

ASIA_tech



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Summary

Most materials in this issue are devoted to the analysis of the Chinese experience of using technologies in various fields - from bikesharing and electric vehicles to tracking systems, collecting personal data and providing social rating. Expert opinions on many issues, however, differ: on the one hand, there is an opinion that the "big brother" helps Chinese citizens to restore public trust, on the other hand, Chinese civil servants strongly oppose the use of artificial intelligence in monitoring their activities and financial transactions. Obviously, even in Chinese society, not everyone is willing to put up with total surveillance and loss of privacy.

At the same time, the US-China trade war continues: there is strong pressure on Huawei, both in the US, where companies and the top manager of the jury issued an indictment on the theft of technology, and in Europe, where the launch projects of the company were under threat. 5G networks.

Feed

Stories

China banned the cult of money and hedonism in social networks
Rise and fall of Chinese bikesharing
China will flood European and American markets with cheap electric vehicles
5 ways China uses facial recognition

A database with personal data of millions of Uighurs was found on the Internet - it was collected by the contractor of the Chinese police

Analytics & Opinions

Future of autonomous vehicles in China
China and Forced Technology Transfer practice
Why Chinese do not worry much about the "Big Brother"
Overview of the Chinese market of machine vision
"Zero Trust" system - too effective to keep using

#bonus_materials

Crypto-Asia

Feed

The Chinese lunar probe Chang'e-4 being the first in the history of mankind successfully [landed](#) on the far side of the moon. Unfortunately, cotton seeds planted and sprouted on the lunar module [died](#) the same day

Chinese startup Nreal [raised](#) \$15 million to reduce AR-helmets to the size of sunglasses

South Korean startup [announced](#) its intention to challenge the ban on ICO in the Constitutional court

Top priority investment areas for China in 2019: [key technologies](#) for new infrastructure – AI, industrial Internet, IoT and 5G

"Smart prison": with Alipay relatives can [send](#) a prisoner up to 1,000 yuan per month

Chinese local court has [released](#) a mini-program for WeChat, allowing user to track debtors within 500 meters and send a notification to the authorities

A turkish developer [presented](#) the concept for a museum of robotics in Seoul – and it have to be built by the robots themselves

China declared working on genetically modified embryos [illegal](#)

Mitsubishi UFJ Financial Group , one of the largest banks in Japan, plans to [launch](#) the blockchain-based payment platform Global Open Network in 2020

Application with tests and news about Xi Jinping is [more popular](#) than TikTok and WeChat in the app store

Baidu [has created](#) smart cat shelter (heated, with food and water) that can recognize cats and also distinguish them from dogs with help of AI

Top 5 [cities](#) by carsharing fleet: Tokyo, Moscow, Beijing, Shanghai, Guangzhou

NIO's electric car [shut down](#) in the middle of the road in Beijing after an attempt to install a software update

Procter & Gamble [presented](#) “real-life Photoshop” - a hand-held device that analyzes the face skin in real time and prints a special anti-aging product on the “problem” areas

Best cities for startups rating: the big six of Chinese cities - Shanghai, Beijing, Hong Kong, Shenzhen, Guangzhou, and Chendu - [collected](#) more venture capital investments than American cities of the same rating

Grand jury in Seattle [charged](#) Huawei and its financial director Meng Wangzhou with technology theft

Microsoft [has confirmed](#) the blocking of the Bing search engine in China (later Bing was unlocked)

The Japanese government approved a bill that [allows](#) hacking civilian's IoT devices during preparation for the Olympics 2020; the goal is to identify and alert owners of vulnerable devices.

US [increases](#) pressure on Huawei in Europe - Chinese company projects for the introduction of 5G in Europe are at risk

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Stories

China banned the cult of money and hedonism in social networks

14.01.2019

[The Bell Tech](#)

The Bell, citing the Financial Times reports: China has adopted new industry recommendations prohibiting the use of 100 types of content.

Among the banned turned out to be video of people dressed up as party members of the Communist Party, as well as videos promoting the cult of money and hedonism. You can't distort political speeches, joke at party members 'positions, or defend the independence of Hong Kong and Taiwan.

