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Artificial intelligence is without doubt a big business in China.  
Just look at SenseTime, a Beijing-headquartered enterprise startup that was earlier this year named the world's most valuable AI startup. Founded just four years ago, SenseTime currently has a valuation of more than $4 billion, earning itself the reputation as China's largest unicorn, which is defined as a startup that is worth $1 billion or more.  
According to global consulting firm Ernest & Young, the output of China's AI industry surged by 50 percent from 2016 to reach 15 billion yuan ($2.34 billion) last year. And the industry is showing no signs of slowing down.  
Market consultancy IDC expects more than 80 percent of e-commerce companies in China to develop user experience systems based on AI technology by 2019. The firm also predicts that over 90 percent of internet products and services provided in the Chinese market will be integrated with the technology by 2020.  
AI is already steadily being implemented in the market. For example, facial recognition AI systems have been used across the country to identify criminals. In fact, Chinese police managed to leverage this technology to arrest an escaped criminal when he attended Hong Kong singer Jacky Cheung's recent concert held in East China's Zhejiang province. Some public hospitals in China have also used AI to simulate the process of drug screening and assist in certain medical scenarios.  
A survey conducted by global human resources service provider Aon Hewitt found that about 16 percent of the 300-plus companies polled applied AI to at least one project in 2017. Another 8 percent of the companies used AI in part of their production process. About 38 percent of the surveyed companies said they would introduce AI soon.  
Chinese Premier Li Ke-qiang said in the Government Work Report in March last year that the development of emerging industries such as AI should be accelerated in China, marking the first time AI was ever mentioned in the report. According to a guideline released by China's State Council in July, the value of the Chinese AI industry would exceed 1 trillion yuan by 2030.  
Further evidence of AI's growing importance is highlighted by the formation of the Artificial Intelligence Industry Alliance in October by industry giants like Alibaba, Tencent and Baidu. The National Development and Reform Commission, the Ministry of Science and Technology, and the Ministry of Industry and Information Technology will supervise the alliance and provide policy guidance.  
The development of AI has in turn resulted in a strong demand for talents well-versed in this type of technology. According to China's leading online recruitment firm Zhaopin, AI algorithm engineers were the most in-demand positions in 2017, followed by database development engineers.  
But these positions are proving to be hard to fill. Huang Heyan, vice president of the Chinese Association of Artificial Intelligence, explained that there is currently a huge gap between the demand and  supply of talent in the Chinese AI industry. She called for more universities to include AI in their curriculum so that more graduates can support the market demands.  
But education institutions aren't oblivious to the urgent need for talent. As of the start of this year, about 489 Chinese universities introduced AI majors, up 244 percent from a year earlier, according to the Ministry of Education.  
Efforts to create a talent pipeline had started as early as 2014 when the Ministry of Education launched a cooperative program between Chinese universities and leading tech companies such as Huawei, Tencent and Baidu. Over the past four years, this program has produced about 600 AI research projects, with the tech companies providing some 130 million yuan worth of support.  
In light of the lack of AI talent graduating from universities, companies are casting their sights on other countries such as the United States, Japan, India and Israel where AI development started earlier.  
"China is well-established as a manufacturing hub but not in the upfront engineering sector," said Peter Zhang, chief executive officer of Aon Hewitt in China. "Because of this, Chinese companies have to resort to seeking candidates in other companies."  
This talent shortage has also compelled companies to offer attractive salaries to local candidates. Based on statistics by Zhaopin, the majority 40 percent of AI talent in China earn between 10,001 yuan and 15,000 yuan a month, almost twice the average salary of 7,600 yuan in 37 major Chinese cities. While those in mid- to high-level AI roles can earn as high as 35,000 yuan a month, there is unlikely to be enough talent suitable for these positions either.  
Alex Gu, director of British recruitment company Michael Page in China, said that AI candidates with five years of experience can hardly be found in the domestic job market. Zhaopin experts pointed out that salaries could continue to rise given the scarcity of such talent.  
But while the AI sector may represent a bright career for those well-versed in it, others are viewing the technology as a threat to their jobs.  
Zhang of Aon Hewitt said that people in jobs with a repetitive nature such as administration tasks face a high risk of getting displaced by technology. Jobs that require little human interaction, such as medicine management, would also be likely to be performed by machines instead of humans in the near future.  
Global consultancy McKinsey predicts that mechanics and chefs will be the two occupations most affected by the growing levels of automation.  
Zhang noted there are still many jobs which machines or AI cannot perform as well as humans. For instance, machines are still unable to compete with human intelligence when it comes to positions involving strategic planning and strategy execution. Other roles which humans do better include business exploration, personnel management and negotiation, all of which require communication and cognitive skills.  
Recruitment specialist company Hays has said that CEOs in China are already working to tackle the challenges caused by AI and automation by studying the markets with the local governments, re-training existing workers, educating executives, updating IT infrastructure and going over their current HR practices to ensure they hire workers with the right skills.  
"AI is so powerful that it can assist human beings and even replace some of our skills," said Kai-Fu Lee, chairman and CEO of Sinovation Ventures. "We have to accept the fact that this might take place in the next 15 to 20 years.  
"But human beings will still be competent for a large number of jobs. That being said, people need to be armed with the right skills and be knowledgeable about technology so that they can stay relevant."

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