WHEN GLOBAL MEETS LOCAL = GLOCAL

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Our Little Red Dot’s Potential is Limited – Only by Your Imagination

Everyone calls Singapore a Little Red Dot. And living up to this namesake, Singapore is ranked 19 among the world’s smallest countries.

But in case you don’t already know, Singapore’s ability is supercharged – even beyond that of countries that are many times bigger than our physical size. Case in point – in an annual survey conducted by HSBC in October 2018, Singapore came up tops ahead of countries like New Zealand, Germany and Canada as the best place for expatriates to live and work in.

And if these numbers do not convince you, go check out what glocal talents have to say about Singapore. Or maybe, you can better relate to the personal experiences of Prof Miao Chun Yan and our long-time columnist – Vlad.

It is a fact – global talents find Singapore attractive. However, the appeal of Singapore doesn’t stop there. A good pool of skilled talents and a pro-innovation and enterprise regulatory framework have made Singapore not only a hotspot for global companies to set up shop locally, but also a hotbed for local companies to grow globally. The inspiring growth stories of CrimsonLogic and Y3 Technologies bear testament to that.

Singapore, however, is still in our early days of growth as far as Enterprise Singapore’s Chew Mok Lee and team are concerned. Their unwavering efforts in our Little Red Dot’s innovation and internationalisation agenda say as much.

Personally, I cannot agree more with Mok Lee that we hope to see more Singapore enterprises making it to the Fortune 500 list. Therefore, I urge everyone to step up your game, get out of your comfort zone and proactively work towards becoming a valued global talent.

2019 is just here. Plan your career goals. Enjoy this issue!

TAN TENG CHEONG
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In a time when disruptions are rife and problems appear to crop up faster than they can be solved, there is actually a solution to everything – growth. It may not seem immediately obvious, but if you take time to ponder, you will realise growth is a familiar concept that underpins companies going from local to global and thriving despite fierce competition. Such is also the journey of homegrown tech firm – CrimsonLogic.

In 1988, Singapore had just confronted its first recession and the government was looking to technology as a means to improve the nation’s competitiveness. Seeing opportunities and possibilities, CrimsonLogic looked to use technology to change the way things were done. This also cemented our beginning as a disrupter during a period when disruptions were relatively unknown and rare.

PICKING THE BATTLEFIELD
With trade volumes being three times more than the nation’s Gross Domestic Product (GDP), revolutionising the way trade documents were processed held promise of great returns. Hence, it naturally became an area of focus for CrimsonLogic.

This eventually led to the birth of TradeNet. The single window system allowed for trade submissions and approvals between multiple parties. Although the concept of reusing information across multiple agencies seems simple in comparison to the technology innovations we see today, TradeNet was deemed to be revolutionary for its time.

At a time when the Internet was non-existent and the notion of conducting business with government agencies on digital platforms was unimaginable, TradeNet provided a means for greater efficiency for the Singapore government and businesses. More importantly, however, it presented an opportunity for CrimsonLogic to expand our presence beyond Singapore.
MAINTAINING THE GROWTH MOMENTUM

Recognising that availability and accessibility to easy-to-use and affordable technology will change the way we interact, consume information and do business, CrimsonLogic has adopted a products and services strategy to accelerate our impact and ability to scale.

The product strategy aims to translate our deep domain experience in trade, judiciary and digital governments into replicable solutions. Currently into the second phase of development for most of our products, we are staying on track to roll out solutions in an expeditious manner.

Simultaneously, we have set up a subsidiary – Global eTrade Services (GeTS) – to improve trade flows. GeTS aims to encourage smooth flow of goods through its offerings. One such GeTS initiative to build a next-generation supply chain orchestration solution is CALISTA™, which focuses on ensuring seamless exchange of information for trade compliance, logistics orchestration and trade finance. Incorporating artificial intelligence (AI) or machine learning and blockchain technologies and made compatible with the new Networked Trade Platform (NTP), CALISTA™ is well positioned to help revolutionise the movement of goods and trade worldwide.

LOOKING INTO THE FUTURE

It would have been hard to predict CrimsonLogic’s growth potential in 1988. But 30 years on, CrimsonLogic continues to grow from strength to strength. With registered entities in 19 countries worldwide and award-winning solutions in three primary domains – Trade, Judiciary and Digital Government Services (Government-to-Business and Government-to-Citizen), CrimsonLogic is going through an exciting time now.

A plethora of opportunities, enabled by technology, couples with our strong focus on products and recent launches of new trade services to strengthen our growth trajectory. We are quietly confident about our future.

CONQUERING NEW GROUNDS

Building upon a strong foundation of understanding in how information can be shared in an environment with complex workflow, CrimsonLogic began to explore growth on two different dimensions. On one hand, we offered TradeNet as a solution to countries that were keen to adopt best-in-class tech solutions from Singapore. On the other, we proactively developed our suite of solutions to extend to areas beyond trade.

Over the years, CrimsonLogic has remained committed to driving transformation through delivering value for nations and businesses. One example is the digital platform in Rwanda – iREMBO – to facilitate all Government-to-Citizen and Government-to-Business transactions. Through digitising business registration, business license application, birth registration, passport applications and tax payments, processes that used to take multiple trips over three days can now be completed in a single visit.
What will the supply chain and logistics landscape look like five years from now? This is a burning question every supply chain player is trying to answer in their own way. For Y3 Technologies, Singapore’s homegrown supply chain solutions company, technology is the key to unlocking the future of the transforming industry.

