



# Gamifying trust: Can you win at life?

## China's Social Credit System and the rating revolution

#### Introduction

Ru Shi was a public servant in the port city of Rongcheng, China. She was 36 years old, married, and mother to a 5-year-old. Rongcheng, once a small fishing town in Shandong province, had experienced rapid growth over the past decade and gained jurisdiction over its 919 surrounding villages. Every day Ru Shi went to work at City Hall, a glass building resembling a flying saucer which housed the Rongcheng Social Credit Management Office, which Ru Shi had been in charge of overseeing since its establishment in late 2013.

The Social Credit System, which was expected to be fully operational by 2020, began gradually, with a series of pilots being carried out across the country. According to the system's founding document, the scheme aimed to "allow the trustworthy to roam everywhere under heaven while making it hard for the discredited to take a single step."<sup>1</sup> Of the over three dozen pilots already in place, Rongcheng was perhaps the finest example of the System, according to Chinese officials.<sup>2</sup>

The System began by assigning an A rating and 1,000 points to each of Rongcheng's 740,000 adult residents. From there, residents could win or lose points depending on their actions, causing their rating to rise to AAA or slip to B, C, or D. The scheme promised to reward good behaviour and encourage more harmonic living amongst residents.<sup>3</sup>

The rules were as follows: litter, run a stop light, fail to visit your parents, or be rude to neighbours, and see your rating fall. Conversely, commit a heroic act, donate to charity, or volunteer, and see your score rise—provided that the acts mentioned are backed by official documents.<sup>4</sup> Honest acts such as returning a lost wallet would earn you points and possibly an award for your honesty, resulting in a kind of instant karma. Such benefits aimed to make the "honest decision" more attractive than the dishonest one.

www.wired.co.uk/article/china-social-credit-system-explained

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<sup>&</sup>lt;sup>1</sup> Simina Mistreanu. "Life Inside China's Social Credit Laboratory". Foreign Policy. April 3, 2018.

foreignpolicy.com/2018/04/03/life-inside-chinas-social-credit-laboratory/ (January, 27, 2019).

<sup>&</sup>lt;sup>2</sup> Rene Raphael & Ling Xi. "Discipline and Punish: The Birth of China's Social-Credit System". The Nation.

January 23, 2019. www.thenation.com/article/china-social-credit-system/

<sup>&</sup>lt;sup>3</sup> Simina Minstreanu. "Life Inside China's Social Credit Laboratory".

<sup>&</sup>lt;sup>4</sup> Nicole Kobie. "The complicated truth about China's social credit system". Wired. January 21, 2019.

This case has been written by Eleni Ayala Ojeda under the guidance of Dr Natalie Pang, Institute of Policy Studies, National University of Singapore. This case is based largely on actual events with characters and proceedings altered for the purposes of this case study. The case does not reflect the views of the sponsoring organization nor is it intended to suggest correct or incorrect handling of the situation depicted. The case is not intended to serve as a primary source of data and is meant solely for class discussion.

The range of points a resident could gain or lose also depended on the act in question. Some offenses, such as drunk driving, brought with them hefty fines which could lead an A score to plummet to a C. Individuals with low scores were unable to book hotel rooms, register their children in top schools, or buy high-speed train or plane tickets. In contrast, those with an AAA score could receive rewards such as a \$50 heating discount every winter and better terms on bank loans.<sup>5</sup>

Despite the System's seemingly strict rules, 90 percent of Rongcheng's population managed to retain an A rating.<sup>6</sup> To incentivize good behaviour, a board outside City Hall displayed pictures of those who had distinguished themselves within the System. Here you could find the image of a 55-year-old woman who took care of her husband's mother after his passing, and upon remarrying, ensured that the mother-in-law could come to live with her and her new husband. Passers-by stopped to look at those featured in the board and hoped that they too could make it there one day.

During her tenure, Ru Shi had seen an improvement in quality of life and property prices. As cordial behaviour had increased, so had the overall morale of Rongcheng. Cars yielded for pedestrians at the crosswalk—failing to do so could lose a driver five Social Credit points and you would be hard-pressed to find trash on the streets. Still, the system was not without its issues. Ru Shi decided to learn more about the reasoning behind the system and precisely how it came to be.

