francisco.

It is the size that concerns many banks. Mr Francisco said that even when combined, the Philippines’ three largest banks will still be smaller than most commercial banks in Malaysia. “Why would they deal with Filipino banks? They have Maybank and CIMB (in Malaysia),” he said.

But Philippine Finance Secretary Carlos Dominguez believes Asean is ripe for an investment boom.

“The AEC provides a strong market of 600 million people. Our 300 million-strong labour force is young, talented and dynamic. Our governments are convinced that globalisation is the way to progress. Our economies have much headroom for rapid expansion, beginning from a massive infrastructure build-up that will bring our region increased efficiency,” he said.

Still, challenges lie ahead.

Asean deputy secretary-general Lim Hong Hin said hopes for growth across South-east Asia “must be viewed against the backdrop of uncertain times, with the rise of populism and protectionism sentiment posing a challenging context to the region’s integration agenda”.

US President Donald Trump, for one, is proving to be a conundrum for Asean. He has withdrawn the US from the Trans-Pacific Partnership (TPP) trade deal, leaving the China-initiated Regional Comprehensive Economic Partnership (RCEP) as Asean’s option for now.

Mr Duterte had criticised the TPP as “restrictive” for a nation like the Philippines, as he backed RCEP. But that position has been more in line with his own foreign policy than a consideration of what will be best for Asean.

Mr Trump has also instructed his administration to study the causes of US trade deficits and clamp down on countries that abuse trade rules in two executive orders he said would open a new chapter for US workers and businesses.

Again, Mr Duterte has yet to respond to that on behalf of Asean.

Issues such as the TPP-RCEP divide and Mr Trump’s brand of protectionism, and Asean’s response to them, are likely to spill over to Singapore’s chairmanship of Asean next year.

For political analyst Richard Javad Heydarian at De La Salle University, Mr Duterte’s “focus on areas of presumed consensus”, such as concluding the COC framework and fighting terrorism and transnational crime, as well as thrashing out long-term economic goals, may not be as uncontentious as he assumes.

He has to realise, for instance, that he cannot keep sweeping under the rug discussions on China’s massive land reclamation project in the South China Sea, said Mr Heydarian.

At the meeting of foreign ministers on the resort island of Boracay in February, then Foreign Secretary Perfecto Yasay was forced to express concerns from “two or three” Asean states over Beijing’s efforts to militarise the South China Sea.

Mr Duterte may also be missing out on opportunities for greatness by being placid. Even as he refuses to confront China, he can still begin the process of overhauling Asean’s notoriously slow decision-making process where unanimity is a prerequisite for every joint action.

He should, for instance, be proposing a two-tiered process, where some decisions that do not directly involve all member states can be made via a simple majority.

“He should be striving for something historical, instead of just being typical,” said Mr Heydarian.



China’s Liaoning aircraft carrier conducts a drill in the South China Sea. Beijing’s claims in the vital waterway has led to tensions with some Asean member states.
PHOTO: REUTERS

Kishore Mahbubani
For The Straits Times



How fear, luck and golf brought Asean together

Asean provides an important security umbrella for Singapore and the region. People, stop poking holes in this umbrella.

Imagine Singapore in December. The north-east monsoon is approaching. Heavy rains are coming. Someone has gifted you a strong umbrella. The rational thing to do would be to preserve and protect this umbrella. The irrational thing to do would be to poke holes in this umbrella.

Yet, many Singaporeans today are doing this irrational thing. They have been gifted a wonderful geopolitical umbrella. It is called Asean.

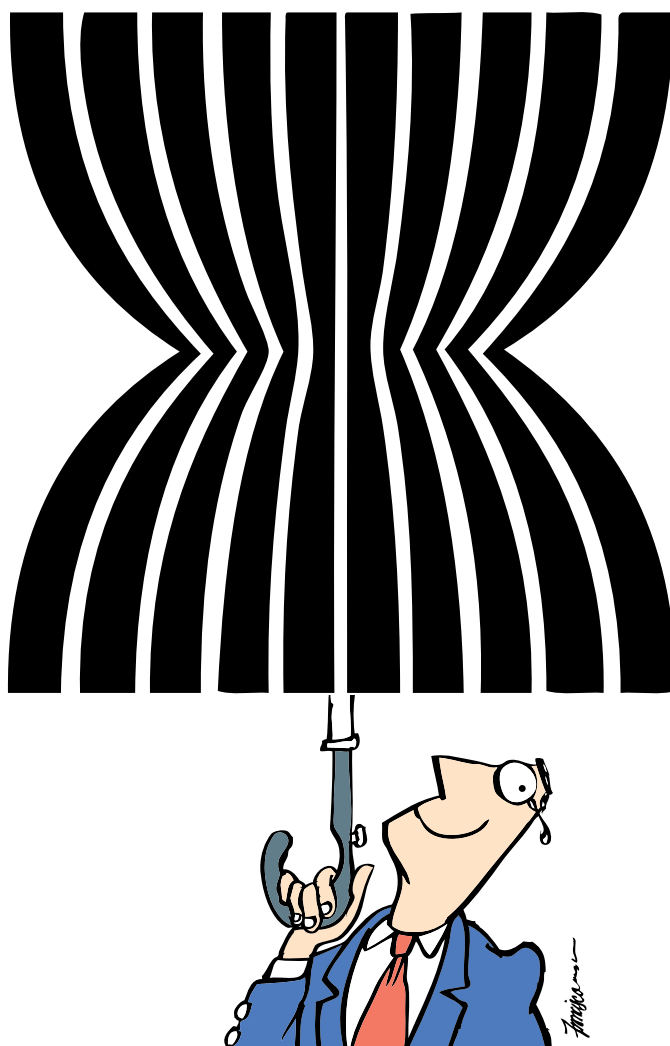
Instead of strengthening it, they are poking holes in it. And they are poking holes just as new geopolitical storms are coming to our region, in the form of enhanced US-China rivalry.

Why are Singaporeans behaving irrationally? The simple answer is ignorance. Any simple survey would show that most Singaporeans know next to nothing about Asean. Many can't recognise the Asean flag.

President of the Institute of Singapore Chartered Accountants Gerard Ee was dead right when he said at a recent panel discussion that Singaporeans should understand the region better.

Singaporeans, he said, "do not understand the cultures and values of different people in the region that we are trying to form a bond with, and we might inadvertently end up making enemies rather than friends. So I wish all the schools would go back to teaching the history of all the Asean countries so that we appreciate where they're coming from."

Even more sadly, the little that Singaporeans know about Asean comes



ST ILLUSTRATION: MANNY FRANCISCO

from the usual jaundiced Anglo-Saxon media coverage of Asean.

To combat this ignorance, a childhood friend of mine, Jeffery Sng (with whom I grew up in Onan Road in the 1950s and 1960s) and I decided to publish a book on Asean to coincide with Asean's 50th anniversary on Aug 8 this year. It is called *The Asean Miracle: A Catalyst For Peace*, and it has been published by NUS Press this month. The goal of this article is to provide a flavour of the book.

One simple way of understanding Asean is to apply the 3M formula. 3M here does not refer to the Minnesotan manufacturer of sturdy products. The

three "M" words to understand Asean are Miracle, Mystifying and Money.

ASEAN MIRACLE

Why is Asean a miracle? First, when it was born in 1967, everyone expected it to fail. Its two predecessors, ASA (Association of South-east Asia) and Maphilindo (Malaya-Philippines-Indonesia), died within two years. No one dreamt in 1967 that Asean would hit 50. But it has.

Second, all the five founding members had bilateral disputes with each other in 1967. Indonesia had confronted

Malaysia. Singapore had just had a bitter separation from Malaysia. The Philippines claimed Sabah from Malaysia and the south Thailand insurgency was brewing on the Thai-Malaysia border.

Third, the region was in turmoil. Communist parties were active. The Vietnam War was gaining momentum. The Tet Offensive took place five months after Asean's birth.

Fourth, South-east Asia is the most culturally diverse region on planet Earth. If you were looking for a place to start regional cooperation, the last place you would pick is South-east Asia. In short, there were many reasons why Asean should have failed. And I could give a few more. This is why Asean's success is a true miracle.

FEAR, NOT LOVE, BROUGHT ASEAN TOGETHER

Yet, this miracle is also mystifying. No one really understands why Asean has emerged as the world's most improbable success story. Our book cannot possibly provide a definitive explanation. Future historians will have to do this. Nonetheless, we try to provide a theory on why Asean succeeded. This theory is based on a few four-letter words. The first begins with "f". It is fear.

Given the major bilateral disputes they had with each other, it was not love that brought together the five founding members, Indonesia, Malaysia, the Philippines, Singapore and Thailand. It was fear of communist expansion. Indeed, these five countries were often referred to as the non-communist "dominoes" waiting to fall in the face of communist expansion. As Jeffery and I both lived through this period, we experienced this fear. It was real.

The second four-letter word is luck. Asean was lucky on several counts, especially in the 1980s. After Vietnam defeated the United States in 1975, it became arrogant. It invaded Cambodia in 1978. This triggered a geopolitical alliance between the US, China and Asean. The three worked closely together. I experienced it at first hand when I served as Singapore's Ambassador to the United Nations from 1984 to 1989. This strengthened Asean considerably. It was geopolitical luck that drew us together.

Asean was also lucky to have unusually strong leaders, especially in the 1980s, including Indonesia's Suharto, Singapore's Lee Kuan Yew and Malaysia's Mahathir Mohamad. Strong leaders don't have to worry unduly about domestic political pressures - they can

focus on doing the right thing for the region. Indonesian leadership was key. Suharto wisely decided that the best way for Asean to grow was for Indonesia to take a back seat. It allowed smaller countries, like Malaysia and Singapore, to play a stronger role. As our book documents, it was also Suharto who made the fateful decision that Indonesia should join the rest of Asean in opposing the Vietnamese invasion. If Indonesia had vacillated, Asean would not have succeeded. In short, Asean avoided many potential disasters. It was lucky.

The third four-letter word will make you laugh. It is golf. When I mention the role of golf, many in the West think I am joking. Yet, I am dead serious. Multilateral negotiations are inherently messy. If you want to argue about texts of documents, you can go on for hours. Yet, somehow, after a golf game with my then Asean senior official counterparts in the 1990s, we would have a beer and reach agreements very quickly. The camaraderie produced by golf did the trick.

Why is Asean deprived of resources? The simple answer is that the total size of the Asean budget is determined by the capacity to pay of the poorest member of Asean. This is a result of Asean's insistence on the principle of equal payments from all 10 countries. This principle is manifestly absurd as it says that large and rich member states should pay the same as small and poor member states.

One recent miracle Asean achieved was the conclusion of the Asean Charter in about a year in 2007. This achievement should be recorded in the Guinness Book of Records. And how was agreement reached so quickly? Former deputy prime minister S. Jayakumar was a member of the Eminent Persons Group that was set up to begin the discussions of the charter. In our book, we quoted him as saying: "It helped that Ramos, Ali Alatas, Musa, Jock Seng and I had also been long-time golf buddies!" These were Fidel Ramos of the Philippines, Ali Alatas of Indonesia, Musa Hitam of Malaysia and Lim Jock Seng of Brunei.

MORE RESOURCES NEEDED

Yet, even though Asean has succeeded in many ways, it continues to face many

perils. Our book documents many of these, especially the geopolitical perils. But one peril that it faces can be solved quite easily. This peril is lack of money. For reasons I still don't fully understand, the Asean Secretariat has been deprived of the resources that it needs to grow to a healthy state.

To understand the scale of the problem, just compare the budgets of the world's most successful regional organisation, the European Union, with the budget of the world's second-most successful regional organisation, Asean. The EU's annual budget was €145.3 billion (\$219 billion) in 2015. Asean's was US\$19 million (\$26 million). The EU budget is 8,000 times larger than Asean's. Yet, the combined gross domestic product of the EU is not 8,000 times larger. It is only six times larger.

Why is Asean deprived of resources? The simple answer is that the total size of the Asean budget is determined by the capacity to pay of the poorest member of Asean. This is a result of Asean's insistence on the principle of equal payments from all 10 countries. This principle is manifestly absurd as it says that large and rich member states should pay the same as small and poor member states. Virtually no other credible international organisation (IO) uses this formula. Instead, all credible IOs, like the UN, use the principle of "capacity to pay". Rich countries pay more. Poor countries pay less.

This is why one bold recommendation that our book makes is for Singapore to take the lead in arguing for the UN-style "capacity to pay" system to apply to Asean. Why should Singapore take the lead? Singapore should because it is the single biggest beneficiary of the magnificent Asean geopolitical umbrella. Singapore's trade to GDP ratio is the highest in the world at 300 per cent. No other Asean country came close to this ratio. A lot of Singapore's \$1.2 trillion in trade could shrivel up if Asean broke up and South-east Asia once again became a region of turmoil, as it was in 1967.

This is what I meant when I said that Singaporeans were poking holes in the geopolitical umbrella gifted to us. We should do our best to strengthen this umbrella. Let's start by paying more to it. We can afford it.

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The writer is dean of the Lee Kuan Yew School of Public Policy at the National University of Singapore. He is the co-author with Jeffery Sng of The Asean Miracle: A Catalyst For Peace. □

Cheong Suk-Wai

Senior Writer, The Straits Times



Beijing's Chinese charm offensive: Kinship or chimera?

In his new book, *The Rise Of China And The Chinese Overseas*, Singaporean international relations scholar Leo Suryadinata warns ethnic Chinese born outside China against responding to Beijing's overtures too warmly

When China's current President Xi Jinping announced his country's new economic strategy, One Belt, One Road (OBOR) in late 2013, he did so hot on the heels of a big change in Beijing's policy towards all foreigners of Chinese descent.

From 2000, Beijing began blurring its distinction between huaqiao, or mainland Chinese living overseas, and huaren, or those of Chinese origin who were born, or settled, overseas, by lumping both together as one big China family.

