# Singapore's success depends on not being afraid to change

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It is possible for small city-states such as Singapore to shape and create not just markets, but also their operating environments, said former head of civil service Peter Ho. He draws hope from the fact that Singapore's small size gives it the agility to course-correct and to make whole-of-nation changes.

Furthermore, responding to uncertainty and complexity has always been in Singapore's DNA, he added in the fourth and final IPS-Nathan lecture yesterday. Below is an excerpt from the lecture by Mr Ho — who is now senior adviser to the Centre for Strategic Futures — in which he also spoke about how Singapore should rethink borders and connectivity, and how it could draw lessons from Estonia in this regard.

In the recent past, Singapore tried to overcome its small physical size by tapping into space abroad — such as Suzhou Industrial Park, Iskandar Malaysia, and Batam, Bintan and Karimun. It was — and is — a network strategy, with Singapore as the hub.

But new digital technologies will create new and different networks, with their own hubs and connectors.

If 3D printing — or additive manufacturing — successfully transitions to large-scale manufacturing, it could significantly reduce global shipping activity, negatively affecting all aspects of the port and shipping industry, including the transhipment market, on which Singapore's position as a global hub port is based.

In one study, PwC estimates that up to 37 per cent of the ocean container business is at risk because of 3D printing. So, whether we will continue to be a hub in the networks that emerge in future will depend not just on our capabilities, but also on our ability to seize early mover advantages, and on how quickly we create and attract links to Singapore in the new networks that emerge.

If such changes occur, we may need new maps to complement old ones. I would like to examine two ways in which our needs may be changing.

**Rethinking Borders**

First, we often think of economic competitiveness based on nations, demarcated by borders. One nation is more competitive than another in a particular sector. This view made sense when nations traded goods — whichever had a comparative advantage in making a product ought to make it, to the benefit of all.

The economist Richard Baldwin, however, says that the flows of know-how have grown more important in the past two or three decades, as communications technology improved, and enabled coordination from a distance.

The worker in Ho Chi Minh City, Vietnam, or Zhengzhou, China, may not know how to design, manufacture and market a product. But the multinational corporation — or MNC — does. By training the worker and his manager, the MNC taps into cheaper workers and land. Consciously or unconsciously, it adds them to global value chains.

"The contours of industrial competitiveness are now increasingly defined by the outlines of international production networks rather than the boundaries of nations," Mr Baldwin writes.

This may mean working more closely with major companies and cities that are part of the production networks, whether to develop new products and services, orchestrate these networks or even shape where and how these networks develop.

Mr Baldwin speculates that improvements in communications will enable other flows — even those of high-touch services, such as seeing a counsellor, or working with a physiotherapist — across national borders. Remote medicine, where patients interact with doctors in a different location, is already practised.

Today, Rio Tinto manages its mining operations remotely. In the future, digital platforms can to tap into labour based abroad, without even setting up a Singapore-supported industrial park abroad.

Such platforms, like Konsus, already exist. Konsus matches high-end independent contractors or freelancers with projects, including when the freelancer and the project client are based in different places.

If cross-border supply of services increases, Singaporeans may be able to work with co-workers and clients based abroad as if they were physically present in Singapore.

Singapore under the British thrived because of its status as a free port. In contrast, Jakarta — then known as Batavia — languished under the Dutch because of onerous restrictions placed on traders and the Dutch policy of controlling and taxing trade.

Being well-connected and plugged into dense networks confers far more advantage than efforts to monopolise production or control access to resources. The Portuguese in Malacca — and later the Dutch — sought to control the spice trade by collecting monopolistic rent in Malacca and by limiting access to the spice-producing islands. While this generated short-term profit, it backfired in the long term as merchants sought to bypass Malacca for less-restrictive ports.

The British, in contrast, maximised their commercial power by linking up its empire with ocean cables, the telegraph system, railways and canals, with the Suez Canal being the most important. They created the first truly global market and controlled the sea lanes with just "five keys" that were said to lock up the world — Singapore; the Cape of Africa: Alexandria, which commanded access to the Suez; Gibraltar and Dover.

The basic approach is to ensure open access and maximum connectivity. Just as Sir Stamford Raffles made Singapore a free port in 1819, welcoming traders from any country, Singapore in 2017 could welcome data from any country — a free data port.

It could allow data centres in Singapore to hold data governed by the laws of another country, as if it were stored in the source country. This would anchor the data in Singapore, allowing local-based companies to harness insights from data. Such rethinking of borders will grow in importance in our increasingly digitised and data-driven world.