# Background

## China's approach to social management

The Social Credit System planned for 2020 was meant to become an "ecosystem" that joined together separate schemes run by cities, ministries, and businesses. Given the country's massive population of 1.4 billion people, the System was meant to expand on existing forms of governance by automating and improving upon the Communist Party's previous forms of social control, comprising not only monitoring and law enforcement, but also general good behaviour and civility.<sup>7</sup>

It was said that when Confucius was asked what a ruler needed to govern a country, his response was "far credit, faith, or sincerity; food  $\hat{g}$ ; and an army  $\not{fa}$ . But if you can have only one, it should be the first fa". The Chinese character for "credit" had thus long been at the heart of Chinese governance.<sup>8</sup> Since the Song dynasty, China had nurtured a culture of self-policing. In the 11<sup>th</sup> century, the emperor instituted a system in which groups of five to 25 households were responsible for monitoring one another and had the ability to make arrests within the grid. Later, during Mao Zedong's rule in the 1950s, the rural Chinese were obligated to form collective farming communes in which their status was measured collectively.

<sup>&</sup>lt;sup>5</sup> Simina Minstreanu. "Life Inside China's Social Credit Laboratory".

<sup>&</sup>lt;sup>6</sup> Ibid.

<sup>7</sup> Ibid.

<sup>&</sup>lt;sup>8</sup> "Networked Confucianism". Isaac Son. November 25, 2018. www.isaacson.info/category/political-philosophy/.

By 1958, the Hukou Registration Regulation determined where people could live, work, and study based on agricultural or non-agricultural residency status. It also provided urban residents with benefits such as retirement pensions and health care. This segregation of rural vs. urban created much controversy amidst accusations that it perpetuated the cycle of poverty and increased inequality. As such, the Chinese government began to reform the system, looking instead for a way to assign benefits based on merit rather than residency.

## The technological revolution

The notion of automating public administration came about in the late 1970s when "social management" was dreamt up by Party-State's theorists aiming to design a Leninist governance system to regain power after Mao. A report from 1984, "On the New Technological Revolution (新技术革命)", laid out steps on how to implement systems engineering in the "social domain". This included ensuring information flow, and planning and developing procedures for analysis.<sup>9</sup>

In the 1990s, with the arrival of the Internet in China, social life and communication pathways began evolving as Chinese society embraced the online world. In response, in 1995, President Jiang Zemin called for "the informatization, automation, and intelligentization of economic and social management"<sup>10</sup>. This intelligentization would take on the form of the so-called Great Firewall of China (GFW), a project that employed both legislative and technological tools to regulate the Internet domestically. The purposes of the GFW were threefold: 1.) To maintain social control and block any attempts to transmit information against the State or challenge the social order; 2.) To block access to questionable content such as pornography; 3.) To limit the permeation of foreign internet tools while simultaneously encouraging the propagation of national alternatives, such as in the case of Baidu versus Google.<sup>11</sup>

Within the GFW, the Golden Shield Project was created to regulate online behaviour through a digital surveillance network capable of identifying and locating individuals, filtering content, and barring websites. The success rates of these projects were questionable. While Chinese tech giants such as the Tencent Holdings and Alibaba Group had flourished under the quest towards "cyber sovereignty", the spread of VPNs, IP blocking, and DNS spoofing had raised doubts about the strength of the structures. Furthermore, human rights organizations had criticized the Chinese government for "abusing internet freedom" and infringing on citizens' digital rights. In 2018, the Freedom House ranked China as the country with the least online freedom.<sup>12</sup>

<sup>&</sup>lt;sup>9</sup> Samantha Hoffman, "Managing the State: Social Credit, Surveillance and the CCP's Plan for China," China Brief Volume: 17 Issue: 11. August 17, 2017, https://jamestown.org/program/managing-the-state-social-credit-surveillance-and-the-ccps-plan-for-china/.