This recent blurring is a source of pride to some huaren, especially the elderly among them, who like the thought of being in the fold of a now-strong China.

To such huaren, the Jakarta-born Singaporean academic Leo Suryadinata says: "I think they should not dream and think, 'Wow, China is there to protect us immediately'. The ethnic Chinese overseas can be safe only if they know how to protect themselves."

Beijing's apparent change of heart towards huaren – whom it once advised to blend in well with natives of their chosen domiciles – is so that it can rely on, and sometimes rope in, the huaren to help open doors to new business, social and geopolitical opportunities.



ST ILLUSTRATION: MANNY FRANCISCO

Mr Xi said as much on June 7, 2014, at the 7th Conference of the World Federation of Huaqiao Huaren Associations: "There are tens of millions of Chinese overseas compatriots (haiwai qiaobao) ... they did not forget their fatherland, they did not forget their ancestral province, they did not forget that in their body there is Chinese blood, they have enthusiastically supported the Chinese revolution, China's construction and the reform of China."

With that speech, notes Dr Leo, Mr Xi blurred further the line between huaqiao and huaren by including the latter in his definition of the sons and daughters of China (Zhonghua ernu).

In 2015, Beijing's Overseas Chinese Affairs Office (OCAO) reckoned that there were 60 million Chinese overseas, while Taiwan's Overseas Chinese Affairs Commission put the figure closer to 42 million.

In 2014, OCAO chairman Qiu Yuanping ruffled feathers in Indonesia when she pledged to its Chinese that China would always back them strongly

as they were of Chinese descent.

Around that time, another Beijing official urged young Indonesian Chinese to study Chinese language and culture.

The rub is, as Dr Suryadinata argues in his compelling new book, *The Rise Of China And The Chinese Overseas*, such exhortations might stoke the long-burning embers of suspicion and resentment among indigenous peoples of the Chinese in their midst, no thanks to the latter's enterprise, wealth and economic dominance.

Dr Suryadinata, 76, is the world's authority on the Chinese in Indonesia. A visiting senior fellow at Singapore think-tank ISEAS – Yusof Ishak Institute, he was the director of the Nanyang Technological University's Chinese Heritage Centre from 2006 to 2013, and teaches government and politics of South-east Asia at the S. Rajaratnam School of International Studies.

Crucially, since the 1970s he has been studying Beijing's evolving policy towards foreigners of Chinese



Singapore academic Leo Suryadinata at the launch of his book, *The Rise Of China And The Chinese Overseas*. PHOTO: JONATHAN CHOO

descent, and stresses that the evolution of this policy matters because it affects the extent to which those of Chinese descent can integrate, if not assimilate, in overseas lands.

China's perhaps inadvertent stoking of such long and deep suspicion, he asserts, might cause tempers to flare tragically again, with memories of the May 1998 anti-Chinese riots and mass rapes of Chinese women in Indonesia, and the 2014 anti-Chinese riots in Vietnam, still fresh in the minds of many in South-east Asia.

He says: "My argument is that when the economy is really bad, they are going to get back at the Chinese again. Because the economic problems will not go away you know; they are still with us especially in the developing countries of South-east Asia."

In that, he notes how Beijing's current charm offensive to, among others, the Chinese of South-east Asia rattles the region because its nation-building is nascent at best.

As a cautionary tale, he cites the Malaysian government's chastising in 2015 of Mr Huang Huikang, China's envoy to Malaysia, who spoke out against some ultra-nationalistic Malays who threatened the Chinese traders of Kuala Lumpur's Petaling Street, which was the epicentre of its bloodiest race riots on May 13, 1969.

Of Malaysian Chinese political parties' support for Mr Huang, Dr Suryadinata muses: "Perhaps it's unwise because although one can understand why they did it, being squeezed by the Malays and so forth, in the long run, it

is perhaps unwise... In terms of political power in Malaysia, it's in the hands of the Malays and it's recognised in the international community as such. You could change that, but from within, rather than from using an external power, in order to change (things)."

Beijing's apparent change of heart towards huaren (those of Chinese origin born or settled overseas) – whom it once advised to blend in well with natives of their chosen domiciles – is so that it can rely on, and sometimes rope in, the huaren to help open doors to new business, social and geopolitical opportunities.

China, he argues further, only protects and advances the interests of the Chinese overseas when the latter's interests coincide and do not conflict with China's own national interests such as national security, territorial integrity, political ideology and social and economic development.

Even then, Dr Suryadinata says, the needs and wants of the Chinese overseas are "fifth, sixth or seventh" in China's list of priorities.

He cites three instances which amply bear that out.

The first is the anti-Chinese riots which engulfed Indonesia in 1959. At first, China, which was then much weaker than it is today, sent its ships to evacuate anyone of Chinese descent, but it soon realised that doing so would

offend Indonesia's anti-colonial forces led by then President Sukarno, to which China had pledged its solidarity. So China halted its evacuations.

The second instance was in 1975, when the Pol Pot-led Khmer Rouge regime slaughtered scores of Cambodians, including ethnic Chinese. As the regime was then China's ally against the Soviet-Vietnam pact, China chose not to save these Chinese to keep the alliance.

And third, in 1976, Vietnam tried to transform its society by barring its Chinese community from engaging in retail trade. But Beijing did not retaliate against Vietnam until 1978, when the latter invaded China's ally Cambodia. "It was not for the protection of the Chinese overseas, to begin with," he notes.

But surely China would want to look to the Chinese overseas, who knew the lay of their lands better than Beijing's insular bureaucrats, to broker OBOR deals?

As Dr Suryadinata says of these bureaucrats: "Even if they do understand the situation in other countries, their understanding may be only through the Chinese-speaking community which may not be the real reflection of the situation."

That, he adds, is because those Chinese overseas who speak Chinese might be relatively distant from their non-Chinese compatriots. Chinese-speaking Malaysians, he notes, were not as close to the Malay ground as their non-Chinese-speaking compatriots. This is so even though some 60,000 Malay children are now studying in Chinese vernacular schools, he says.

But back to the Chinese overseas and how they might help – and profit from helping – China with OBOR.

Dr Suryadinata is sceptical that they might make much headway with that. "Even the ethnic Chinese in these countries will not be able to have these projects. They have to be signed between governments and the Chinese businessmen will only come in the second or third stage as contractors or sub-contractors – or they might not come in at all," he points out.

The "One Belt" part of OBOR, which Mr Xi first mentioned in Kazakhstan on Sept 7, 2013, refers to the revival of the ancient overland Silk Road, with Mr Xi's post-modern vision of it as a belt from China westwards to the countries of Central Asia which, besides Kazakhstan, include Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, and onto the Middle East.

“One Road”, then, refers to Mr Xi’s vision of a maritime Silk Road encompassing South-east Asia which he, appropriately enough, proposed in Indonesia on Oct 3, 2013.

“OBOR is a grand design with no details,” Dr Suryadinata says, noting that even the media in China refers to it in the vaguest ways. “If you want to talk about whether or not OBOR will be successful, how do you measure its success or failure?”

He notes that the continuing

ambiguity about OBOR’s ambit and aims may also be partly due to the fact that it is somewhat controversial: it has shades of China’s tributary system—and no former tributary state wanted to be reminded of that, especially as they often gave China more than what China gave them.

He adds: “The Chinese continue to say that this is a win-win situation, for the mutual benefit of all. However, it is also true that it was suggested by Beijing, without consulting other countries.”

The one bright spot, he adds, is that thanks to globalisation, younger Chinese overseas are building more bridges with the non-Chinese everywhere than their elders, but still not as “intensively or extensively” as to make much of an impact, he says.

“Because of that,” he says, “it is the responsibility of governments and intellectuals to make the situation better. And we also hope that China would cooperate by making life easier for the Chinese overseas.” □

A challenge to test one’s loyalty

Pre-eminent scholar Wang Gungwu says the best way for the Chinese overseas to reassure their birth countries of their loyalty is to assert it

China’s recent embracing of every foreigner of Chinese descent as one of its own is particularly problematic for Singapore, says Professor Wang Gungwu.

In 2000, Beijing apparently abandoned its long-entrenched policy of distancing itself from the ethnic Chinese born, or long settled, overseas, with that abandonment becoming particularly pronounced from 2011. In fact, in 1955, he notes that China’s then Premier Zhou Enlai urged such Chinese to integrate fully with the societies and cultures of the countries in which they had chosen to settle.

This current change in policy means that Beijing considers every ethnic Chinese outside China – which, for this purpose, includes Hong Kong, Macau and Taiwan – just about on a par with mainland Chinese.

Prof Wang, 86, is a pre-eminent scholar on the Chinese communities of South-east Asia. He chairs the managing board of the Lee Kuan Yew School of Public Policy in the National University of Singapore, the East Asian Institute and the board of trustees of the ISEAS – Yusof Ishak Institute, among other things.

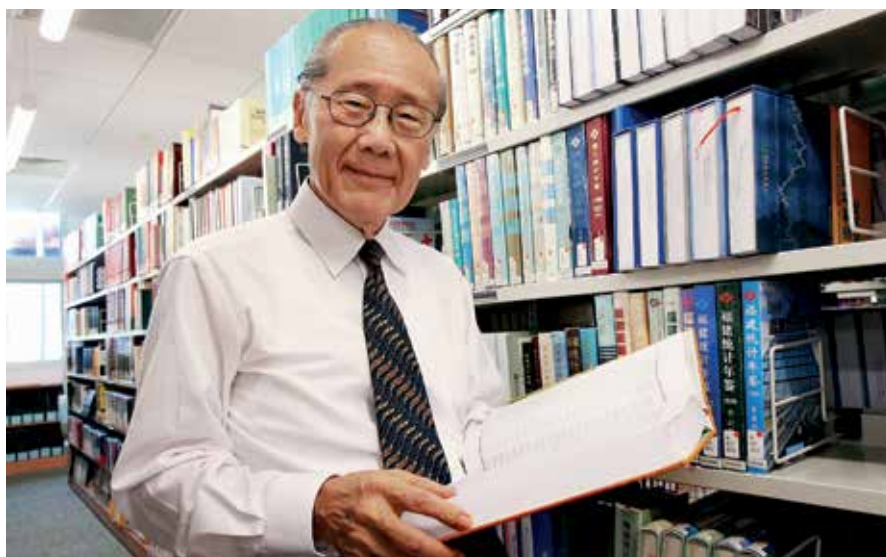


PHOTO: SHAHRIYA YAHAYA

The reason for this policy volte face, Prof Wang says, is so that Beijing can tap the non-mainland ethnic Chinese outside China for support in its bid to realise its potential as a new superpower.

The special problem for Singapore, he points out, is an old one: that some from mainland China still think Singapore is part of China, and not the sovereign country that it is.

“The thing is,” he says in an exclusive interview with ST Asia Report, “Singaporeans are more like the Chinese in China than any other Chinese in South-east Asia, and so that can give the China-born Chinese the impression that they’re exactly the same as in China.

“The similarities and differences between them are subtler, and that can lead to misunderstandings between Singaporeans and those from the People’s Republic of China.”

That, he adds, might put Singapore

in an awkward position when, say, China looks to the Republic to advance its interests. Take the One Belt, One Road initiative, which China’s current President launched in late 2013, and which is meant to connect China to business and other opportunities in at least 60 countries in Central and South-east Asia.

“Everyone in China is caught up in this, but the vast majority of people don’t have a clue as to what it is all about. And China may think that Singapore can be a great help to it in this, as Singapore has invested so much in China, has so much knowledge about it and seems to understand its goals.”

He shares these insights in the light of Singaporean historian and international relations scholar Leo Suryadinata’s new book, *The Rise Of China And The Chinese Overseas*. In it, Dr Suryadinata argues that Beijing’s blurring of the

distinction between its mainlanders who have migrated overseas and ethnic Chinese who have long settled overseas is a big worry, especially in South-east Asia, whose indigenous peoples still resent the Chinese among them for their enterprise, wealth and economic clout.

In fact, Dr Suryadinata asserts, China will protect the Chinese overseas, as it were, only if and when the latter's interests coincide, and do not contradict in any way what he calls China's "core national interests", such as national security, territorial integrity, social and economic development and survival of the Communist Party of China.

Prof Wang, who like many calls Dr Suryadinata Pak Leo, says: "Pak Leo is perfectly correct to say that, ultimately, the Chinese in China operate for their own interests; they are thinking of themselves."

To his mind, Beijing's current charm offensive towards Chinese who are overseas seems more like an attempt to reverse its brain drain. That is because in the past 20 years or so, there has been a surge in mainland Chinese migrating for educational, work and business opportunities. In his book, Dr Suryadinata notes that some studies have put the number of such migrants or *xin yimin*, at six million in the late 1990s and between seven million and eight million in 2007.

These "new migrants", Prof Wang says, are the ones Beijing really wants to woo, to pep and rev up its innovations and creativity. As he sees it, the Chinese of South-east Asia are not quite on Beijing's radar; South-east Asia is, in fact, "peripheral" to Beijing's interests.

So, he says with his characteristic vigour, "I'm not convinced that there

The ethnic Chinese who have long settled outside China should "be clear as to where their sense of belonging is". In a way, he says, Beijing's apparent charm offensive towards them is a "challenge" to them "not to be confused ... but to be clear and steadfast about what they believe in and who they are."



PROFESSOR WANG GUNGWU



ST ILLUSTRATION: MIEL

is a Chinese policy now to woo everyone of Chinese blood."

For that reason, he does not think that Beijing has actually had a change of heart towards those who have settled for generations outside China.

"So the Chinese overseas have to ask, "That's of interest to them, but is it of interest to me? And how might China's interest affect my community and the other people in my country?"

The Chinese overseas, he adds, would do well indeed to be aware of how exactly Beijing's new policy towards them would likely affect them.

As it is, he notes, such considerations are not top of the mind for Beijing because, as he puts it, "that is not their prime purpose".

