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a **creative** deaf advocate



an **ambitious** hawkerpreneur



a **believing** mother



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Jewel Changi airport promises to redefine the airport experience as we reveal on Page 10 inside.
Photo by Mike Yamashita

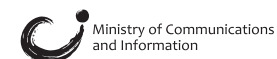
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This magazine was created by Singapore's Ministry of Communications and Information in commercial partnership with National Geographic.

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INTRODUCTION



As cities around the globe face new and constantly evolving challenges, we are seeing an unprecedented level of urban creativity and innovation - Singapore is a leader in the smart city arena. With storytelling at the heart everything we do, National Geographic is proud to support the Ministry of Communications and Information (MCI) in showcasing how Singapore is employing inventive approaches to prepare for the future and bring the smart city concept to life. Through this unique collaboration, we will connect our National Geographic audiences to Singapore's fascinating tale of reinvention in the digital age and urban renewal.

CON APOSTOLOPOULOS

VICE PRESIDENT & GENERAL MANAGER,
NATIONAL GEOGRAPHIC PARTNERS,
ASIA PACIFIC & MIDDLE EAST



Singapore is constantly reinventing itself, charting a new course forward amidst demographic shifts and technological change. This is our DNA. It is the challenge and opportunity of what the future holds that motivate us to create and innovate. Told through National Geographic's distinctive lens, this thoughtful collection of local stories brings new insights and perspectives that will inform, fascinate, and even intrigue. From Smart Nation projects to Singapore-grown strawberries - there is much to celebrate and learn from the passionate individuals who are making an indelible mark and helping to shape our future city and home.

S ISWARAN

MINISTER FOR
COMMUNICATIONS
AND INFORMATION



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The first handshake between President Donald Trump and Chairman Kim Jong Un before the start of the historic summit at Capella Hotel, Singapore.

SINGAPORE SUMMIT IS A SHOWPIECE OF OUR TIMES

One of the seminal geopolitical events of the year took place in Singapore back in June and all eyes were trained on the island nation. Under the glare of the global spotlight, the historic summit between President of the United States Donald Trump and Chairman of the State Affairs Commission of the Democratic People's Republic of Korea Kim Jong Un proceeded smoothly without a hitch.

Known for its efficiency, security and strong diplomatic ties, Singapore galvanised public and private agencies to assemble the logistics, security and communications infrastructure for the summit in a record two weeks.

Over the next few pages we share a pictorial journey of the historic Trump-Kim summit.



SOURCE: SINGAPORE POLICE FORCE

With security and safety of paramount importance, the nation was a ring of steel as patrols, road closures and security checks were conducted by Singapore's security forces. 7000 policemen and military officers were deployed to ensure that the summit ran safely and smoothly.



CREDIT: MINISTRY OF COMMUNICATIONS AND INFORMATION, SINGAPORE

Prime Minister Lee Hsien Loong separately hosted President Donald Trump and Chairman Kim Jong Un at the Istana, ahead of the summit.

RSS Persistence, a Landing Ship, Tank from the Republic of Singapore Navy patrolled the waters surrounding Sentosa, while AH-64D Apache Attack Helicopters from the Republic of Singapore Air Force swept the skies and the city below.



CREDIT: MINISTRY OF DEFENCE, SINGAPORE



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CREDIT: MINISTRY OF COMMUNICATIONS AND INFORMATION, SINGAPORE



CREDIT: MINISTRY OF COMMUNICATIONS AND INFORMATION, SINGAPORE

Singapore's hyper-connected communications infrastructure helped to facilitate instantaneous coverage to a world hungry for summit updates. Host broadcaster Mediacorp provided communications and broadcasting support around the clock during this period.

Transforming the F1 Pit Building into a functional space to host over 2500 journalists was a dazzling logistical achievement. The fully-equipped International Media Centre was created in a short span of time, replete with TV screens, charging stations, Wi-Fi, air conditioning and crosspoints.

DPRK-USA Singapore Summit^{SG}



SINGAPORE
PRIME MINISTER
LEE HSIEN LOONG
SPEAKS EXCLUSIVELY
WITH NATIONAL
GEOGRAPHIC
ABOUT THE ISLAND
NATION'S FUTURE

Mark Eggleton

PRIDE OF THE LION CITY

When Singapore's Prime Minister Lee Hsien Loong talks about his country he does so with an enormous sense of warmth. A warmth for his people and importantly, his and the Government's role as stewards of the future. Rather than suggesting the Government owns the present, he emphasises the importance of taking care of Singapore right now and ensuring it's handed on in good condition to future generations. It's this genuine affection for his whole country which immediately strikes you.

In the days preceding the interview, Lee had invited a National Geographic photographer to tag along on his engagements – including a visit to a newly-opened pre-school, a stroll in the city's Botanic Gardens, a walk around his constituency's hawker market, and even the home of one of his constituents. What was surprising was how each visit quickly turned into something more. Reason being is unlike many politicians who can look awkward with their constituents, Lee revelled in simply being out and about. Generous with his time and happy to take endless smartphone selfies, he chatted and laughed with a range of people and families.

On the day we meet in his private office at Istana, Lee is dressed casually and keen for a relatively informal chat. Outside, the serenity of the property's vast pristine gardens is only broken by the low thrum of a lawnmower. A green sanctuary in the heart of the city, Istana is the official Presidential Palace as well as the Prime Minister's office, and its sense of peace had made its way inside where Lee is in an avuncular mood.

PHOTOGRAPHS BY MIKE YAMASHITA

Sitting in his relatively austere office and responding to a remark that our interview might go slightly off-piste, Lee jokingly replies “we’re not very good skiers” before outlining why he is excited for Singapore’s future as a digital economy hub that continues to deliver outsize opportunities for its people. He is keen to point out that government is a team and while he can give orders nothing can happen “unless I’ve got teamwork”, which includes Government ministers as well as the civil service and the private sector.

What excites him the most is while Singapore is still a young country of just over 50 years of age, “we have the resources, the people trained and the organisation, to plan our next 50 years, and remake Singapore substantially. Not all of it but step-by-step we can remake the economy, the whole (economic) landscape, the way we invest in our people and I hope our standing in the world. That’s a big job. I’m 66 but my successors, they will have to carry it forward.”

The Lion City is already well on its way to transforming itself into a thriving digital economy as it already has some of the most advanced digital infrastructure in the world. Government services are all migrating online and Lee says there is a huge focus on ensuring the whole population understands the opportunities afforded by the digital economy.

“IT DOESN’T MEAN
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AND SO YOU PRODUCE
SOMETHING SPECIAL.”

LEE HSIEN LOONG

GOING (DIGITAL) NATIVE

“The young ones, they call them digital natives whereas old ones like me, we’re immigrants. There’s a lot we can do to make the internet easy and convenient for old people to use and we have all sorts of classes for them,” Lee says.

Ensuring every generation is catered for starts back in primary school classrooms where the first four years of schooling focus on English, mother tongue, maths and science and the nature of STEM (science, technology, engineering and mathematics) learning is given top priority. For Lee, who was the top mathematics undergraduate during his time at England’s University of Cambridge, STEM skills are the key to the future and they’re actively encouraged in tertiary education.

“You don’t have to become a master programmer, but you must at least have an idea of how computers and programming works. Then it doesn’t look like sheer magic to you and you will not be totally terrified by it when you are in a position of responsibility and you’ve got to make decisions.”

Bearing in mind how the global economy is changing, Lee remains optimistic for the global economy and especially for Singapore, where he believes people will be able to adjust as automation and artificial intelligence fundamentally change the nature of work. He suggests Singapore’s value proposition is its geography and it can do quite a lot of things well and perhaps sufficiently better than elsewhere, such as being a financial services and data hub for the region as well as providing a strong regulatory and legal framework for business.

