

# ChinaContact

The Foreign Trade Magazine

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China's AI Masterplan

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# AI: China's Masterplan

With the help of artificial intelligence (AI), China is striving for growth, prosperity and a “harmonious digital world community.” Data from networked systems is used to increase security and efficiency, while at the same time optimising the system of state control.

By 2030, China wants to be one of the world's leading innovation centres in the field of artificial intelligence (AI). When it comes this objective, the country has several advantages: “brains, capital, regulation and data”, as Lee Kai-Fu writes in his book *AI Superpowers: China, Silicon Valley and the New World Order*. So it's about competition between systems.

## Data and visions

AI takes advantage of new possibilities in data collection, storage and analysis. Fast computers and huge data stores make exponential advances possible. The Chinese government was impressed that Google's Deep Mind software defeated the world's best player in the complex Go game in 2016. Now expectations are high, and AI is being used and tested in the field of face and speech recognition, motion profiling, autonomous driving, digital assistance systems and, more recently, foreign policy decision-making.

The Chinese three-year plan for the Internet and AI promotes innovative projects and start-ups. On behalf of the government, the search engine provider Baidu is cooperating with the National Engineering Lab, Tsinghua University, the Chinese Academy for ICT and the China Electronic Standardization Institute (CESI). There is a lot of optimism in relation to technology, and the government has far-reaching plans to not only optimise companies, but also society as a whole.

Defeated by artificial intelligence: Chinese Go players despair of Google's AI opponent AlphaGo.



Photo: REUTERS/Stringer

## Pioneers, network effects and state interests

The three major Chinese Internet pioneers Baidu, Alibaba and Tencent (BAT) use AI to provide better search results, more accurate product offers and more appropriate group, event and content information. As a result, the number of users and thus the quality of digital services are increasing, and more and more users are becoming loyal to these providers. The three companies develop and integrate complementary services and acquire innovative suppliers. The result is a diverse ecosystem that is good for users and good for data analysis. Companies such as Xiaomi, NetEase and Ping An are also expanding their respective networks. The Digital Silk Road offers additional market opportunities and data for digital payment and communication systems based in China. The larger the network, the more accurate the predictions based on data analysis will be, increasing global Chinese influence even more.

The private Chinese BAT “unicorns” are data providers for the system of state traffic, financial and behavioral control. Predictive analytics are designed to reduce congestion and payment defaults, and to improve health care and increase public safety. In various pilot projects, social credit systems are being developed in which behavioral patterns are assessed with positive or negative points, which ultimately form a personal score. Based on the experiences of these pilot projects, the Chinese government plans to establish a Social Credit System nationwide by 2030. Its key focus is creditworthiness, but access to public services could be dependent on the respective evaluation results. Behind this may be an ideal of socialist or patriarchal “education” that differs from Western ideas of freedom.

## Economic and social risks

The People’s Republic of China is separated from the US-dominated worldwide Internet by its data sovereignty. Behind the “Big Chinese Firewall”, an Internet cosmos with its own laws and rules has developed that is monitored by the government. Although intended to protect citizens, it also protects Chinese digital companies. Thanks to the network effects and cyber regulations in China, only Chinese online trading platforms, payment services and media content are accessible. In order to address the Chinese market, foreign companies enter into cooperations with local platform providers, much like industrial companies that set up joint ventures.

Networking within the framework of Industry 4.0 technologies and the Internet of Things entails risks: locations, suppliers or network partners in China may create security gaps that not only affect factory processes in China, but also those in other countries and sales markets. Encryption software must comply with Chinese specifications. In addition, Cyber Security Law requests all companies, including foreign investors, to store their data in China – a requirement that does not encourage foreign companies with data-based business models to become active in China.

The fact that AI is relevant for social cohesion and politics has become clear in the West through increasing polarisation and electoral influence via digital media. The public cyberspace is thus vulnerable to (cross-border) digitalisation – China knows this and is protecting its cyberspace. But identity theft, Trojans, money laundering and pyramid schemes also occur within the Chinese Internet. When supposedly se-

cure stock tips or extremely profitable business models are offered, many people who dream of instant wealth are happy to take advantage of them. The Public Information Network Security Supervision Department of the Ministry of Public Security is responsible for protecting citizens, while at the same time monitoring online activities and content.

## Legal and ethical aspects

The EU General Data Protection Regulation that came into effect in May 2018 aims to protect the freedom and personal rights of citizens. The Chinese government refers to Confucian ideals of order and harmony and uses digital instruments for industrial policy and social interests. The Social Credit System’s development could transfer former instruments such as blacklists for credit defaults or the Hukou system for residence and work unit (Danwei) control to modern China with its megacities – and could thus become a digital surveillance system.

During Chinese President Xi Jinping’s New Year’s address, two US bestsellers were found on the bookshelf behind him: the book “Augmented – Life in the Smart Lane” by Brett King, which describes the new world of networking in visionary examples, and the book “The Master Algorithm” by Pedro Domingos, which explains how machine learning works. Both books are optimistic; a critical reflection on the possible one-sidedness of algorithmic decision-making or on potential social consequences is sought in vain.

The books were published in 2015 and 2016 respectively. Pedro Domingos and numerous Western research groups examine the social consequences of AI, for example the IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems and AI4People. So far, there are no scientists from the strongholds of Chinese AI research among the main stakeholders. When considering security requirements in AI, the People’s Republic focuses on national and social security and is working on codes of ethics. It remains exciting to see whether and how these differ from international codes and what this means for cooperation in practice.

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