That is because the professionals and policymakers in Beijing who specialise in understanding and tracking the affairs of foreigners of Chinese descent are few and far between these days, he says.

In their place is a veritable scrum of over-eager bureaucrats, he notes. "Now, because of Beijing's widened interest in the Chinese overseas, every major department of the government is pushing its own envelope on this. They are very eager, perhaps over-eager, doing things fast and pushing for this policy very aggressively."

"But," he cautions, "they are not the professionals (of yore) or experts on the Chinese overseas. Everyone has a very different idea about 'How do I get so-and-so to come back?' They are

coming from very different departments, and they're not coordinated because each of them has his department's own objectives, how to get somebody to come back and work, or advise on China's finances or scientific research, and so on."

Be that as it may, he says that the ethnic Chinese who have long settled outside China should "be clear as to where their sense of belonging is". In a way, he says, Beijing's apparent charm offensive towards them is a "challenge" to them "not to be confused... but to be clear and steadfast about what they believe in and who they are."

In this, he adds, Chinese chambers of commerce and similar associations in their countries could help them overcome that challenge by being "alert" to what is happening and understanding that China is not asking the Chinese overseas "to abandon all their previous allegiances".

Might it help defuse tensions between the ethnic Chinese and the sometimes-resentful non-Chinese communities among whom they live – say, in Malaysia, Indonesia and Vietnam – if these Chinese took them along on business trips, or shared other similar opportunities with them?

"They will have to think very hard how to do it," he muses. "I can also see why some among these Chinese might be tempted to take advantage of these policy changes in China to gain personal advantage. And they would just break ranks and do things just to benefit themselves, no matter what the consequences to the others are. This is a human thing and one can't rule it out."

To his mind, there is no question among the younger Chinese in such countries as to where their loyalties are. "They belong where they are now and they have no intention of changing that," he notes.

The really delicate issue is whether the governments and non-Chinese communities in such countries misunderstand China's move to woo Chinese talents to help it develop well.

He says: "They might actually be reacting for local reasons of disputations, debates and dissatisfaction, or rivalry and envy, which are quite normal in every society.

"But the point is that they may take this as a reason why they should adopt a different policy towards their people of Chinese origins. That will be a pity, and that's what is worrying."

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The fake news conundrum

The scourge of fake news continues to rankle many globally, stoking debate and binding the like-minded to counter the phenomenon.

THE PROBLEM:

A phenomenon that has been around hit global headlines during the US presidential elections last year. Now, governments worldwide are stepping up measures to counter it, undermining as it does faith in the media.

RECENT FAKE NEWS INSTANCES:

GLOBALLY

Fake: Last August, American sociopolitical site The Political Insider published an article with the headline: “WikiLeaks CONFIRMS Hillary Sold Weapons to ISIS... Then Drops Another BOMBSHELL!”

Fact: No WikiLeaks e-mails confirm that US presidential candidate Hillary Clinton directly and knowingly “sold weapons to ISIS”.

Fake: Last October, Russian TV network Russia Today published a video, ahead of the Italian constitutional referendum of Dec 4, purporting to show thousands of people protesting against Italian Prime Minister Matteo Renzi.

Fact: The people had gathered in support of Mr Renzi, not to protest against him.

Fake: In February, the claim that Bata shoes had the Arabic word “Allah” on their soles went viral in Malaysia. Bata withdrew 70,000 pairs from its stores in Malaysia, losing more than RM500,000 (S\$158,000).

Fact: Bata was cleared of the allegations by the Al-Quran Printing Control and Licensing Board of Malaysia’s Home Ministry.



ST ILLUSTRATION: MIEL

IN SINGAPORE

Fake: In February 2015, the duo behind the now-defunct sociopolitical site The Real Singapore (TRS) were arrested after a police report was made against the website for inciting hatred against the Filipino community in Singapore. An article published on TRS claimed that complaints by a Filipino family over noise caused a scuffle between the police and participants at a Thaipusam procession.

Fact: This did not happen. For publishing the above and other seditious articles, the Australian editor of Japanese descent, Ai Takagi, was sentenced to 10 months’ jail. Her Singaporean husband Yang Kaiheng, who was co-founder of the site, received eight months’ jail.

Fake: On Nov 11 last year, All Singapore Stuff published an article with the headline: “This just happened. The top floors of Punggol Waterway Terraces collapsed!”

Accompanying the article was a photo that showed the upper storeys of a block of flats that seemed to have collapsed.

Fact: It was in fact a hoax. The Housing and Development Board filed a police report over the hoax photo. The editors of All Singapore Stuff deleted the article and issued an apology.



Last November, All Singapore Stuff published an article saying the rooftop of Punggol Waterway Terraces had collapsed. Police and civil defence units were mobilised and deployed to investigate, but it was a hoax.

PHOTO: HDB

The Straits Times says

Tackling bane of disinformation

News, by definition, is never fake. It is authentic when produced by professional journalists in established organisations who work against the clock to gather accurate and verified information, and to present it fairly, honestly and impartially. In dangerous places, they also do it fearlessly and pay a heavy price for telling the truth – like the 50 journalists who were killed last year.

False information is not news, however hard it tries to look like the real thing, because it conforms to a very different process. No checks, no principles and no integrity are the trademarks of such content. Among those who seek to misinform and mislead others, anything goes.

The potential of grave harm to society which false information and hate speech can cause has spurred calls for laws to curb this scourge. In Germany, social media giants face fines of up to €50 million (\$75 million) if they do not expunge offensive posts promptly. These have multiplied because of social tensions created by the

presence of one million asylum seekers.

Here, it's an offence under the Telecommunications Act to knowingly send a false message, for example, that a bomb is set to go off in a place. The Government is reviewing the need for further measures against malicious misinformation, especially when it could cause panic and lead to physical harm. Child-kidnapping scares at malls have surfaced here in the past. More sinister is the widespread damage to social relations that foreign players can wreak. State-sponsored threats cannot be dismissed as Russia, for example, has admitted that it is building up information-warfare troops.

While there is no doubt the fiery and the fake can cause considerable harm, care is needed when deciding how best to outlaw excesses. First, there is so much of it that one cannot possibly run them all to ground. Further, some might have limited impact or relate to trivial concerns. Second, crossing a red line could be contentious when the line is blurred. Outright and wholesale fabrication is clear-cut. But

disinformation could be intermingled with what's plausible, a mischievous spin might be given to data, coverage could be calculatedly tilted, selected facts might be distorted insidiously, and falsehoods passed off as views.

Hence, there is concern that laws framed too widely might prove “a setback for mainstream and citizen journalism”, as a commentator noted. How finely must organisations filter comments, and what if information from seemingly reliable sources proves to be less than accurate over time?

In pinpointing harm, laws must target malicious intent and reckless behaviour. And search engines must not be allowed to proliferate proven fabrications. The limited response of Google is to place “fact check” tags on some search results, and Facebook will use some fact checkers to monitor news. That is hardly enough.

Ultimately, what will matter more is the news literacy of the public – the ability to question dubious claims and sources and to not let these go viral.

MEASURES TO COUNTER FAKE NEWS:

facebook

Facebook ramped up the fight against fake news by adding tips for users on how to tell when shared stories are bogus.

The tips included checking website addresses along with searching out other sources or articles on topics. The initiative, which was launched in the United States, France and a dozen other countries, added an educational tool in an “awareness display” that will be visible on users’ news feeds for three days.

The social media giant also plans to pay fact-checkers to monitor news on its platforms, in the face of sustained criticism that it has not done enough to stop the spread of fake news.



Google, the world's largest search engine, is rolling out a new feature that places “Fact Check” tags on snippets and articles in its news results, reported Bloomberg. The company's parent,

Alphabet, had already run limited tests of the feature and has extended the capability to every listing in its search pages and massive search catalogue.

WHAT ARE GOVERNMENTS DOING ABOUT IT?

Singapore: Law and Home Affairs Minister K Shanmugam in Parliament on April 3 said the Government is reviewing how to combat fake news, as current laws are limited in tackling the problem.

Germany: Considering a law that will require social networks like Facebook to remove fake news. Those that fail to do it promptly can face fines of up to €50 million (\$75 million).

Britain: Considering whether fake news spreaders can be blocked or closed down, or if genuine news outlets can be given a special verification mark. Also, it is urging tech companies to help tackle the problem on social media platforms as they have done in combating piracy, illegal content sharing, hate speech and cyber bullying.

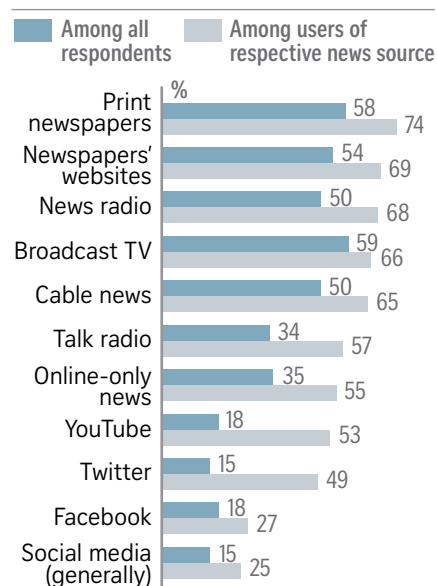
WILL IT ALL HELP TO RESTORE TRUST?

This is going to be an uphill challenge, for everyone in the media, especially those focused on sharing news via

social media. A survey conducted by Ipsos Public Affairs for a recent BuzzFeed News report found that most American adults trust news they've read from social networks in the last month less than stories they've read from traditional news sources like newspapers and broadcast TV — by a significant margin.

Americans are wary of social media news

Percentage of Americans who trust news from these sources all or most of the time



NOTE: Based on a survey among 1,007 US adults

SOURCE: IPSOS SURVEY ON BEHALF OF BUZZFEED
STRAITS TIMES GRAPHICS

Xiongan: China's new special economic zone



An aerial view of the government quarters of Xiongxian County, Hebei province, China. Beijing has announced plans to set up the Xiongan New Area consisting of parts of the counties of Anxin, Xiongxian and Rongcheng to absorb part of the growing population & functionalities of Beijing. PHOTO: EPA

The new zone in Hebei will have the same importance as Shenzhen and Pudong

China will establish a new special economic zone in the heavily polluted province of Hebei to promote integration with the neighbouring cities of Beijing and Tianjin, the government has announced. The Xiongan New Area, is located around 100km south-west of Beijing, close to the Hebei provincial capital of Shijiazhuang, and will house some of Beijing's relocated "non-capital functions".

Beijing, home to 22 million people, is trying to curb population growth and relocate industries and other non-capital functions to Hebei in the coming years as part of its efforts to curb pollution and congestion.

The removal of non-capital functions from Beijing is part of a greater strategy to integrate the development of Beijing, Tianjin and Hebei for a better economic structure, cleaner environment and improved public services.

Here are some interesting details about the initiative:

- The Xiongan New Area is 100 sq km in area now but will eventually be expanded to 2,000 sq km.
- The Xiongan New Area covers the counties of Xiongxian, Anxin and Rongcheng, and is home to Baiyangdian, one of the largest freshwater wetlands in north China.

China's prominent growth zones

Xiongan New Area aims to rival the two special economic zones in Shenzhen and Pudong in southern China founded by Mr Xi's predecessors Deng Xiaoping and Jiang Zemin. Shenzhen has grown from a fishing village into a bustling city, while Pudong has turned from a wetland into China's financial hub.



Xiongan New Area

Area:
First stage: about 100 sq km,
Mid-term: about 100 sq km,
Long-term: about 2,000 sq km
Population: 1.1 million (as of 2014)
GDP: US\$2.9 billion in 2016

Pudong New Area

Time: Established in 1992
Area: 1,210 sq km
Population: 5.47 million (as of 2014)
GDP: US\$875.2 million in 1990 to US\$126.9 billion in 2016

Shenzhen Special Economic Zone

Time: Established in 1980
Area: 1,992 sq km
Population: 11.38 million (as of 2015)
GDP: US\$26 million in 1979 to US\$283.2 billion in 2016

SOURCE: CHINA DAILY/ASIA NEWS NETWORK PHOTOS: REUTERS, BLOOMBERG STRAITS TIMES GRAPHICS

The combined gross domestic product of the three counties was about 20 billion yuan (S\$4 billion) last year, or less than 1 per cent of Beijing's gross domestic product, according to local government data.

- The new area has geological advantages, convenient transportation, ample resources and lots of room for development.
- Xiongan New Area is expected to include markets, schools, research institutions and hospitals, which will

be relocated from Beijing.

Within hours of the announcement on April 1, investors from all over the country descended on Xiongan, causing average apartment prices to nearly double in a day.

Home prices in one area increased from around 4,000 yuan (S\$812) per sq m to highs of 20,000 yuan, reports said.

China moved swiftly to clamp down on the speculation, arresting seven people for unspecified real estate violations in the newly designated area. □

SOURCES: THE STRAITS TIMES, REUTERS, XINHUA, CHINA DAILY

Saudi King's mega deals with Asia

Saudi King Salman bin Abdul Aziz Al-Saud sought to seal dozens of new partnerships between energy-deficient Asia and his Kingdom, the world's biggest crude exporter, during his recent long visit. It came as Riyadh has seen its oil revenues decline steadily in recent years. Here's a look at some of the major deals signed:



China's President Xi Jinping and Saudi Arabia's King Salman at China's National Museum in Beijing. PHOTO: REUTERS

CHINA

King Salman oversaw the signing of deals potentially worth US\$65 billion (S\$91.3 billion) in Beijing, involving sectors from energy to space. The deals included a memorandum of understanding between giant state oil firm Saudi Aramco and China North Industries Group Corp (Norinco), to look into building refining and chemical plants in China. Saudi Basic Industries Corp (SABIC) and Sinopec agreed to develop petrochemical projects in both China and Saudi Arabia. Alongside, Saudi and Chinese companies signed 21 deals.