“In medical services, we have patients who come here from all over the region as well as from longer distances such as Russia. I think if you are a first world-city with that concentration of talent, services and quality of life, people will want to live and work here.”

As for Singapore’s ever-evolving physical transformation, Lee speaks of moving the current military airbase at Paya Lebar in the central-eastern part of Singapore to Changi - freeing up an enormous amount of land for reuse and development.



Throughout the interview, Prime Minister Lee Hsien Loong emphasised the importance of investing in the future generation.

“You can redevelop that land as a new township but most importantly all the surrounding areas, which is maybe one third of the island, has been developed in a height-constrained way. Take the airbase out and you have completely different possibilities.”

Lee also spoke of the current process of moving the port at Tanjong Pagar to the Tuas mega-port on the western edge of Singapore, which will free up “really prime land right in the middle of the city. It’s another opportunity for two-plus Marina Bays worth of redevelopment.”

CHALLENGE AND OPPORTUNITY

Beyond Singapore, Lee speaks of the country’s role as ASEAN Chair this year and the two ideas chosen as themes for the chairmanship - Resilience and Innovation. Both underline the opportunities and challenges countries in the region need to confront in a globalised digital economy. Lee says resilience means dealing with shocks and problems and dangers, while innovation means looking for new opportunities to work together and to grow.

“On resilience, we’re talking about things like disaster relief and cybersecurity co-operation while on innovation, we’re talking about a smart cities network. We have 26 smart cities signed up and we hope we can work together. We are chairman for a year, it’s a rotating chairmanship. It doesn’t mean we are the commander-in-chief, we are just the co-ordinator for this year. What it means is we have to work together to make ASEAN relevant in the world. Work together economically and work together when it comes to political and strategic issues.”

Lee is a great believer in a networked future where nations work collaboratively and he envisions a world where talent connects globally.

“There are any number of cities in Asia which have three or four million people in them; probably dozens, many dozens. Why are we different? It’s because of the way we have been able to make our people work together and to make the system work. It doesn’t mean we’re smarter than other people, I think we work as hard as others but we work together more effectively and so you produce something special.”



Dome-estic flight of fancy

Jonathan Porter

PHOTO: MIKE YAMASHITA

The world's tallest indoor waterfall, hiking trails and play attractions set in wilderness, all under one iconic dome. These are just some of the features that will keep Singapore's award-winning Changi Airport at the forefront of design and innovation for many years to come.

Then there are shops – including luxury retailers – as well as restaurants and bars overlooking an incredible indoor vista.

Ms Hung Jean, CEO of Jewel Changi Airport Development says the SGD1.7 billion leviathan is a response to the changing tastes of travellers.

"We are observing a trend where more and more travellers are spending less time in major cities and are instead, exploring less-discovered destinations," Hung says.

"This makes the role of air hubs even more important in their travel journeys as these savvy travellers prefer to book their own flights and choose the airports they wish to transfer to and transit through.

"With Jewel well-positioned as a lifestyle destination uniquely fashioned with luscious landscaping to mirror Singapore's reputation as a 'City in the Garden', and together with a slew of play attractions, this makes Changi Airport a compelling destination that can fill travellers' needs for an experiential journey, even if they

are only here for a transfer or transit."

Designed by world-renowned architect Moshe Safdie, "Jewel is a juxtaposition of a park and a marketplace, welcoming all to gather," says Hung.

Put simply: Jewel is an eclectic mix of one-of-a-kind play attractions, unique shopping and dining experiences, accommodation and aviation facilities that appeal to the needs of both locals and travellers.

Jewel's unique design features the majestic Rain Vortex in the middle of the complex with the Forest Valley wrapped around it. At 40m high, it will be the world's tallest indoor waterfall. The Forest Valley will house one of the largest indoor collections of trees, plants, ferns and shrubs in Singapore – with about 22,000sqm of space dedicated to landscaping throughout the complex.

In addition, the top level of Jewel will feature park space of approximately 14,000sqm, comprising gardens, walking trails, play attractions and dining outlets. Canopy Park, designed by a team of artistes from all around the world, will cater to both the young and young at heart. Three iconic play attractions - Sky Nets, Canopy Mazes and Discovery Slides will take pride of place at Canopy Park and provide an element of interactivity to the overall offerings.

The Singapore Passion Made Possible brand celebrates the exceptionalism of the island state of Singapore by encapsulating the country's spirit of Passion Made Possible - a place where people with vision and drive harness an infinite resource of ingenuity to generate possibilities in bringing about meaningful change.

The new branding involves the efforts of three agencies - the Singapore Tourism Board, Economic Development Board, and the Ministry of Communications and Information and it presents the nation through the lens of its people's spirit of determination, ambition, optimism, resourcefulness and down-to-earth nature. Be it advocacy for wildlife conservation in developed Singapore, honing an independent streak to carve out a successful career, or being the World's Fastest Flyer, these Singaporeans celebrate the essence of Singapore's DNA, never settling and always aiming for the best. A small city state driven by its people's sheer passion to make things happen.

STEPPING OUTSIDE THE BOX

Keshia Hannam

EMBRACING WILD SINGAPORE

"You can spend five lifetimes exploring nature, and there would still be more to learn." Subaraj Rajathurai is a self-taught naturalist and veteran wildlife consultant who has spent the

Subaraj Rajathurai says you can spend five lifetimes exploring nature, and there would still be more to learn.

PHOTO: MATTHIAS CHING



Singapore has influenced much of Mark Ong's design and method in a career which has seen him create work for industry behemoths such as Nike and Casio.

PHOTO: MATTHIAS CHING

last 35 years campaigning quietly behind the scenes to preserve some of Singapore's most loved ecosystems. His life's work has saved Sungei Buloh—a mangrove forest which was slated for redevelopment (a victory that marked the first time a civil society group successfully lobbied the Government) – and 123.8 hectares of forest at Lower Peirce Reservoir in the early 1990s. He believes Singapore is the gateway to Asia, as much as “it is that gateway for nature”.

As Singapore's first ever eco-tourism guide, any green part of the city is familiar to Subaraj.

He can assess precisely what lives there, whether it's an animal, plant, or otherwise. Subaraj often conducts eco-tours of Sungei Buloh, an 87-hectare wetland and stopover for migratory birds. “You become responsible for nature the moment you visit it,” he says.

The self-taught naturalist had a modest formal education, but comes from a family of teachers, and consequently believes education and public awareness are crucial factors in the efforts of conservation. He uses his nature walks as a method by which to garner the support of those he shows the beauty of natural habitat to, turning attendees into sympathisers, advocates and activists for the cause of conservation.

INDEPENDENT STYLE

“Growing up in the 1980s, everybody wanted to be a lawyer or a doctor, but I've always had an anti-establishment attitude. Skateboarding taught me how to think independently,” says sneaker artist, Mark Ong.

Ong, who goes by artist name SBTG, is a well-known name in sneaker customising circles. Known for his military-inspired designs and intricate, complex work on iconic sneakers like the Nike Air Force 1, Air Huarache and others, the Singaporean artist channels his rebel spirit into customisations and designs that have become famous around the world.

Doing Singapore proud for over a decade, Mark has customised shoes for celebrities like basketball player Kobe Bryant and nu-metal group Linkin Park's Mike Shinoda, and created commission designs for industry behemoths like Nike, Casio and GelaSkins.

His home of Singapore has influenced much of the design and method, including places like Padang, where he'd go skateboarding in his youth. Mark says he was taught many tough lessons while learning to skateboard, which he translates into his passion for design.

“Skateboarding is a brutal teacher,” he says. “To land a trick, you first learn how to fall.”

Mark's resolve to carve his own path resulted in a shirking of societal expectations, and subsequently, the artist has become a beacon who turned his passion into a successful career.

