

Fact Sheet

EMBARGOED TILL AFTER MINISTER FOR COMMUNICATION AND INFORMATION OPENING SPEECH AT INNOVFEST UNBOUND, 05 JUNE, 2018

ARTIFICIAL INTELLIGENCE GOVERNANCE AND ETHICS INITIATIVES

As Singapore develops its digital economy, a trusted ecosystem is key, where industries can benefit from innovations in technology while consumer confidence and understanding can be assured. It is thus timely to proactively discuss and address ethical issues that may arise from the use of Artificial Intelligence (AI) and data, as new business models and innovations rapidly develop in the emergent AI space.

In order to drive awareness of the benefits and understand the challenges of AI (such as on ethics¹ and legal issues), IMDA is engaging key stakeholders including government, industry, consumers and academia to collaboratively shape the Government's plans for the AI ecosystem. Such discourse will inform the Government's ongoing plans to support Singapore as a hub for AI development and innovation, and help Singapore to effectively respond to global developments.

IMDA will engage relevant stakeholders through three new structured, interlinked initiatives:

1. An Advisory Council on the Ethical Use of AI and Data;
2. A discussion paper released by PDPC on responsible development and adoption of AI, which will be used by the Advisory Council to frame its deliberations; and
3. A Research Programme on the Governance of AI and Data Use to advance and inform scholarly research on AI governance issues.

These initiatives complement IMDA's current suite of business and talent programmes to develop a vibrant AI ecosystem and position Singapore as a leading hub for AI.

¹ Ethics encompasses issues surrounding fairness, transparency and the ability to explain an AI's decision.

1. Advisory Council on the Ethical Use of AI and Data

An Advisory Council on the Ethical Use of AI and Data will be appointed by the Minister for Communications and Information to advise and work with IMDA in the areas of responsible development and deployment of AI. The Advisory Council will assist IMDA to:

- Engage with relevant stakeholders such as ethics boards of commercial enterprises on ethical and related issues arising from private sector use of AI and data, and consumer advocates on consumer expectations and acceptance of such use;
- Engage the private capital community to increase awareness of the need to incorporate ethics considerations in their investment decisions into businesses which develop or adopt AI; and
- Establish a Legal and Technical Expert Panel to support the Advisory Council, as well as a Panel of International Experts for global perspectives.

The Advisory Council will assist the Government to develop ethics standards and reference governance frameworks and publish advisory guidelines, practical guidance, and/or codes of practice for the voluntary adoption by the industry.

Former Attorney-General V.K. Rajah SC has been appointed the Advisory Council's inaugural Chairman. The composition of the Advisory Council will include private sector thought leaders in AI and Big Data from local and international companies as well as representatives for consumer interest. The full list of Advisory Council members will be made available at a later date.

2. AI and Data Governance Framework Discussion Paper

To support the Advisory Council, the Personal Data Protection Commission (PDPC) is also putting forward a discussion paper on how a possible reference AI and Data governance framework for industries could look like, as well as what elements could be included. The discussion paper will create a baseline for discussion across stakeholders, encouraging common definitions and common frames for dialogue, and is intended as a living document.

The discussion paper recommends two key principles:

- 1) Decisions made by or with the assistance of AI should be explainable, transparent and fair to consumers.

2) AI systems, robots and decisions should be human-centric.

The discussion paper's four-stage reference governance framework illustrates how these principles can be put into practice by different stakeholders, such as identifying the objectives of an AI governance framework; selecting appropriate organisational governance measures; putting in place consumer relationship management processes; and building a decision-making and risk assessment framework.

The discussion paper was compiled in consultation with key government and industry stakeholders, to support collaborative discussions on the responsible development and adoption of AI. It can also be applicable to trade associations and chambers, professional bodies, and businesses that are interested in the ethical implications of AI for their industry.

The Monetary Authority of Singapore (MAS) is an early and active collaborator in creating the discussion paper. Its FEAT (Fairness, Ethics, Accountability and Transparency) Committee, a collaborative partnership with key financial industry stakeholders, will use the discussion paper to help shape its ongoing discussion on the use of AI and data analytics in the financial industry.

The discussion paper is available online from today at PDPC's website.

3. Research Programme on the Governance of AI and Data Use

A five-year Research Programme on the Governance of AI and Data Use will also be set up at the Singapore Management University (SMU) to conduct scholarly research on policy, legal, regulatory, governance, ethics and other issues relating to AI and data use. It will support the Advisory Council and inform Government and industry discussion on AI challenges through its research and conferences.

In addition, the Research Programme enables Singapore to continue to drive thought leadership and discourse with exemplary case studies, develop a body of AI knowledge, and be a knowledge exchange centre with international experts.

The Research Programme aims to:

- Conduct research on selected topics in AI and data use;



- Organise engagement forums e.g. conferences, symposiums, roundtables and seminars to engage stakeholders to generate and share knowledge, and bring clarity to policy and regulatory issues and their impact; and
- Publish and present research papers to showcase Singapore's thought leadership in the international AI and data research communities.

The call for proposal to set up the Research Programme was conducted jointly by IMDA and the National Research Foundation.

AI as an enabler in the Digital Economy Framework for Action

The Digital Economy framework for action consists of three thrusts to enhance Singapore's position as a leading digital economy:

- Help industries and companies **ACCELERATE** their digitalisation journeys;
- Strengthen Singapore's ability to **COMPETE** internationally, through open innovation and the fostering of new ecosystems, enabled by digitalisation;
- **TRANSFORM** the ICM sector to deepen capabilities in frontier technologies and nurture the next generation of globally competitive digital champions.

AI is one of the frontier technologies identified to power the digital economy.

As part of the AI development strategy, IMDA will:

1. Help drive industry adoption and understanding of the benefits from implementing AI;
2. Build a vibrant core of AI developers and companies to foster an ecosystem of users and suppliers as well as build an AI-ready pool of talented researchers and engineers;
3. Address specific AI leadership areas to grow industry capabilities and develop R&D capabilities; and
4. Continue to provide clarity and review relevant regulations for a conducive AI business environment.

IMDA, in collaboration with AI Singapore, had previously announced initiatives in the support of the above.

About Infocomm Media Development Authority (IMDA)

The Infocomm Media Development Authority (IMDA) leads Singapore's digital transformation with infocomm media. To do this, IMDA will develop a dynamic digital economy and a cohesive digital society, driven by an exceptional infocomm media (ICM) ecosystem – by developing talent, strengthening business capabilities, and enhancing Singapore's ICM infrastructure. IMDA also regulates the telecommunications and media sectors to safeguard consumer interests while fostering a pro-business environment, and enhances Singapore's data protection regime through the Personal Data Protection Commission. For more news and information, visit www.imda.gov.sg or follow IMDA on Facebook [IMDAsg](#) and Twitter [@IMDAsg](#).

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