MALAYSIA



The Pengerang Integrated Petroleum Complex in Johor, now under construction. PHOTO: ALPHONSUS CHERN

Malaysia and Saudi Arabia companies signed seven memorandums of understanding (MOUs) in various areas, including construction, halal cooperation, aerospace and haj services, worth about RM9.74 billion (S\$3 billion). Saudi oil giant Aramco is also buying an equity stake in Petronas' major refining and petrochemicals project in the southern Malaysian state of Johor, investing a total of US\$7 billion (S\$9.8 billion). The project is located in Pengerang town, about 110km from Johor Baru.

JAPAN



Saudi Arabia's King Salman with Japan's Prime Minister Shinzo Abe at a banquet hosted at the Prime Minister's official residence in Tokyo. PHOTO: REUTERS

Saudi Arabia agreed on a nine-point Saudi-Japan Vision 2030 plan to help both countries fulfil economic targets. The plan identified some 31 "front runner projects", one of which is the possible listing of Saudi national oil company Aramco on the Tokyo Stock Exchange. The initial public offering, slated for next year, is expected to be worth US\$100 billion (S\$141 billion) in what could be the world's largest. The plan also involves setting up special deregulated economic zones in Saudi Arabia.

INDONESIA



Indonesian President Joko Widodo watches as former president Megawati Sukarnoputri and her daughter Puan Maharani take a selfie with Saudi Arabia's King Salman in Jakarta. PHOTO: REUTERS

Eleven MOUs were signed during King Salman's visit, covering efforts to fight terrorism, people smuggling and drug trafficking, among others. Riyadh pledged US\$1 billion (S\$1.4 billion) to finance a development project and reaffirmed the commitment of Saudi Aramco and Pertamina to set up a joint venture to upgrade Indonesia's largest oil refinery in Cilacap, Central Java.

SOURCES: THE STRAITS TIMES, THE BUSINESS TIMES, THE JAKARTA POST, REUTERS, BLOOMBERG

Next on the anvil

Here's a glance at the key happenings from May to December, 2017



MAY

SOUTH KOREA – The country will hold its presidential election on May 9 following the impeachment of former President Park Geun-hye. Democratic Party candidate and current front runner in the election, Moon Jae-in, believes that talks with North Korea are essential if the nuclear issue is to be resolved. His more passive approach to dealing with the North could strain ties with the United States if he is elected.

JUNE

SINGAPORE – The IISS Asia Security Summit, the premier institution in the Asia-Pacific for defence diplomacy, is due to be held in Singapore from 2 – 4 June 2017. Every year, the Dialogue recognises upcoming and established regional security concerns. This year, the keynote speech will be given by Australian Prime Minister Malcolm Turnbull.



JUNE

SINGAPORE – Singapore is due to submit its rebuttal to Malaysia's International Court of Justice (ICJ) appeal on the sovereignty of Pedra Branca by June 14. Malaysia filed an application in February seeking a revision of the ICJ judgement in 2008, citing three "new facts" to argue that "Singapore's officials at the highest levels did not consider that Singapore had acquired sovereignty over Pedra Branca from Johor".



JULY

JAPAN – Tokyo is set to hold an assembly election on July 2. Prime Minister Shinzo Abe and his Liberal Democratic Party will be challenging popular Tokyo governor Yuriko Koike's party for control.



JULY

GERMANY – Efforts are underway to organise a summit between Prime Minister Shinzo Abe and President Xi Jinping in July, on the sidelines of the Group of 20 nations (G-20) summit in Hamburg, Germany. If the meeting takes place, it will be their first bilateral meeting since last November, when the two leaders met for 10 minutes on the sidelines of the Apec summit in Lima, Peru.



JULY

INDIA – India will hold its presidential election before 25th July, the day the incumbent President, Pranab Mukherjee's term expires. The Bharatiya Janata Party's decisive victories in Uttarakhand and Uttar Pradesh elections give an advantage in the selection of the presidential candidate.

AUGUST

PHILIPPINES – Asean marks its 50th anniversary on August 8. The 50th Asean Ministerial Meeting and related meetings coinciding with the regional bloc's anniversary will be held in Metro Manila.



SEPTEMBER

SINGAPORE – Singaporeans will elect a president this September, in the first election since changes to the Constitution were passed last November. All the candidates will have to be from the Malay community this round, under a new rule that reserves presidential elections for candidates from a particular racial group, if there has not been a president from the group for a period of time. This means that Singapore will have its first Malay president in 47 years.





SEPTEMBER

GERMANY – German Chancellor Angela Merkel will be running for a fourth term in the country's federal elections. Ms Merkel's

Christian Democratic Union party emerged victorious in the state election in Germany's Saarland region in March, an election considered by many to be an important early indicator of voter sentiment for other state elections, as well as the federal election in September.

SEPTEMBER

SINGAPORE – The Singapore Grand Prix will be held in September 2017.



OCTOBER

INDONESIA – Security is likely to be high as Indonesia marks the 15th anniversary of the Bali bombing attacks that left over 200 people dead.



OCTOBER

THAILAND – The cremation of Thai King Bhumibol Adulyadej is due to take place. This will be followed by the coronation of his successor King Maha Vajiralongkorn. Thereafter, restrictions on political parties are expected to be lifted, paving the way for the election process.



AUTUMN

CHINA – The Communist Party of China is due to hold its 19th National Congress in autumn 2017.

This congress will be watched closely

as a new leadership will be elected, and a majority of the Politburo Standing Committee is expected to retire. President Xi Jinping is, however, widely expected to continue for another term as general-secretary of the party Central Committee.



NOVEMBER

VIETNAM – Early reports suggest that US President Donald Trump is considering attending the annual Apec summit in Vietnam. If he does attend the meeting, the event could shed some light on the future of trade ties between The United States and Asia under his administration.



NOVEMBER

PHILIPPINES – Philippines President Rodrigo Duterte has invited Mr Donald Trump to attend the East Asia Summit (EAS) in Manila. As with the annual Apec summit in Vietnam, the event will be watched for signs of US commitment to the region.



DECEMBER

INDIA – The country's Election Commission has set a final deadline of December 31, for the opposition Congress party to hold internal elections. All eyes will be on whether vice-president Rahul Gandhi will become president.

— Nadia Chevroulet, Benjamin Chua

SOURCES: THE STRAITS TIMES, YONHAP NEWS, NIKKEI, LIVE MINT, NEW YORK TIMES, THE GUARDIAN. PHOTOS: REUTERS, EPA, AFP, IANS, SINGAPORE GRAND PRIX, STFILE

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Tommy Koh



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The much anticipated summit between US President Donald Trump and his Chinese counterpart Xi Jinping worked better than expected.

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Ignatius Low



A hopeful spring for Sino-US ties?

The summit between United States President Donald Trump and Chinese President Xi Jinping was significant because it marked the transition from the former's campaign bluster to realpolitik.

Mr Trump's anti-China tirades during his campaigning for the presidency had been strident even by the standards of political posturing expected during an adversarial process, in which an anti-China dig comes in useful domestically. Mr Trump had gone much further, threatening to brand as a currency manipulator a country that he blamed for the economic rape of America. As President-elect, he even had accepted a call from Taiwan's leader, in a move which appeared to suggest a break with America's one-China policy.

Last week's Trump-Xi summit in the US should mark the beginning of a new, more mature and, hence, more sustainable phase in the world's most important bilateral relationship. No breakthroughs were made but, then, none had been expected. Instead, the meeting established a new framework for high-level transactions between the two powers.

They also pledged to make progress on trade negotiations in the next 100 days, an indication that economic issues will figure prominently in the Trump administration's ties with China, which are burdened by a multibillion-dollar US trade deficit. Beijing needs to acknowledge the new mood in many parts of America that is symbolised by Mr Trump's ascendancy.

Last week's Trump-Xi summit in the US should mark the beginning of a new, more mature and, hence, more sustainable phase in the world's most important bilateral relationship. No breakthroughs were made but, then, none had been expected.

A major global economy like China should not give protectionist lobbies in the US a handle with which to beat free trade, which helps everyone ultimately. Instead, the challenge is for both countries to take a stand against de-globalisation, which represents an international race to the bottom when nations try to shore up

their financial bottom lines by drawing up tariff and other barriers against others. The last time when this occurred on an overwhelming scale – in the 1930s – the result was to tilt an already shaky global economic order into World War II. Free trade must remain a bulwark of the current international order, overseen by primary stakeholders such as the US, China, Japan, India and the European Union.

Apart from economic issues, strategic choices and events will test the Sino-US relationship. North Korea's seemingly unstoppable ability to act as a free agent in that relationship is a matter of deep international concern. Pyongyang's nuclear capabilities, catching up with its ambitions test after test, will require China to use all its powers of persuasion over the recalcitrant state. Although North Korea is not non-nuclear Syria, which has drawn a swift American response following the use of chemical weapons, China must contemplate the consequences of unilateral US action on Pyongyang. Beijing also must recalibrate its moves in the South China Sea, which could see the US being drawn into a festering dispute. □

Daring to dream big despite small size

As plans emerge for the Tuas mega port, they draw attention to the scale of the continuing reinvention of Singapore, even after half a century of remarkable growth. Tuas represents the latest incarnation of Singapore's long-time role as a global port city. The importance of that role can be seen in the maritime sector which contributes about 7 per cent to the GDP and employs more than 170,000 workers. Consequently, the migration of port functions from Tanjong Pagar, Pasir Panjang, Keppel and Brani to Tuas South will be a gigantic step. The move will occur progressively from 2021 and be completed by 2040. Its success would constitute a fitting tribute to Singapore on the diamond anniversary of its independence.

Indeed, Tuas might evolve beyond being a global maritime hub into something of a local lifestyle hub as well. There are plans to house cafes, retail stores and a jogging track on elevated spaces so as to optimise land use. Thinking out of the

box would not be unprecedented in this sector. Decades ago, the Port of Singapore Authority's initiative in turning disused warehouses into exhibition centres was to prove instrumental in the growth of the exhibition business. Changing port functions had nudged the port authority into optimising land use, which helped to

The broad thinking of the present Maritime and Port Authority of Singapore – reflected in the fusion of port operations, warehousing and distribution, as well as lifestyle activities – is a reflection of how the limitations of size can be overcome.

put Singapore on the global map of the conventions and exhibitions industry. That took on a life of its own and, today, the industry is taken for granted.

The broad thinking of the present Maritime and Port Authority of Singapore – reflected in the fusion of port operations,

warehousing and distribution, as well as lifestyle activities – is a reflection of how the limitations of size can be overcome. Being small need not condition the responses of younger generations. Some might think that there is less scope for massive projects on a tiny island. But the infrastructural reinvention of Singapore is not limited to the mega port.

The relocation to Tuas will free up about 1,000ha of land – thrice the size of Marina Bay – for development in what is envisaged as the Greater Southern Waterfront.

Elsewhere on the island too, big plans are afoot. Land reclamation will give the equivalent of two Toa Payoh towns to Pulau Tekong. And Paya Lebar and Jurong East will add commercial depth to Singapore. The latter will fulfil an important regional function as well, as the Singapore terminal of the high-speed rail line from Kuala Lumpur. None of these is being based on past templates. Instead, present and future needs, and the ideas of younger Singaporeans, will play a key part in determining the shape and vibrancy of spaces.

As these developments are built, they should reinforce what the present iconic facilities have shown – that Singapore is defined, not by its scarcity of land but by the imagination of its planners and citizens. □

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Best route to the future is the one you chart yourself

Young pondering jobs should play to their strengths and seize opportunities that arise

Blue-eyed and boyishly handsome, Mike Ross is a brilliant young lawyer. Blessed with a photographic memory, he uses his uncanny legal prowess to trump his opponents in courtroom battles, often defending downtrodden underdogs against greedy corporate giants.

The catch? Mike has a dark secret. He is a bit of a fraud. He never went to law school, has no law degree, and was never called to the Bar.

His crime: He bypassed the hurdles that the legal fraternity has put in place to keep its charmed circle closed in order to uphold standards, but also, to ensure lawyers retain their cachet.

This sets the stage for a riveting television drama series, *Suits*, starring Canadian actor Patrick J. Adams, now into its seventh season, as Mike defends other suspects while trying to hide his own wrongdoing.

I was reminded of the programme as I sat in the brand-new auditorium of the Singapore Management University's (SMU) law school recently. I was there for The StraitsTimes Education Forum, organised in partnership with SMU, which was focused this year on what the future of jobs might look like, for lawyers and the rest of us.

The day cannot be far off, I mused, when the premise of the TV show is made untenable. Mike's prodigious memory of legal cases, which gives him his courtroom edge, is likely to be surpassed by a robot that just about every self-respecting law

firm will have tucked away in a quiet corner of the office.

This will take away much of the drudgery of legal research work, now done by junior lawyers. Drafting and filing of documents, and even settling disputes, might then be done more efficiently and cost-effectively with the help of robots and artificial intelligence.

How then, will lawyers, law firms and law schools respond?

My wandering mind was jolted back by SMU board of trustees chairman Ho Kwon Ping's provocative opening address.

He said: "By asserting that we don't know what new jobs will replace displaced ones, we can avoid the ignominy of being wrong in our speculation. But, while this is a comfortably safe and ostensibly wise position, it is also a cop-out."

"Universities, as thought leaders, should have the courage, indeed the audacity, not so much to predict what jobs might disappear, but by drawing upon the lessons of the past to see into the future, to speculate what new jobs might emerge."



ST ILLUSTRATION: ADAM LEE

My colleague, ST's senior education correspondent Sandra Davie, gamely took up the challenge. She cited a study by Oxford academics, Dr Michael A. Osborne and Dr Carl Benedikt Frey, titled *The Future Of Employment: How Susceptible Are Jobs To Computerisation?*, which looked at more than 700 jobs, the tasks workers perform and the skills required to do so. It also considered the technology needed to automate these jobs.

It concluded that the jobs that are most likely to disappear are those of telephone salesmen, legal secretaries, bookkeepers, accountants, retail workers and cooks.