WIND RIDER

In 2017 – at age 15 – Kyra Poh won a gold medal at the indoor skydiving World Cup, and scored another two gold medals at the Wind Games 2017, earning the title of World's Fastest Flyer. “My dream was to become an astronaut, because I thought that was the only way I could fly. There's no end to what you can learn with indoor skydiving. It's like a combination of many sports,” she says.

Kyra started indoor skydiving by accident, when she was recruited for an advertisement for indoor skydiving facility iFly in Singapore, who needed a child to appear in their marketing

material. Now she rides winds that get up to 230km/h, at least five times a week, and holds the record for most number of backward somersaults done in a wind tunnel (68).

Kyra hopes that she can take on more opportunities and experience the full-breadth of skydiving: “My dream is to be able to travel to all the different tunnels around the world. There are over 100 of them!” Though indoor skydiving is a new sport, the thrill-seeking teenager sees it as her lifelong passion and hopes to become a professional athlete, bringing to life the dreams she had as a young girl who would draw pictures of herself flying over Singapore.



“MY DREAM WAS TO BECOME AN ASTRONAUT, BECAUSE I THOUGHT THAT WAS THE ONLY WAY I COULD FLY.”

KYRA POH

PHOTO: LAURI AAPRO

HDB's focus has evolved over the years from providing basic shelter to now providing quality total living environments in vibrant and sustainable communities.



SOURCE: HOUSING AND DEVELOPMENT BOARD

Jonathan Porter

LIVING LABORATORIES

Walkable self-contained neighbourhoods, solar panels, rainwater harvesting, pneumatic waste disposal systems, cycle-only zones and vertical greenery on buildings to reduce heat signatures.

These are just some of the “new generation” of smart, green initiatives intended to build on and enhance the Housing and Development Board’s mission to create a quality living environment for all Singaporeans.

HDB CEO Dr Cheong Koon Hean says the Board has identified four “living laboratories” to test smart innovation and design - the existing estates at Yuhua and Teck Ghee, and greenfield sites at Punggol (the sustainable Waterfront Town in the Tropics) and Tengah - the Evergreen Forest Town.

“Using existing estates with live-in residents allows for immediate test-bedding and real-time feedback from residents,” she says.

This will enable improvements to urban solutions and applications before these solutions are rolled out on a wider scale to retrofit other existing HDB estates and towns in Singapore.

HDB’s mission has evolved over the years. In the early years, HDB’s focus was on providing basic shelter to all Singaporeans. More than five decades on, HDB’s focus has evolved to providing a quality total living environment in a vibrant and sustainable community. The new vision includes planning for artificial intelligence, self-drive buses, an ageing population and more people tele-commuting, or working from home.

“Our HDB towns will continue to be at the heart of Singapore living. HDB has a huge task to develop and maintain an environment that will enable our people to live comfortably and to build families and friendships.”



PHOTOGRAPHY BY
JAYAPRAKASH JOGHEE BOJAN

DIGITAL FARMING

SINGAPORE IS LEADING THE WORLD IN HYDROPONIC FARMING - AND SHOWING THE WAY TO A SUSTAINABLE FUTURE

Mark Eggleton

“You’re entering into Sustenir airspace,” the Chief Executive Officer of Sustenir Agriculture Benjamin Swan says, as we enter the company’s facility in Singapore’s Sembawang district.

“The haze and pollution from outside does not come into our rooms. What we have here is a completely controlled environment where we control all the facets of growth. Everything from the macro and micro-nutrients in the water, all the way to the environmental factors like the light duration, the wavelength of light, even the air temperature and humidity. We’re trying to take farming from an analogue world to a digital one,” Swan says.

From a very quiet beginning in August 2012, the initial idea of Sustenir Agriculture was born. Fast forward to 2018, and the company is producing 100 per cent clean produce of the highest quality, farmed with modern hydroponic methods and the latest technology.

Technology similar to facial recognition cameras detect growth throughout a plant’s life cycle, or the precision delivery of nutrients to plants growing in a clean, controlled indoor environment. Yet this isn’t about genetically modifying a plant’s natural growth or growing

vegetables from genetically modified seed stock. According to Swan, it’s all about changing the macro and micro nutrients such as the calcium and potassium in the water, as well as the light, humidity and air temperature within the room.

And the proof is in the tasting. A cherry tomato pops in your mouth and a gorgeously sweet flavour wash over your tastebuds. Swan says they’re so sweet, they could be marketed as children’s lollies. One variety of arugula finishes with the tang and spice of wasabi. Kale crunches with freshness and is filled with flavour. It’s actually what kale is supposed to taste like, rather than the often bland and soft product you’ll find in many supermarkets.

USING TECHNOLOGY TO GROW MORE WITH LESS

Importantly, it’s homegrown in Singapore - a country currently importing over 90 per cent of its food, according to the nation’s Agri-food and Veterinary Authority (AVA). Given that overseas food supply can be disrupted from time to time, local farms are a key part of Singapore’s food security. Local food production serves as a buffer against

supply disruption. In 2017, 13 per cent of the country's leafy vegetables consumption, 10 per cent of the fish consumption, and over a quarter of the nation's egg consumption were produced locally.

With many competing uses for land in Singapore, it is essential that local farmers optimise production and intensify land use. They're assisted by the AVA who support farmers in Singapore through building capability, technical support, strategic R&D collaborations and technology transfer. For example, the authority organises technology-sourcing trips for farmers to learn from other countries such as Israel, the Netherlands, China and Japan. It also facilitates technology-matching sessions where farmers can meet solution providers and technology developers.

Farmers can also tap into funding provided by AVA to further expand and streamline their operations. AVA's \$63 million Agriculture Productivity Fund (APF) co-funds investments in basic equipment, transformative farming systems, technology test-beds and research and development.

This level of support, in many ways, drives the success of companies like Sustenir and other sustainable farming projects such as Apollo Aquaculture Group's land-based vertical farm project.

As for Sustenir's future, Swan wants to help outdoor farmers integrate smart technologies into their land footprints, especially in countries where good land is at a premium. It's about getting them into hydroponics (where suitable) because "we know that with hydroponics, we can bring the plants a lot closer together - meaning we increase the yield per square foot compared to traditional outdoor farming".

A BETTER WAY TO FEED THE PLANET

Swan points out hydroponics isn't a magic bullet; the key is more about using technology and big data to ensure farmers are getting the best results out of their crops in real time. It's about precision farming and applying resources, whether they be pesticides or

fertilisers, in a more efficient and sustainable manner. "We know we're killing the planet through traditional farming, but it's a necessary evil if we want to feed ourselves. What we can do, is do it in a better way."

One way to boost food supply is by having vertical farms in multiple locations around a city growing all manner of produce, especially in urban environments with limited access to local produce or nearby arable land, such as in the United Arab Emirates. For Sustenir, another innovative way is the idea of diversifying its product range and utilising already popular products such as kale in different ways.

"We're working with market influencers across the world in places like New York and

Vertical farming is taking traditional agriculture from an analogue to a digital world and it's assisting local producers to bolster productivity.



Hong Kong, and finding products that are coming on trend as well as pharmaceutical goods, such as creating kale powder products with properties that help to fight cancer. We're already working with some of the universities here and looking to extract the enzymes that we can support cancer patients with. Now the next step is looking at other products that we can bring to the table.

"The sky is the limit. We can grow pretty much anything. We're even looking into growing wine grapes. Obviously, longer lifecycle products are more difficult to grow, such as an apple tree, which will take two or three years before it starts to bear fruit. But we could do the initial germination and cultivation of those products up to the point where you transfer them to a farm."

"WE EXIST TO
ENSURE THAT
SINGAPORE
WILL NEVER
GO THIRSTY."

NG JOO HEE,
CHIEF EXECUTIVE,
PUBLIC UTILITIES BOARD



NEED FOR WATER SECURITY CRYSTAL CLEAR

Mark Eggleton

The gentle splash of a lone kayaker scudding across the water breaks the silence in the dim, dawn light on MacRitchie Reservoir in Singapore. A few metres away, a family of long-tailed macaques descend from the trees before loping past, as the early morning mist rises off the water. To my right, a group of 20 people silently go about their daily Tai Chi ritual.