The advent of Industry 4.0 and digital transformation is changing the way businesses operate. Leveraging the right technology offers supply chain companies the chance to significantly improve their operations. The accessibility and affordability of technology is also providing these companies access to new and different business opportunities like never before.
VENTURING INTO A DIFFERENT BUSINESS
Seeing possibilities, YCH Group, Asia Pacific’s leading integrated end-to-end supply chain management partner, branched out its IT arm in 1981 to form Y3 Technologies. Today, Y3 continues to grow from strength to strength with the provision of software solutions to companies to ensure that their supply chains are run optimally and competitively.

During early days in the business, Y3 saw value chain visibility as a critical area in modern supply chain management. Visibility helps businesses in various ways, such as to gain insights into operations, identify bottlenecks, make quick and accurate decisions, avoid risks and effectively manage unexpected incidents. However, Y3 recognises that the value of visibility goes beyond that as these data collected can be used to empower insight-driven decision making.

This realisation prompted Y3 to research and develop supply chain analytics software that can not only make sense of available data but also be used as a powerful business tool in formulating strategies to drive improvements and attain sustainable competitive advantage.

GROWING NEW VALUE PROPOSITIONS
Against the backdrop of a rapidly evolving world, needs and expectations are also changing continuously. To stay ahead, businesses have to embrace change and be ready to seize arising lucrative opportunities. These trends lead to an increasing demand for utilising analytics to drive improvement in supply chain performance as well as positive transformation.

With the goal of helping companies cope with present-day challenges, Y3 taps on its experience in supply chain analytics to offer insights on the entire value chain – people, processes, assets – to facilitate quicker decisions for global supply chain management. One example is the order and inventory optimisation solution, which helps businesses to optimise inventory management by fulfilling the right stocks for orders across countries.

Given that the pace of change is expected to further quicken in the future, it is foreseeable that supply chain management will increase in complexity, and more supply chain practitioners will have a greater dependence on data analytics to manage their business. Through utilising analytics to spot business symptoms, create insights and identify fundamental root causes for business challenges, Y3 is set to strengthen its value proposition for the supply chain and logistics industry.

CREATING FRESH INROADS TO INNOVATIVE SOLUTIONS
With sights set on growing its global footprints, Y3’s engagement in the Chongqing Connectivity Initiative (CCI), announced in 2015, has brought its business beyond Singapore borders. With the aim of contributing to CCI’s aspiration to become a critical node within the Belt and Road Initiative (BRI), the joint venture with the second largest transport-related state-owned enterprise in China, has led to the birth of Rizon Technology – an innovation technology service provider, which harnesses the strength and resources of both Y3 and CTG to lead transformation in the logistics industry.

BRI presents many opportunities for countries to access cheaper materials and products, drive job creation and accelerate economic growth. However, to fully enjoy the benefits brought about by BRI, global supply chains need to evolve by harnessing technology to increase operational efficiency and supply chain visibility. Therefore, adopting a strong focus on knowledge sharing, communication and collaboration around new digital technologies that could potentially have a strong impact on improving trade flows, is very important. Y3 looks to offer clients innovative solutions and technical capabilities and build future-ready solutions for the industry – not only in Singapore but around the region.

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Leading Transformation from Singapore and Beyond
In April 2018, together with Rizon, Y3 Technologies inked a Memorandum of Understanding with cross-border cloud-tagging specialist veriTAG to build one of the region’s first blockchain-enabled cross-border trade platforms. The objective is to deploy blockchain and digital-ledger technology as part of a cross-border trade platform to enable seamless information exchange between manufacturers, transporters, customs and financial institutions for the supply chain and logistics industry.
In the tech space where everything exists as bits and machines seem to exert dominance over humans, it may come as a surprising fact that tech talents are in great demand. Question is, why is there a tech talent shortage? And what talent does the world need?

The answers to these questions can be found simply by recognising that a talented architect/developer can be 10x or even 100x better than another person. In contrast, a not-so-talented developer may introduce bugs in the program or system, which require many man-hours to isolate and fix. No wonder everyone is on the search for the best talents.

Case in point, based on the Labour Market Report 2017 published by Singapore Ministry of Manpower on 15 March 2018, the local workforce – comprising Singapore Citizens and Permanent Residents – makes up only 67.2% of the total workforce. Similarly, the number of Singaporeans working abroad has increased from 157,800 in 2004 to 213,400 in 2016.

Confronting these numbers, I have to agree with Thomas Friedman’s views expressed in his 2004 book “The World is Flat”. In fact, I have reasons to believe that it is becoming flatter every day, especially in the area of talent. After all, talents today – both foreign and local – are globally mobile and welcomed anywhere in the world.
Therefore, if you have your eye fixed on the global arena, the good news is that you can acquire the talents needed to perform at the highest level right here in Singapore. And I have a few tips to help you better export your talent too (though there are very few places more exciting than Singapore right now).

About the Author
The author spent a significant part of his career working overseas in various tech and leadership roles across Asia starting from way back in those days before the world was flat.

1 According to a CIO survey in 2018 conducted with 3,000 technology leaders by IT outsourcer Harvey Nash and auditing firm KPMG, 65% of respondents agreed that there is a shortage of professionals with the right skills.

