Social Credit System in China

Chris Fei Shen

INTRODUCTION

The Chinese government has long been seeking to harness the economic benefit of information technologies while using the same tools to maintain political and social stability. The ambitious plan for developing an all-encompassing social credit system resembles a similar attempt: to make use of big data technologies to create a society where individuals, enterprises, and the government all act with integrity so that a thriving economy and a stable regime become possible. The plan has no equivalent elsewhere in the world. Whereas Western societies use financial credit scores to motivate people to maintain good credit records, the Chinese social credit system extends from finance to almost all areas of social life. Plus, the Chinese system intends to include not only individuals, but also enterprises, government branches, and non-government organisations.

Chinese people are paying increasing attention to the topic of social credit. Over the years, the domestic media in China has mostly covered the topic with a positive perspective. Yet the media outside China tend to depict the social credit system as a draconian mass surveillance project driven by almighty technologies to curtail personal freedom. A few telling examples of headlines are: “The odd reality of life under China’s all-seeing credit score system”,[1] “China has started ranking citizens with a creepy ‘social credit’ system”,[2] and “China’s social credit system fuels authoritarian regime”[3]. Google’s search trend tool, Google Trends, suggests that the most closely related keywords to China’s social credit system is “Black Mirror,”

1 https://www.wired.co.uk/article/china-social-credit.

2 https://www.businessinsider.com/china-social-credit-system-punishments-and-rewards-explained-2018-4.

3 http://www.atimes.com/chinas-social-credit-system-fuels-an-authoritarian-regime/.

a British sci-fi television series that examines the unintended eerie consequences of technologies. With China being perceived as an authoritarian regime ruled by a single party, negative media speculations about the plan are not without reasons; however, they do not represent a comprehensive picture of the proposed social credit plan. A closer look at the system first demands attending to the original government documents to uncover the meanings behind the texts.

TWO GOVERNMENT DOCUMENTS

There are two important government regulatory documents that defined the top-level design of the social credit system. As early as 23 March 2007, the State Council issued a notice entitled "Opinions of the General Office of the State Council concerning the Building of a Social Credit System."[4] The document highlights the urgent need to create a social credit system for maintaining a "socialist market economy" given widespread commercial fraud, tax evasion, product piracy, and evasion or abolition of debts to banks in bad faith. On 14 June 2014, the State Council issued another document: "State Council Notice concerning Issuance of the Planning Outline for the Construction of a Social Credit System (2014–2020)".[5] Compared to the 2007 State Council document, the 2014 document lays out a more detailed picture about building a unified social credit system.

While the 2007 document primarily focuses on a finance credit system, the 2014 document extends to other areas of government regulation. The lack of trustworthiness happens at all levels of Chinese society: shoddy products, irresponsible medical treatment, and poisonous milk powder, etc. It is possible that the government realises that the root cause of financial fraud lies in the low awareness of keeping trust in general and the low cost of breaking trust and integrity, and has therefore rolled out a comprehensive plan for building a "reputation society" (*xinyong shehui*), meaning that everyone in the society should keep trust and integrity.

In addition, the 2014 document sets a timeline with clearly defined goals. The stated objectives are: by 2020, to establish fundamental laws, regulations, and standards for social credit, to construct a credit information system that covers the entire society, to build credit supervision and management systems, to foster a social credit service market, and to enforce reward and penalty mechanisms for keeping trust and breaking trust so that they play a full role in encouraging honesty and integrity. The overall framework of this huge project will be laid out by the

4 http://www.gov.cn/zwgk/2007-04/02/content_569314.htm.

5 http://www.gov.cn/zfwj/2014-02/10/content_2581766.htm.

government, but all social organisations will contribute their share in carrying out the plan.

FOUR AREAS OF SINCERITY BUILDING

Under the framework of the social credit system, the 2014 document lays out a very comprehensive working plan. There are four proposed important areas that are needed to develop social integrity and a social credit system: government affairs, commerce, social service domains, and the judicial system.

With regard to government affairs, the proposal encourages government branches to adopt various types of social credit products in its work. Civil servant credit dossiers were proposed to record annual reviews and acts such as violating laws and regulations.