At the other end of the spectrum, teachers, nurses, speech therapists, physiotherapists, personal trainers, artists and architects, programmers and software designers were those most likely to remain in demand.

Thankfully, journalists and newspaper editors were also among the latter crowd. For, while the way in which news and information is consumed might change, there would always be a demand for people who could help make sense of developments in a rapidly changing world.

Put simply, not only jobs which are high-tech, but also those which called for high touch and high trust – to borrow an idea from American futurologist John Naisbitt – are the ones that are most likely to survive.

So, how might today's young, and those charged with their education, prepare for this brave new world now unfolding?

As several speakers pointed out at the ST forum, workers will have to “learn how to learn” to keep reskilling, returning to school several times over their careers.

But, someone asked, should the focus be on the so-called Stem skills, namely in science, technology, engineering and mathematics, since these were, no doubt, going to be key for many of the jobs of the future?

You might think the answer to this was obvious, but, interestingly, SMU president Arnoud De Meyer offered a different view.

Technology, he said, would create many new jobs, even as some are destroyed. He recounted how a technology company he knew of was constantly on the lookout, not just for coders, but also people with strong literary skills. The reason: Video games created by tech geeks become bestsellers only when they have a compelling storyline.

So, rather than everyone focusing on science and technology, some students might be better off doing literature, if that was where their passions lie, he argued.

He urged the students in the audience – not once, but twice – not to decide their futures based just on what the manpower planners were projecting, but to “follow your passion in what you want to study”.

To cope with the uncertainty that is inevitable in a time of change, young people were advised to ditch the idea of having to live up to a rigid life plan – set out by parents or society – to be followed at all costs. Instead, they needed the derring-do to adapt and seize opportunities, to shape their futures.

The greatest gifts that parents and educators could give their charges are a nimbleness of mind and a resilience of spirit, to equip them with the ability to constantly recalibrate their route into the future, even as the landscape continues to shift around them.

Pointing to his own experience, Professor De Meyer recounted how he had expected to take up a job in his field at a local company, after graduating as an engineer from the University of Ghent in Belgium.

But, events in life led him into academia, and ultimately to the top job at a university in Singapore.

In other words, while it makes sense to scan the horizon to survey the jobs that are in demand today, and likely to be so tomorrow, young people also have to look within to figure out where their strengths lie, and how they might find their niche in a changing world.

The greatest gifts that parents and educators could give their charges are a nimbleness of mind and a resilience of spirit, to equip them with the ability to constantly recalibrate their route into the future, even as the landscape continues to shift around them.

As I pondered over this discussion later, it struck me how so much has changed since I was an 18-year-old having to make “the big decision” on what to do with my life. And yet, for all the changes, some things remain pretty much the same.

Like many Singaporean parents, mine had wanted me to take up a profession. In my family's case,

medicine was the preferred path, largely as my Uncle Victor had long been searching for a successor to take over his successful family practice. Several prospects had passed up the opportunity, which meant that, as the youngest member of the extended family, I was the last hope of keeping the Fernandez name on the door.

So, dutifully, I signed up for the science stream in junior college to prepare to read medicine at university. After several months of trying this out, however, I concluded that this was a mistake, as my interests lay elsewhere.

I plucked up the courage to tell my family that I had to ditch the plan. Not surprisingly, there was much disappointment and consternation all round. Partly to assure everyone that I was not simply copping out, I decided to apply for the prestigious humanities programme in Hwa Chong Junior College, which offered the prospect of going to Oxford University, followed by a career in public service.

First though, I had to pass the entrance exam and win a government scholarship, as my family could not possibly afford the exorbitant fees. This spurred me to get serious about my studies, and somehow, I managed to land a place at Oxford.

Then, came the twist. I lost out on the government scholarship after I botched the interview. That left me thrashing about for months in search of financial assistance in the recession-hit Singapore of the mid-1980s. Thankfully, *The Straits Times* came to the rescue, when it decided that it would set up a new scholarship programme. To my great surprise and relief, I became its first recipient.

And so began my unexpected journalistic journey. Over time, I found myself enjoying what I was doing, and made progress as I took on various assignments, helped along by many talented and kind colleagues. I did not imagine back then that I might, one day, be asked to helm this 172-year-old media organisation.

I recount all of this to reinforce the point that Prof De Meyer made.

No one can say what the future holds. So, while it is good to plan a route and chart a course, the best advice anyone can give today's young on what the jobs of the future might entail is to assert that the future is, as it always has been, simply what you make of it.

Disruptive change and the Singapore dilemma

What will the future of work be as disruption due to technology becomes the new normal and how should universities prepare graduates? These were some of the issues taken up at The Straits Times Education Forum 2017, which was organised in partnership with Singapore Management University (SMU). Here are excerpts of the forum's keynote address by Ho Kwon Ping, chairman of SMU's board of trustees and executive chairman of Banyan Tree Holdings:



Ho Kwon Ping



The future of work will require individuals to prepare for different careers, which will entail continuous learning and education throughout one's working life.

We all know by now that disruption has become the new normal in various industries where computerisation, robotics and artificial intelligence will make many traditional, even highly skilled but repetitive, jobs redundant.

Everyone – your teachers, political leaders, social media pundits – all talk so much of digital disruption that it has become a cliché. And, of course, the danger of clichés is that they stifle deeper questioning; beyond being told that disruption has hit us and that flexibility is the only way to survive, most people don't have much else to say.

By asserting that we don't know what new jobs will replace displaced ones, we can avoid the ignominy of being wrong in our speculation. But while this is a comfortably safe and ostensibly wise position, it is also a cop out.

Universities, as thought leaders, should have the courage, indeed the audacity, not so much to predict what jobs might disappear, but by drawing upon the lessons of the past to see into the future, to speculate what new jobs might emerge. Furthermore, we need to walk the talk by training students in fields of study which can dovetail with jobs which still do not exist today.

That is the challenge we embrace at the Singapore Management University. We may get it wrong, but at least we try to get it... we do not feign helplessness in the face of disruptive change. Like the proverbial surfer, we want to catch

the wave before it cascades over us, so that we can ride the wave rather than be crushed beneath it.

But it isn't easy.

And one big impediment is a uniquely Singaporean dilemma. That is the glaring contradiction between our numerous scholastic achievements on one hand, versus our lack of innovative capabilities on the other.

Singapore high-school students have been regularly acing international benchmarking tests, topping the world in reading, mathematics and science scores. To list the various different indices would border on boastfulness. But it is interesting to note that the Programme for International Student Assessment, famous for its acronym Pisa, has ranked Singapore students the highest amongst 70 developed countries, not just in scholastic achievements, but also in using their knowledge and skills to solve real-world problems.

That's the good news. The not so sterling news is how these achievements translate into practical measures of innovation and entrepreneurship. While we're being ranked No. 1 in the Global Entrepreneurship Index for the ease of doing business, Singapore ranks a lowly 24th in displaying innovation and entrepreneurship.

Worse, although Singapore is ranked sixth in the world according to a Cornell-Insead 2016 report for encouraging innovation, we are placed at 78th in the world in terms of actually achieving innovation efficiency – the ability to increase productivity via innovation.

What does this say? Something which we all already knew in our heart of hearts. And that is quite simply that our schools teach the basics extremely well and their academic rigour is second to none, but beyond that, we have not been able to convert these academic achievements into real-life innovations which promote entrepreneurship or productivity. Our students rank the top globally in science scores, but probably amongst the lowest in improving the proverbial mouse trap.

For most of us involved in education, this is not breaking news. We have long worried that our acclaimed academic rigour is turning into rigidity; that our focus on just a few measures of achievement may turn into intellectual inflexibility. But when the world was rapidly globalising along well-defined, predictable trajectories, Singapore soared along with the trends.

Now, however, in an age of disruptive change, our much focused discipline can become an archaic impediment. It can produce the contradictions I highlighted just now, and deter our ability to adapt to disruption. Like great business brands which failed to innovate and adapt fast enough – Kodak, Xerox, Nokia, just to mention a few – will Singapore Inc join their ranks?

GLOBALISATION OF TALENT

For the jobseekers, there are two burning questions: How do I discern which jobs will survive and which will



Panelists at the ST Education Forum 2017 were (from left) ST senior education correspondent Sandra Davie, SMU's board of trustees chairman Ho Kwon Ping, Ms Nandini Jayaram, the South-east Asia human resource lead for Google Asia-Pacific, and the moderator, ST managing editor Fiona Chan. About 500 people attended the forum, which focused on the future of work, universities and the economy. PHOTO: STFILE

disappear, and what skills do I need to protect myself against redundancy? For policymakers, how can the state protect against job loss and promote job creation?

Partly because the boom years of globalisation, which certainly saw a lot of creative destruction, created unprecedentedly enormous inequalities of wealth, and political elites ignored the voiceless, disenfranchised masses, a political backlash in recent years has favoured job protectionism rather than job creation. The trade-off, however, is that the protection of jobs which are no longer economically sustainable will delay the rise of new industries with more creative and productive jobs.

Ironically, however, while job protectionism is an increasingly loud clarion call for populist politicians, society is moving the other way. Not only is technology rendering previously safe jobs redundant, but the existence of lucrative, regulated professions – the most elite form of job protectionism – is being challenged by the globalisation of talent.

Doctors, lawyers, accountants are not just smart people because of the nature of their work. They're smart because they've created and maintained very effective barriers to entry by outsiders, even those with even the same or even higher skills than them. The celebrated investor Warren Buffett once said that he'd invest in industries with natural moats – the water bodies surrounding mediaeval castles and serving as barriers to entry. In jobs, doctors and lawyers have natural moats, because of the certification required to keep outsiders at bay. But the moats are drying up.

There are pressures to allow doctors and lawyers trained anywhere in the world to practise in Singapore so long as they pass the requisite competency exams. In New Zealand, anyone can be an architect without going to architectural school, if you

can demonstrate knowledge of the information required to prevent your buildings from collapsing.

In other words, genuinely meritocratic, skills-based certification will replace elite job protectionism. The globalisation of talent is finally eroding the last bastions of job protectionism – the elite professions.

The globalisation of talent is finally eroding the last bastions of job protectionism – the elite professions. Because of demographic trends, there will likely always be a shortage of doctors for a long time to come. But for lawyers? I'm not so sure, because just as fintech is replacing hundreds, and soon thousands, of financial analysts, hundreds of young lawyers doing legal research will be easily replaced by the most advanced search engines and artificial intelligence algorithms. Rapidly advancing technologies in data science will replace medical and legal researchers and assistants, leaving only the most creative, adaptive, and forward-thinking professionals in these fields safe.

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INTERDISCIPLINARY KNOWLEDGE

If we look closer to home, what does this mean for education in Singapore?

SMU has recognised that innovations and solutions often emerge at the intersection of disciplines. In 2015, SMU introduced SMU-X courses to give students real-world, hands-on experience through a structured pedagogical approach that involves working collaboratively in groups and solving actual, interdisciplinary problems faced by companies and organisations, under the guidance and mentorship of faculty and practitioners.

Through SMU-X, the university aims to train its undergraduates to “learn how to learn”, and nurture skills set to prepare them for the volatile working world. SMU-X also serves to create a mindset for collaboration across disciplines, as well as with external stakeholders from diverse fields.

Increasingly, undergraduates will be able to create their own combination of courses to fit their own aspirations. The intersection of disciplines will be where new jobs will be created. Biology and engineering was one combination already emerging during my time as a student, with the exciting new field of bio-mechanics. Add to that computer science and the just emerging field of bio-robotics suddenly emerges...

Starting August this year, SMU will offer another new interdisciplinary major, this time in Smart-City Management and Technology, which aims to nurture graduates who innovate solutions to urbanisation challenges through application of interdisciplinary knowledge across technology, social sciences and management.

The future of work will require individuals to prepare for different careers, which will entail continuous learning and education throughout one's working life. □

Sandra DavieSenior Education Correspondent
The Straits Times

Race with machines, not against them

The future of work, MIT research scientist Andrew McAfee explains how workers can race with smart machines

In a face-off two years ago, Enlitic, a deep-learning machine, was pitted against expert human diagnostic radiographers in diagnosing lung cancer.

Enlitic won. The machine, which was built to read X-rays and CT scans, was 50 per cent better at classifying malignant tumours and had a false-negative rate (where a cancer is missed) of zero, compared with 7 per cent for the humans.

Machines like Enlitic point to the fact that many jobs, including white-collar ones, are in danger of being taken over by robots and computers.

Quite simply, if a job is routine, it can be done by a machine, says Dr Andrew McAfee, principal research scientist at the Massachusetts Institute of Technology (MIT) Sloan School of Management and co-author of *The Second Machine Age*. His work explores how information technologies are transforming business and society.

A radiographer must match patterns, he says.

“But, at the end of the day, matching patterns is routine work and machines can do such tasks very well, much faster, and without getting tired,” explains Dr McAfee.

Machines are quickly acquiring many skills which used to be the preserve of human beings – from understanding natural language to driving cars – he says.

“These machines are going to automate some people, perhaps many of them, out of their jobs.”

Loan officers, for example, can be replaced by algorithms that identify safe borrowers. Stock and equity analysts



ST ILLUSTRATION: ADAM LEE

will be competing with smart machines that can precisely analyse and predict the behaviour of investments. Robo-advisers are on the rise and starting to replace financial advisers and planners.

So are there any jobs that are safe? Jobs that require creative thinking – like writing, entrepreneurship or scientific discovery – may endure, Dr McAfee says. “There is no better time to be an entrepreneur with a great idea, because you can use technology to leverage your inventions,” he says.

Another category of jobs that are safe are those that require social interaction. “I don’t see nurses or kindergarten teachers being replaced by robots any time soon,” he says.

He encourages workers to attain skills that are complementary to machines – as opposed to those that can be substituted by machines.

These would include skills like negotiation, expressing empathy, problem solving and, most of all, the ability to program computers.