<sup>&</sup>lt;sup>10</sup> Gordon G. Chang. "China's 'Digital' Totalitarian Experiment" Gatestone Institute. September 2018. www.gatestoneinstitute.org/12988/china-social-credit-system.

<sup>&</sup>lt;sup>11</sup> Grant Clark. "The Great Firewall of China". Bloomberg. November 6, 2018.

www.bloomberg.com/quicktake/great-firewall-of-china.

<sup>&</sup>lt;sup>12</sup> Freedom House. "Freedom on the Net 2018." April 22, 2018.

freedomhouse.org/sites/default/files/FOTN\_2018\_Final%20Booklet\_11\_1\_2018.pdf.

The current Social Credit System was thus a natural technological evolution of old forms of social control. It aimed to create a version of the traditional collective control mechanisms that placed a stronger onus on the individual and his/her agency. The result was that the System was not as jarring to the Chinese citizenry as it may have been to the international community, with many Chinese viewing the scheme in a positive light.<sup>13</sup> Its creation also fell in line with China's Prime Minister Li Keqiang's Internet Plus (互联网), the application of mobile Internet, cloud computing, big data, and Internet of Things to other industries,

including government.<sup>14</sup>

# Managing 1.4 billion

The growth boom that China's economy had experienced since the late 1970s brought many challenges to the country, including the proliferation of economic crimes such as fraud and food and safety violations. In 2008, a toxic milk-powder scandal affected 300,000 victims, many of them children,<sup>15</sup> while the NBS Supervision Bureau found that companies in Tianjin had inflated their data by up to 56 times.<sup>16</sup> Fear of deceit had thus become an everyday affair for the Chinese, with 63 percent of fake goods originating in China (Table 1)<sup>17</sup> and unethical practices amongst doctors and lawyers becoming commonplace. A lack of social cohesion and growing apathy, as evidenced by the death of two-year-old Wang Yue, were also at the forefront of the government's concerns.<sup>18</sup>

In addition to these issues, the enforceability of court decisions also became a common issue, with those made to repay loans or other grievances often absconding from law enforcement. From 2013-2018, 8.8 million violations, including transfers and hiding of assets, committed by defaulters were registered on the government blacklist. The court's constraints on defaulters, which include limitations on purchasing high-speed rail and plane tickets, led to over 1 million voluntary surrenders.<sup>19</sup>

# Trust

It hence comes as no surprise that the subject of trust was sensitive in China. Evidence from recent studies that examined types of civic cooperation showed that while levels of trust actually increased in China from 2007-2017, civic cooperation across communities declined.<sup>20</sup> Further evidence showed that while China outperformed other countries in

credit/?noredirect=on&utm\_term=.64708906fade.

<sup>&</sup>lt;sup>13</sup> Simina Minstreanu. "Life Inside China's Social Credit Laboratory".

<sup>&</sup>lt;sup>14</sup> Samantha Hoffman. "Managing the State: Social Credit, Surveillance and the CCP's Plan for China,"

<sup>&</sup>lt;sup>15</sup> Bing Song, "The West may be wrong about China's social credit system," The Washington Post, November 29, 2018. https://www.washingtonpost.com/news/theworldpost/wp/2018/11/29/social-

<sup>&</sup>lt;sup>16</sup> Michael Lelyveld. "China Exposes Rampant Data Fraud in Provinces". Radio Free Asia. July, 2018. www.rfa.org/english/commentaries/energy\_watch/china-exposes-rampant-data-fraud-in-provinces-07092018105131.html.

<sup>&</sup>lt;sup>17</sup> "Trade in Counterfeit and Pirated Goods: Mapping the Economic Impact" OECD. 2013. Accessed January 29, 2018. www.oecd.org/governance/trade-in-counterfeit-and-pirated-goods-9789264252653-en.htm.

<sup>&</sup>lt;sup>18</sup> Wang Yue was a two-year-old Chinese girl who was run over by two vehicles in 2011 after being ignored by 18 passers-by, which resulted in her death.

