The innovation of Singapore's AI ethics model framework

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By Goh Yihan and Nydia Remolina

Since 2017, Singapore government identified Artificial Intelligence (AI) as one of the four frontier technologies that would further the groundwork infrastructure that underpins the country's ambitions for its Digital Economy and its Smart Nation ambition. On the one hand, 2019 was a period when fundamental policy initiatives were launched in Singapore. On the other hand, in 2019 the Government reaffirmed the importance of developing and using AI by implementing projects in key high-value sectors and building a holistic AI ecosystem.

The policy initiatives positioned Singapore as one of the leading voices in AI Governance worldwide. Indeed, on April 2019 the country won a top award at the World Summit on the Information Society Forum, a United Nations level platform. The initiatives that contributed to the win included: Asia's first model AI governance framework that was released in January; an international and industry-led advisory council on the ethical use of AI and data; and a research programme on the governance of AI, ethics and data use established through the SMU Centre for Artificial Intelligence and Data Governance that I lead and from where we contribute to the ecosystem by conducting academic research to inform AI and data governance in Singapore and beyond, with a particular focus on legislation and policy.

One of the most relevant cross-sectoral policy initiatives of this year is the Model Artificial Intelligence Governance Framework — or Model Framework — launched in January 2019 as a guide for organizations to practically address key ethical and governance issues when deploying AI technologies. The Singaporean approach helps translate ethical principles into pragmatic measures that businesses can adopt. It is the result of the collaboration between the private sector and regulators and the first attempt of a country in Asia to put together this type of framework. Other jurisdictions lead similar initiatives this year. For example, the European Commission announced its final set of AI and ethics guidelines by March 2019, an approach likely to complement the EU General Data Protection Regulations. On a more international scale, the OECD presented on May 2019 a set of principles on AI to promote the innovative and trustworthy use of AI that respects human rights and democratic values.

Additionally, Singapore launched in October 2019 the National AI Strategy (NAIS) that will see over S$500 million committed to funding activities related to AI under the Research, Innovation and Enterprise 2020 Plan, in hopes of furthering AI capabilities in these fields. Highlighted in the NAIS,

Singapore will start by focusing on five key sectors to concentrate its efforts on - transport and logistics, smart cities and estates, safety and security, healthcare, and education. These National AI projects aim to channel investment for research and development, anchor talent and guide the development of supporting digital infrastructure in Singapore.

What do we expect for next year? We look forward to keeping consolidating the AI ecosystem in Singapore from the academia by publishing cutting-edge research that can contribute to convene and facilitate dialogue, across academic, industry and regulators, especially between organisations in the Asia Pacific region. We also expect that regulators will continue to develop their initiatives towards having trustworthy AI, such as the second version of the AI Model Framework from IMDA, and the Veritas initiative announced by the Monetary Authority of Singapore which will translate into practice the principles-based approach for AI that the financial regulator has adopted.

About the authors

Professor Goh's research focuses primarily on the law of contract and torts, with a secondary interest in the principles of statutory interpretation and the legal process. He has published numerous books, chapters and journal articles internationally and in Singapore, which have been cited on multiple occasions by the Singapore courts and the Federal Court of Malaysia. He has been appointed amicus curiae before the Singapore Court of Appeal and the Singapore High Court. In recognition of his invaluable contributions to the development and advancement of Singapore law, he became the youngest recipient of the pentennial Singapore Academy of Law Singapore Law Merit Award in 2013. He obtained his LL.B. (First Class Honours) from the National University of Singapore on a University Undergraduate Scholarship, where he graduated as the top student in 2006. He subsequently obtained a LL.M. from Harvard University in 2010 on a NUS University Overseas Graduate Scholarship.

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