Surrounded by lush jungle, MacRitchie Reservoir was opened in 1868 and is the oldest of Singapore's 17 reservoirs. What makes it doubly interesting is it heralded the beginning of Singapore's extraordinary story to secure its own water supply. A story which really took off when Singapore's first Prime Minister, the late Lee Kuan Yew, recognised from day one that water security was the key to the nation's survival.

He once stated that: "Water dominated every other policy. Every other policy had to bend at the knees for water survival."

Singapore might sit on the equator and get plenty of rain, but it's a tiny and crowded place and severely water-stressed. In a 2015 report by the US-based World Resources Institute, Singapore was ranked, among 167 countries, the one most likely to experience high water stress, alongside Bahrain, Kuwait, Qatar, San Marino, the United Arab Emirates and the Palestinian Territories. According to the Chief Executive of Singapore's national water agency, the Public Utilities Board (PUB), Ng Joo Hee, "water is an existential issue for this country - a matter of life and death."

Lee Kuan Yew initially challenged the PUB to collect every drop of rain that falls on Singapore. That led to a massive cleaning up of its polluted waterways in order to turn them into water catchments. The most polluted of these were the Singapore River and the Kallang Basin. In 1977, when Lee ordered the clean-up of the Singapore River, he said: "It should be a way of life to keep the water clean ... In 10 years let us have fishing ... It can be done."

He was right. Since the completion of the Marina Barrage in 2008, the once filthy Singapore River has been transformed into

a source of drinking water for Singapore, as well as a business and lifestyle hub running through the heart of the city.

"The Singapore River, together with the Kallang River, now form the Marina Reservoir. It is Singapore's 15th reservoir and holds 10 per cent of our fresh water," Ng says.

Yet while two-thirds of Singapore is water catchment and stormwater flows into Marina Bay and MacRitchie Reservoir, the country still needs other sources of water, especially as industry and commerce grow and the population increases. By 2060, total water demand is expected to double, just as the country's 99-year water agreement with Malaysia expires. Taking this into account, the PUB works tirelessly to secure the country's water future, beyond being at the whim of nature.

To this end, three distinct strategies have been adopted to ensure supply.

"First of all, we have to maximise our own yield. We strive to collect every drop of rain that falls here. This means turning as much of Singapore as possible into a water catchment, and keeping our drains, canals and waterways pristine. Second, we have to think of water as an endlessly reusable resource. Water can always be reclaimed and re-treated so that it can be drunk again. Today, we are able to turn wastewater into sweet water again. We reclaim every drop of sewage and turn much of it into drinking water," Ng says.

The recycled water known as NEWater has been manufactured on an industrial scale for nearly 15 years, and the PUB's NEWater capacity is enough to supply about 40 per cent of Singapore's daily demand.

"Thirdly, because Singapore is surrounded by sea, we turn seawater into drinking water, and we continue to research desalination technologies to find less expensive ways of de-salting water." Currently, desalination is able to meet up to 25 per cent of Singapore's water demand.

For Ng, the reason for PUB's existence is "crystal clear". "We exist to ensure that Singapore will never go thirsty."

Jobtech
co-founder
Charlotte
Lim says
government
support
promotes an
entrepreneurial
culture

SMART NATION ENCOURAGES INNOVATION

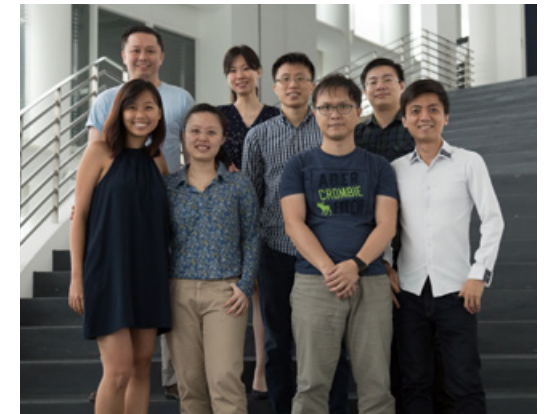
James Dunn

The concept for dating business Lunch Actually came to founder Violet Lim while she was working at Citibank. “In banking, I was surprised to see that many of my colleagues were single and not dating. I found that rather curious, since most of them were eligible and attractive. I decided to dig deeper, and realised that like many other busy professionals and executives in Singapore, they were all busy and virtually ‘married’ to their jobs.”

Yet it wasn’t until a work assignment abroad that Lim chanced upon the concept of lunch dating. “I could immediately see the potential of this business due to my interactions with my single colleagues. Lunch is ‘short, sweet and simple’ – long enough for you to get to know someone, yet it was not too long that it would become awkward. I noticed that my banker friends, no matter how late they work, would make time for lunch. So rather than always eating with people whom you already know, why not lunch with someone whom you do not know, and who knows, something might come out of it!” she says.

The result was Lunch Actually, which she and her husband launched in 2004, based on data analytics, an in-house personality-matching algorithm and more recently, machine learning to enhance the matching process.

Lim says she was “blessed” to have started her business in Singapore because it is a great place for entrepreneurs. “The government encourages entrepreneurs to start businesses here, offering many grants and tax deduction options (such as StartUpSG and the Angel Investors Tax Deduction scheme), and we tapped into other government startup and tech grants. Local start-ups have a good support system to start and expand their business,” she says.



For Charlotte Lim, there is a stark – and compelling – reason why Singapore has always been a place where entrepreneurship has been encouraged. The co-founder of job-matching platform JobTech adds that it’s been “driven by the need for economic survival against a backdrop of limited resources”.

Now, in the 21st century, the city-state backs entrepreneurs in a variety of ways, seeing them as potentially vital tools to meet the future needs of the economy, to create high-value jobs and even to meet the country’s social needs.

Under its Smart Nation efforts, Singapore deploys a range of initiatives designed to encourage innovation. This involves building an ecosystem around start-ups, which entails government funding schemes, university incubation programs, venture capital funding, accelerator and mentoring schemes and public-sector procurement practices, as well as providing the telecommunications infrastructure to enable business.

And the combination works. “Having an environment that supports the rapid development and deployment of technologies

and products, with ongoing refinement to solve real-life problems at scale, is the key to promoting a successful entrepreneurial culture,” says Lim.

“Smart Nation is a multi-agency, whole-of-nation effort that enables the infrastructure – such as access to financing, conducive business regulations, facilities that support pilot testing etc – to drive that. For example, there are programs for various parties to come together to develop ideas and proof-of-concepts to address specific business problems,” she says.

DEEP NEURAL NETWORK

Charlotte Lim co-founded JobTech in 2016, with artificial intelligence (AI) researcher Ang Wee Tiong. “We met at a tech networking event in 2016, at a time when the unemployment rate in Singapore was at an all-time high since the global financial crisis. We thought it would be meaningful to use Wee Tiong’s AI expertise to connect people and jobs more efficiently, and to help people keep pace with the changing needs of industries. We started JobTech to do that.”

The platform uses AI to build a “dynamic skills map” from more than 150 million online job listings, that automatically clusters skills to show where and how well they connect, and the combination of skills necessary for a job, says Charlotte Lim.

“This helps us to provide precise matching of job requirements and talent profiles at scale, and to monitor fast growing and new, emerging skills. The skills map continues to grow as millions of online job postings are fed through our deep neural network every week.”

Both (unrelated) women drew on plenty of government assistance. As a business driven by AI and data analytics, Charlotte Lim says JobTech benefited from an initiative by AI Singapore – Singapore’s national AI program – that funds deep-tech AI-driven projects.