2 Research findings from a 2016 survey carried out by the Institute for Policy Studies.


STAY RELEVANT (DON’T BECOME OBSOLETE!)
In this era of the “flat world”, being good enough is no longer good enough – there is no place for mediocrity because competition is global. You have to excel in something – doesn’t matter what that “something” is, you just have to make sure that the “something” you are great at is something useful, valuable and meaningful.

And stay relevant. We don’t mean simply jumping into the newest fad and having a superficial understanding of it. Rather, it is to be aware of the experience and expertise you can bring to the job. In a “flat” world, your specialised skills count. They are what will sell to the global clientele. For example, I know of a SAP Human Capital Management (HCM) expert who used to be employed with a multinational corporation (MNC). She told me that losing her job was the best thing that happened to her. Why? Because she is now a SAP HCM Consultant who gets to apply her knowledge, work with different clients and learn new things. The best part – she makes more money and enjoys more personal time now.

ADOPT A SERVICE PROVIDER MINDSET (NOT AN EMPLOYEE MINDSET)
Many of us grew up focusing on doing well in school, and then finding a good job and a nice employer who can take care of us – for life, if possible. This mantra no longer holds true in our fast-changing world today where corporations get bigger and bigger, mergers and acquisitions become more and more prevalent, and companies locate and relocate to different parts of the world.

Interestingly, despite the world being a vastly different place now, many of us still maintain an “Employee Mindset”. Perhaps for better adaptability, we should think of our work as providing a service and start behaving as “Service Providers” instead of “Employees”; on the same note, we should treat our “Employer” as “Client”. Simple as this switch may sound, it is amazing how a whole new perspective can be birthed. Rather than blaming the Employer for making our life difficult and stressful, chances are we would thank the Client for an opportunity to serve them, work alongside them, learn from them and make a meaningful living.

BEHAVE LIKE A VICTOR (NOT A VICTIM)
It’s always easier to blame external factors for things that “happen” or “don’t happen” to us. When we lose a job, we attribute it to the company not valuing our past contributions. When someone else – especially a foreigner – gets hired, it is because the hiring manager prefers “their own kind”. In my professional work life, I help companies find tech talents, so I have the front row seat to these situations. I can share this: most companies prefer to hire locals. And the main reason why foreign MNCs locate their offices in Singapore? It is because they believe that there are local talents. Yet the truth is – very often the locals don’t get the jobs. Why? Because the locals deem the salary too low, the office too far, the work not challenging enough or another 101 reasons.

Actually, we are strategically located in one of the truly global cities that accounts for presence of 59% of tech MNCs in the world3, and our established transportation network has made most places in the world accessible to us. Hence, we are in a privileged position to become successful global talents. So go for it. Get started now. Let the world be your oyster!

1 According to a CIO survey in 2018 conducted with 3,000 technology leaders by IT outsourcer Harvey Nash and auditing firm KPMG, 65% of respondents agreed that there is a shortage of professionals with the right skills.

2 Research findings from a 2016 survey carried out by the Institute for Policy Studies.

Singapore’s reputation as an innovation hub is recognised globally. Not only are we ranked 5th in the 2018 Global Innovation Index, we also topped the list for Asia. Speaking to Chew Mok Lee, Assistant Chief Executive Officer for ICM & Digitalisation of Enterprise Singapore, The IT Society finds out how the agency pushes the agenda of innovation and internationalisation for Singapore by helping companies – big and small, young and established – go places.

Q: What is in it for Enterprise Singapore to help companies innovate and go global?
ML: Our domestic market is small, but also very open – and easily influenced by the evolving global business environment. For companies to be resilient and grow, they need to embrace innovation and venture beyond Singapore to keep up and stay ahead of the dynamic and competitive landscape. That is why, at Enterprise Singapore, we see innovation and internationalisation as mutually reinforcing strategies that go hand in hand together. They are essential for bringing about growth as well as enabling scale – for businesses and the Singapore economy.

Q: What roles do tech startups play in driving innovation and advancing Singapore’s economy?
ML: While the Singapore economy has a healthy mix of startups, small and medium-sized enterprises (SMEs) and large local and multinational companies, the tech startups segment is definitely one of the promising and innovative clusters. They challenge the status quo and introduce new ideas. In the process, they create a ripple effect that strengthens Singapore’s startup ecosystem and competitive advantage regionally and globally.

Q: Given the importance of tech startups, how does Enterprise Singapore support greenfield tech innovations and maintain the tech industry’s vibrancy?
ML: Over the years, we work closely with both private and public sector partners to help companies commercialise technology and bring innovations from labs to markets. And as one of the ways to bring these to the next level, we are encouraging technology and solution providers such as startups, universities, research institutes or centres of innovation to work together and come up with solutions to tackle industry specific challenges.
At the same time, the Global Innovation Alliance (GIA) – introduced in 2017 – connects Singapore-based startups with major innovation hubs around the world. This extensive network not only makes finding partners and new businesses easier, but also empowers greater information exchange and co-creation of innovation and ideas. To date, we have established alliances in eight cities across seven countries like Beijing, Bangkok, Berlin, Jakarta, Paris, Munich, San Francisco and Tokyo. And we have plans to roll out more.

**Q: What can Enterprise Singapore offer tech companies looking to internationalise?**

**ML:** There are different types of financial and non-financial assistance that Enterprise Singapore offers to businesses at various stages of their overseas expansion journey. If companies are looking to enter a new market, they can participate in trade shows and missions led by trade associations and chambers, and get support under the International Marketing Activities Programme (iMAP).