With regard to commerce, a large number of industries are mentioned in the outline. For example, for manufacturing industries, a product quality credit system was proposed, to be connected with the current 12365 product quality complaint hotline platform. For trading and service businesses, it is proposed to develop a company credit system. For the financial industry, more individual and institutional financial activities are proposed to be recorded. For taxation, more information on taxpayers, including trading and asset ownership, need to be collected and verified. Similar plans were mentioned for other business sectors such as construction, government procurement, tendering and bidding, traffic and transportation, e-commerce, statistics, exhibiting and advertising, etc.

With regard to honesty and integrity building in the social service domains, healthcare, social security, labour and employment, education and academic research, culture sports and tourism, intellectual property, environmental protection and energy saving, non-government organisations, and internet applications and services are mentioned as the areas where severe problems in integrity exists and different types of database or blacklist systems will be set up. In particular, a job-related integrity record system will be constructed for people such as public servants, enterprises' legal representatives, lawyers, accounting employees, registered accountants, statist employees, registered tax advisors, auditors, evaluators, insurance brokers, medical personnel, teachers, scientific research personnel, patent service employees, project managers, news and media employees, and tourist guides, etc.

With regard to judicial credibility, the court system, prosecutorial system, public security system, and judicial and administrative system are required to further move forward with information openness so as to safeguard the public's right to know and to carry out "sunshine law enforcement" so that the public will place more trust in these institutions.

PURPOSES AND MOTIVATIONS BEHIND THE SYSTEM

A brief look at the two government documents suggests that the social credit system is a gigantic mixture of tools that aim to serve multiple purposes: to shape citizens' and institutional behaviour, to push forward government transparency, and subsequently to reduce transaction costs incurred by a low-trust society. At the core of the plan lies the key of reputation building or sincerity development. "Xin" (信), credit or reputation or trust, is a quintessential concept in Confucius thought. But in contemporary China, dishonest behaviours trying to take advantage of loopholes in laws and regulations are rampant at different levels of society. The social credit plan could be seen as a tool introduced by the party to cure the social ills of low trust with a good intention but with potentially unpredictable results. Observers who see this as a surveillance plan tend to focus their attention on the technical details of data collection, while losing sight of its overall purpose (of course, the extent and method of data collection is controversial and disputable). As a matter of fact, only one tiny paragraph in the long document touches upon credit system development regulating internet use. After all, the party has already developed a very complicated internet censorship system employing technical, legal, and administrative tools. Therefore, the primary motivation behind creating a social credit system seems to be more economical and social than political.

KEY FEATURES OF THE PLAN

According to the 2014 plan, the social credit system has three important features. First, it is not a single system monopolised by the government. The 2014 proposal points out that the primary principle of the social credit system is that it is "led by government, but built by the society." In other words, the government wishes to develop a social credit ecosystem with pluralistic products and services. However, deriving an overall social score is technically possible assuming that all data systems are connected. Second, the document highlights the role information technologies will play in building a social credit system. The use of information systems to record and curate credit information is encouraged for different industrial sectors and for different government branches. The plan also suggests the establishment of credit information exchange and sharing mechanisms. Without doubt, this could be the world's largest data collection effort. Third, the document points out that rewards and penalties are the keys to making the social credit system work; however, the text regarding rewards and penalties is very vague and brief. The specifically mentioned rewards include praising through media reporting, service priority, and expedited processing for government services. As for penalties, social moral condemnation, blacklisting, and market withdrawal mechanisms are mentioned for individuals and organisations.

EXISTING NATIONAL SYSTEMS

The two regulatory documents only provide a framework and guiding principles for constructing a unified credit system. There is no existing unified social credit system in China. But there are credit services that have existed long before the unified social credit plan was mooted. One of the official and most important credit service providers is the Credit Reference Center of the People's Bank of China. As its name suggests, the credit report issued by the Reference Center only covers finance-related activities. The two main services provided by the center are individual credit reference reports and enterprise reference reports. Both databases were developed in the 1990s and the services went online in the 2000s. As of 2015, the center's database includes 860 million individuals and 20 million institutions.[6] Individual credit reports contain information such as personal loan and mortgage, credit card use, delayed payment record, civil judgment record, unpaid utility fee, administrative penalties, etc.[7] Obviously, the data sources of the Reference Center include banks, courts, and other government branches. Unlike most credit score products in Western societies, the credit reference reports do not derive a holistic score for individuals and enterprises.