He sounds like he is plugging the Singapore Government’s SkillsFuture movement that encourages workers to acquire deep and relevant skills.

“Figure out where your passions are, what you’re good at, and how you can race with machines instead of against them,” he advises.

He calls himself a “tech optimist”, but adds the qualifier, a “mindful optimist”. “Imagine a world where the robots did all the hard and routine work. They tend the crops, sew the clothes, cook the food, drive the trucks, and work on all the assembly lines in all the world’s factories.

“In this world, everything would be a lot cheaper because labour costs



If a job is routine, it can be done by a machine, says Dr McAfee.
PHOTO: EVE PHOTOGRAPHY

Dr Andrew McAfee, a principal research scientist at Massachusetts Institute of Technology (MIT), studies how digital technologies are changing business, the economy and society.

His 2014 book on these topics, *The Second Machine Age: Work, Progress, And Prosperity In A Time Of Brilliant Technologies* (co-authored with Erik Brynjolfsson) was a New York Times bestseller and was shortlisted for the Financial Times/McKinsey business book of the year award.

He writes academic papers, a blog for the Financial Times, and articles for publications including Harvard Business Review, The Economist and The New York Times.

He has talked about his work on The Charlie Rose Show and 60 Minutes, at TED, Davos, the Aspen Ideas Festival, and in front of many other audiences.

He was educated at Harvard and MIT, where he is the co-founder of the institute's Initiative on the Digital Economy.

would drop to zero. In fact, there'd be a startling abundance of stuff. And people would be freed up to do things other than work," he says.

But governments need to overhaul education systems to help a nation's people to "race with machines", instead of against them.

Top on his to-do list for governments is education.

"The education system is in need of an overhaul. At the moment, the system is turning out the kind of workers we needed 50 years ago.

"We are training people to be good at things where machines are better, which is a very big mistake. No point focusing on the ability to memorise facts, the ability to do routine tasks, the ability to do simple maths – computers are better at all those things than we are," says Dr McAfee. "We need intellectual curiosity, problem solving, group work, creativity and self-direction – very, very different kinds of skills."

But he also admits that with rapid machine advances, it is hard to predict what skills are going to be valuable down the road.

"We need to learn how to educate and train people to be intellectually flexible, to be able to shift over time as requirements shift."

The second is infrastructure. He argues that world-class roads, airports and networks are investments in the future and the foundations of growth.

Next, countries need to develop an environment that is receptive to entrepreneurship.

"Entrepreneurship is a job-creation engine. Young businesses, especially fast-growing ones, are a prime source of new jobs," he says.

He is for liberalising immigration policies.

"Many of the world's most talented people come to America to build lives and careers, and there's clear evidence that immigrant-founded companies have been great job-creation engines."

The fifth thing is basic research.

"Companies tend to concentrate on applied research, so governments must support original early-stage research. Most of today's technological marvels, from the Internet to the smartphone, have a government programme behind them."

As technology marches on, the one option he will not countenance is to block the advent of smart machines so that jobs will not be displaced. "We need to let technology race ahead because it's bringing all kinds of great things to us in our lives. Technological advances have bettered people's lives at all levels of the pyramid, in all regions of the world. We shouldn't lose sight of that."

The education system is in need of an overhaul. At the moment, the system is turning out the kind of workers we needed 50 years ago. We are training people to be good at things where machines are better, which is a very big mistake. ... We need intellectual curiosity, problem solving, group work, creativity and self-direction – very, very different kinds of skills.

He goes back again to the radiology example.

"If we have higher-quality, lower-cost medical diagnostics, that's completely a good thing for humanity, especially if we can take that technology and extend it downward to people who currently don't have great healthcare or don't have healthcare at all.

"It's not science fiction any more. For many medical conditions, you can diagnose them with a smart-phone that's got a decent camera on it, maybe attach some kind of a chip to it, and then you have got absolute-best-in-the-world medical diagnoses available to people at the base of the pyramid.



Jeremy Howard, the founder and chief executive of Enlitic, a start-up in San Francisco, believes artificial intelligence can transform healthcare.
PHOTO: NEW YORK TIMES NEWS SYNDICATE

"If that's not good news, I don't know what good news is."

He concedes, though, that automation and globalisation will lead to job losses and rising income inequality. The biggest winners will be those who create and own the new machines.

Those on the wrong side of the divide will find it difficult to gain access to the bounty created by technological progress.

He says: "We need to figure out how to deal with this. It will be one of the most important issues for governments to grapple with in the decades to come.

"One of the ways to address the issue is through a negative income tax that provides low-income workers with an earnings boost. This is worth considering.

"The solution can't be to hold back on technological progress."

Back to the diagnostic radiographers. "Imagine if we develop machines that are far more accurate and efficient at reading X-rays and scans. Would it be ethical to still use humans to do the job, just so that they have a job? I think it would be deeply unethical to let people continue to do that. This is health, people's lives are at stake."

The solution, of course, is to retrain and reskill radiographers to take on other jobs.

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□

Chua Mui Hoong

Opinion Editor, The Straits Times



Future economy needs future ready social safety net

As job insecurity looms in a world of churn, we need to attend to the well-being of citizens too

As a consumer, I love start-ups. Airbnb, Uber and car-sharing apps transformed my vacation experiences, opening up cheaper - and more interesting - accommodation and transport options. You can live in someone's lovely house, get to know them and their family, drive a neighbour's car, order food in when you feel like it, and even make new friends instantly via social meet-ups.

In Singapore, I use Uber, Grab and food-delivery platforms I console myself that when my job is taken over by a robot one day, I can make extra income from renting out my car and extra room in my apartment.

As a journalist who likes new ideas to write about, I find it exciting to live in a world of churn, where technology and automation are disrupting jobs, enriching our consumer experience, and challenging existing social orders, all at once.

But as a worker, and a frail human being, I find the trends towards automation, and looming massive job losses, rather disturbing.

They add up to a feeling of job insecurity.

Experts point to looming, massive job losses. Forrester, a market research firm, predicts that robots will eliminate 6 per cent of jobs in the United States by 2021, including customer service representatives, and truck and taxi drivers.

Professor Moshe Vardi, computational engineering don at Rice University in the United States, predicted last February that robots will take over at least 50 per cent of jobs in 30 years.

Singapore is fully aware of the trends. This is why the report of the Committee on the Future Economy (CFE) tries so hard to say what Singapore must do to prepare itself for that tumultuous future.

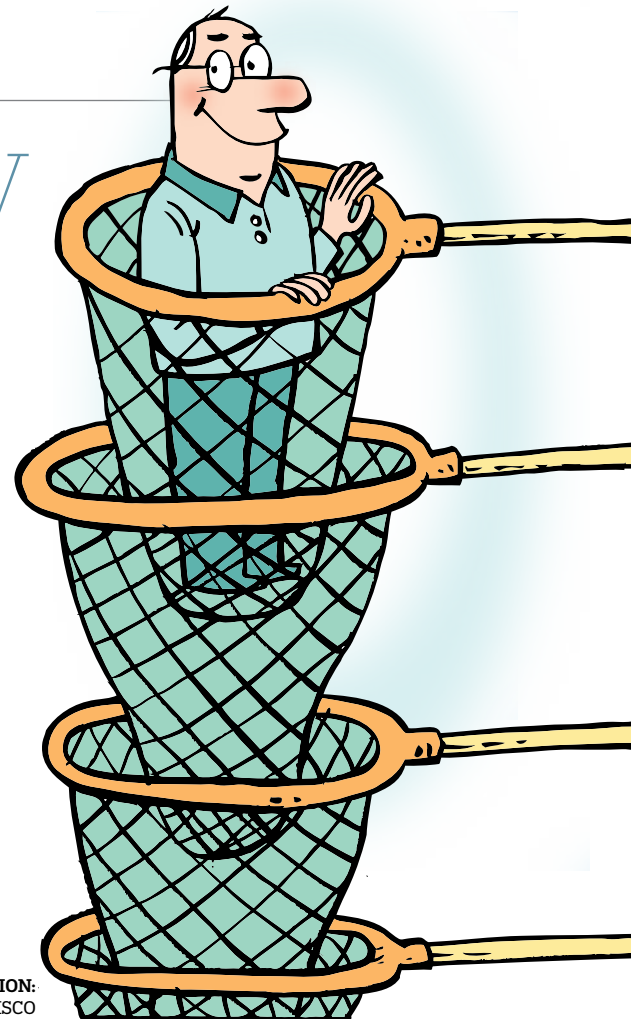
There was a lot in the CFE report about industry transformation, scaling up our enterprises, going global, and reskilling workers.

But there isn't enough about how to help workers adapt. For example, what about social safety nets?

As former civil servant turned academic Donald Low wrote: "The CFE missed an opportunity to discuss how Singapore's social security and regulatory systems might be adapted for what is widely referred to as the 'sharing economy'."

I too feel there is a huge gap in the conversations we are having about the future economy, and it has the changing employment status of workers and the gnawing, invidious sense of job insecurity that will affect many.

In Europe, half of new jobs created since the global financial crisis were



ST ILLUSTRATION:
MANNY FRANCISCO

offered through temporary contracts. In a 2015 report, the McKinsey Global Institute found that 162 million people in Europe and the United States - 20 to 30 per cent of the working-age population - were doing some kind of independent work.

Without permanent work, people could suffer an acute sense of job insecurity that erodes their dignity.

No government can protect citizens from the forces of disruption. It can't guarantee everyone full-time, permanent, meaningful work with a comfortable salary that lets them plan for their future.

It can, however, make sure existing social provision programmes are future-ready.

Last year's widespread discussion in some countries of a universal basic income - an allowance doled out to all, regardless of work - is one such attempt to give financial security to citizens.

In Singapore, we need not think of such a radical measure yet. But we can certainly do a lot more to assess if our social security systems are adequate for a world where many people don't have work, or work part-time, or do micro-jobs for micro-pay for many different people.

Professor Laura Tyson, who chaired the President's Council of Economic Advisers under the Bill Clinton administration, has argued that there is some consensus on what kind of social security benefits would work in a gig economy:

"They should be portable, attached to individual workers rather than to their employers. They should be universal, applying to all workers and all forms of employment. And they should be pro-rated, linking employer benefit contributions to time worked, jobs completed, or income earned."

Singapore is fortunate in that our Central Provident Fund (CPF) system is already portable and universal, as is our MediShield Life. Can CPF also be pro-rated?

Under current laws, those who employ part-time workers need to pay CPF. But not if the workers are deemed contract or freelance workers, or own account workers.

Can a system be devised to have pro-rated CPF payments? I don't see why not.

MP Tan Wu Meng in a commentary last November suggested: "What if a

minimum employer CPF contribution were specified, for each hour worked or each unit of labour?"

Once you set a unit CPF payment for each hour or dollar of work performed, you can then develop a system where workers can get multiple CPF micro-payments from employers, or companies that buy their services.

The Uber or Grab driver, part-time house cleaner, honestbee grocery shopper, or TaskRabbit worker, will get his fee, plus an X per cent more to his CPF from the employer or buyer of his service, that can be used for his future housing, healthcare and retirement needs.

Beyond the CPF system, there is also the question of whether the protections employees take for granted are available to gig economy workers. Examples are annual leave, medical leave, maternity leave, defraying of medical bills, and workers' compensation under workplace safety and health regulations.

Even our much-vaunted CPF system has a serious drawback in a disrupted economy of the future: It works only when you have a job.

In fact, most of Singapore's social security measures are funnelled via

employers, to employed workers. The CPF system assumes you have an employer who tops up your fund. Many medical benefits are given by employers. The Workfare Income Supplement tops up your income - if you have a job.

If you are jobless, all the above benefits disappear. Singapore does not have unemployment insurance. For those with low savings, a few months of joblessness could leave them and their family in penury.

The labour market has been tight for decades and jobs are aplenty. But in the disrupted future economy, we can't rely on that. Already, the younger, more tech-savvy Uber driver is disrupting the livelihoods of many taxi uncles, some of whom will find it hard to get other jobs.

The prospect of joblessness, or job insecurity, is looking very real.

As a nation, we should be paying as much attention to the future of citizens' well-being, as to the future of the economy. For what is the point of having a vibrant future economy, if hundreds of thousands of our citizens suffer acute anxiety from joblessness, or job insecurity, and without adequate social safety nets? □

Staying indispensable amid disruption

Here are some ways to try to become indispensable



Trendspotting

Stay abreast of industry developments, attend trade events, follow thought leaders who are talking about your sector.



Collaborate in new ways

Companies are using more freelancers and soloists, hence it will be important to learn to work with disparate teams.



Build your brand

Knowledge workers should focus on building their own brand image online and improve their entrepreneurial work, as more companies shift to the gig economy.



Develop emotional intelligence

Developing empathy, embracing vulnerability, building strong connections with your co-workers and network will help in the long term.



Develop a unique knowledge base or skill

Excel in areas where others are weak.



Cultivate a life outside work

People with many interests – even if not related to work – are seen as bringing more to the table, than those who are uni-dimensional.



Pay attention to decisions you make

Keep in mind the bigger picture, instead of what benefits you.



Seek honest feedback

Hear what people say about working with you, ask how you can optimise your strengths and improve your skills.

SOURCES: WWW.FASTCOMPANY.COM, SALARY.COM, FORBES

SINGAPORE'S WATER STORY

1868

MacRitchie then known as Impounding Reservoir or Thomson Reservoir. Pierce reservoir and Upper Seletar reservoir were built in the 1900's



1942

Singapore's reservoirs fall to the invading Japanese and the water supply to the city is compromised by extensive damage, contributing to the British decision to surrender

1962

Second water agreement, allowing Singapore to draw up to 250 million gallons a day of water from Johor River for 99 years, till 2061

1965

Both water agreements are guaranteed by Malaysia in the Separation Agreement, which is registered with the United Nations

1972

Singapore's first Water Master Plan, which outlined strategies for ensuring a diversified and adequate supply

1981 - 1986

- Tengeh, Poyan, Murai and Sarimbun Reservoirs
- PUB takes over management of Jurong Lake from JTC Corporation and it becomes a reservoir
- Lower Seletar Reservoir, Bedok Reservoir created

1994

Linggiu Reservoir built upstream of the Johor River

2003

- Bedok Newater Plant
- Kranji Newater Plant
- Keppel Seghers Ulu Pandan Newater Plant
- SembCorp Changi Newater Plant
- Marina Reservoir



Keeping the nation's taps flowing

1927

Water agreement signed between British-controlled Singapore and Johor Sultan to import water. This is superseded by the 1961 agreement



Lin Yangchen

Journalist, The Straits Times

Millions are being invested to maintain Singapore's quest for a robust water supply.