For those who are ready to engage help through partners in overseas markets, the nine partners in our Plug and Play Network can provide pre-entry market advisory and research and business matching services. They can also connect the companies to a network of in-market mentors, investors and networking via co-working spaces in China, India and the Southeast Asia markets. There is also the Market Readiness Assistance (MRA) Grant and the Enterprise Development Grant (EDG) to help businesses build capabilities for their overseas expansion. Besides financial assistance, Enterprise Singapore’s overseas centres and team in over 35 cities are ready to support companies with in-market project facilitations and interests.

**Q: For traditional businesses, does Enterprise Singapore have any schemes to help them adopt technology and innovate?**

**ML:** Regardless of size and industry, businesses can benefit from innovation and the use of technology. However, some may be unsure how to get started. To make help accessible, we have business advisors at our 11 SME centres to provide advice and diagnosis on how to get started.

Besides advisory, there are readily available and easy-to-use solutions that can help companies improve productivity by managing functions such as accounting, inventory management or human resource services. One example is Tech Depot – a one-stop e-platform on the SME Portal that offers SMEs access to over 40 technology and digital solutions such as customer management and data analytics. Companies can also tap into the Productivity Solutions Grant to adopt pre-scoped tech solutions and equipment, which subsidises some of the qualifying costs.

“**Innovation and internationalisation efforts are essential for the long-term growth of enterprises. Done well, and we will see more Singapore brands with great products and solutions leaving their footprints globally. We certainly aspire to have more Singapore enterprises making it to the Fortune 500 list.”**
Little Red Dot: Home is where the Heart is

What makes a place a home? For many, home is where we were born. However, in the increasingly mobile world we live in today, it is common to see professionals leave their places of birth to settle down in cities that offer greater opportunities. Speaking to Prof Miao Chun Yan, who has spent over 20 years living and working away from her birth country – China, The IT Society seeks to understand what Singapore means to Prof Miao after all these years.

First impression of Singapore.

**Prof Miao:** Even before coming to Singapore, I had heard a lot about how Singapore is a garden city and a livable place where people live longer and healthier than many other nations. Singapore enjoys a good reputation as a global hub connecting the East and the West. Numerous international meetings, conferences and exhibitions are held here. Singapore also houses regional headquarters of many leading tech companies and multinational corporations. These factors make Singapore a very attractive place for top talents to research and develop groundbreaking technologies.

First real brush with Singapore.

**Prof Miao:** In the early 1990s, I was offered an opportunity to work on a collaborative project between the then National Computer Board (NCB) and Trade Development Board. The TradeNet project I worked on was not only the first-of-its-kind in Singapore, but also one of the few in the world at that time. The developed technologies were subsequently transferred to over 50 countries, evidence of Singapore’s great capacity for innovation.

Going to school in Singapore.

**Prof Miao:** My involvement in the TradeNet project and the rapid development of the Internet convinced me of exciting possibilities in technology. This vision inspired me to enrol in the graduate school. I was fortunate that my PhD supervisor was very supportive of my research work in artificial intelligence (AI) and provided me with a lot of room to explore. My sense then was that the industry, the research community and the government were all working in unison to advance the state of the art. I went on to do my postdoctorate fellowship and taught in universities in Canada before doing my PhD study at Nanyang Technological University (NTU). With all the knowledge and skills gained, I came back to teach at NTU in 2003.

**PROF MIAO CHUN YAN**
Senior Member, SCS  
Director, Joint NTU-UBC Research Centre of Excellence in Active Living for the Elderly (LILY)  
Chair, School of Computer Science and Engineering, Nanyang Technological University (NTU)

**Age:** 51  
**Favourite Way to Relax:** Reading up on human psychology and education  
**Favourite Places in Singapore:** NTU Campus, Botanical Gardens and Jurong Point  
**Pet Topic for Past 15 Years:** Artificial Intelligence  
**Most Used Singapore Term (Singlish):** “OK lah”  
**Loves to Hear People Say:** “Long time no see” (很久不见) / 子曰: 有朋自远方来，不亦乐乎?
A government-backed digital nation.
Prof Miao: Singapore’s government plays a pivotal role in aligning research and development activities, education, manpower training and the economy to realise the ambitious and novel Smart Nation masterplan. In addition to helping businesses digitise their operations, the government is also working closely with schools and the industry to ensure that fundamental technological knowledge and know-how are systematically structured and readily transferrable. I would say that the government’s commitment to innovation and the digital economy is one main reason why Singapore is producing the highest density of AI talents in the world.

Passion for Humanised AI – first and foremost.
Prof Miao: For many years, I have been engaged in a variety of AI research projects. In particular, I spend a lot of time studying humanised AI so as to discover how we can inject human-like traits such as curiosity and empathy into the interactions between humans and machines. The potential for this technology, when integrated with smart appliances and homes, is boundless. For the first time in human history, there will be more elderly people than young children in the global population. The humanised AI enables seniors to age well and gracefully – with a dignified lifestyle at home.

A growing passion that extends beyond AI.
Prof Miao: While technology plays a major role in driving AI development, successful AI research and development work requires a deep understanding of other academic disciplines such as psychology. But that is not all – a good understanding of ethics, law and business can also reveal important perspectives. Due to AI’s interdisciplinary nature, I have learnt and greatly benefitted from new insights made possible by research results from other fields.