A second important credit database that has some overlap with the Reference Center system is hosted by the Supreme People's Court: the dishonest individuals or enterprises subject to enforcement database.[8] In 2010, the Supreme Court issued a notice to limit the spending of individuals and organisations that refused or evaded their legal obligations. For individuals, they are subject to a ban on travelling on business class or above in flights, trains, and cruises, on purchasing real estates, and on staying in luxury hotels, etc.[9] According to statistics from courts at different levels, more than 70 percent of individuals or organisations tried to evade

6 http://www.pbccrc.org.cn/zxzx/zxgk/gywm.shtml.

7 http://www.pbccrc.org.cn/zxzx/grzx/201401/2141558a28cd4f8dae8e2a6e70728210.shtml.

8 http://shixin.court.gov.cn/index.html.

9 http://www.court.gov.cn/shenpan-xiangqing-1650.html.

enforcement and failed to perform obligations determined in an effective legal instrument. Thus, the government decided to create a blacklist system in 2013 to publicly name those who refuse to comply with court judgments.[10] The database is publicly accessible. Users can search for cases by individual or institutional name. In 2013, the Supreme Court also signed a memorandum with the Credit Reference Center of the People's Bank of China to incorporate the court's records into the unified social credit scheme.[11] In 2015, the spending limit decision was further revised. One of the revisions is to add a ban on travelling on high-speed railways with codes starting with "G".[12] The carrot-and-stick system that was implemented has shown effect in terms of settling long-outstanding debts.

A third government branch that collects massive amounts of individual data is the railway authorities. In 2017, the railway management authorities issued a document entitled "Railway Passenger Credit Record Management Method".[13] The regulation listed a number of dishonest or indecent behaviours that will be recorded by the database: endangering the security of railway transportation, smoking on high-speed trains, fraudulently purchasing and reselling tickets, selling fake tickets, using fake or other people's identity documents, using outdated tickets, taking a train without tickets and refusing to purchase tickets, etc. The records will be retained for five years.

There are many national-level government social credit-related systems (e.g., administration of taxation),[14] but the three mentioned above have received the most attention due to their visible penalties and heavy domestic news coverage.

LOCAL-LEVEL SOCIAL CREDIT PILOTS

In response to the 2014 proposal, many provinces and cities have outlined their own local social credit plans or carried out their own social credit pilots. The pilot projects differ vastly in terms of their foci, which to some extent is a reflection of governance philosophy differences across local governments in China.

Some took a more incremental approach and placed more emphasis on government data transparency and data sharing. For instance, the Shanghai municipal

10 https://www.chinacourt.org/article/detail/2013/07/id/1038223.shtml.

11 http://www.court.gov.cn/zixun-xiangqing-5968.html.

12 https://www.chinacourt.org/law/detail/2015/07/id/148347.shtml.

13 http://yuandiancredit.com/h-nd-1693.html.

14 http://www.chinatax.gov.cn/n810219/n810744/n1672963/n1672968/c1673941/content.html.

government issued a plan for social credit development in 2016 echoing the national plan.[15] The plan lists out a number of aims to achieve by 2020: all for-profit and non-profit institutions will be assigned a social credit number; all administrative approvals or penalties will be made available online in seven days; more than 600 categories of information need to be shared on the government social credit platform for governance transparency, etc.

