

# Q&A with Alibaba CTO Jeff Zhang on the launch of the Alibaba- NTU Singapore Joint Research Institute

*Note: The below content can be attributed to Jeff Zhang, CTO, Alibaba Group*

## 1. This is the first joint research institute of Alibaba outside China. Why Singapore?

Singapore is well known for its world-leading technology R&D institutions, strong base of academic research talent, a population that is receptive to the next big thing in technology and supportive government policies like the Smart Nation initiative that make the best use of new technologies to improve people's quality of life. Singapore is also well equipped with multi-language skillsets, which is extremely valuable for speech analysis and natural language processing (NLP) research.

Singapore is an important market for Alibaba – it is our regional base in SEA and we currently provide our e-commerce, cloud computing and payment solutions to empower customers in various industries in the region from here. We also work closely with Lazada, which is also headquartered in Singapore, to serve consumers across the region. On the research front, we have collaborations with different institutes to boost Singapore's smart computing and data-driven technology innovations as well.

By launching our first joint research institute in Singapore at this point, we hope to work with talents in Singapore and researchers worldwide to explore technology innovation that can address common issues faced by the society at large. Meanwhile, we can also tap into our existing business resources in the region to magnify the impact of the technology developed, making solutions affordable and accessible to all.

## 2. Why did Alibaba choose to partner with NTU on AI research?

NTU has a very solid technology research background. In the QS World University Rankings by subject published in 2017, NTU Engineering & Technology ranked 4th in the world, and the university was recently ranked as the top university in the world for AI research citations by Nikkei and Elsevier. The University is known for its dedication to cutting-edge technologies like AI, as well as a strong track record of fruitful partnerships with the industry.

We look forward to working with the best and brightest minds in the world like researchers at NTU to explore technology breakthroughs. But having said that, our collaboration with NTU is just the beginning – down the road, this joint research institute will be open to participation to researchers worldwide towards the goal of building an AI-focused research community.

## 3. The research institute will focus on different areas of AI development. What notable real-world applications do you expect from it?

Researchers from Alibaba and NTU will work jointly on AI applications in a wide range of areas. A couple of examples:

- **Health AI:** NTU's track record in the healthcare sector research, and Alibaba's industrial experience in implementing "Medical Brain" with hospitals to expedite the diagnosis or prevention of diseases including tuberculosis and arthritis, will be combined to accelerate breakthroughs and successful use cases in health AI.

- **Home AI:** Alibaba's leading computer vision technology, and NTU's Humanized AI technology - where an AI embodies human-like characteristics such as emotions and values - can be leveraged to record and analyze the daily activities of people at home or the elderly at nursing homes, which can then help detect or predict problems and provide AI companions and assistance at home.
- **City AI:** Both parties will carry out research in data-driven smart urban transport optimization, such as in the bike-sharing and ride-sharing, in an effort to achieve high collective transport efficiency and lower carbon foot-print for the next generation of smart cities.

**4. How much will Alibaba invest in the research institute? Are you planning to establish Alibaba's DAMO Singapore lab later?**

Alibaba and NTU Singapore together will invest multimillion Singapore dollars per year over the next five years to drive the Institute's research projects. The Institute is the first of its kind for Alibaba outside China and it is part of the R&D efforts of the Alibaba DAMO Academy, which was launched last October to lead the study of fundamental and disruptive technology breakthroughs. Alibaba's contribution will be coming from the US\$15 billion fund earmarked for the overall Alibaba DAMO Academy program. At the same time, as we have announced earlier, we are also looking to establish Alibaba's own DAMO research lab in Singapore and will share the progress when appropriate.

**5. How many researchers are you looking for?**

Currently, we are starting with 50 researchers from both Alibaba and NTU, and we are expecting to scale and grow in the coming years. The joint research institute is located on the NTU campus but it is open to researchers and academics worldwide. In fact, we will work toward building a crowdsourcing platform to connect researchers and industry practitioners around the world within an AI-focused R&D ecosystem.

**6. Can you elaborate on how Singaporeans can benefit from this joint research institute?**

The AI technology products and solutions developed by the institute will be first rolled out on the NTU Smart Campus, then in Singapore and to the wider SEA region. We believe that such AI solutions, which can apply to various settings including retail, home, healthcare and urban transportation, will play a part in helping people achieve a healthier, smarter and happier life and further enhance Singapore's reputation as a technology hub. This is also aligned with the Singapore government's initiatives to transform the city-state into a Smart Nation.

**7. What do you think makes Alibaba competitive in AI/machine intelligence?**

Alibaba has notable advantages in machine intelligence - Alibaba's wide spectrum of business and consumer services has created hugely valuable consumer insights. Besides, we have strong cloud computing capabilities and advanced algorithms, as well as a rich array of channels to apply the technology. Through strengthening learning capabilities, machine intelligence can be tested and receive feedback instantaneously, further enhancing our algorithms and makes our platforms even smarter.