<sup>&</sup>lt;sup>19</sup> "More than 170,000 defaulters banned from senior management positions in China". The Supreme People's Court of the People's Republic of China. November 21, 2017. english.court.gov.cn/2017-11/21/content 34809918.htm.

<sup>&</sup>lt;sup>20</sup> Easterlin et al. "Growth and happiness in China, 1990-2015" World Happiness Report 2017; New York: Sustainable Development Solutions Network. Accessed January 29, 2019.

terms of linking social capital and was on par with Scandinavian countries in terms of bonding, it fell behind at bridging social ties.

In the World Values Survey (WVS), which measured values across nations, respondents were asked whether they trusted people they met for the first time. Of those questioned, only 11 percent of Chinese answered positively in comparison to 57 percent of Swedes (Table 2). However, when asked about their confidence in the government, 85 percent affirmed that they trusted their government "a great deal" or "quite a lot", displaying exceptionally high levels of systemic trust in comparison to other countries (Table 3).

These figures can be interpreted in one of the following ways: 1. The responses were proof of intimidation by the State that led to dishonest answers; 2. The "trust" was a result of years of indoctrination by government propaganda, or; 3. The registered systemic trust was genuine and stemmed from China's economic growth, which increased citizens' individual well-being.<sup>21</sup> If the final explanation was true, it would have been sensible for the government to capitalise on its high degree of legitimacy to bridge the gaps in China's social capital (Table 4). But what if the opposite was true?

## Towards a Nation-Wide Social Credit System

The early stages of the Social Credit System began in 2007 (see Exhibit A-Figure 1), when the Chinese government set up the Inter-ministerial Conference on Social Credit System Construction (社会信用体系建设部际联席会议) as the System's coordinating body. The conference comprised 46 government organs along with the Ministry of Finance, the Ministry of Public Security, and the Central Propaganda Department.

After the eye-opening 2010 Suning County pilot, which led to severe backlash as a result of political limitations such as points being deducted for appealing to a representative without permission, the government pushed through with a set of regulations for the credit industry in 2013. The following year, several pilots around the country were launched, and by 2015, both the second round of pilot cities and the Credit China platform were introduced.

In 2016, the government announced the creation of a Unified Social Credit Number (统一社

会信用代码制度) that would replace the different ministries' own identification numbers in order to improve information flow. In another effort to improve collaboration, government and non-government actors began the process of signing agreements and memoranda of cooperation regarding data reporting as well as punishments and rewards<sup>22</sup>.

<sup>&</sup>lt;sup>21</sup> Jurgen Grote & Matteo Bonomi. "Making and breaking social capital: The paradox of China's social credit system". DocResearch. May 2018. doc-research.org/2018/05/making-and-breaking-social-capital-the-paradox-of-chinas-social-credit-system/ (January 27, 2019).

<sup>&</sup>lt;sup>22</sup> Mareike Ohlberg, Shazeda Ahmed, and Bertram Lang. "Central Planning, Local Experiments. The complex implementation of China's Social Credit System." Accessed January 27, 2019. www.merics.org/en/china-monitor/content/5071.

## Mechanisms of control

As in the case of Rongcheng, the most basic type of incentives within the general System were point increases or decreases that arose from behaviour and compliance. These behavioural jolts were meant to force the individual in question to internalize any negative externalities that may have arisen from his/her actions by imposing restrictions in their day-to-day life in the form of restricted Internet services, ineligibility for loans, and limitations on schooling and employment opportunities<sup>23</sup>.

Public databases, physical billboards, and town hall meetings were means of celebrating or chastising those who had set themselves apart in the System. While those with particularly high scores saw their public reputation rise and could choose to advertise their good credit score, naming and shaming was an equally important tool used by the government to modify the public's internal compass. Cartoons published on the offical Credit China platform depicted individuals who faced romantic shame and rejection as a result of their poor credit score (Exhibit A-Figure 2).

A key source of concern was the lack of appropriate 'mechanisms of credit repair' that would allow the maligned to dispute point deductions and pursue avenues of redemption. While some provinces had suggested community work and charitable donations as a formal path towards recovery, official policies failed to address the question of the long-term damage that accompanied public disgrace and the possibility of an individual's scores spiralling out of control<sup>24</sup>.