“The project involves the development of a platform to help university students and graduates select course modules that would equip them with the skillsets necessary for their aspired career pathways based on industry demand. This initiative also gives us access to young, promising AI talents,” she says.

LIFELONG ADVISER OF LOVE

Lunch Actually has established a strategic partnership with AI Singapore, which is assisting it in AI-driven “personality matching,” says Violet Lim.

Lunch Actually reached out to AI Singapore when it was developing its recently launched Viola.AI, which is billed as the world’s first blockchain-powered relationship registry and “Love AI”. Violet describes Viola.AI as an AI-engine that can perform deep learning about each user’s personality, background, and behaviour, to become a “lifelong love adviser”.

“We reached out to AI Singapore for potential collaboration for this innovation in the dating and relationship industry very early on when we started working on Viola.AI. At that time, AI Singapore was newly set up,” Violet says.

“We were the first company to showcase an idea to the management team of AI Singapore, and they have been very supportive of our project. We are pleased that the collaboration is confirmed and we will be collaborating with AI Singapore and Singapore Management University to focus on creating a robust AI matching engine that leverages on our existing matching model, huge database and domain knowledge in the matchmaking service,” she says.

As a matchmaking business, Lunch Actually is accredited by the Social Development Network (SDN), under the Ministry of Social and Family Development. SDN works to foster opportunities for singles to interact in social settings and form meaningful relationships, with the ultimate aim of starting new families.

“Under SDN, there is a grant for dating agencies called the Partner Connection Fund (PCF) that supports promising dating-related projects,” says Violet Lim. “We have benefited under this grant to develop and enhance our dating products. Being an SDN-Trust Accredited dating agency helps boost the level of trust and credibility of our agency,” she says.

While it may seem uncommon for a government to support dating services, it is in line with how Singapore wants to use all the tools available to it to drive better economic, career and social outcomes for its citizens.

Jeremy Heng emphasises the importance of maintaining Singapore’s systems security in a hyper-connected world.

ETERNAL VIGILANCE IS THE PRICE OF CYBERSECURITY

If information is the lifeblood of a modern economy, then cybersecurity in hyperconnected Singapore is verily its immune system.

The vulnerabilities are real. During the Trump-Kim Singapore Summit on 12 June, Singapore was the world’s top cyber-attack target, with the country experiencing close to 40,000 attacks according to data collected by technology companies.

No one is more acutely aware of this than NUS undergraduate Jeremy Heng – the first student to receive an Award (Student Category) under the Cybersecurity Awards from the Association of Information Security Professionals (AISP), supported by the Cyber Security Agency of Singapore (CSA) and seven other associations.

The delivery of essential services such as utilities, transport, healthcare as well as banking and finance rely on critical information infrastructure. Singapore is no exception, says Heng.

“Given its position as a hub for finance, aviation, and trade, Singapore is hyperconnected to the rest of the world. An attack on Singapore will not stop at our borders but will spill over on

to systems beyond our shores. Maintaining the availability and integrity of these systems should be a major focus lest an attack disrupts our lives and our economy for the worse.”

Heng, who is pursuing a Bachelors of Computing, Information Security at the National University of Singapore, with an emphasis on information security, is also Vice-President of the campus “Greyhats”, a group that focuses on information security.

“We run Security Wednesdays, an open-to-all talk series in which technical speakers from industry and academia share their work and research. The group also conducts workshops on offensive techniques in web and systems security,” says Heng, who is interning at Apple in San Francisco as a Software Security Engineer. He has also interned several times with the DSO National Labs in Singapore, a national defence research agency.

Cybersecurity is also an enabler to Singapore’s Smart Nation ambitions, he says. Because technology is only useful when it is secure and can be trusted.



Come to your senses in Kampong Glam

Ky Chow

Clicks to bricks in the Amazon age

IBRAHIM TAHIR,
WARDAH BOOKSTORE

Wardah Books stocks over 3000 titles for Muslim readers, with a focus on Sufism, Islamic history and philosophy. Yet Malay owner Ibrahim Tahir's passion for reading came from a quite different source.

"The Three Investigators!" Tahir grins, recalling the American juvenile detective series of three Californian teenagers, *The adventures of Jupiter, Peter and Bob*. His tastes then evolved to science-fiction icon Isaac Asimov, though it was the plethora of Islamic books around the family home that gave Tahir an idea.

In 2002, Tahir and his wife decided to open a physical bookstore in what Tahir laughingly calls "a moment of madness". At the time, the shop relied on manual bookkeeping and Yahoo Groups to email customers.

Now with three full-time staff and around 300 monthly book sales, the business has been transformed since 2014 after adapting Vend, a New Zealand-based cloud-based retail management software. "I can do work from my laptop at midnight, including seeing sales from four years ago" Tahir says.

The bookstore also uses Shopify, an inventory management software package. Barcode scanning has also all but eradicated mistakes, including one painful instance in the store's early days when a \$91 book was accidentally sold for \$19 because of human error. Two years ago, Tahir started using Instagram. "That sort of exploded," he says of the photo-driven social media network, where the bookstore has over 9000 followers. "The level of engagement is much higher than for Facebook. People ask questions, they reserve books."

Tahir was surprised to see photos of his staff were often more popular than snaps of even their most popular books. Once his millennial daughter knew Tahir had been waiting for an eagerly anticipated book, "so she just used her phone to record me opening the box". The video now has over 3000 views on Instagram.

Kampong Glam could be described as the Malay or Arab quarter of the Lion City, but either moniker belies the colourful neighbourhood's diversity.

"You find Chinese, Indians and Europeans here," says local retailer Saeid Labbafi. "Actually, there are more Indians here than Arabs!"

The textile merchant says that ethnic mix distinguishes Kampong Glam - or Kampong Gelam - from other culturally focused neighbourhoods such as Chinatown and Little India. Yet while the area is a melting pot that reflects the diversity of Singapore itself, Kampong Glam is clearly one of the most important cultural and spiritual centres of Islam in Singapore.

The district is dominated by the onion shaped golden domes of the Masjid Sultan (Sultan Mosque). The almost 200-year-old site of worship for the city's Muslims also welcomes visitors, a metaphor for how Kampong Glam beckons an increasing number of visitors. Taking the lead, the merchants of its vividly painted stores are bursting with intricately designed handicrafts such as lamps, handmade carpets and ceramics.

PHOTO: MIKE YAMASHITA

“People on social media want the experience of a bookstore,” says Tahir. Such discoveries are why Tahir is still optimistic about the future for a bricks and mortar bookshop, even in the Amazon age.

While only 10 per cent of Wardah’s sales are online, Tahir says many customers are “webrooming”, where they initially browse books online but come into the store to buy. It’s a pleasant reversal of the widespread “showrooming” phenomenon that often hurts physical stores, where customers may browse or try a product in store, but then go home and order the item online.

“Maybe five years ago, the people in my industry were all doom and gloom,” says Tahir. “They were all pessimistic about the outlook for physical bookstores. But now people are realising we are still needed. They still need to come into a bookstore to discover.”

Digital champion

SAEID LABBAFI, SUFI TRADING

Hearing Saeid Labbafi’s passion for traditional art and the manual labour that has gone into the Persian carpets sold in his store, Sufi Trading, he may initially seem an unlikely champion of digitalisation.

“Every knot of this carpet is a different colour”, says Labbafi, gazing at one of his

favourite pieces. “So much passion is required to produce a piece like this. It takes at least two or three years - the weaving process alone is two years.”

Back home in Iran, Labbafi was awed at a young age at how such intricate designs could be achieved with merely a comb and a cutter as tools, and with equally basic raw materials.

Today a Singapore permanent resident who holds dual Iranian-US citizenship, Labbafi treats Sufi Trading not only a store, but as a place of education - hosting workshops on how such carpets are constructed.