The key feature of the ban is to place the responsibility not on the users, but on the platforms. Such risks have already forced Bytedance, owners of Tik Tok, to increase the staff of video censors from 6 to 10 thousand people.

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Rise and fall of Chinese bikesharing

01.02.2019

[VC.ru](#)

VC.ru describes the development of a modern technology bubble - the Chinese bicycle sharing market – based on two key startups: Mobike and Ofo.

The popularity of bicycles in China in the 60s and 70s was replaced by the proliferation of personal vehicles, which ultimately led to increased traffic congestion in megalopolises. In 2007, the city authorities launched the bike rental service through special docking stations, however, residents found this approach inconvenient.

The student project of Peking University Ofo (launched in 2014) and Mobike startup (launched in 2015) took into account the mistakes of the authorities and offered to rent a bike and leave it on the street in any convenient place, and not in specially designated areas. To rent you have only to leave a deposit in the mobile application and choose a suitable bike - you could ride anywhere, anytime.

The projects were warmly welcomed by both residents and city authorities. Soon, about 60 similar startups joined the two market leaders, including Bluegogo and Xiaoming Bike. According to the E-Commerce Research Center, by the end of 2017, there [were](#) 77 bicycle-hosting companies in China, the total number of available bicycles reached 23 million.

As a result, the market was oversaturated, trips turned out to be too cheap, services faced a shortage of finances, and the business model turned out to be too easily copied. In turn, the authorities began to struggle with the indiscriminate accumulation of unused bicycles on the road and sidewalks, to take them out with trucks to the bicycle cemetery outside the city. In fact, not only small companies, but also leaders, ceased to exist: Mobike bought Chinese holding Meituan Diapping, and Ofo curtailed international representation and is planning a possible bankruptcy.

Bonus: an [opinion](#) that blockchain can be a salvation for the bicycle sharing market.



China will flood European and American markets with cheap electric vehicles

04.02.2019

[Quartz](#)

China already sells [more](#) electric vehicles than the rest of the world combined. There are various options: from large buses, to sports cars, motorcycles and scooters.

One of the most popular categories is tiny cars which cost up to \$1,000. Their peculiarity is that they do not need a driver's license, and they do not accelerate beyond 40 mph, they are produced using cheap batteries and they are almost absent collision protection.

Market experts believe that such a product may well fall in love with Americans and Europeans. Of course, Chinese electric cars do not compare in performance with the planned to release electrical versions of major American manufacturers (for example, a pickup truck from Ford), but they definitely have potential in the consumer and commercial sectors.



5 ways China uses facial recognition

11.02.2019

[Abacusnews](#)

Face recognition technology is rapidly being introduced into the Chinese infrastructure. Here are five examples of how it changes the lives of Chinese citizens every day.

1. **Train onboarding.** At many railway stations, self-check-in points have been established, replacing the traditional check-in - by presenting a ticket to a station officer.
2. **Registration in games.** Scanning a face to gain access to a game may seem like a strange idea, but it is actively used by Tencent to "screen out" children - that is, users who do not meet the age restrictions of the game. Thus, the corporation responded to government "signals" of dissatisfaction with children's gambling, published through state media.
3. **Payment transactions.** Alipay allows users to pay bills in some restaurants and shops (for example, in a supermarket in Shenzhen) with a smile. The service was first introduced at KFC restaurant in 2017, but in 2018 the company introduced a mobile device for small entrepreneurs.
4. **Cash withdrawal.** Some banks (for example, Agricultural Bank of China) installed ATMs that allow you to scan a user's face for cash withdrawals without using a bank card. To verify your identity, you also need a password or ID number.

5. **Toilet paper dispensing.** In one of the public toilets in Hangzhou, in order to reduce the cost of toilet paper, an automatic dispenser was installed, giving a portion of paper after scanning the visitor's face. The second attempt can be used only after a two-minute period.

