The AI for Social Good Summit.

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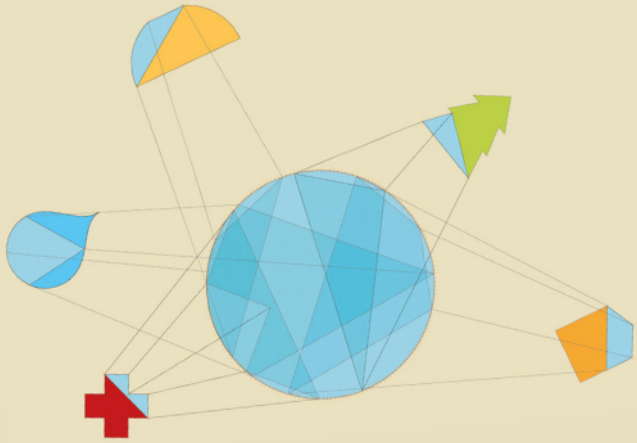

FOUR ABILITIES FOR GOVERNMENTS TO LEVERAGE AI FOR SOCIAL GOOD

The AI for Social Good Summit offered a virtual platform over four weeks in November 2020 for government officials, academics, industry and NGO experts to discuss and explore how artificial intelligence (AI) technology can be leveraged most effectively for the good of society in Asia. Artificial intelligence (AI) offers a myriad of technological solutions to today's complex problems and can help us "build back better" as we recover from the impacts of the COVID-19 pandemic. The optimism surrounding the transformative potential of AI, however, has been tempered by concerns regarding possible negative impacts that need to be addressed in time. This Brief provides a strategic summary of policy insights from three expert panels on building an effective enabling environment for AI for social good at the national level.

What is at stake?

With artificial intelligence poised to become as widespread as the internet, its impact in Asia will be widespread. Stories about artificial intelligence (AI) have often focused on its potential impact on the job market. This captures only a small part of its potential: from medical diagnostics for people who lack access to doctors to energy-efficient smart cities, artificial intelligence offers a significant opportunity to improve quality of life in Asia.

Countries that are effective in establishing enabling policies and environments for artificial intelligence that both protect against the risks of artificial intelligence and leverage it for social and environmental good will have the opportunity to make considerable leaps when it comes to achieving the Sustainable Development Goals (SDGs). These could include achievements in providing universal healthcare, ensuring a livable planet, and decent work opportunities for all.

Countries that do not create this enabling environment risk not only forgoing the potential upsides of artificial intelligence, but could bear the brunt of its destructive and destabilizing effects: from weaponized misinformation, to escalating inequalities arising from unequal opportunities, to the rapid

displacement of entire industries and job classes.

The four abilities

Building an enabling environment that effectively leverages AI for social good requires that governments develop four abilities:

1. The ability for agile regulation.
2. The ability to negotiate interest groups and ethical considerations.
3. The ability to leverage the private sector for social and environmental good.
4. The ability to build and retain local technical know-how.

1. The ability for agile regulation.

Why it is essential:

- Traditional governance approaches to regulation – setting rules on which technologies can be used and how, plus expecting them to last several years, come short when it comes to AI. Traditional regulatory approaches can alternately fail to protect people from new and potentially harmful AI applications, and stifle innovation that has the potential to benefit society.
- AI applications are rapidly changing and taking forms that may not have been obvious months earlier. It is not just governments that are unaware of the direction of evolution of artificial intelligence, as many businesses face challenges in predicting how their own applications might be used.
- The behaviour of AI may change over time. As AI systems are continuously learning and adapting, the way they function one week may differ from the way they function the next week.
- In the absence of clear government policy, technology companies are making their own decisions about the balance of risk and reward for citizens. Some may have entirely foregone deploying socially beneficial technologies to avoid exposure to legal risk.