## Blacklists and red lists

While point increases and preferential treatment were important nudges employed by the System, the backbone of the Social Credit System relied on the existence of blacklists and red lists. Blacklists were reserved for non-compliant individuals and legal entities who had committed serious violations. Red lists were precursors to the blacklists, and imposed fewer restrictions on the accused. As of 2019, individuals were mainly blacklisted for resisting court orders, while companies were blacklisted for breaches in laws and regulations.

The cost of being listed was also reputational, as registries including names, photos, and ID numbers were open to the public for consultation. The government had set up two central platforms to publicize listed legal and natural persons. The first, Credit China (信用中国网), included a registry of black and red listed persons, itemized by gravity and type of offense. The second, the National Enterprise Credit Information Publicity System (国家企业信用信息公示系统), allowed users to access company's licenses and registrations in search for previous offenses and irregularities.<sup>25</sup>

### Private sector

Major violations committed by companies, such as fraud, led to being put on the blacklist, while less severe offenses, like failing to pay taxes on time, would land the company on the red list. Given the prevalence of commercial deceit in China, cities like Rongcheng began

<sup>&</sup>lt;sup>23</sup> Jurgen Grote & Matteo Bonomi. "Making and breaking social capital".

<sup>&</sup>lt;sup>24</sup> Mareike Ohlberg, Shazeda Ahmed, and Bertram Lang. "Central Planning, Local Experiments".

<sup>&</sup>lt;sup>25</sup> Mareike Ohlberg, Shazeda Ahmed, and Bertram Lang. "Central Planning, Local Experiments".

expanding the System's definitions to include new forms of deception. For instance, the act of so-called "brushing traffic"—the purchasing of online views and followers, the use of 'bots', and the act of planting and deleting reviews—was also considered a punishable offense.<sup>26</sup> Other types of violations to consumer rights, such as food or safety breaches, were assessed based on severity<sup>27</sup>.

Another important feature of the System was its linkage of businesses to their leaders. Executives and legal representatives were held responsible at a personal level for their role in a company's wrongdoings. Representatives of blacklisted companies, for instance, were banned from holding a leading position at another company for a certain period of years based on gravity of the transgression as well as from enrolling their children in certain classes.<sup>28</sup>

# Medical sector

The medical sector had been given special attention due to the surge in the establishment of private hospitals and clinics. From 2016 to 2017, there was a 12% increase in private hospitals nationwide<sup>29</sup> as well as an increase in malpractice and fraud-related cases in the form of false advertisement, exaggerated success rates, and excessive medical treatments<sup>30</sup>.

Notable incidents, such as that of 21-year old Wei Zexi who passed away in 2016 after undergoing an experimental treatment advertised on the search engine Baidu, and that of the faulty baby vaccine scandal of 2018<sup>31</sup> led to widespread public distrust in the private medical system. Measures implemented by the Social Credit System promise to increase the accountability of medical institutions by publicly disclosing violations of laws and regulations.<sup>32</sup>

### **Rongcheng's Credit Management**

The city of Rongcheng was the first in China to incorporate party, government organs, and village-owned organizations into the credit system. By 2019, the Social Credit System in Rongcheng was essentially universal, with "good faith ID cards" assigned to villagers, government officials, and organizations.

<sup>&</sup>lt;sup>26</sup> "Brushing traffic, buying fans... The data fraud is overdone is personal credibility?" The Theme Office of the People's Government of Rongcheng City. January 2019.

www.rccredit.gov.cn/web/cont\_aa883d1128564b869d409c58f1c53312.html.

<sup>&</sup>lt;sup>27</sup> Chris Udemans. "Blacklists and redlists: How China's Social Credit System actually works". TechNode. October 2018. technode.com/2018/10/23/china-social-credit/.

<sup>&</sup>lt;sup>28</sup> Mareike Ohlberg, Shazeda Ahmed, & Bertram Lang.

<sup>&</sup>lt;sup>29</sup> "Exploring and Implementing the Credit Commitment System". The Theme Office of the People's Government of Rongcheng City. November 2019.

