

A peek in China's AI



Late September, Shanghai hosted the World Artificial Intelligence Conference (WAIC). A few months ago Suzhou was hosting the Global AI Product Application Expo. Alibaba A.I. Labs just announced the launch of their hospitality robot this October. China Money Network published a list of the top 50 AI companies in China and

indicated that 14 out of the list are unicorn companies (capitalization in excess of USD 1 billion).

There are lots of signs of activity on the artificial intelligence scene in China. Beyond all the buzzwords, attention-grabbing headlines and sometimes inflated numbers there are serious trends at work. This article shares the gist of what I have read and learned on the topic recently.



China on the AI world map

There should be no doubt that China has become a significant AI world player. The three big BAT (Baidu, Alibaba, Tencent) are seriously invested in artificial intelligence applications both internally and through investments in Chinese startups. Several other companies are well positioned in their segment: iFlytek or AI Speech for voice recognition, Yitu for face recognition, Momenta for autonomous driving, Cambricon or Think Force for AI chipsets.

In the field of AI fundamental research, China comes in the third position behind the US and the UK in terms of how Chinese papers are referred to in other papers (H-index). This means that all other Western countries seem to have less impact.

China position in AI

Research – Talents

In spite of a flattering H-Index ranking, China's fundamental research is still somewhat behind what is happening in the US and large Western

countries. While China is investing a large amount of money and resources into developing a strong ecosystem, nowadays, most renowned AI clusters are still in the US, Canada, and EU. As a matter of fact, the three BAT have research centers in the West and also recruit talents from the West to sustain their AI developments.

There are clearly not enough data scientists and data engineers available in China compared to the huge and growing demand from the industry.

But this trend may change. Universities are gearing up to offer relevant curriculum and Chinese AI scientists educated outside China come back in the country to set up their business. According to China Money Network, 55% of the founders of Chinese AI hold a Ph.D. degree and often from international universities.

Data



A very strong point for China is the access to data. Good applications of AI require both a good algorithm and good data. The core of most AI applications is a model developed by using an algorithm and processing a very large amount of relevant data (machine learning).

In China, AI companies have access to very large sets of data. The three BAT and many consumer application companies collect great amounts of data from their mind-bogglingly large users base. This enables them to build robust and feature-rich AI models and systems. It is not clear whether the USA is able to leverage that amount of data.

In addition, as the biggest manufacturing center in the world, China also has a potential access to very big industrial data. Those could be leveraged for professional applications, production automation, productivity increase and further down the road, smart industrial robotic factories.

Interestingly enough, a company such as Tsinghua Unigroup has developed an infrastructure targeting industrial cloud applications.

Wide scope of possible ...

China is decidedly embarked in wide range plans to play a major role in AI but also in using AI to support its growth and development.

While most of the attention is directed toward companies promoting new AI technologies, companies and industries can benefit from AI in different ways. For instance, they can develop pure AI applications, they can add AI based features on hardware devices, or they can integrate AI enabled capabilities in existing operations such as manufacturing or supply chain.

China is very well placed to benefit from all of these approaches. The companies mentioned above show that Chinese companies are not shy of developing new AI applications.



China is a major producer and increasingly designer of hardware and IoT devices. This trend is illustrated by Robomaster, the robotics competition organized every year by DJI, the world leader in consumer drone. For the last few years, the event drives young teams from across the planet to show their capabilities and measure up with each other.

Finally, China has clearly set for itself the ambitious objective of transforming its manufacturing industry from labor-intensive to high-end advanced manufacturing. The Made in China 2025 national program. Gradual robotization of plants is an easy-to-see trend across several industries. But it will go beyond that, even if it takes a longer time.

Perspective for Western companies

While an increasing number of Chinese high tech companies are developing all sorts of AI applications, there is space for Western companies in some of the segments. Whether it is by providing a targeted function using advanced AI model or an AI-enabled hardware module or even higher level AI/big data analysis for the manufacturing industry, China has and will have a large market as well as interesting business partners.

If you want to know more about these topics or EU Sino, please do not hesitate to contact us.