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*Global Health Security:
COVID-19 & Its Impacts*

Limits to Strategic Foresight: Try Wisdom of the Crowds

By Shashi Jayakumar and Adrian W J Kuah

SYNOPSIS

Even for a nation with Singapore's foresight capability, the full-range of COVID-19's consequences could not have been foreseen. Would not now be the ideal time to revisit key tenets of Singapore's foresight enterprise – and by implication our national security framework – and perhaps limiting the impact of future strategic surprise?

COMMENTARY

COULD SINGAPORE, with its strategic foresight capability, have predicted COVID-19? It is reasonable to ask this, since Singapore is admired globally for its strategic foresight capability. Two milestones stand out in the development of this capability.

The first occurred in the mid-1980s, when the Government experimented with using long-term scenarios in defence planning and not long after rolled it out for broader use across the different ministries. This led to the practice of "National Scenarios" that forms, at least partly, the basis for long-term planning. The second was a major review which in 2004 led to the Strategic Framework for Singapore's National Security.

Swan, Elephant, or Something Else?

Deputy Prime Minister and Coordinating Minister for Security and Defence Dr Tony Tan's 2005 [Ministerial Statement](#) on the Framework observed that "the most important recommendation" was to "set up a new Coordinating Structure in the centre of Government...in the Prime Minister's Office."

Dr Tan, in highlighting the importance of investing in “imaginative solutions to intractable problems”, also announced the establishment of a Risk Assessment and Horizon Scanning capability intended “to help us anticipate and deal with shocks to our system.”

The Risk Assessment and Horizon Scanning Programme Office was set up within NSCS, alongside the other strategic foresight apparatus of the Government such as the Centre for Strategic Futures in the Prime Minister’s Office.

Returning to the question posed above: was COVID-19 inherently unpredictable? Was it a “black swan” that would have defied the best foresight capability? Or was COVID-19 a “black elephant”, the sort of catastrophic problem identified in advance but ultimately ignored, sometimes wilfully?

But maybe there is a third possibility – that catastrophic surprise is context specific: it is not simply that it is unforeseen and unforeseeable, but seems that way because of the limits imposed by one’s perspective and experiences.

Limits to Whole-of-Government Approach?

Notwithstanding the lapse when it came to assessing the magnitude of risk to foreign worker dormitories, agencies have not been unprepared. They have for years been anticipating, and preparing for, disruptions to food security (through source diversification) and infectious diseases outbreaks (the opening of the National Centre for Infectious Diseases in 2019 being a case in point).

Still, COVID-19 should give us pause: there is the opportunity to use this crisis, and do deep thinking on the our strategic foresight enterprise, and cognitive diversity within.

A horizon scanning system, for example, combines data science and data analytics with the craft and intuition of the analyst, the scenario planner or the futurist, so that we can mitigate the failure of imagination and the lack of communication that allows people to feign ignorance and thereafter act surprised.

A well-designed horizon scanning system is underpinned by Ashby’s Law of Requisite Variety, encapsulated in the aphorism, “it takes complexity to defeat complexity.” To better able to intuit catastrophic surprises, it helps if we look in different directions, have different mental models, and are constantly and courageously challenging each other’s interpretations of what is going on.

So, could a horizon scanning system have foreseen COVID-19? Alas, probably not, and certainly not in its painful detail. But COVID-19 has shown that the best whole-of-government efforts must be enhanced. To be sure, centralising strategic foresight and horizon scanning capability within the Government, albeit with frequent consultations with outsiders, certainly makes for greater efficiency.

Wisdom of the Crowds: Look Beyond Government

But it also creates a single point of failure. To prevent this, we need to inject the requisite diversity of viewpoints and expertise necessary to detect and tackle emerging threats. Needless to say, this more distributed approach will have to trade off efficiency for robustness (and messiness).

If complexity is required to defeat complexity, then the diversity of expertise, knowledge and insights that can help Singapore deal with these emerging threats may well come as much from outside of Government – from the usual quarters such as universities and think tanks, as well as unexpected ones such as NGOs and loving critics – as from within.

In his 2004 “The Wisdom of Crowds”, James Surowiecki suggested that, under certain conditions, a sufficiently diverse and independent group could produce more accurate forecasts and guesses than so-called experts.

To mitigate that “single point of failure”, the strategic foresight enterprise should be less of a “Government-hub and different spokes” model, and more of a decentralised network with diverse and independent nodes simultaneously complementing and countering each other in making sense of the world. This idea has been put into practice by various corporations and government agencies, in the form of hackathons, crowdsourcing for ideas, and prediction markets.

There is a practical consideration. No matter how enlightened a government or organisation is, there is a limit to inconvenient albeit useful insights it is willing to accept, much less embrace, especially if surfaced internally. Moreover, an internal group established to counter groupthink can itself on occasion be susceptible to groupthink.

By building capabilities outside of the Government or drawing on pre-existing ones, we can shift the cognitive odds in our favour even though the foresight enterprise remains a fallible one.

National Security: Time for Review

A distributed, extra-Government horizon scanning process provides a platform for multiple interpretations of ambiguous weak signals to occur. Incompatible interpretations of the same signal, far from causing consternation, are instructive: it tells you that it does not conform to any previous pattern, and we should pay it even more attention, instead of trying to force a convergence of views.

This is where culture comes into play: we should further develop a culture that takes on board potentially useful albeit unpalatable insights surfaced by outsiders.

We are now at a point where national security and strategic foresight need to encompass and embrace that emerging range of uncomfortable novelties: not just pandemics, but food security, climate change, and grey zone operations such as disinformation. Some 15 years ago, Singapore’s national security enterprise placed resilience and whole-of-government coordination front and centre, and augmented its foresight capabilities with horizon scanning.

Given how the world has changed because of COVID-19 (though not only because of it), another review may be in order, one that expands the national security discourse from one that is whole-of-government to whole-of-society, in order to tap the wisdom of the crowds.

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