A teacher but also a collaborator.
Prof Miao: The teaching landscape has changed significantly over the years. Nowadays, information and learning resources are readily available online. Students no longer come to class just to acquire knowledge. As a course instructor and research supervisor, my focus is to inspire, encourage and guide students to devise solutions for complex societal challenges. At the same time, I constantly urge students to enrich their classroom knowledge by applying it to solve real-world problems.

“Good ideas and friendly technologies can empower and enrich ageless ageing”

Co-creation of knowledge – the next wave of education.
Prof Miao: The next wave in the education sector has already arrived. If you come to the NTU campus, you will see that the university has close research and development collaborations with many companies. Although a solid understanding of theories is important, it is arguably even more important to learn how to apply them in tackling real-life challenges. Students who are able to do so will enjoy rewarding and successful careers.

Singapore is our home.
Prof Miao: Singapore is where my family and I share our most precious memories. We live on the beautiful NTU garden campus. As parents, we are glad that our children are able to benefit from a world-class education in Singapore. 2019 marks Singapore’s bicentennial and it is an auspicious time for everyone who treasures this Little Red Dot to reflect on its rich history, culture and values.
What’s on the Minds of Glocal Talents?

It is no secret that in our tiny country state, our most valuable asset is our human capital. For that reason, even as we continue to nurture local talents to become global-ready, we also welcome global talents and strive to make them feel at home. That explains why the Little Red Dot is a favourite spot for many, some of whom have made this place their permanent home.

What is Glocal?

It is used to refer to the interconnection between global and local.

“Growing up in a country that treasures multiculturalism, our three children have learnt to live in harmony with people different from them. It’s made them better people – same for my wife and me. This is a big part of why we love Singapore.”

– Steve Leonard (18 years in Singapore)
Senior Member, SCS
Founding Chief Executive Officer, SGInnovate

“Singapore absorbs you into its deep culture, diversity and friendship. In the process, you make a difference by sharing your knowledge to keep this nation innovative and resilient – the reason why I gave up my British citizenship to call this amazing Little Red Dot my home.”

– Martin Yates (14 years in Singapore)
Senior Member, SCS
Chief Technology Officer, ASEAN, Dell EMC

“I remember being amazed by the work culture when I first arrived. ‘Digital’ is not just a buzzword here, it is reality! The vibrant startup scene is progressively changing the workplace, towards placing a stronger emphasis on experimentation and innovation.”

– Ewen Plougastel (4 years in Singapore)
Member, SCS
Managing Director, Applied Intelligence Lead, Accenture Digital

“What I love about Singapore is the government’s clear vision and precise policy executions. Thanks to them, Singapore is like a ‘heaven on earth’ for global talents like myself – career progression, law and order, freedom to pursue dreams and quality education for children.”

– Jit Nagpal (23 years in Singapore)
Senior Member, SCS
Founder & Chief Executive Officer, Sciente Group
“Singapore offers many opportunities for everyone to excel based on their merit and contribution. But more than that, it is a clean and inclusive society that is open to constructive ideas and creativity. Its excellent transportation system makes owning a car redundant.”

— Aaron Tan Dani (24 years in Singapore)
Member, SCS
Group Chief Architect, ATD Solution

“Singapore is special. I love the colour, the inclusiveness, the energy and the ambition I see every day. All of them fuel my passion to grow WIT@SG. For the technology industry, Asia is the window to the world’s future — and Singapore is at the heart of it all.”

— Meggy Chung (5 years in Singapore)
Member, SCS
Head, Data Services, APAC & EMEA, Global Consumer Technology, Citibank

“My first brush with Singapore was in 1992 — for a transit. At that time, I knew little about the country. Many unexpected twists and turns later, I came to settle down here with my family. Today, I am a proud Singaporean, and I call Singapore home.”

— Tin Aung Win (26 years in Singapore)
Senior Member, SCS
Lead Specialist, Information Security, Nanyang Polytechnic

“Working overseas for 12 years has given me an appreciation of how Singapore must stay technologically and geo-politically savvy, and yet be culturally principled — to remain as a top country where talents aspire to build business, raise family and engage with the wider civil society and the world.”

— Richard Koh (Return to Singapore after being away for 12 years)
Member, SCS
Chief Technology Officer, Microsoft Singapore

“I fell in love with the energy and people’s strong desire to learn during my first encounter with Singapore almost 40 years ago. Today, I continue to be impressed with Singapore’s collaborative business approach and openness towards new ideas.”

— Barbara Dossetter (4 years in Singapore)
Member, SCS
Managing Director, Advisory Services, Asia Pacific, CIO Connect
Embark on an enriching and rewarding career with Asia's leading ICT company.

Making IT happen
Singapore – A Real Home Away from Home

I arrived in Singapore in what seems like ages ago, imagining myself to be an adventurer exploring far lands of the east. The chatter of strange languages, intense smells of food markets and bright lights from towering skyscrapers were all incredibly exotic for a teen boy from a quaint part of old Europe. Fast-forward to several years later, among family and close friends from Singapore, there is no place like home than this tiny red dot.

Tracing back, my first encounter with Singapore was a short break I took to escape from freezing winter winds. My holiday in Singapore ended. But I never really left. Enchanted by the Lion City, I wanted to come back. I managed to secure a transfer to Singapore with my company shortly after.