How policymakers can approach this:

- Focus on regulating the acceptable outcomes produced by AI rather than specific technologies and applications. Regulators might oversee an AI system that rates creditworthiness by checking for unwarranted bias, rather than by trying to understand the specific mechanisms through which recommendations are produced. This provides both policymakers and AI creators with space to innovate and adapt.
- Create spaces for trial and error that enable the piloting of AI solutions on a limited basis and under the observation of policymakers, such as regulatory sandboxes, to understand how AI applications behave in the real world while limiting the potential downsides. Once applications are better understood, regulation can be refined and solutions can be scaled up beyond the

sandbox.

- Form working groups that enable close collaboration between policymakers, regulators, AI creators, and AI users around risky applications, such as self-driving cars or medical treatment. These working groups hasten the speed of evolution of AI applications and help them get to "safe" more quickly.
- Create governance frameworks that allow policymakers to "peer into" AI models by understanding how they were constructed. "Transparency notes" can document the strengths and weaknesses of AI systems and what types of data were used to construct a model.
- Develop the technology literacy of policymakers involved in regulating AI applications.

2. The ability to negotiate interest groups and ethical considerations.

Why it is essential:

- The progress of promising and socially beneficial AI applications can be blocked by vested interests or a poor understanding of the trade-offs between privacy and social impact.
- In some countries, doctors have held back the progress of promising medical applications, while in others, taxi drivers have fought against the progress of ridesharing applications. Reactionary politics around technologies that are poorly understood can have destabilizing effects and could corner policy makers into decisions that lock out the social and environmental benefits of AI.
- The willingness of people and organizations to share data — the lifeblood of AI — and their willingness to adopt AI applications is a matter of both trust and citizens' preferences for privacy. Calibrating the balance between privacy and the benefits of AI for citizens in a particular country is valuable because it may defer from the privacy trade-offs made by businesses outside the country and outside Asia.
- Policymakers play an important role in resolving conflicts between differing interests and fostering trust between stakeholders that need to share data, and have the responsibility of protecting the rights of their citizens.

How policymakers can approach this:

- Explore creating "just transitions" to support people whose jobs may be disrupted by the advent of AI and ensure they are not left behind. This can include retraining, job transition support, and job guarantees, as well as social safety nets.
- Pursue a human-centred approach to AI and data governance. This means framing stakeholder conversations on the potential benefits and risks to people, rather than in terms of the technology. For example, in the case of diagnostics: how can we quickly get information to an anxious patient about whether they need surgery in days rather than weeks? How do we ensure that overworked radiologists get the time they need to perform effective analyses? Using human-centred questions to guide the development of policy helps stakeholders take into consideration trade-offs for the benefit of people. This stands in contrast to more one-

sided questions, such as whether and how data are made available. A human-centred approach is also about ensuring that vulnerable groups are not left behind and do not buy into things that will hurt them in the future.

- Create multi stakeholder processes that build trust between stakeholders and help reconcile ad hoc challenges (such as whether machines can review medical data or under what conditions ridesharing services can operate) to resolve conflicts in favour of citizens, especially those most vulnerable. In addition to creating progress around important issues, these processes can help people understand better AI.
- Provide people with data self-determination — the ability to decide how their data are being used, and also with the ability to make informed determinations by understanding the potential outcomes of sharing data. In the past, discussions about privacy have tended to be too one-sided ("are you willing to share your personal information?") without helping people understand how sharing their data might create benefits for themselves or others ("this can help us significantly bring down wait times for scan results around potentially life-threatening illnesses").
- Create data trusts that centralise, anonymise and render accessible sensitive and valuable data that might not otherwise be shared. Where the data is managed "in trust" by a third party on behalf of the people who originated the data, while making that data accessible to important AI applications.