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A database with personal data of millions of Uighurs was found on the Internet - it was collected by the contractor of the Chinese police

17.02.2019

[Meduza](#)

Cybersecurity expert from the Netherlands, co-founder of the non-profit organization GDI Foundation, Victor Gevers, discovered an open database which contained personal information of almost 2.6 million people.

Apparently, the data are used to spy on the Uighurs - the Turkic people, whose representatives profess Islam. Gevers told the Financial Times that most of the names in the database were Uighur.

In addition to the names, the base contained other data, including photos, home addresses, dates of birth, ID-card numbers, gender, nationality and place of work, GPS-coordinates of places visited by people from the base. Some coordinates contained marks, for example, "mosque", "restaurant", "police station". Gevers claimed that all the places whose coordinates were listed in the database are located in the Xinjiang Uygur Autonomous Region of China.

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Analytics & Opinions

Future of autonomous vehicles in China

January, 2019

[McKinsey.com](#)

McKinsey's forecast for the autonomous vehicles (AV) industry in China, which, according to experts from a consulting company, will allow market participants earn trillions of dollars.

Key points:

- The main application of AV are "robotaxi", public and commercial transport segments;
- Mobility market will transform from products to the MaaS (mobility-as-a-service) concept, new business models will emerge;
- By 2040 profits could reach \$1.1 trillion for the mobile services market and \$ 0.9 trillion for the AV sales market;
- AV can solve large infrastructure problems;
- AV implementation may slow down due to the difficult situation on the roads of Chinese cities;
- The Chinese AV market will become the largest in the world;
- The main profit lies where services and software are provided.

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China and Forced Technology Transfer practice

14.01.2019

[SCMP](#)

The USA has repeatedly accused China of using Forced Technology Transfer (FTT) practices, while the official Beijing has always denied such accusations. In general, we are talking about the fact that if a foreign company wants to enter the Chinese market, it has to transfer its technologies to Chinese companies either through a joint venture agreement, or, in some cases, due to regulation. Some foreign companies claimed that they were forced to transfer technology.

According to surveys of the US Trade Representation, the tools for enforcing technology transfer include bans on foreign participation in joint ventures, numerous administrative and licensing procedures.

In turn, Chinese officials point out that foreign companies have the right to refuse to invest in the Chinese market, and since foreign companies make huge profits, such conditions cannot be called either discriminatory or compulsory.

You can learn more about the positions of both sides in the South China Morning Post.



Why Chinese do not worry much about the “Big Brother”

25.01.2019

[Bloomberg Opinion](#)

China has already implemented a number of private and public systems that collect, aggregate and distribute records of citizens' digital and offline behavior. The so-called social credit system, which outside China is called a creepy digital freak show, is regarded in China as means to generate something that the country is so desperately needs: trust. For such purposes, it is quite possible to put up with constant observation and loss of privacy, Bloomberg Opinion columnist Adam Minter believes.

As many developing countries, China's economic growth has outpaced its ability to create and control institutions that promote the development of trust between citizens and business. Trust between people also suffers. The facts of fraud are constantly discussed in Chinese news programs. This helps to increase the atmosphere of suspicion in society.

However, the Chinese government believes that this is more than just a social problem - so in 2014 it published a roadmap for the launch of social credit systems. And currently, there are [more than 40](#) social credit systems in China. Some of them are private, some belong to the state. They also differ in the scope of application.

The results of the survey in 2018 showed that out of 2,200 respondents, 80% joined commercial programs voluntarily, while only 7% knew that they were included in the state system. More surprisingly, 80% of respondents expressed their support for the very idea of social credit systems, with the most support coming from more mature, educated, and affluent urbanists — the population that democrats usually associate with more liberal values like privacy.

In 2016, after the publication of the list of people who were blacklisted (they were also banned from flying on airplanes), thousands of likes and reposts were received on Weibo.

However, the authors of the publication do not exclude that the majority of citizens, perhaps, still simply did not have time to think well about the fact that their lives will be recorded per minute. Approval mainly arises from those who were able to use the privileges for a high rating - rent a car / bicycle without a deposit, the ability to apply for a loan, and assess their potential partner in the dating application. Such privileges can justify the erosion of the confines of privacy, especially in those countries where privacy is not much appreciated.