 $www.rccredit.gov.cn/web/cont\_d56d1e74f8394ea8918cc6c020b73a40.html.$ 

<sup>&</sup>lt;sup>30</sup> Ibid.

<sup>&</sup>lt;sup>31</sup> Yew Chiew Ping. "Commentary: Rating citizens - can China's social credit system fix its trust deficit?" Channel News Asia. November 18, 2018. www.channelnewsasia.com/news/commentary/china-social-credit-system-public-deficit-trust-rating-citizens-10925002.

<sup>&</sup>lt;sup>32</sup> "Exploring and Implementing the Credit Commitment System".

To promote the collection and aggregation of credit information, Rongcheng created the Catalogue of Soliciting Social Credit Information. The catalogue gathered illegal activities as well as uncivil and unethical behaviors that fell beyond the scope of laws and regulations. The Catalogue comprised over 600 economic and social activities that were relevant to individuals, businesses, and politicians.<sup>33</sup>

The latter, in particular, were not spared from the judging eye of the credit system. Rongcheng required minimum score of A for participation in party and government management. From 2014-2018, 19 of Rongcheng's party members and units were expelled as a result of their names being added to the list of untrustworthy executors. Nearly 130 residents were barred from village party membership, including two existing representatives and one committee.<sup>34</sup>

## Private credit schemes

In addition to its own system, the city of Rongcheng also signed a memorandum of understanding with Ant Financial, an affiliate company of the Alibaba Group. Through this deal, residents could pay their utility bills using the Alipay app and were given a Sesame credit score, which was distinct from the government system. The data used to compile this score was based on users' interactions on Alibaba's services<sup>35</sup>.

Users deemed to be engaging in 'responsible' behaviour, such as purchasing diapers with Alipay, saw their score improve, while those spending 10 hours or more playing video games saw their score suffer. A high Sesame Credit score resulted in an array of perks for the user such as access to improved health insurance and deposit-free bike rentals. A low score could result in the individual being banned from services like the online dating service Baihe, and possibly reported to the government. Those with high scores could opt to have their Social Credit score displayed on their Baihe profile, so that potential matches could consider it as part of their overall attractiveness<sup>36</sup>.

### Financial sphere

Rongcheng formulated the use of credit products for households to encourage citizens to use social credit to prevent credit risks. From 2015-2018, members of the community inquired about over 5,800 credit reports on individuals and investment opportunities.<sup>37</sup> In 2017, the Credit Office began working with the People's Bank Rongcheng Branch to implement a "double check" system on loans. The system included examining the credit information of the People's Bank Credit Information Center as well as the public credit information of Rongcheng.

 <sup>&</sup>lt;sup>33</sup> Zhao Qiuli. "Shandong Rongcheng: Let credit become the city's "golden signboard". News Xihuanet.
September 27, 2018. www.xinhuanet.com/politics/2018-09/27/c\_1123488320.htm.

<sup>&</sup>lt;sup>34</sup> Zhao Qiuli. "Shandong Rongcheng: Let credit become the city's "golden signboard".

<sup>&</sup>lt;sup>35</sup> Manya Koetse. "Open Sesame: Social Credit in China as Gate to Punitive Measures and Personal Perks". WhatsoWeibo. May 27, 2018. www.whatsonweibo.com/open-sesame-social-credit-in-china-as-gate-to-punitive-measures-and-personal-perks/.

<sup>&</sup>lt;sup>36</sup> Anna Seidel. "Understanding China's Social Credit System and What it Means for Consumers". Branding in Asia. January 2019. brandinginasia.com/understanding-chinas-social-credit-system/ (January 28, 2019).

<sup>&</sup>lt;sup>37</sup> Anna Seidel. "Understanding China's Social Credit System and What it Means for Consumers".