**Rethinking Connectivity**

Second, the flows of data will accelerate. It is not just the data that we generate on WeChat and Facebook. Machines will communicate more with each other. Complexity economist Brian Arthur describes machine-machine communication as a "huge interconnected root system". These interactions and interdependencies take place underground, out of sight, but enable actions that we care about. Mobile phones communicate with GPS satellites to pinpoint our location so that Grab drivers can find us, without our being aware that this communication is taking place.

If the movement of data from one IP address to another will matter more in the future, nations may need to reconsider how to plug themselves into these flows, given the possibility that countries will protect the sovereignty of data.

Some countries are already mandating that data about their citizens are stored locally. Others are setting rules on the transfer of data across borders.

Today, Singapore manages its relations with other states through diplomacy and the conduct of foreign policy. In the future, it will need to manage relations with a wider range of entities — with digital conglomerates, with cities, and even with other countries — in the digital space. This will not be without precedent.

Denmark is reported to be creating the position of technology or digital ambassador — that some have dubbed the "Silicon Valley Ambassador" — in order to better engage digital firms such as Apple, Google and Facebook. This is almost as if technology was its own country, unlike the present and certainly the past.

Although the role is still being fleshed out, Danish Foreign Minister Anders Samuelsen explained the need for greater engagement by citing recent investments in Denmark by Apple and Facebook, increasing data usage, and attendant issues of privacy and "fake news".

For Singapore, such an approach would build on our earlier efforts to partner other cities and sub-national regions to plug them into international production networks.

**Estonia — a harbinger of the future**

Changes in technology, trade routes and geopolitics can gradually diminish a city's or a country's hub position. Hub positions are not invulnerable despite the many advantages that incumbency confers.

The commercial power of Venice declined after Christopher Columbus' discovery of the New World and Vasco da Gama's discovery of a sea route to the Orient. The example of Venice suggests that global hubs like Singapore need to diversify their offerings and constantly reinvent themselves to remain relevant.

From medieval and Renaissance Venice, let us turn to a much more modern example. Estonia is a Baltic state of 1.3 million people. It borders Russia, making it all the more diminutive. It is ageing, like Singapore, and even older — 19 per cent of its population was aged 65 years and above in 2015, higher than the 12 per cent in Singapore.

Despite its size, location and age — or perhaps because of these factors — Estonia has been turning itself into a digital society. At birth, the doctor puts Estonian baby's details into the medical records — and so his digital identity is born.

That digital identity now allows an Estonian to sign private contracts, access public services and databases, pay taxes and vote. In the 2015 parliamentary election, 30 per cent of votes were cast over the Internet. By cutting trips to public offices and banks, for example, the digital society is estimated to save Estonia 2 per cent of GDP yearly.

Beyond the digital society, Estonia is also re-creating itself as a "virtual nation". First, it is trying to back up its computers and databases, so that the Estonian digital society can continue to function, even when cyber attacks or physical attacks occur.

In 2007, online banking was crippled, and emergency services almost disabled, in a massive DDoS (Distributed Denial of Service) cyber attack on Estonia. This took place amid a row with Russia over the relocation of a Soviet-era statue. To build robustness, Estonia is now experimenting with "digital embassies", where data is stored on servers in its embassies abroad. It is also developing ways to migrate data to commercial servers, such as those hosted by Microsoft, as back-up in the event that cyber attacks take place.

Second, Estonia introduced e-residency in 2014. You may be Indian, South African or Singaporean. You may live abroad. If you become an e-resident of Estonia, you can use some of the digital services available to Estonian citizens, such as setting up an Estonia-based company.

E-residency helps Estonia generate business activity for Estonian companies, from independent contractors to small companies, with clients worldwide. More than 18,000 people have since become e-residents.

Estonia hints at how nations could redefine their identities, and what it means to be a nation, in a digital era. Benedict Anderson, the historian and political scientist, argues that a nation is an imagined community. E-residency may one day build another "Estonia" — an imagined community beyond borders and time zones. Digital embassies are about ensuring the survival of a country's way of life, beyond physical borders.

"The concept of a country has changed," says Taavi Kotka, Estonia's former chief information officer who led the e-residency initiative. "Land is so yesterday. It doesn't matter where you physically live or operate. That is how the game will change."

Is Mr Kotka right? Or will geography and territory have the final say? Perhaps the question should not be cast in such binary terms. Singapore is already simultaneously a nation-state and global city. To consider Singapore also as an extra-territorialised entity, expanding the concept of our reality to encompass abstract bits and data flows, merely reinforces the paradox that it already is.