A WELCOMING HOME FOR BUSINESSES
Singapore works hard on attracting high-quality enterprises. Resultantly, many have decided to set up their regional headquarters, data centres and engineering hubs here. The presence of these multinational companies coupled with a bustling local startup scene, which continues to get more innovative by the year, provide a firm foundation for a vibrant tech industry.

One of the key reasons why Singapore is a magnet for startups despite its small size is its incredible diversity. The multicultural society gives the market a depth that many larger cities simply don’t have. Win Singapore, and you would have created a base and built expertise required to expand across the entire region – or even globally.

AN INCLUSIVE HOME FOR TECH PROFESSIONALS
Prominent global companies, disruptive startups and rich cultural diversity have put Singapore in the same family of global hubs such as San Francisco, New York and London. For tech professionals like me, this presents a wealth of opportunities for career growth as well as exciting challenges to work on.

But Singapore’s appeal to tech professionals from around the world is not all work. While career opportunities matter, it is the hard to quantify charm that wins hearts and minds of many professionals in data, artificial intelligence and health over other tech hubs.

Despite being at the centre of the most complex continent in the world, the city is able to welcome and absorb every culture. My personal experience is one good example. Even though I came from a very different part of the world, I have found great friends, wise mentors and my life partner – among locals. My personal ties have made this city more than just a place to stay for me.

Truly, what can be better than being able to live, work and play in a place where some of the most exciting actions are unfolding?
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- Ranked joint 34th in UK universities for student experience, Times Higher Education Student Experience Survey 2018
- Awarded Silver in the new Teaching Excellence Framework (TEF), 2017
- Listed in the Times Higher Education Young University Rankings 2018

Contact us, or visit our website for more information about our programmes.
For the Youths, By the Youths

With its new IT Youth Council (ITYC) logo, new hashtag #GenTech and new tech workshop series dubbed “SESSIONS”, ITYC went on full gear from March to November 2018 to reach out to young working professionals and graduating students. Over the span of nine months, ITYC ran a total of eight events and engaged over 670 participants to learn about various aspects of customer journey analytics, cybersecurity, artificial intelligence (AI) and blockchain.

Through its flagship speaker series “Youth Engagement Series” or “YES!” in short, ITYC has continued to provide an interactive platform for participants to glean industry insights. Meanwhile, the newly introduced “SESSIONS” provided a hands-on learning platform for attendees to pick up in-demand tech skills such as coding and data analytics. Capping off the activities was the ITYC 4th Annual General Meeting on 29 November 2018. The newly elected team is raring to deepen youth engagement in the coming year.

Find out more about the new ITYC Committee at https://www.scs.org.sg/it-youth-council/committee-members.php
BSc in Information and Communication Technology
BSc in Information Technology and Business (ERP)

A key feature of the ICT programmes offered by the SUSS School of Science and Technology (SST) is the incorporation of industry certification and practitioner-oriented courses. The programmes equip you with a strong theoretical foundation in the various technologies related to the handling, processing, and communication of information. Graduates will be industry-ready and well-prepared for a multitude of careers in the infocomm industry.

Unique features of the programme:
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• Rigorous curriculum in computing foundation and business management principles
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Over 150 polytechnic students came together at Singapore Institute of Management (SIM) on 30 October 2018 to learn about emerging trends in the infocomm landscape, and try their hand at building a chatbot.

The seminar cum workshop – co-organised by the SCS Student Chapter and SIM, opened with Dr Sarita Singh from the University of London Computing Programmes sharing about the evolution of technology in Singapore, and introducing the concept of Industry 4.0. She also outlined job opportunities in cybersecurity, artificial intelligence and blockchain.

Subsequently, during the workshop, Ngo Chee Yong from Swat Soft made a presentation on chatbots used around the world. He gave step-by-step instructions to guide students on building their very own chatbot before wrapping up the session with a list of chatbot platforms that are available in the market.

Rounding up the session, the chatbot took to the stage to conduct the lucky draw segment – selecting three lucky students who won a PS4 Pro console, JBL Flip 4 speaker and Canon Selphy photo printer respectively.

The Career Seminar, jointly organised by the SCS Student Chapter and Ngee Ann Polytechnic, on 8 November 2018 was attended by 140 Year Two students. The event held at Ngee Ann Polytechnic aimed to prepare students for their upcoming internship in the next semester.

IBM professionals, Kelly Soethuya and Chiew Yen Kong, not only shared tips on how to craft a good résumé and ace an interview, but also details about IBM’s intensive work-based development programme, which entails hands-on training and mentorship for students.

AFK? Let Your Chatbot Take Over
Seeding Passion among Talented Tech Youths

Singapore needs tech talents to support the Smart Nation vision. And SCS helps to drive this vision forward by recognising and rewarding talents and achievements of our youths at the SCS Medals and Awards every year. This year, 20 youths received encouragement to keep up with their good academic and/or internship performance.

**SCS Award for Outstanding IT Youth Achievement**

Pawandeep Singh Sekhon
Diploma in Information Technology
Nanyang Polytechnic

Isaiah Wong Hao Jie
Diploma in Information Technology
Nanyang Polytechnic

“Digital disruption is the new normal. We need to embrace the tide of digital wave sweeping across industries and the world. It is almost certain that nothing will be left unscathed by the technological change. The NUS Master of Computing in Infocomm Systems has prepared me well to cope with this digital transformation.”