Trustworthy individuals received benefits in the form of priority handling, lower thresholds, simplified procedures, and exemption from deposits. Rongcheng Rural Commercial Bank also launched a "credit loan", which relaxed the repayment period for honest individuals. As of September 2018, 650 credits had been awarded and loans worth 180 million yuan had been issued. The "credit doctor" scheme was also extended to the medical sector, where high scorers could enjoy free medical check-ups. From 2017-2018, more than 6,200 people received benefits for their trustworthiness.

Finally, the social credit system in Rongcheng also introduced measures to benefit SMEs by providing micro enterprises that may lack the necessary credit scores to qualify for loans and support with an alternative set of criteria for assessment. As of late 2018, Rongcheng City Social Credit Management Office had issued more than 22,000 credit reports and provided 125,000 business enquiries<sup>38</sup>.

# Problems

Ru Shi felt that the scheme was doing its part in improving behaviour. However, she could not deny that multiple issues had been brought to light since the system began. She decided to dig further into some of these matters to decide whether the system was truly working.

## Big Data and Cybersecurity

If the Social Credit System became what it was planned to be, it would stand as one of the most complex projects ever undertaken by any government in known history. Such plans required extraordinary coordination between stakeholders, which included relevant parties inside the government, private parties outside the government, and parties with conflicting objectives when it came to data generation and protection. It was reasonable to foresee challenges around data privacy in overlapping categories such as the handling of personal information, cross border data flows, and data management/governance.<sup>39</sup>

Two major issues with regards to big data and cybersecurity included: 1.) privacy, or who could access users' information and to what extent; and 2.) personal information protection, or the illegal selling of data for purposes ranging from advertisement to identity theft and extortion. The use of complex algorithmic governance models drew on facial recognition and artificial intelligence,<sup>40</sup> and thus risked lacking proper regulation and being vulnerable to misconduct and abuse. The Chinese government had given conflicting reports on how much data was being fed into the system<sup>41</sup>, and the threat of data misuse and leakage lingered.

piie.com/system/files/documents/pb18-14.pdf.

<sup>&</sup>lt;sup>38</sup> Zhao Qiuli. "Shandong Rongcheng: Let credit become the city's "golden signboard"".

<sup>&</sup>lt;sup>39</sup> Martin Chorzempa, Paul Triolo, and Samm Sacks. "18-14 China's Social Credit System: A Mark of Progress or a Threat to Privacy?" Peterson Institute for International Economics. June 2018.

<sup>&</sup>lt;sup>40</sup> *Panopticon*: A scheme in which all inmates of an institution could be observed by a single watchman without them knowing whether they're being watched.

<sup>&</sup>lt;sup>41</sup> Dai Xin, "Toward a Reputation State: The Social Credit System Project of China" June 2018. Available at SSRN: https://ssrn.com/abstract=3193577 or http://dx.doi.org/10.2139/ssrn.3193577.

## **Ethical Dilemmas**

The Social Credit system created pertinent ethical dilemmas. The first was the question of conformity and coercion.<sup>42</sup> Employing gamification to modulate behaviour was tantamount to overriding the natural evolution of the community's social values, norms, and beliefs. The proliferation of government-imposed penalties was predicted to take replace ordinary facets of human existence like free arbitration, and to violate citizens' human rights.<sup>43</sup>

The system also gave rise to trafficking. The public nature of social credit scores allowed people to compare themselves to others and incentivised them to adopt the prescribed behaviours. For those who were unable or unwilling to put in the work, the system created a breeding ground for the use of unethical means to improve scores<sup>44</sup>. At the time of writing, accounts of black markets in which Alipay users employed hackers to boost their Sesame Credit scores by altering the "binding data" to reflect false information, such as having graduated from an elite university, had already surfaced.<sup>45</sup>

### Segregation and privilege

That the same system was used to score residents with different socioeconomic backgrounds raised concerns. Those with lower economic means might have been more likely to engage in 'untrustworthy' behaviour without malicious intent. Defaulting on a loan repayment, for instance, might have been unavoidable for those struggling with poverty or illness, while caring for elderly parents could be impossible for those who had migrated far from their homes.