1961

First water agreement, allowing Singapore to draw water from areas in Johor for 50 years

1963

PUB formed to replace City Council as statutory board in charge of electricity, piped gas and potable water. 10-month water rationing begins in response to drought



1971

"Water Is Precious" public education campaign launched



1975 - 1979

- Dam constructed to create Upper and Lower Peirce Reservoirs; Kranji Reservoir completed; Pandan Reservoir
- Pulau Tekong Reservoir

1990

Supplement to 1962 Agreement signed allowing Singapore to build a dam across Johor River to increase its yield

1991

Water Conservation Tax introduced

1997-2000

The Government increases water prices progressively over a period of three years

2005

- SingSpring Desalination Plant
- Tuaspring Desalination Plant



2006

Launch of Active, Beautiful, Clean Waters programme

2008

- Deep Tunnel Sewerage System (DTSS) Phase 1
- Changi Water Reclamation Plant



2011

1961 water agreement lapses. Singapore hands over Johor waterworks to Malaysia

- Punggol Reservoir
- Serangoon Reservoir

On a stretch of reclaimed land in Tuas, a water factory is taking shape. Singapore's third desalination plant, expected to be ready later this year, is one of several infrastructure projects in the pipeline to ensure a nation surrounded by water has enough to meet its needs.

At two older plants nearby, sea water is already filtered and passed through membranes to remove dissolved salts and minerals, as part of a process to get water fit to drink.

Singapore's fourth national tap – desalinated water – is part of a long, and often little-heard, story of this nation's quest for self-sufficiency in man's most valuable resource.

Today, Newater meets up to 40 per cent of Singapore's water demand and desalination 25 per cent.

And plans are under way to boost capacity so both meet 55 per cent and 30 per cent of water needs respectively by 2060, before the second water agreement expires.

But the cost of operating and maintaining the water system has risen over the years, prompting the Government to review the price of water – and raise it by 30 per cent over two phases, this July and next.

It is the first price hike in 17 years.

The previous hike, phased in from 1997 to 2000, saw tariffs go up by 20 per cent to 100 per cent on a scale depending on usage.

Costs have gone up sharply since then. Last

Water catchment area has increased from half to two-thirds of Singapore's land surface with the completion of the Marina, Punggol and Serangoon Reservoirs.



month, national water agency PUB said it cost about \$500 million to run the system in 2000. By 2015, this had risen to \$1.3 billion. This includes collecting used water, treating water, producing Newater and desalination, as well as maintaining water pipelines.

WHAT PRICE, WATER?

As Finance Minister Heng Swee Keat and Environment and Water Resources Minister Masagos Zulkifli reminded Parliament this month, the cornerstone of Singapore's water policy is the pricing of water on sound economic principles to reflect what is called its Long Run Marginal Cost (LRMC).

This reflects the cost of supplying the next available drop of water, which is likely to come from Newater and desalination plants, and enabling investments in such plants.

Mr Masagos noted the first-year price of the first desalination plant, SingSpring, which opened in 2005, was 78 cents per cubic m. By comparison, the first-year price of the latest plant in Marina East, set to open in 2020, is \$1.08 per cubic m – an increase of some 40 per cent.

"It is only through right pricing that we can have everyone valuing water as a strategic resource and consciously conserving it," he said.

Understandably, the price hike generated much discussion on the ground, prompting ministers to point out that, in reality, most businesses will see a rise of less than \$1 a day, and for most households, a jump of less than \$12 a month.

And at the start of a month-long water conservation campaign, Deputy Prime Minister Teo Chee Hean pointed out that a 330ml bottle of water costing \$1 from a supermarket will pay for 1,000 bottles of clean water from the tap after the full price rise.

It is a price comparable to that in major cities in developed countries with large rivers to draw from. It is also a price that makes possible considerable investments in the future.

The years from 2000 to 2015 saw \$7 billion invested in water infrastructure – or \$430 million a year. PUB expects this to almost double to \$800 million every year from this year to 2021, to fund major investments in strengthening the third and fourth taps, and build and repair pipes and pumps. There are also higher costs of manpower, materials and chemicals, and more difficult and expensive developments needed, such as having to dig deeper underground to lay pipelines.

METICULOUS WATER PLANNING

Less noticed but equally crucial to water management are several intangible aspects of Singapore's approach to water.

One is minimising leakage. Only 5 per cent of treated water in Singapore is lost through leakages – a figure bested by Tokyo but ahead of the United States and Hong Kong.

Some developing cities can lose as much as 60 per cent of their water through leaks, notes water expert Asit Biswas at the National University of Singapore's Lee Kuan Yew School of Public Policy.

Another not-so-visible reward of Singapore's meticulous water planning is that two-thirds of the country serves as a catchment area for drinking water supply, among the highest in the world.

Furthermore, the price of water enables not just the production and delivery of potable water, but also the treatment of sewage and industrial waste water so it can safely go back into the environment.

One fact not often appreciated is that Singapore has separate systems for drainage and sewage, a more efficient

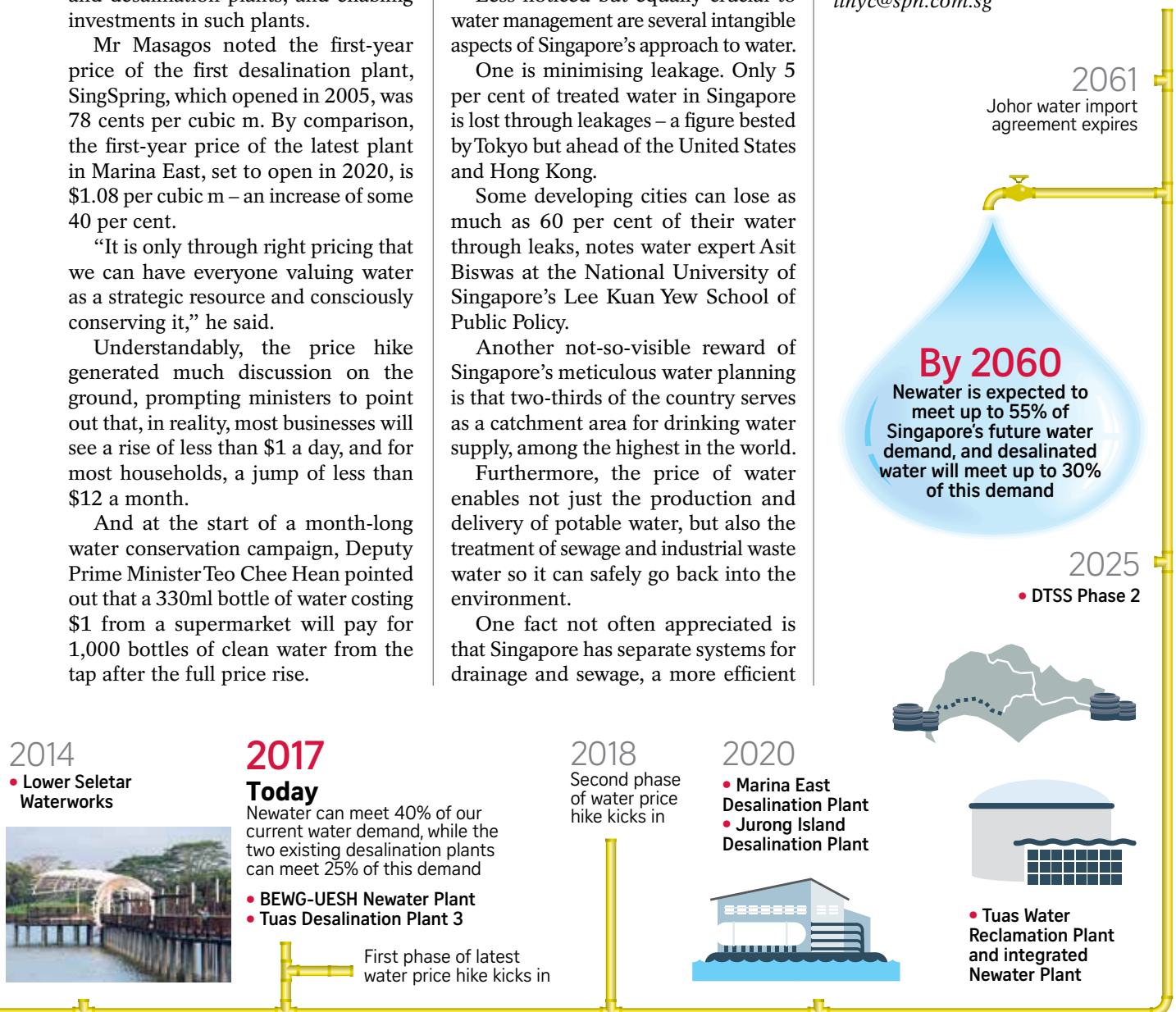
set-up than a system in which everything flows into sewage, such as in London.

PUB said sudden surges of water caused by stormwater flowing through a combined system will reduce the effectiveness of the microorganisms used for biological treatment in water reclamation plants.

A Deep Tunnel Sewerage System is also being built to collect, treat, reclaim and dispose of used water from industries, homes and businesses, that will feed into a water reclamation plant and Newater factory, and should be ready by 2025.

This determination to make every last drop of water matter has seen other countries wanting to learn from Singapore's experience, and spawned opportunities for home-grown water companies.

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SOURCE: PUB PHOTOS: ST FILE PHOTOS, BERITA HARIAN, LIANHE ZAOBAO, ISTOCKPHOTO STRAITS TIMES GRAPHICS: MARLONE RUBIO

Karamjit KaurSenior Aviation Correspondent
The Straits Times

Changi's Jewel shaping up well for sparkling start in 2019

Special glass facade, indoor waterfall among highlights of \$1.7 billion icon to boost airport's leading air hub status

The construction of a future Jewel at Changi has reached the halfway mark, putting the airport on track to build an icon that aims to make Singapore a more attractive air hub and destination.

When completed, Jewel Changi Airport will glitter with more than 9,600 pieces of glass, specially made in the United States, that will frame its facade.

At the site, in front of Terminal 1, work was in full swing when The Straits Times visited in March.

The facade and works inside will be completed by the fourth quarter of next year, in time for an early 2019 opening, said project head Ashith Alva. The five-storey, mainly commercial development with five basement floors will house about 300 shops and food and beverage outlets.

Highlights include a 40m indoor waterfall and a five-storey garden with about 2,500 trees and 100,000 shrubs from countries including Brazil, Australia, Thailand and the US.

Directly connected to T1, Jewel will be linked to the other two terminals via air-conditioned bridges with travelators.

At \$1.7 billion, the project is a considerable investment for Changi Airport Group, which owns 51 per cent of Jewel Changi Airport Development, with the remaining stake held by CapitaLand Mall Asia.



The Jewel at the Changi Airport under construction in March. PHOTO: ALPHONSUS CHERN

The airport, however, sees it as a necessary cost to stay ahead in the race for premier air hub status.

Ms Hung Jean, chief executive of Jewel Changi Airport Development, said: "A key vision for Jewel is to be a world-class lifestyle destination that will be a game changer for Changi Airport amid intensifying competition on the global airport landscape."

This will "significantly augment Changi Airport's status as a leading international air hub, drawing international travellers to Changi Airport and Singapore," she said.

While the jury is still out on whether Jewel will make Singapore a more attractive destination for visitors, or lure travellers who would otherwise have connected at other airports, experts agree it will please those who do come.

Singapore Management University's Assistant Professor Terence Fan, who specialises in transport issues, said Jewel should appeal to a growing number of transit travellers, who account for about a third of Changi's total traffic.

He said: "Passengers with two hours

or less between flights would normally stay within the sterile zone close to boarding gates while those with longer layovers, like more than 10 hours, are more likely to unwind and rest in a hotel.

"For those in between, the hassle of going into town may not be worth it, but they can also do some serious shopping and walking around.

"Jewel would be great to cater to this group of travellers, especially the elderly and those with young children who may not be so inclined to take a cab and walk about outside of a temperature-controlled environment."

It is important for an airport to set itself apart from its rivals and this is what Jewel aims to do, said Mr Ramanathan Mohandas, head of the diploma programme in aviation management at Republic Polytechnic.

"This investment in infrastructure and facilities is to offer a distinctive experience to the travelling public, which will help Changi stay ahead of the competition," he said.