Some other projects focus on assigning labels and scores to institutions and individuals. As an economically less-developed province, Guizhou has been trying to beat other provinces in terms of its social credit programme development. Qingzhen, a city in Guizhou, claimed that the city has evaluated 149,758 village households, consisting of 99.95 percent of its total households. An award system was further set up to give honorary titles to those households with high credit scores. Among them, 7,027 are considered as one-star households, 7,766 are two-star households, 3,619 are three-star households; 1,324 are four-star households; and 1,355 are five-star households.[16]

A similar pilot comes from Rongcheng, Shandong Province. Rongcheng is one of the twelve social credit development "model" cities.[17] Rongcheng's social credit pilot system includes all types of individuals and organisations. To assign unique numbers to individuals and organisations, Rongcheng's social credit system makes use of existing identifiers from different sources. The individual resident database uses the national identity number as the identifier; the government and party organisation database uses the organisation number as the identifier; the enterprise database uses the Unified Social Credit Number as the identifier; and the village social credit database uses the geographical administration code as the identifier. In addition, the Rongcheng model has a high coverage rate. All permanent residents, non-permanent residents, self-employed individuals, enterprises, social organisations, and villages are included in its database. Moreover, the Rongcheng model designed a comprehensive "social credit related information list".[18] The list claims to cover all social and economic activities. But it seems the list and the method to evaluate individuals and organisations are not publicly available.

15 http://www.shanghai.gov.cn/nw2/nw2314/nw2319/nw12344/u26aw50043.html.

16 http://www.hzcx.gov.cn/article/xinyongzixun/chengxinxinwen/1069.html.

17 http://m.ce.cn/bwzg/201801/09/t20180109_27650515.shtml.

18 http://xinhua-rss.zhongguowangshi.com/13701/6003014383535113117/2049163.html.

NEW FORMS OF FINANCIAL CREDIT SYSTEMS

New social credit products introduced by big internet companies have emerged in recent years. The best-known case is Sesame Credit (Zhima Credit). Many people outside China mistakenly consider Sesame Credit to be *the* social credit system. In fact, Sesame Credit is only a private credit score system developed by Ant Financial Services Group (an affiliate of the Alibaba Group). The Sesame Credit programme was started in 2015 but the data of Sesame Credit primarily come from Alibaba's Alipay, which was launched in 2003. Data generated on the Alipay platform include loan, payment, shopping, and insurance records.

Technically speaking, Sesame Credit is a functional component embedded in Alipay, a third-party online payment platform. Currently, there are about 520 million users of the service.[19] Sesame Credit does provide a score for individual users. The score ranges from 350 to 950, with five categories: super (700-950), excellent (650-700), good (600-650), okay (550-600), and not so good (350-550). The score derives from five dimensions: credit history, fulfilment capacity, personal characteristics, behaviour and preferences, and interpersonal relationships.

No specific explanations are provided by Alipay as to how a concrete score is calculated by records coming from the five dimensions. It seems that credit history, fulfilment capacity, and behaviour and preferences data come from one's transaction data on Alipay. Personal characteristics data are optional and completed by the users themselves. They include education level, driver's license, and vehicle registration information, etc. The last category, interpersonal relationships, sounds somewhat scary and weird. It implies that if you have good-credit-score friends then you will be a good individual as well. Conversely, if your social network is filled with low-trustworthy friends, then your score will be lower. (Alipay has a social media function designed into the app but it is not as popular as Tencent's WeChat.) However, the algorithms are not transparent. As for rewards and penalties, a high Sesame Credit score could lead to deposit-free rental services provided by third-party companies, including shared bike, car rental, apartment rent, etc. But Sesame Credit is a rather commercialised programme, to the extent that many of its claimed high-credit-score individual "benefits" are actually services and products offered by other companies that run promotions and marketing campaigns on Alipay. Another benefit is that high-Sesame-Credit-score individuals can apply for travel visas without being required to provide too many documentation proofs for destinations such as Singapore. In addition, a high Sesame Credit score could mean higher loan

19 http://www.xinhuanet.com/fortune/2018-01/03/c_1122206175.htm.

and credit limits from Ant Jiebei and Ant Huabei respectively, both of which are Ant Financial Services Group's services.

Sesame Credit is just one case among many. In 2015, the government decided to open up the market for private companies' individual credit services and products. Eight companies, including Sesame Credit and Tencent Credit, were invited to apply for formal licenses. Nevertheless, two years later, in 2017, none of the companies were considered to be qualified.[20] In other words, currently in China, there are no private companies providing individual social credit services with a formal license. The Internet Finance Association set up by the central bank is the only company with a license to launch a credit scoring business.