**Where next?**

It was Singapore's great fortune to have had two remarkable visionaries in its short history of two centuries — Stamford Raffles, the founder of modern Singapore, and Lee Kuan Yew, the father of independent Singapore.

The question is whether Singapore should tempt fate, and leave it to luck that another great man will emerge to lead the nation to even greater glory. Or whether we should create the conditions that will allow Singapore to extend its exceptionalism for as long as possible into the future.

I am, of course, inclined to the latter, not just because I believe that passivity opens us to greater turbulence, and increases the likelihood of strategic shock. It is also because I believe that action creates hope.

Hope is the fuel that energises society, but hope also needs action to make vision become reality. As Bill Willingham wrote in the Fables series: "Hope isn't destiny. Left passive, it's nothing more than disappointment deferred."

Our founding fathers' grand vision and great hopes for Singapore were always accompanied by action. This is the difference between hope and paranoia — the latter has a crippling capacity to cause all action to be for naught, while the former propels reasonable, thought-out action with measured optimism. The central question that is posed in this evening's lecture is whether Singapore is merely a price-taker, or whether it has the ability to influence and alter the factors that shape the future.

A thread running through all these four lectures — and this evening's in particular — is a hopeful view that even small city-states can influence, shape and even create, not just markets but also their operating environment. It is a belief in this view that hope can be redeemed for even a little red dot like Singapore.

As a parting shot, let me outline two reasons for this belief. First, I do not want to trivialise Singapore's very real constraints. But these very constraints are our opportunities.

Resource constraints matter more to us because we are small. We also have less room for systematic policy error in a world that is increasingly VUCA (volatile, uncertain, complex and ambiguous).

But it is precisely our small-ness that gives us agility, the ability to course-correct, and to iterate with more freedom and dexterity, than much larger entities. We have greater ease of coordination to actualise the Whole-of-Nation approaches that I mentioned in my first lecture, since we can actually galvanise society within our small space.

We have greater ease of implementation, and great ability to test, iterate, experiment and prototype, because we do so within limited geographical bounds. And as a small state, we have greater ability to course-correct if we happen to embark on policy at a scale that turns out to have been wrong or misguided.

Second, we should remember that responding to complexity, uncertainty and accelerating change are not alien to us. It is in our very DNA as a country, and rooted in our origins both as a sea port founded by Raffles and well as a nation led by Mr Lee and the other founding fathers. No one expected us to survive but we did. We defied rules, expectations, stereotypes and existing categorisations when we eschewed import substitution, courted MNCs and embarked on multicultural meritocracy when most of our neighbours were mercantilist and communalist.

Both Goh Keng Swee's vision of a thriving open economy and S Rajaratnam's vision of being "Singaporean by choice and by conviction" were audacious, reflecting a unique brand of gung-ho political entrepreneurship.

My belief in the redemption of hope should not be seen as something new to Singapore. It is within each of us, and with a little effort we can reclaim it. Of course, there are conditions attached. Prime Minister Lee Hsien Loong alluded to one of them when he spoke of his wish for a sense of "divine discontent", which I take to mean never being satisfied, never being complacent that we have arrived.

Of course, it is hard to change the identities that we are familiar with: Who we are, where we are, and what is within influence. Yet changing identities is part of what it means to grow. You are not the same person that you were a decade ago, and hopefully you are the better for it. The winds of change provide an opportunity for us to reinvent ourselves.

We need courage and imagination. Courage to change the identities with which we have grown comfortable with, to re-write the stories that we tell ourselves about ourselves, and imagination to come up with different identities.

We should not feel that our success in future is derived from what we are today. If we can achieve such courage and imagination, then there is a basis to hope for a better future that is yet to exist. This courage and confidence to embrace changes and opportunities together as a nation rest on our sense of shared agency, values, and destiny — a shared future.

A key source of Singapore's strength has always been our people's trust in fair competition and just reward for effort and achievements, compassion for the unfortunate, and a restless yearning for continuous progress.

The points on trust and compassion bear emphasising. This has to be carefully fostered by the leadership because, without it, it would have been impossible for our leaders to forge consensus on far-reaching policies and tough trade-offs between different priorities, interests and groups.

From this interplay between internal hope and external forces of change, combined with vision and good governance, the future — our future — will emerge.

As 13th-century Persian poet and scholar Rumi memorably wrote: "The garden of the world has no limits, except in your mind."