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“The Treasure of Human Experiences”

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A Singapore Story:
A Visionario in 2035

Panel 1: The Complexity of Intangible Heritage Appreciation

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Thank you for inviting me here today to share the outcome of a foresight methodology and systems tool that I have been working on and using for decades to inform and improve policy makers' decisions, especially regarding complex system behavior. Called "visionario development," it uses assumption testing to explore a complex system and its inherent inter-relationships and interdependencies to better understand how events may occur before they unfold so that if the story unfolds in ways that are catastrophic, or positive, policy makers may think about ways to intervene to change the situation or improve a process. Because complex systems cannot be controlled – only influenced, and only influenced if understood very well, the idea is to create a story that examines the assumptions to be tested and then look at the human behavior in that story to see what can be learned. When a time frame is added, the story enables a system to become more anticipatory. Today's visionario is called "The Singapore Story."

The Singapore Story

The year is 2035.

Patrick Chan is a Colonel in the Singapore Army. Sitting in a training session, Patrick realized he was hungry since he missed breakfast. Thinking about when lunch might begin, his Israeli instructor seemed to say something about Singapore. His colleague, from the Changi Naval Base, leaned over and in a whisper said,

“Did you hear what Gadi just said?”

“No. What?” said Patrick.

“He just mentioned that the Mossad had learned of a potential plot against Singapore this morning using our new cyber tool that we developed jointly with Israel and Finland. You know the one that came out of Project 713.”

Within the context of the Islamic State or (IS) of 2035, Israeli intelligence picked up on chatter that suggested Singapore, as one of Asia’s power nations, propelled by economic development, would provide a counter-weight target to the continued attacks on economically successful nations around the world that have gone on for decades, now. Singapore is considered a target of opportunity because of the proximity of the Abu Sayyaf Group with its operations in the Philippines and Malaysia; and the Jemaah Islamiyah, (JI) organization, with its activities in Indonesia, known for its attacks from time to time on Bali resorts for more than 3 decades.

IS, in conjunction with the Abu Sayyaf Group that had pledged loyalty to IS’s new leader, Mohammed Salah, could not ignore the high symbolic value of the Singapore skyline with its Singapore Flyer and Casino Complex. In addition, Singapore symbolizes the epitome of the economic and political success story. It has strong relationships with China, the United States, and most other nations. Singapore also serves as a symbol of wealth and, because of its economic and political stability, is known as a “safe-haven” for Chinese, Indonesian, Malaysian and other businessmen interested in financial investment. The

societal space necessary to develop an innovation culture, based on a significant work ethic, and government guided policies, have clearly worked in Singapore. This has occurred because the kinds of corruption inherent in so many nations of the world are absent from Singapore. And, businesses love it!

Gadi had just relayed to the class that his friends in the Mossad were made aware just that morning that the chatter was getting more intensive. Three Singaporean officers were sitting in the classroom, and decided to alert their leaders but soon learned that the Israelis had already told them. But, it didn't matter. The Singaporeans already knew. They had been monitoring the activities of many subversive groups for years. Within hours the Abu Sayyaf Group network in Singapore along with its Jemaah Islamiyah (JI) counterparts and known constituent supporters were arrested and interviewed. Within their homes in Singapore, bomb making materials and suicide vests along with small arms were discovered. Indeed, the maps of the Casinos and the Flyer information and photos had been documented with vulnerabilities already identified and posted on the wall of their apartments. Long after the events were exposed, Malaysian officials reluctantly agreed to search their family homes in Kuala Lumpur. Not surprisingly, bomb making literature and computers with IS materials were confiscated at those locations, as well.

As the investigation continued, it became clear that over several months, Abu Sayyaf Group activists, supported by the IS network that included Jemaah Islamiyah support, smuggled in weapon component parts during several visits.

They were assembled prior to the attacks planned for the Casinos and the Flyer. The activists traveled from Malaysia to Singapore by train over the Johor-Singapore Causeway using the train system as cover, as it provided larger numbers of people to be scrutinized by Singaporean officials once they cleared Malaysian check-points. This was accomplished more easily than anticipated because one of the Malaysian officials was a sympathizer to the Abu Sayyaf group and IS by extension.

The two leaders of the Singaporean cell were Anwar Hamid and Suleiman Ibrahim. Both came together to Singapore to visit their relatives in the Arab Street in the Kampong Glam section of Singapore, near the Sultan Mosque. What they didn't know was that Singaporean officials were watching them.

Singapore's value as a target had been known for decades - In December, 2001, Abu Sayyaf group terrorists, planned to assault American, British and Israeli targets before their plan was thwarted by Singaporean security services. Their learning processes have continuously improved.

Now, more than thirty years later, South Korea, China and Japan still rely on the Strait of Malacca as a linchpin for more than 80% of Middle East oil that passes through on tankers that travel in close proximity to Singapore since their clean fuel strategies have not been implemented as quickly as they had hoped. Today, in 2035, with the increasing breakdown of the nation-state system in the Middle East, those oil flows have become less predictable or controllable because of group rivalries and personal

interests of sub-national leaders with competing interests. Disrupting the flow has been an objective of both pirates and terrorists and Singaporean authorities have worked diligently for years to ensure Maritime security by means of patrols and guideline protocols for maritime personnel. For example, oil tankers are instructed to pass through the straits as quickly as possible, not to load to full capacity to keep the ship high in the water, and to increase look out posts both during the day and night.

