

Singapore Launches Latest AI Evaluation Toolkit Project Moonshot at ATxSummit 2024

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ATxSG 2024, Asia's flagship tech event was held in Singapore from May 29th to May 31st, where leaders in government, industry, and research from across the world gathered to discuss concerns relating to the latest technological frontiers at ATxSummit. Key topics featured in the thought-provoking plenaries at the event include quantum computing, AI governance, deepfakes, as well as education, to cope with the rapid advancement of technology. This year's iteration of the event saw a significant increase in the number of participants, with an estimate of over 4000 online and in-person participants, compared to about 2500 participants in the previous year, signaling an increase in interest in Singapore's latest strategies in AI governance and quantum computing.

Quantum Computing to Become a Reality Soon

At the plenary on the future of quantum computing, various experts in the field shared that it is very likely that quantum computing will see practical applications in the near future, about 4 to 5 years from now, once issues such as noise, hallucination, and computing power are mitigated. Singapore, keen to pursue excellence in quantum computing, set up a National

Quantum Office back in 2022 to facilitate the development of a vibrant quantum ecosystem for the country where quantum research only began back in 2002. On May 30th 2024, the office announced the latest National Quantum Strategy, where over \$300 million (SGD) will be invested into developing talents and building infrastructure for quantum computing. As part of the strategy, Singapore intends to nurture up to 100 PhD-level and 100 Master-level talents in quantum over the next 5 years through the National Quantum Scholarship Scheme.

Education for the Future

With fast-paced development expected to continue at the frontiers of technology, the skills required of our workforce are also changing just as quickly. Many AI-powered technologies have already proven themselves to perform better than their human counterparts in many tasks, highlighting the risk of workers being replaced by technology. What then, should schools be teaching our children, for them to be able to stay relevant in the workforce? It is pertinent for countries to reevaluate current schooling systems to ensure that the younger generation is prepared for the future. According to Minister of Education Chan Chun Sing, schools should aim to teach students the ability to learn and adapt amidst changes, a skill that will prepare Singaporeans to be a competitive workforce for the future. With it being nearly impossible to accurately predict the skills that will be required of us ten years from now, being able to learn quickly is what will allow us to keep up and remain competitive.

Importance of AI Governance

Deputy Prime Minister of Singapore Heng Swee Keat emphasized in his opening address that while advancement in technology brings many benefits, it can also be exploited to cause harm. This is especially the case for Artificial Intelligence (AI) technologies where generative AI and deepfake technology are becoming more and more accessible. For instance, in the wrong hands, deepfake technology can be used for crimes such as scams and violations of privacy. Akiko Murakami, Executive Director of the Japan AI Safety Institute, agreed that there is a need to establish regulations and guidelines to avoid the risks of AI, because “without brakes, you cannot accelerate”, using a car as an analogy for the advancement of AI technology. She also stressed that international collaboration is crucial in AI governance as the situation in each country is different, and countries have unique strengths and expertise to contribute through collaboration.

Launch of Project Moonshot

In order to mitigate the risks of AI, governments and regulators have to focus on not only the development of AI technologies, but also the development of tools that can be used to evaluate the AI technology to ensure that it is safe to use. Last year, Singapore announced the launch of the open-source AI Verify toolkit which is able to perform technical tests and evaluate traditional AI models for aspects such as safety, explainability, fairness and robustness. However, the AI Verify toolkit is unable to evaluate newer AI technologies such as large language models and generative AI. This year, on the second day of ATxSummit, Minister for Communications and Information Josephine Teo officially launched Project Moonshot, the latest tool developed by the AI Verify Foundation in Singapore. Project Moonshot extends the capabilities of the AI Verify toolkit, allowing it to evaluate generative AI and Large Language Models with clear benchmarks. Designed with ease-of-use in mind, Project Moonshot has a very simple and intuitive user interface, enabling business owners and even those without any expertise in AI evaluate models for safety and performance.

In the midst of rapid technological advances, Singapore's efforts to establish regulatory frameworks and tools for AI governance are well recognized around the world, with many large corporations including the likes of Google, IBM, and Microsoft joining as members of the AI Verify Foundation, which currently has over 100 member organizations.