PROBLEMS AND CONTROVERSIES

China's social credit system is plagued by controversies and problems. Even the Chinese authorities are aware of it. The rejection of all pilots privately run financial credit programmes in 2017 is a case in point. The director of the Credit Reference Center, People's Bank of China mentioned three reasons for the rejection.[21] First, all eight products' data are derived largely from customer transactions on their respective platforms. Data-sharing mechanisms are not in place, which could lead to inaccuracy. Second, all eight products lack third-party independence, which could lead to conflicts of interest. Third, all eight companies lack knowledge about credit reference. They derive credit scores from very limited data, which could potentially be highly biased.

It is important to point out that the credit reference ("征信") system and the social credit ("社会信用") system are two different but related concepts. Credit reference covers a smaller range of activities that strictly deal with money, and is regulated by the People's Bank of China. The nature of financial credit reference demands higher accuracy. But the social credit system covers all types of social activities and could be regulated by different government bodies.

In contrast to the credit reference privatisation programme which has progressed slowly, the development of the social credit system seems to be much faster and has operated in a decentralised fashion. Different local governments invented different pilot programmes and plans, some of which were to impress the central government with their "achievements".

[20] http://finance.caixin.com/2017-04-22/101081924.html.

[21] https://www.yicai.com/news/5271750.html.

Despite the fact that the 2014 State Council proposal lays out a detailed plan, the proposal invites more questions and controversies than provides answers.

First, strict data regulation complicates the collection and sharing of data, which constitutes the fundamental basis of a social credit system. Over the past few years, cases of data misuse and abuse have helped to raise public demands for data protection. Recently, China's data privacy law extended its reach. In 2017, the Standardisation Administration of China issued a new regulation on protecting personal information.

Second, constructing a nationwide comprehensive social credit database is not impossible, but numerous barriers stand in the way of data sharing. On the one hand, technical challenges are easily foreseeable. How will different organisations adopt the same data format so that information can be transferred across institutions? Currently, there is no central government body for standardising and managing the vast volumes of data. On the other hand, resistance due to economic concerns are also possible. Getting companies to share their data with the government might be difficult to achieve. Companies have almost no incentive to share their data with the government because it is one of their most valuable assets. Currently, only public security bureaus can request for data from enterprises through appropriate procedures. But how this will work out with regard to the social credit system remains vague and unknown.

Third, if a large social credit system comes into existence, the scale of the data security problem that the government faces is immeasurable. A database with such rich information would definitely attract all forms of attack. Even if the system can fend off all external attacks, leakage from within the system is highly possible. China has a huge black market for the buying and selling of personal information that comes from personnel who work in the institutions producing the data.

Fourth, the same reason that the People's Bank of China mentioned for rejecting the private company credit reference service license applications applies to the social credit system as well, that is, how will the government run the social credit system in an impartial way like a third-party actor? Despite the 2014 State Council plan calling for more government transparency to enhance government credibility, ironically, some of the social credit pilot programmes themselves lack transparency. For instance, detailed information with regard to how Qingzhen and Rongcheng assigned scores to individuals and organisations is not available online.

Fifth, and relatedly, when transparency is not in place, fraud and manipulation of the system could fail the mission of China's effort to build a reputation society and reputation government. In simple terms, the social credit system would not be very credible without checks and balances. There are numerous cases where the central government tries to implement a new policy with good intentions but local governments carry out the policy with different forms of distortion for their own benefit. Following this line of reasoning, it is possible that social credit programmes could be used to limit personal freedom, including freedom of speech.

CONCLUSION

The social credit system is a complex nationwide system envisioned by the Chinese government. It is a tool to push forward government transparency and to enhance the credibility of the whole society. Theoretically speaking, a well-designed social credit programme with transparency, checks and balances, and public deliberation could lead to a thriving economy and a better society. But, given the scale of the plan, the future of the social credit system remains largely unknown due to the technical, legal, and administrative problems the Chinese authorities face.

Dr. Fei Shen ("Chris") is associate professor at the Department of Media and Communication, City University of Hong Kong. He is a keen observer of the social and political impacts of new media technologies. His empirical work examines how people make use of new media technologies in different settings and how the internet helps reshape people's behaviour and redistribute power in societies.