Officials found out that the reason the casinos and the flyer were targeted was to serve as a decoy for a broader, more strategic set of targets that were also being planned at the same time. These targets would have severe financial implications and repercussions for the economies of S. Korea, Japan and China. This was the case since redundancy logistics, talked about regularly as a requirement to ensure back-up delivery systems existed, simply didn't materialize. They were never implemented. The price of oil has remained low for many years now, in part because of continued shale production and fracking, and Iran's re-emergence as a significant oil supplier in the aftermath of the American Iranian nuclear agreement that began to take effect nearly 20 years ago.

China's dependence on Middle East oil through the Malacca straits is seen as a choke point for continued Chinese economic expansion and its ability to continue investing into Russian projects and the specific initiatives of Vladimir Putin around the world. Putin, now in his 80's, is still in power. Putin understood this vulnerability could impact China's sustained ability to provide for its own

needs. In addition, episodic and inconsistent oil flows threatened continued financial support for Putin's R&D initiatives. So Putin decided to work with the Singaporeans in conjunction with the Chinese, and even Singapore's ally, the United States, to reinforce security in the straits. The other reason the terrorists want the casino and the flyer to be blown up, is that those assaults would put a severe strain on the tourism industry in Singapore since it has built a reputation as the safest and most wonderful place to visit in Asia along with the best place to invest your money.

In 2035, President Putin, continues to be very concerned about security in the Malacca Straits against the backdrop of continued Russian-Chinese economic cooperation. These relationships began in earnest and grew after Western sanctions were levied against Russia with Putin's annexation of Crimea and his continued "adventurism."

Putin continued to worry about Chinese financing for many of his projects; if oil flows from the Middle East to China became more unpredictable and uncontrollable because of the breakdown of the Middle East nation-state system and terrorism, Chinese financial flows to Russia might begin to dwindle. Thus, it made sense for Putin to support the Chinese decision to sanction and support long-standing American – Singaporean ties. This way, if the Chinese economy were to slow for whatever reasons, the Russians would have access to alternate financial investment income from Singapore to support Putin's projects.

But, Singapore's value as a target went back even further to 1965 when in the words of Lee Kwan Yew, he said,

“Seventy-five per cent of our population (of two million,) were Chinese, a tiny minority in an archipelago of 30,000 islands inhabited by more than 100 million Malay or Indonesian Muslims. We were a Chinese island in a Malay sea. How could we survive in such a hostile environment?”

For a variety of reasons Singapore was not only a model of success but created tensions within groups jealous of Singapore’s accomplishments. Singapore had built a multi-cultural, pluralistic state where individual cultures were encouraged to operate freely and government appreciated how differences contributed to the strength of their society. Tolerance was promoted and reinforced. Seventy years later, Singapore’s success in the global marketplace for ideas and as one of the preferred places, to live, work and play, has demonstrated that it, as a society, can serve as a model for the world; the last thing the terrorists want to see happen. The good news is that Singapore is prepared because of its work in foresight and anticipatory systems development through the Centre for Strategic Futures in their Prime Minister’s Office. History has taught them that there is no substitute for the learning processes associated with foresight methodologies and prudent planning.

As Patrick learned of the events that unfolded at home, he felt both a sense of relief and satisfaction in the knowledge that the years of contingency planning for a broad range of national security challenges had paid off. Patrick Chan was proud to be a Singaporean.

What you have just heard is an example of a visionario developed to demonstrate the systemic inter-relationships and inter-dependencies that are inherent in complex systems that cannot be controlled nor predicted. In particular, we explored the second, third and fourth order effects of apparently small decisions that had enormous and potentially catastrophic implications. There are an infinite number of potential futures, so a vision of the future is not a forecast nor a prediction but a planning tool to think about events that could happen in the future before they occur. And, if what happens in the visionario is something we want to happen or we do not want to happen, the process of thinking through the events and the “triggers” in the system that lead to those events, can be understood and planned for. If the story is one we want to have happen, we can develop the systems and processes to enable the future we want.

The story I have read to you can certainly become a reality. It is an example of a positive visionario. Singapore regularly engages in whole of government long term planning, to prepare for potentially catastrophic events, and work to remove those “black swans.” The United States is continuing to struggle with these processes and we have much to learn from others who do this better, like you, here in Singapore! But, you are not my usual audience of Admirals and Generals from the Pentagon, whose visionarios frequently kill millions or even billions. Continuing to improve these processes, using state of the art complexity science algorithms and other systems science tools is what we are demonstrating with our work

in the Center for Complex and Strategic Decisions and with our partners at the Systems Science Center at Argonne National Laboratory.

I hope this visionario gives you some things to think about and I look forward to the rest of the presentations and your questions.

Thank you.