He is sceptical of technology’s ability to match Persian artisans. “The feeling and expression is not there compared to handmade carpets” he says of machine-made Persian carpets. “You can’t taste it.” Yet the father of two’s desire to preserve the traditions of yesteryear has not stopped him from becoming one of Kampong Glam’s most passionate digital advocates.

He founded the One Kampong Gelam Association in 2014 to champion the interests of more than 600 stakeholders. One of his early tasks was knocking on the doors of 120 merchants to survey them about how technology could help their businesses.

Taking the results to Singapore’s Infocomm Media Development Authority, a collaborative project was initiated with the government agency to fund the development of digital capabilities for the whole area that is now transforming both back office and customer communication for Kampong Glam’s stores.

Labbafi has also worked with students from Temasek Polytechnic to pin his own shop on Google Maps online, allowing visitors to both discover and explore Sufi Trading through information and photos snapped on smartphones. Even more ambitious are Labbafi’s discussions with vendors of virtual reality and augmented reality. Such technology could allow prospective buyers to digitally superimpose Sufi Trading’s carpets and ornaments into their homes. A viewer in Australia could browse an online catalogue, select one of his carpets, and through their smartphone’s camera and screen, see whether it fits their lounge room’s decor.



The vividly painted stores of local merchants are bursting with intricately designed handicrafts such as lamps, handmade carpets and ceramics.

PHOTO: DANIEL TAYLOR

Rich aromas

SAMIR KAZURA,
JAMAL KAZURA AROMATICS

“A slightly stale odour, like tobacco,” Samir Kazura recalls of his comments to a group of connoisseurs during a recent holiday in France. But the perfumist was not in a cigar lounge, but a wine tasting.

Tour guests were asked before putting a glass to their lips to guess the characteristics of different vintages by smell alone. Despite his limited French vocabulary, Kazura aced the quiz.

It’s another reminder to the Singaporean, who has also worked in Australia and France, of his unusual sense of smell. It’s a sensory gift learned and earned from three generations of perfumiers, from the days as a youngest son sitting on his grandmother’s lap inhaling wafts of her Chanel No. 5, to today selling perfumes and essential oils as the heir apparent to the

Jamal Kazura Aromatics store and perfumerie.

“Perfume is like fashion,” Kazura says. Woody and musky perfumes, previously favoured mainly by Middle Eastern and Indian customers, have now hit the mainstream.

To serve such ever-changing tastes, Jamal Kazura is embracing technology. StarHub, the winner of a tender to provide an integrated point-of-sale system to the merchants of Kampong Glam, will facilitate a deep dive into the data from Jamal Kazura Aromatic’s customers.

It’s shaping up to be a boon for staff, given the store sells 150 different perfumes, plus customised perfume mixes beloved by many customers. Exporting exotic liquids in delicate glass vials limits the ability to ship orders overseas. Kazura, however, is confident a new customer relationship management system will let Jamal Kazura Aromatics better serve its many returning customers and will assist in developing a loyalty program.



FUTURE PROOFING THE NEXT GENERATION

Jonathan Porter



PHOTOGRAPHY SUPPLIED BY GREENWOOD PRIMARY SCHOOL

IN JUST TWO SHORT YEARS, OVER A THIRD OF THE DESIRED CORE SKILL SETS OF MOST OCCUPATIONS WILL BE THOSE NOT EVEN CONSIDERED CRUCIAL TO DO THE JOBS OF TODAY.

With an eye to the future, Singapore has undertaken a national movement that would be unthinkable in any comparable nation – to ready citizens for technological change at every stage of life – from early childhood, primary and secondary school, tertiary education, beginning and mid-career – all the way to the sunset years.

This movement called SkillsFuture represents a fundamental shift in how learning and employability are approached. It's a clarion call to take ownership – that no matter where you are in life, there is always room and resources to help you do better and do more.

Skills-training has long been stressed by the government, says Derrick Chang, CEO of PSB Academy, a private education institution.

"We need to play our part in creating opportunities for our current and future generations. According to the World Economic

Forum Future of Jobs Report, by 2020, over a third of the desired core skill sets of most occupations will comprise of skills that are not yet considered crucial to the jobs of today. With the knowledge that some skills and jobs are becoming obsolete, institutions must adopt a continuous learning mindset," Chang says.

Chang says his job is to teach students the skills to operate in tomorrow's environment, and at the same time, instil into them the need to upgrade, discover new things or to refine their skills.

"Education models and techniques must be constantly revisited not just to address the shifts brought about by digital transformation, but also to examine the effectiveness of basing competency on grades. The education system should build long-term resilience among students through encouraging risk-taking, innovation and creativity.

"Students must be encouraged to address real-world challenges by applying knowledge gained from multiple disciplines and approaches. We also strive to close the skills gap by equipping our students with commercial acumen and skills in disciplines such as science, technology, engineering and mathematics (STEM)."

He says the Academy also emphasises the importance of continual learning, and being open to cross-disciplinary studies should someone want to explore a career or job switch, which could become more common with disruptions to businesses and industries happening more frequently.

"We have in place opportunities for personal development that will help the individual through changes in their life and career stages, so that they become better communicators, managers and leaders, or critical thinkers, and have the ability to play well with others, through workshops and career guidance.

For Greenwood Primary School principal Cheryl Foo, globalisation, changing demographics and technological advancements are some of the key driving forces for which she has to prepare her students for in a fast-moving world.

"Critical and inventive thinking skills that one acquires when young will ultimately determine his or her level of success in the future," she notes. It is with these skills in mind that Greenwood has designed and implemented a value-based curriculum, Learning for Life Program. The program is called WHIZZ (We are THinking, Inventive and Zealous KiDz to serve the community) to make sure students are ready to face the challenges and capitalise on the opportunities of the future.

"It is a deliberate, authentic process which offers the pupils an experience to improve themselves as they think through and develop new, relevant solutions that would create a positive impact on themselves, their family and the community they live in. The hope is that this mindset follows them through life, even after they leave school."

STUDENTS PUT TO WORK ON PM'S SMART VISION

Following Prime Minister Lee Hsien Loong's National Day Rally on creating a Smart Nation in 2015, Greenwood Primary School principal Cheryl Foo set her young charges a task to design a feature in a Smart Town.

"We believe that planning a town with Smart and environmentally friendly features will help our pupils to visualise and better understand the key features of living in a Smart Town," says Foo. The project brought 23 P5 pupils together to research, innovate and design features beneficial to a Smart Town living concept. Using Design Thinking, they interviewed the residents in their community to understand their needs.

"They then brainstormed alternative solutions with the intent of Smart and environmentally friendly features for the and prototyped their ideas with their family, teachers and the school leaders. Their ideas came alive when the pupils went through a two-day 3D printing workshop to learn how to present their ideas and inventions using specialised 3D printing software. The pupils display their ideas by laying them out on two models and had the opportunity to exhibit their models in the My Urban Backyard exhibition at the Urban Redevelopment Authority centre in April 2018. They also got to present their vision for urban planning to Desmond Lee, Minister for Social and Family Development and Second Minister in the Ministry of National Development.





Keshia Hannam

BUILDING CAREERS OF TOMORROW

Singaporean workers will require markedly different skillsets for the businesses of tomorrow, and how well prepared they are depends heavily on the learning mechanisms of today. To understand the future workforce, a deep dive into present day education is required, both in and out of the classroom.

In Singapore, the convergence of the future of work and learning is being taken seriously, as the city vies, like many others, to be one of the world's most technologically advanced and connected societies. The scale and proactiveness of the government plays a big role in empowering people to rise to the challenges and opportunities of progress.

Lifelong learning is a term that defines the pursuits of those who seek knowledge (personally and professionally) beyond the walls of educational institutes. The ideal is to be in a state of permanent upskilling, without

relying on a stage-of-life approach like college or onboarding with a new company.