Overview of the Chinese market of machine vision

02.02.2019

[Forbes](#)

Forbes contributor Andrei Molchanov lays out an analysis of machine vision market participants in China and comes to the following conclusions:

1. In addition to the Chinese scientific universities and research departments of corporations (Baidu, Tencent, etc.) there are four large private companies engaged in machine vision projects. All four are monetized through B2B and government contracts.
2. The largest of these companies is SenseTime, founded four years ago by Xiao Tang, a professor at Hong Kong University. The company specializes, first of all, in recognition of persons on a photo and video. Now the portfolio of offered services has expanded due to the recognition of any images (not only individuals) for unmanned vehicles and image processing.

3. Face ++, the company that created the authorization in AliPay: a technology similar to FaceID on Apple smartphones, but running on the cameras of Android devices, is catching up. Amongst Face ++ investors are Ant Financial and the Russian-Chinese Investment Fund (RCIF).
4. The third and fourth places, respectively, are CloudWalk and YITU. Companies differ in the proposed solutions: some develop security systems, others, for example, authenticate payments on a person through a smartphone.
5. The Chinese government is actively funding the development of AI-technologies. In 2017, a national AI development plan was drawn up in the country and a special department was formed at the intersection of several ministries. China appointed five companies responsible for each of the areas: SenseTime for machine vision, Baidu for autonomous vehicles, Alibaba Cloud for smart city (currently it means traffic lights and surveillance cameras), Tencent for medical applications, and iFlyTek, a public company with capitalization of \$ 9 billion, - for natural language processing (understanding of natural language and speech synthesis).
6. The development of AI is also supported by the relatively mild legislation on the protection of personal data. For Chinese companies, access to personal data of citizens is much easier than among Western ones, and the Chinese themselves, according to surveys, share personal information for the sake of improving services much easier than residents of any other country.

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"Zero Trust" system – too effective to keep using

05.02.2019

[SCMP](#)

Chinese experimental program for the cross-analysis of big data based on artificial intelligence is being partially folded.

The "Zero Trust" automated control system for officials, being a joint project of the Chinese Academy of Sciences and the Chinese Communist Party, was launched in 2012 in only 30 districts and cities in China, but during this time has helped to reveal more than 8 thousand corrupted officials.

The system has access to more than 150 government databases at various levels, which helps it to identify, compare the data with the biometrics of civil servants, monitor suspicious financial transactions. As a result, such a system allows to conduct a behavioral analysis of civil servants and identify, for example, suspicious transactions for the transfer of property, in the field of infrastructure construction, land acquisition and demolition of buildings.

Triggers for the machine can include, for example, a sharp increase in funds on a bank account, buying a car, applying for a public tender under the name of a public servant or his friends / relatives. The system allows you to compare information from different sources and identify inconsistencies. It can even pull up satellite images, for example, to find out whether the funding has led to the construction of the road - or the money has settled in someone's pockets.

Observers point out the weaknesses of the technology: the system reveals suspicious transactions, but does not reveal the logical chain that led to such conclusion. As a result, a person should in any case re-examine all the conclusions of the machine.

Interestingly, the result of getting civil servants in the field of view of the system is not always criminal prosecution - many officials received a warning or punishment for a minor offense. Representatives of the CPC have repeatedly stated that the main task of the system is "to identify and help civil servants not to embark on a slippery slope to a place from which there will be no return".

It is not surprising that the majority of officials opposed the operation of "Zero trust", arguing that there is no legislation on access to the databases used by the system. In some provinces, the system has already been turned off, but in some cities it keeps working.

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- <https://lawgazette.com.sg/feature/the-somewhat-confusing-world-of-cryptocurrencies/>
- <https://lawgazette.com.sg/feature/blockchain-records-under-singapore-law/>
- <http://www.slaughterandmay.com/media/2537118/new-regulatory-approach-for-virtual-assets.pdf>
- <https://www.hlengage.com/let-s-get-digital-singapore-updates-ico-guide>

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