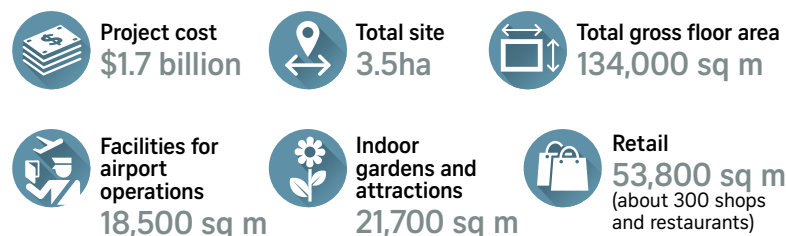
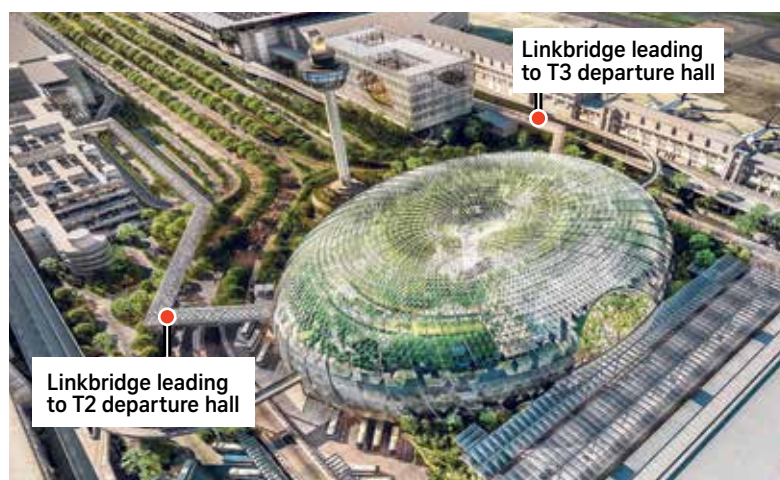
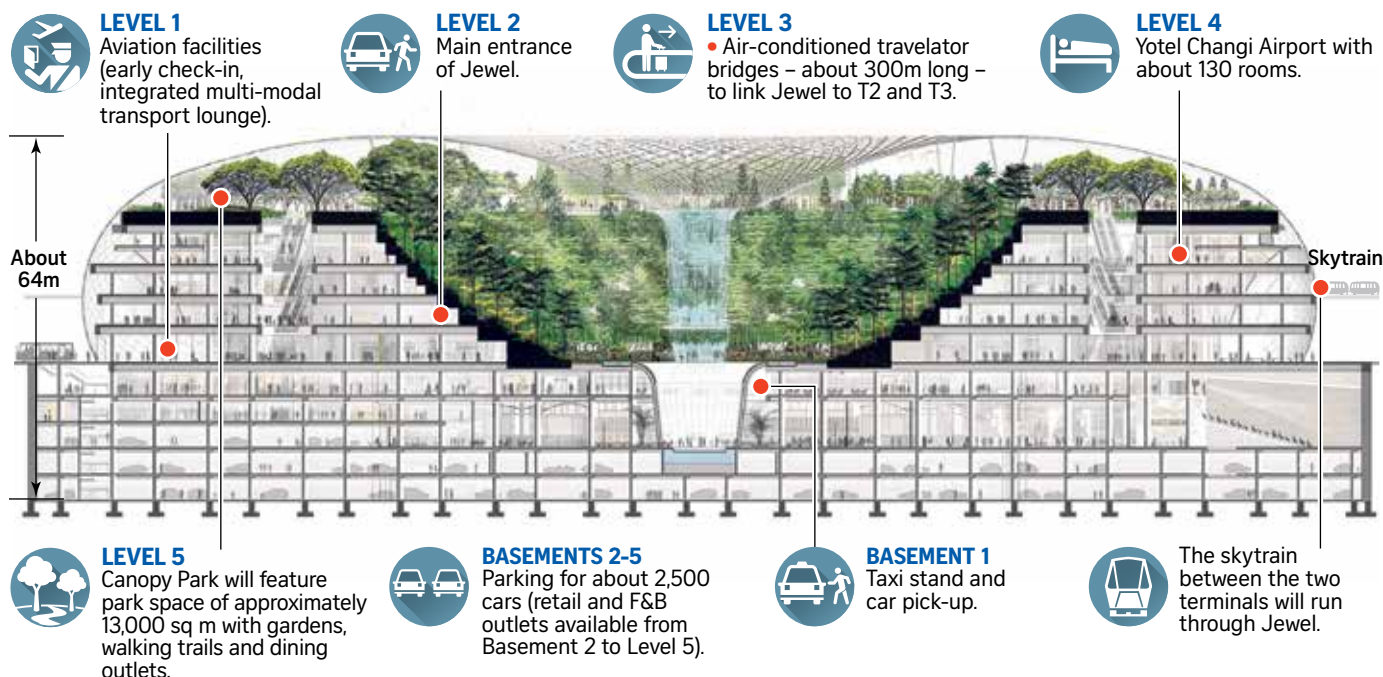
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Peering into Changi's Jewel

Jewel Changi Airport, a five-storey development with five basement floors, is on track to open in early 2019. Being built in front of Terminal 1, it will offer travellers a plethora of shopping and dining options and visual treats, including a 40m indoor waterfall. **Karamjit Kaur** and **Lim Yong** take a closer look.



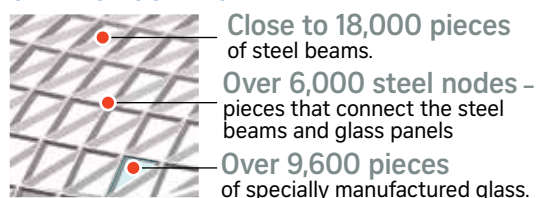
CROSS-SECTIONAL VIEW



UNIQUE FEATURES

- **Forest Valley**
A five-storey garden with about 2,500 trees and 100,000 shrubs from countries like Brazil, Australia, Thailand and America.
- **40m indoor waterfall**
Transforms into an enchanting light and sound show with special lighting effects in the evenings.

JEWEL'S ROOF FACADE



CONSTRUCTION TIMELINE

- **May 2013 to Oct 2014:** Design development and calling of tender
- **Oct 2014:** Award of main contractor
- **Dec 2014:** Groundbreaking and start of construction works
- **Oct 2016:** Completion of all structural works from basements 1 to 5
- **Fourth quarter 2018:** Construction works expected to be completed
- **Early 2019:** Opening

SOURCE AND ARTIST'S IMPRESSIONS: JEWEL CHANGI AIRPORT DEVELOPMENT STRAITS TIMES GRAPHICS

Tan Hui Yee

Regional Correspondent, The Straits Times



Thailand's unrecognised daughters of Buddhism



Female monks from Songdhammakalyani monastery blessing devotees after receiving alms from them. PHOTO: TAN HUI YEE

The country's monastic authority does not recognise female monks, even though they remain respected by many

The pleasantries are petering out as my taxi hurtles along the highway. My jocular driver quizzes me about the temple where I am headed. "It's a temple run by female monks," I tell him.

He pauses at this unfamiliar concept before asking: "Do they receive alms?"

Saffron-robed women are a curious entity in Buddhist-majority Thailand, where men are commonly ordained as

a rite of passage, and where villagers cook food to offer as alms each morning.

This is not so much because there are only about 100 female monks nationwide – compared with some 300,000 male monks. It is because officially, they do not exist.

Thailand's monastic authority, the Supreme Sangha Council, does not recognise bhikkunis, the term used for female monks. The male equivalent is bhikkhus.

It reasons that since monastic rules require women to be ordained by both bhikkunis and bhikkhus – and the lineage of bhikkunis under the orthodox Theravada branch of Buddhism practised in Thailand is extinct – ordaining a female monk is wrong.

"It is not that we don't recognise women's abilities. And it is not about human rights," Phra Methithammajarn,

a vice-rector at the monk-administered Mahachulalongkornrajavidyalaya University, tells The Straits Times. "It is about monastic discipline."

What this means is that while foreign bhikkunis ordained under the Mahayana branch of Buddhism common in China, Taiwan and Singapore are recognised as monastics in the kingdom, Thai bhikkunis are still referred to as "Miss" or "Mrs" in identification cards that bear photographs of them with shaven heads and donning monastic robes. Their temples do not enjoy tax-free status, and they do not receive financial support that the state gives to senior monks.

Officially, the closest women can get to monkhood in Thailand is by donning white robes, shaving their heads, vowing celibacy and living the life of an ascetic as a mae chee or lay nun. Like monks, mae chee cannot vote,

but they occupy a lower status and do not receive monastic benefits.

Yet the number of Thai bhikkunis – aided by Theravada ordinations carried out in Sri Lankan temples – has been growing. They are now scattered across provinces like Chiang Mai in the north, Yasothon in the north-east and Songkhla in the south.

Tensions came to the fore last December when a group of bhikkunis tried to pay their respects to the late King Bhumibol Adulyadej, whose body has been lying in Bangkok's Grand Palace since his death in October.

A palace official gave them the green light prior to their visit. When they arrived, they were confronted by another official who declared them "illegal" and suggested they swap their saffron robes for black mourners' attire to join the lay people's queue.

In response, an aide to the abbess of the temple involved, Songdhammakalyani monastery, lodged a petition with both the National Human Rights Commission as well as a state panel called the Committee on Unfair Gender Discrimination Complaints. Both agencies have yet to announce their findings.

Residents living near temples with bhikkunis have been far more welcoming.

On a Sunday morning at Songdhammakalyani monastery, about an hour's drive from Bangkok, the clang of a temple bell at the crack of dawn draws more than a dozen bhikkunis and female novices out into the prayer hall. Shortly after, three of them head out to nearby villages cradling alms bowls.



Dhammananda Bhikkuni, the abbess of the monastery, adjusting the position of one of her disciples during meditation practice. PHOTO: TAN HUI YEE



Female monk Ayya Visuddhi Yana and male monk Bhante Bodhinano. Female monks are a curious entity in Thailand as the Supreme Sangha Council does not recognise them. PHOTO: TAN HUI YEE

Their brisk pace is broken only when they spot people kneeling by the road with their palms joined in respect.

Songdhammakalyani's abbess, 72-year-old Dhammananda Bhikkuni, was the first Thai woman to receive a full Theravada ordination in Sri Lanka in 2003. During a religious lecture she conducts that Sunday morning, she relates how someone once likened her work to a "crack" on the "wall" of patriarchy.

"We all have to help, to be those small cracks on the wall... to make it collapse," she says.

"Then we can see the Buddha on the other side, with arms wide open, welcoming those daughters who are ordained."

Dhammananda Bhikkuni, who zips around the monastic compound on a three-wheeled electric scooter, says her all-female temple in Nakhon Pathom province is not really out to prove that women can do better. But it conducts what it calls socially engaged Buddhism, by reaching out to prison inmates, planting organic vegetables and running a drop-in centre for recyclable items.

While seeking recognition for female monks, Dhammananda Bhikkuni is wary about the kind of control the nation's

male monastic elders can exert over them should they decide to let women into their fold.

"That would be difficult," she says. "We don't want to get in there."

The more outspoken critics, such as former Bangkok Post editorial pages editor Sanitsuda Ekachai, have slammed the clergy for its "authoritarian and feudal system", where a steeply hierarchical order remains largely unaccountable despite temples receiving billions of baht in donations every year.

Recent headline-grabbing accounts of monks taking drugs, having sex and flying on private jets with luxury bags have done little to shore up the image of the clergy.

Women who take up the monkhood face not just opposition but confusion from friends and relatives. Samaneri Dhammarajata, 57, who became a novice at Songdhammakalyani last year, recalls being asked: "What do I call you after you are ordained? Mae chee?"

No one insulted her though. "They don't, because they don't know we exist," the former accountant says wryly.

Tan Keng Yao
For The Business Times



Luxury on wheels

Here are five train journeys that pamper you so much, you will not want to disembark.

A train ride can be a thrill for the experience of stunning scenery that rolls past your window. But sometimes, its allure goes beyond that. It can also be about the unparalleled service and luxuries that present themselves on the journey. Take a look at are some of the world's best luxury train rides that bring to life the romance of the rails.



Blue Train, South Africa

Nelson Mandela, Naomi Campbell and Margaret Thatcher have been guests on the Blue Train, among many other celebrities and heads of state.

And you, too, can travel like a dignitary on what has been billed as a five-star hotel on wheels.

The train plies a 1,600km route between Cape Town and Pretoria, trundling past craggy mountains and vast plains, which you can view from plush armchairs.

For more info, visit: www.bluetrain.co.za



Seven Stars, Kyushu, Japan

The Japanese know a thing or two about hospitality.

And a journey on this deluxe cruise train that trundles around Kyushu will allow you to experience what they call omotenashi, or service elevated to an art.

The suites in the train have been furnished by artisans in a fusion of Western and Japanese aesthetics. And most people would agree that the view from Deluxe Suite A at the end car is unparalleled.

For more info, visit: www.cruisetrain-sevenstars.jp/en



Maharajas' Express, India

For a train named after Indian monarchs, you expect nothing less than the full royal treatment. And that is what you get, starting with a choice of cabins that run from the deluxe to the presidential suite, which takes up an entire carriage and comes with two bedrooms, a living and dining room and an attached bathroom with bath tub. Personal butlers attend to your every need while meals can be had in its two restaurants.

For more info, visit: www.maharajas-express-india.com



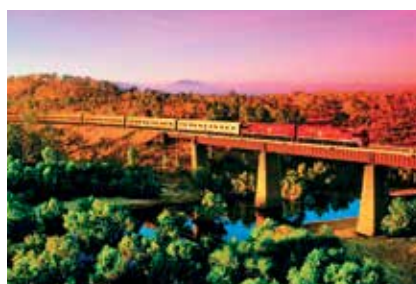
Eastern & Oriental Express, Singapore to Thailand

See Singapore, Malaysia and Thailand in a different way, through the picture windows of the Eastern & Oriental Express.

This train, which plies a route between Singapore and Bangkok, rolls past rural landscapes, bustling cities and gleaming pagodas. If you're feeling social, you can hang out in the colonial-style, teakwood Observation Car in the end carriage for sightseeing by day or a cocktail or two at night.

If not, retreat to your private cabin.

For more info, visit: www.belmond.com/eastern-and-oriental-express



The Ghan, Australia

Great Southern Rail's The Ghan runs 2,979km from Adelaide in the south of Australia to Darwin in the north, passing by Alice Springs, and taking passengers past a spectacular landscape that segues from pastoral lands to dry red desert to tropical greenery.

For more info, visit: www.greatsouthernrail.com.au/trains/the-ghan

PHOTOS: TOURISM NT, JR KYUSHU, MAHARAJAS' EXPRESS, SCRIPPS NETWORKS INTERACTIVE

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