– Mary Liew Yea Ling, National University of Singapore, Winner of SCS Gold Medal

**SCS Gold Medal Winners**

Mary Liew Yea Ling
Master of Computing in Infocomm Systems
National University of Singapore

“Aloysius Tan Si Jun
Diploma in Information Technology
Singapore Polytechnic

Schuyler Tay Zheng Yao
Diploma in Infocomm Security Management
Singapore Polytechnic

“Digital disruption is the new normal. We need to embrace the tide of digital wave sweeping across industries and the world. It is almost certain that nothing will be left unscathed by the technological change. The NUS Master of Computing in Infocomm Systems has prepared me well to cope with this digital transformation.”

– Mary Liew Yea Ling, National University of Singapore, Winner of SCS Gold Medal

**SCS Silver Medal Winners**

Sucipto Limin
Bachelor of Infocomm Technology (Year 1)
The University of Newcastle Singapore

Jonathan Tjendana
Diploma in Information Technology
Singapore Polytechnic

“Digital disruption is the new normal. We need to embrace the tide of digital wave sweeping across industries and the world. It is almost certain that nothing will be left unscathed by the technological change. The NUS Master of Computing in Infocomm Systems has prepared me well to cope with this digital transformation.”

– Mary Liew Yea Ling, National University of Singapore, Winner of SCS Gold Medal

**SCS Award for Outstanding Project Work**

Mary Liew Yea Ling
Master of Computing in Infocomm Systems
National University of Singapore

Jerric Phoe Chuan Guo
Bachelor of Infocomm Technology (Year 2)
The University of Newcastle Singapore

Tan Jia Jun
Master of Computing in Infocomm Security
National University of Singapore

“Digital disruption is the new normal. We need to embrace the tide of digital wave sweeping across industries and the world. It is almost certain that nothing will be left unscathed by the technological change. The NUS Master of Computing in Infocomm Systems has prepared me well to cope with this digital transformation.”

– Mary Liew Yea Ling, National University of Singapore, Winner of SCS Gold Medal

“It is an honour to be an award recipient. The tech industry has evolved into an open source community where collaborators work together to ignite new innovations and spur new trends – empowering and disrupting industries. It is paramount to uphold this spirit so that our community can grow through the power of shared knowledge.”

– Isaiah Wong Hao Jie, Nanyang Polytechnic, Winner of SCS Award for Outstanding IT Youth Achievement and SCS Award for Outstanding Project Work

**SCS Silver Medal Winners**

Aloysius Tan Jun Hao
Diploma in Business Information Technology
Singapore Polytechnic

Jurvis Tan Si Jun
Diploma in Information Technology
Ngee Ann Polytechnic

Isaiah Wong Hao Jie
Diploma in Information Technology
Nanyang Polytechnic

“Digital disruption is the new normal. We need to embrace the tide of digital wave sweeping across industries and the world. It is almost certain that nothing will be left unscathed by the technological change. The NUS Master of Computing in Infocomm Systems has prepared me well to cope with this digital transformation.”

– Mary Liew Yea Ling, National University of Singapore, Winner of SCS Gold Medal

“It is an honour to be an award recipient. The tech industry has evolved into an open source community where collaborators work together to ignite new innovations and spur new trends – empowering and disrupting industries. It is paramount to uphold this spirit so that our community can grow through the power of shared knowledge.”

– Isaiah Wong Hao Jie, Nanyang Polytechnic, Winner of SCS Award for Outstanding IT Youth Achievement and SCS Award for Outstanding Project Work
“It is fun to learn different design principles and in-trend technologies in class, but it is the chance to practise in the real world and bring something to life that really excites me. This award is definitely an incentive for me to deepen my knowledge and turn that knowledge into real applications.”

– Zhang Jiaxuan, Singapore University of Technology and Design, SCS Award for Outstanding Final Year Students Recipient

Zhang Jiaxuan
Bachelor of Engineering (Information Systems Technology and Design)
Singapore University of Technology and Design

Zhang Ruochen
Bachelor of Engineering (Information Systems Technology and Design)
Singapore University of Technology and Design

Wu Jinglian
Bachelor of Engineering (Information Systems Technology and Design)
Singapore University of Technology and Design

Through my course, I have grown to become more resilient when confronting today’s dynamic tech environment and disruptions. In addition, I am exhilarated to be right where all the actions and new exciting opportunities are. It is my hope to make positive contributions to the tech industry in the future.”

– Wu Weiling, Temasek Polytechnic, Winner of SCS Special Industry Prize

SCS Award for Outstanding Final Year Students Recipients

Tan Yee Sen
Diploma in Financial Informatics
Nanyang Polytechnic

Isaiah Wong Hao Jie
Diploma in Information Technology
Nanyang Polytechnic

SCS Award for Outstanding Project Work Recipients

Nicholas See Wee Kiat
Bachelor of Software Engineering
Singapore Institute of Technology

Wu Weiling
Diploma in Information Technology
Temasek Polytechnic
Powering Possibilities for Co-Creation

The third edition of the biennial Games Xchange, co-organised by the Civil Service College (CSC) and the Lifelong Learning Institute (LLI), was held on 1 and 2 November 2018 at LLI. Aside from first-time partners like LLI, SCS Interactive Digital Media (IDM) Chapter and Singapore Cybersports & Online Gaming Association, a number of international speakers also specially flew in to share their views and insights on the serious games landscape.