This is increasingly common in both individuals and organisations, who are embracing learning as a core skill in and of itself. In Singapore, a citywide initiative towards digitalisation has seen libraries morphing into community hubs that offer a wide range of digital experiences and facilitate lifelong learning.

"The National Library Board's [NLB] libraries are well placed within the community to help Singaporeans be ready for the digital future, by supporting their lifelong learning journey," says Elaine Ng, Chief Executive Officer of the National Library Board. "We make use of technology in innovative ways to provide people with seamless access to digital and physical resources to read and learn."

Libraries are moving the experience of

The National University of Singapore is a strong advocate of the SkillsFuture movement and the concept of lifelong learning.

'learning' from an event, to an experience that embodies the culture of its environment.

"The NLB is making the rich resources of the National Library and National Archives easily available digitally, so that more people can learn about Singapore's history and heritage. We also offer digital literacy programs to equip people with competencies for the future workforce, and to help seniors benefit from technology."

The focus on provision for older segments of society is important in a city where one-fifth of the population will be over the age of 65 by 2030, according to the Ministry of Finance (MOF). The Singaporean MOF predicts that the demographic will still be working in an age when robots, automation and artificial intelligence have replaced, or at least reshaped, jobs, and libraries are well placed to prepare people for the future workplace.

"Libraries are important spaces for collaborative learning, and will continue to play an active role to help people pick up new skills, and prepare them for the digital future," says Ng.

The NLB's latest strategy exemplifies the link between learning and the future workforce. Retraining (or "reskilling"), is becoming an imperative of the coming decade, not just for companies on the front lines, but for policymakers who will need to find new ways to incentivise investments in human capital, and for educational institutions, who are directly managing and delivering these new skills.

NATIONAL MOVEMENT

Experts at the National University of Singapore point to other initiatives like the SkillsFuture movement, which seeks to provide Singaporeans of all ages with opportunities to develop deep skills through an array of lifelong learning and workforce development programs, such as bite-sized industry-relevant courses that are more easily accessible to working adults. Such courses could also lead to micro-credentials that recognize an individual's learning achievements without the need for them to undertake long-term further studies.

NUS Business School Deputy Dean, Professor Hum Sin Hoon calls SkillsFuture "a game-changer", given its facilitation of ongoing learning as advancements in technology leads to new skills and knowledge.

"LIBRARIES ARE IMPORTANT SPACES FOR COLLABORATIVE LEARNING... TO HELP PEOPLE PICK UP NEW SKILLS, AND PREPARE THEM FOR THE DIGITAL FUTURE."

ELAINE NG, CHIEF EXECUTIVE, NLB

“Over the past few years, SkillsFuture has become a national movement of lifelong learning for the young and old with thousands of SkillsFuture-subsidised courses made available,” says Hum. The NUS is a formal educational institute utilising the methodology of lifelong learning, ensuring past students can draw on the learning credits of the university throughout their working lives.

“In that spirit, the announcements by NUS committing to support alumni with the NUS Lifelong Learners or L³ program will provide free and subsidised courses for continuing education for some 20 years,” says Hum.

Singapore’s investment in lifelong learning sets up citizens to access the tools that enable consistent advancement, resulting in a prepared workforce. It’s a workforce that Hum suggests “will be more tech-savvy, entrepreneurial and open to new experiences. The individuals are not bound to the usual 9-to-5 careers and would orientate towards start-ups.”

He says it’s important for all to cater to these changes, from parents and teachers to government. “As Singapore increasingly becomes more affluent, parents would be able to provide a safety net while the next generation tries new things. In addition, the government has made continuous efforts to change mindsets on the variety of pathways to attain success in life.”

Professor Sumit Agarwal, also of NUS

Business School, says the jobs that look likely to undergo most disruption are in transport and insurance: “There would be significant implications for employment, especially on the property, taxi, private-hire and insurance sectors when Singapore becomes an early adopter of self-driving cars.”

“With our advanced infrastructure and controlled environment, this move would render cars safer while the need for insurance reduces. That would also affect the use of land space for parking, garagespaces and eventually housing and land prices. These sectors might then see a rise in unemployment.”

Another arena that increasingly matters has resulted from the widespread adoption of blockchain, which would create jobs in fintech and biomedical sciences. However, says Agarwal, “sectors that require intermediation might get displaced. Jobs affected include insurance agents, lawyers, loan officers, mortgage brokers and investment advisors.”

While displacements are part of the challenge, they also represent an opportunity for companies, institutes and societies at large to equip workers with the new skills that are unavoidable for a changed working landscape.

With a consistent adoption of new skills could come higher productivity growth, improved wages, and increased prosperity across all demographics.



#WHATMAKESSG PHOTO COMPETITION WINNERS



**GRAND PRIZE
WINNER**

KANG YEN THIING

@Yane Keng

Gardens By The Bay East

The Bishan Otter family at Gardens Bay East call Singapore, a highly urbanised city, their home. They have provided Singaporeans and tourists many wonderful opportunities to appreciate wildlife within the city.

When we asked Singaporeans what makes this country such a unique and exciting place to live, work and play as part of our #WhatMakesSG photo competition, their entries were just as diverse and dynamic as this wonderful nation.

Congratulations to our winner Kang Yen Thiing who has won a National Geographic Photography Expedition trip to Yellowstone, Montana. The winner and runners-up’s eclectic mix of images are profiled over the following pages.



RUNNERS-UP

PARTHA PRATIM ROY

@mypixelmagic
Gardens By The Bay

Splash away the summer heat. Singapore is a growing, young, modern country that offers fun and magic moments for each individual - even when you can barely blink without breaking a sweat under the blistering sun. The kids (and adults too) can enjoy the city's fantastic water parks to cool down and have fun.



NIKKI CHIANG

@nikki.cyc
Chinatown

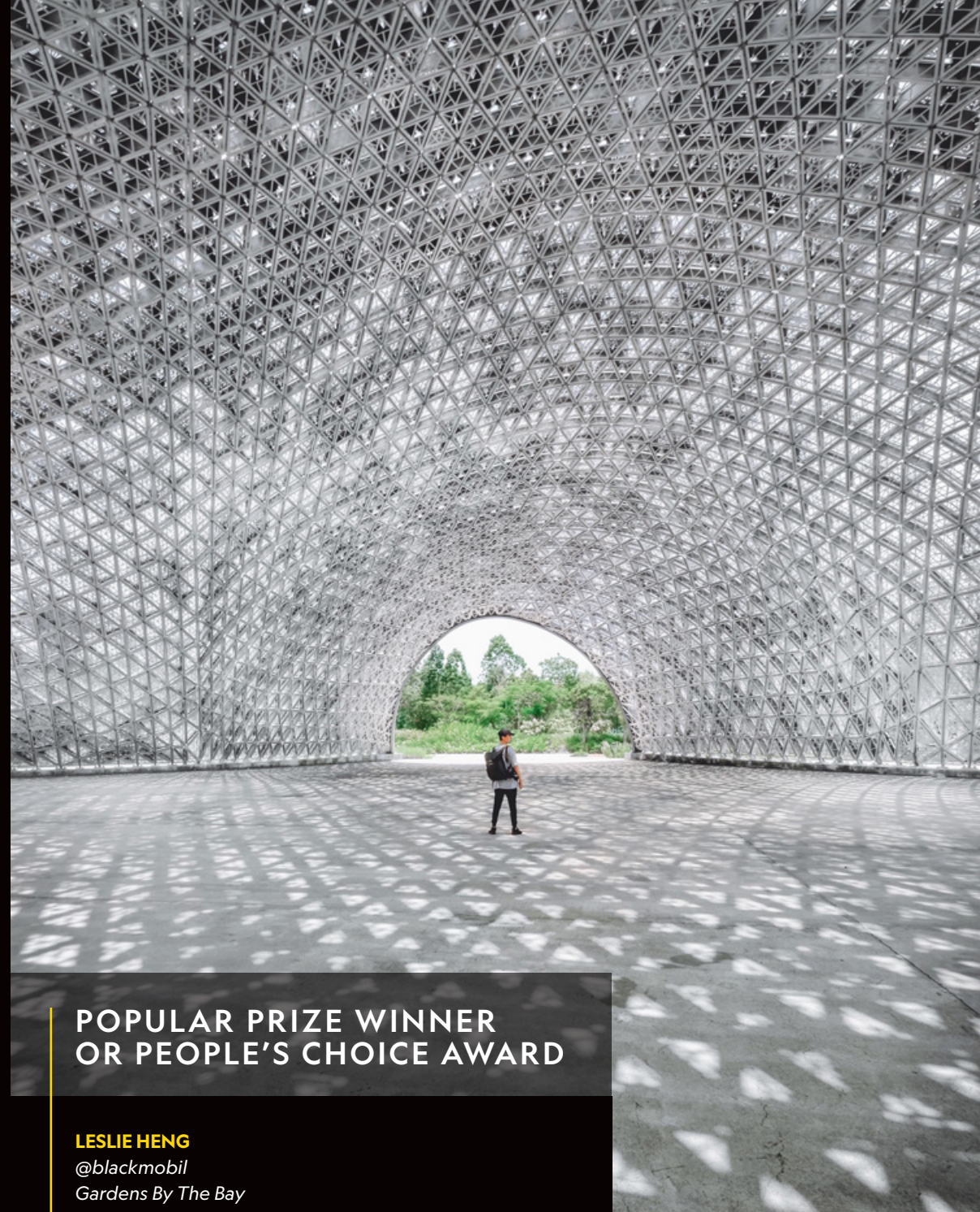
The magnificent view from a corridor of one of our many government-subsidised housing flats, overlooking our skyscrapers and traditional shophouses. We are a harmonious mix of old and new, traditional and modern; and all these elements are uniquely Singapore.