3. The ability to leverage the private sector for social and environmental good.

Why it is essential:

- While effective regulation of AI can help protect citizens from the downsides of AI, it does not ensure that the country benefits from the transformative effects of AI for society, particularly those furthest behind.
- The majority of these transformative applications will have to come from the private sector. If policymakers do not succeed in creating an enabling environment for AI that tilts businesses toward creating social and environmental good, AI applications will focus exclusively on the most commercially viable and easiest-to-reach applications and segments of the population.
- Experts speaking at the AI for Social Good Summit believed that governments were not using the right mix of policy interventions to create an effective enabling environment for AI, let alone an effective enabling environment for AI for social good.

How policymakers can approach this:

- Match supply-side investment with demand-side enablement by leveraging the government's position as a major buyer of services and technology and its influence on other buyers. In many countries, investments in supply-side approaches such as science parks, innovation challenges, STI research, and even investment incentives for AI technology are not yielding the expected benefits. Making use of the government's role as a regulator is often not enough to leverage AI

for social good. It must also leverage its roles as a market facilitator and market player. An effective way to grow the AI ecosystem is by encouraging greater use of AI, which leads to a greater speed of improvement in AI. Governments can act as market players and amplify demand for AI applications by working with priority sectors to identify specific use cases for AI and by nudging potential customers both within and outside government to adopt local AI applications.

- Shift supply-side investments towards AI applications by civil society organisations pursuing technology solutions ("civic tech"). Engaging and enabling civil society organisations around AI for social good applications builds alternatives to the private sector for building AI for social good applications.

4. The ability to build and retain local technical know-how.

Why it is essential:

- AI superpower countries are built on a critical mass of technical talent that has been trained, attracted to the country, and retained. Building a local AI ecosystem that serves local needs and potentials will require building up talent as well as retaining it.

How policymakers can approach this:

- Target and attract the diaspora to return to the country by showcasing economic opportunities and building their confidence in having a fair chance at being successful. An asset many countries in Asia have is a diaspora who have been trained in AI at leading universities and who have worked with leading AI firms. The AI ecosystems in China were seeded by foreign-trained nationals who returned attracted by greater opportunities and stayed because of their confidence in the country's meritocracy.
- Shift university incentive systems to place greater emphasis on taking products to market. Building an AI startup ecosystem requires entrepreneurial scientists who are looking to find expression beyond publication, by forming businesses, building products, and taking them to market. Universities whose incentive and promotion systems are deeply vested in publications will have a limited impact on the AI ecosystem.
- Invest in modern learning approaches, such as short technical programmes. The primacy of universities as a primary source for education is in decline. New types of technical training programmes that provide modern skills in a matter of weeks or months are more accessible and can have a greater impact on talent availability in the ecosystem.

Taken together, these four abilities — for agile regulation, to negotiate interest groups and ethical considerations, to leverage the private sector for social and environmental good, and to build and retain technical know-how — provide a blueprint to leverage AI for social benefit.

About the AI for Social Good Summit

The AI for Social Good Summit offered a virtual platform over four weeks in November 2020 for government officials, academics, industry and NGO experts to discuss and explore how AI technology can be leveraged most effectively for the good of society in Asia. Two highly interactive Policy Insight Briefings

aimed at senior government officials from the Asia Pacific region making decisions on developing capacities and guiding the governance of AI shared and further refined key insights from the discussion panels and the AI for Social Good research. See all summit session recordings, speaker details and Policy Insight Briefing reports at the AI for Social Good Summit web page.

The Summit is part of a broader project that aims to develop insights about how to cultivate an ecosystem that will foster and enhance AI for Social Good and maximise the technology's potential in Asia Pacific, through collaborative effort from expertise across the region. The United Nations ESCAP, APRU and Google partnered in 2018 to bridge the gap between the growing AI research ecosystem and limited research into AI's potential to positively transform economies and societies. A publication was produced bringing together thought pieces and research on developing an enabling environment and a governance framework. A *Project Advisory Board* of multi stakeholder experts from Japan, Hong Kong, Australia, Indonesia, India, Korea and Thailand provided advice and input throughout the development of the project.

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