The two-day event featuring different sessions – big and small, international and local – provided platforms for attendees to discuss and explore solutions to complex challenges in our society. Peter Ho, Senior Fellow of the CSC and former Head of Civil Service, talked about trends and the importance of collaboration in the serious games domain, while Health Promotion Board (HPB) Chief Executive Officer Zee Yoong Kang shared HPB’s successful experience in applying gamification to encourage over a million citizens to be more physically active.

Keynote speakers John Hunter of the World Peace Game Foundation and Martin Hoon from NetDragon also spoke at length about how World Peace Game’s model helped to create space for 21st century critical thinking and NetDragon’s forage into machine learning and artificial intelligence assisted teaching in China, respectively. Internationally recognised gamification expert Yu-Kai Chou also took the opportunity to remind all to always prioritise human-focused design over function-focused design.

Besides engaging presentations, there were also thought-provoking questions and healthy debates throughout the event, enriching participants’ perspectives about design for both serious and casual games. Games Xchange 2018 left participants looking forward to the next edition.

If you missed Games Xchange 2018, be sure to stay tuned for the next one happening in 2020. Watch this space!
Like it or not – the future is coming. And fast. Thanks to technology, everything will be transformed – be it our work and our lives. Unsettling? But what if you knew there is a 32,000-strong community supporting your growth and keeping you connected and inspired every step of the way? Go and grow with us – we are your best chance to stay abreast!

**PROFESSIONAL DEVELOPMENT**

Stay on top of the curve and gain access to a wealth of knowledge through our conferences, workshops, site visits and online resources.

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**CERTIFICATIONS**

Distinguish yourself through our industry-based certifications, or pick up a new tech skill through our Digital Proficiency (DigiPro) Programme.

**CAREER PROGRESSION**

Keep your career on track through our TechSkills Accelerator (TeSA) initiatives and Career Compass programme.

**SOCIAL AND BUSINESS NETWORKING**

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**SCS EVENTS 2019**

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The event listing provided above is correct at the time of printing. You are encouraged to visit the SCS website for updates and latest information about the events.
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- Future of Branding and Retail
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- Owners of large family businesses
- Entrepreneurs

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- Business Intelligence Analytics*
- Enhanced Customer Acquisition and Retention: An Information-Centric Approach*

Cyber Security
- Advanced Digital Forensics
- Cyber Security Foundation Course*
- Modern Cyber Security Technologies for Senior Managers*

IT Services, Product Management & Enterprise Architecture
- IT Contract and Vendor Management
- Machine Learning*

Social Media
- Digital Media Marketing*

Leadership
- Effective IT Planning and Management
- IT Governance for Senior Managers: Getting the most out of your IT investment through IT Governance
- IT Performance Management
- Risk and Compliance Management
- Strategic Partnership for Success

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Advanced Computing for Executives (ACE)
Strategic Technology Management Institute (STMI), NUS
Centre for Health Informatics (CHI), NUS
Time flies. The new year is upon us. And to show my appreciation to the members in my backend team for sticking it out with Frankie and me through the highs and lows last year, I decided to buy everyone a drink – on Frankie’s tab!

We eventually settled on going to a drinking hole in one of the most popular tourist spots in Singapore – Boat Quay. So our team consisting of an English, a Scot, an Irish, a German, an Indian, an American, a Dane, an Australian, a Japanese, a French, a New Zealander, a Spaniard, a Russian, a Pakistani, a Malaysian, an Armenian, a Chinese, a Sri Lankan, a Lebanese, a Vietnamese, a Korean, a Finn, an Israeli, an Estonian, a Brazilian, a Portuguese, a Hungarian, a Canadian, an Indonesian, a Vietnamese, a Cambodian, a Romanian, a Filipino, a Ukrainian, a Dutch, a Swedish, a Bulgarian, a Belgian, a Singaporean (who else, but Frankie – of course) and an Italian walked into the bar.

After scrutinising the group, the bartender said, “Cannot lah everyone, you all cannot enter without a Thai.”

“We do have a Thai with us but she is gonna be late,” protested our cheeky Scot.

“Sure boh,” the bartender looked at him suspiciously.

“Yah sure, one Tiger beer please,” he ordered.

“Make it five Tigers please unker,” our Italian developer from Rome interjected holding up two fingers.

“Eh?! I’m confused,” the bartender said. “You want five Tigers or two Tigers, ah di?”

Amidst the commotion, our Irish web developer did the impossible after seeing the terribly crowded bar table layout. He left the bar.

Shortly after, our Dutch and Canadian database admins also stood up and left after failed attempts to find a table in the noSQL bar.

Then our Indian Python programmer tried to order something imported, but the bartender said, “Sorry hor, we do not have imported craft beers here for you to lim.”

Frankie wanted a bottle of wine that had been breathed. If it doesn’t breathe, he is ready to give it a mouth-to-mouth resuscitation.

To round up the eventful evening, three of our guys almost got ripped off as they were unable to get a cab. In the end, they Grabbed a ride instead. The Grab driver knew they were drunk so he started the car only to turn it off again. The American paid the driver the money. The English thanked him. But the Korean slapped the driver. The driver wasn’t sure if the Korean had slapped him because he noticed what he did so he asked why and the Korean replied, “Why did you drive so fast?”

Happy New Year from the cloud.
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