TEH HAN LIN

@tehhanlin
Boat Quay

Reflection. Sunrise at Boat Quay, a historical quay in Singapore. This was the busiest part of the old Port of Singapore, which handled three quarters of all shipping business during the 1860s. Singapore has made efforts to preserve and promote our heritage, such as the historic buildings, sites and structures that contribute to our sense of history.



POPULAR PRIZE WINNER OR PEOPLE'S CHOICE AWARD

LESLIE HENG

@blackmobil
Gardens By The Bay

Beautiful paths can't be discovered without getting lost. It makes sense that Singapore makes the list of the most futuristic cities in the world. Its cutting-edge architecture and design by some of the world's most brilliant architects is showcased by our ever-changing skyline, as we have seen over the past decade. One can only imagine how much further it will advance over the decades to come.

WEAVING OUR SOCIAL FABRIC

CEO NATIONAL VOLUNTEER
& PHILANTHROPY CENTRE

Melissa Kwee believes everybody on earth is put here for a purpose, and we should all spend part of our lives discovering what that purpose might be.

Kwee, who is the Chief Executive Officer of the National Volunteer and Philanthropy Centre, says our purpose is never just about ourselves. It is about being of service to others and “discovering what gifts we have, great, small, usual or unusual, that we can offer in service of others”.

As for advice to people seeking to embark on their giving journey, Kwee says, “look for your joy. Seek your joy because ultimately, giving can sometimes feel like an obligation but if we find our joy, it can sort of give us the intrinsic motivation to keep going.”

“I think Singaporeans are actually a very generous group of people, but we’re also incredibly busy. Everybody is time-poor and just rushing around and getting distracted, so that idea of being able to stop, and notice, and then take action, which is to care, is sometimes so hard,” Kwee says.

Kwee says the NVPC looks at the social fabric of the nation, and the SG Cares social movement, together with initiatives such as Company of Good and Giving.SG, are helping to promote a giving culture in Singapore and building a City of Good.

“If people help one another then that neighbour-to-neighbour, peer-to-peer assistance helps ensures everyone prospers.”

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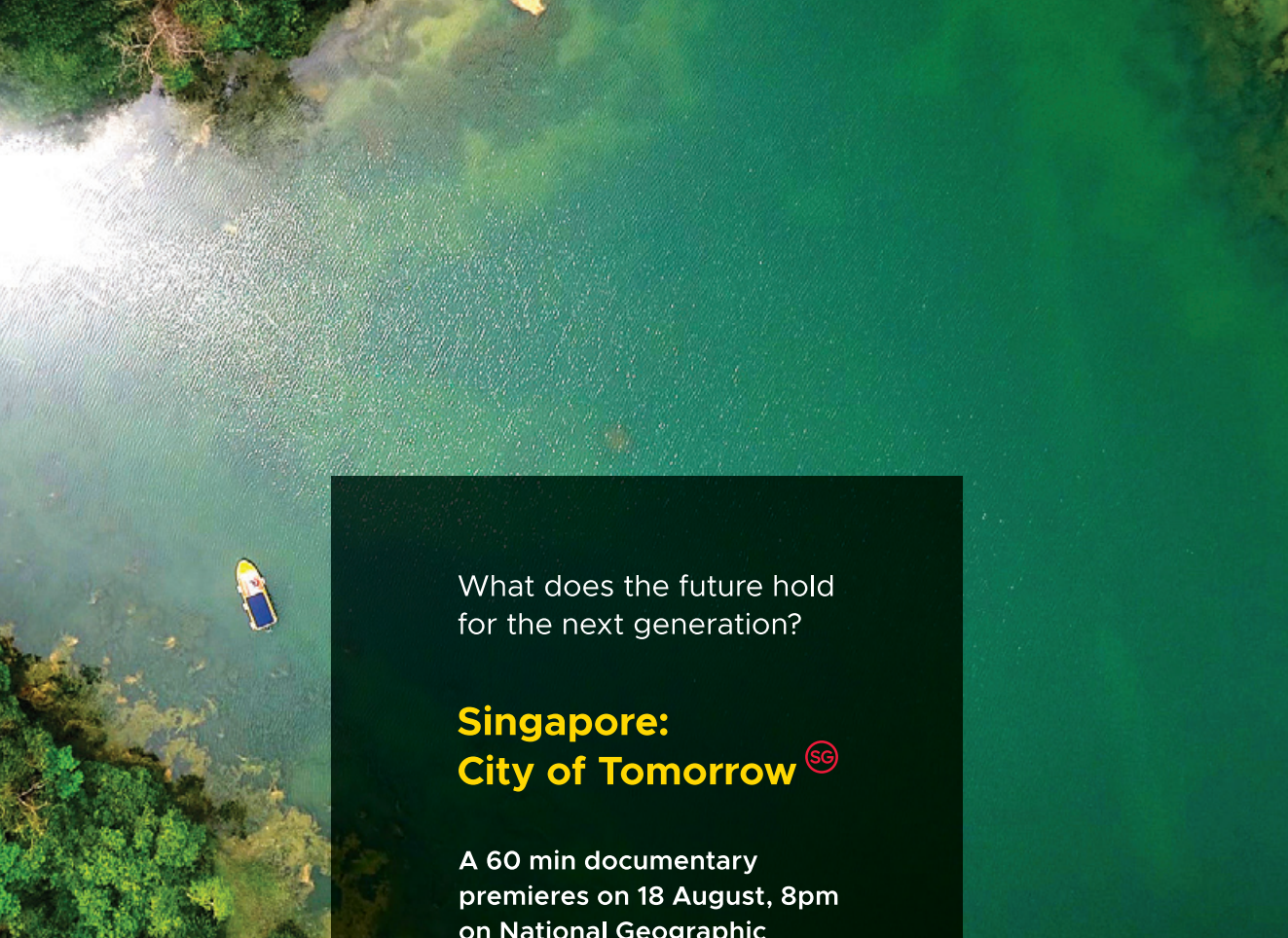
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