The scoring system could thus lead to profiling based on privilege. Restrictions on access to certain services were a particular source of concern given that a parent's bad score could have repercussions on their children. Furthermore, the immense amount of public data available had the potential to create a drive to identify the factors that predict trustworthiness, which could ultimately lead to social profiling using big data analytics tools.<sup>46</sup>

### Governance

While the Social Credit System was helpful in combatting fraud and improving social cohesion, the system created numerous governance problems. First, what would happen if the government was itself the "trust breaker"? Many questioned the feasibility of holding government organs accountable under Social Credit System, considering the scope for tampering as the government simultaneously assumed the role of both judge and jury.

<sup>43</sup> Zahy Ramadan. "The gamification of trust: the case of China's "social credit"", Marketing Intelligence & Planning, Vol. 36 Issue: 1, pp.93-107, 2018. https://doi.org/10.1108/MIP-06-2017-0100.

<sup>&</sup>lt;sup>42</sup> Audrey Murrell. "Pushing The Ethical Boundaries Of Big Data: A Look At China's Social Credit Scoring System". Forbes. July 2018. www.forbes.com/sites/audreymurrell/2018/07/31/pushing-the-ethical-boundaries-of-big-data-a-look-at-chinas-social-credit-scoring-system/#201d825825e5.

<sup>&</sup>lt;sup>44</sup> Rachel Botsman. "Big data meets Big Brother as China moves to rate its citizens". Wired. October 2017. www.wired.co.uk/article/chinese-government-social-credit-score-privacy-invasion.

<sup>&</sup>lt;sup>45</sup> Ibid. Mareike Ohlberg, Shazeda Ahmed, & Bertram Lang.

<sup>&</sup>lt;sup>46</sup> Seeta Peña Gangadharan. "The Dangers of High-Tech Profiling, Using Big Data" New York Times. August 2014. www.nytimes.com/roomfordebate/2014/08/06/is-big-data-spreading-inequality/the-dangers-of-high-tech-profiling-using-big-data.

Examples of such breaches included the State defaulting on payments to contractors or refusing to compensate citizens for seized land.<sup>47</sup>

Second, the system could fall prey to corruption in local government and self-interest amongst commercial actors. Given that a change in points required official documentation, official government recognition was required before a person's score was affected -either positively or negatively. This brought into question the matter of subjectivity, and the possibility of officials failing to acknowledge actions based on political or personal incentives.

At the time of writing, several cases had arisen of citizens who claimed to have been put on the government's blacklist without being notified and denied their right to a 10-day-period for appeal. Some had also reported blacklisting as a result of political non-alignment, censorship, or simple mistakes when transferring a loan repayment.<sup>48</sup> Those affected had cited difficulties removing themselves from the list despite efforts to improve their score and appeal to government officials.<sup>49</sup>

## Files from Ru Shi's Cabinet

Ru Shi contemplated these facts and thought back to some of the files that had crossed her desk. She wondered how the system was affecting each of these residents and whether there was anything she can do to make things better.

	Rongcheng residents <sup>50</sup>
1	Zhang Yong is a 40-year-old handy man. He makes enough to make ends meet and frequently helps neighbours out for free. Given that his work assignments come sporadically, he likes to participate in community events and volunteers a few times a month.
2	Liu Yang works in a local hospital as part of the cleaning staff. She migrated to Rongcheng from a remote rural village and left her daughter in the care of her elderly parents. Despite working extra shifts, she still lives pay check to pay check. She sends money as often as she can but can only visit once a year.
3	Li Qiang is a small local businessman. Coming from a humble background, he has no formal credit background or knowledge of financial tools. Since the Social Credit System was introduced, he has managed to attain an AAA score. Upon learning he can use his social credit as guarantee, he has decided to apply for a loan.
4	Zhang Wei is the child of a single mother. He is 12 years-old and wants to join the evening advanced mathematics classes like the rest of his friends. Because his mother had to default on a loan, she has been barred from enrolling him in the course. Zhang Wei must make do, and study by himself.

<sup>&</sup>lt;sup>47</sup> Yew Chiew Ping. "Commentary: Rating citizens".

<sup>&</sup>lt;sup>48</sup> Nadra Nittle. "Spend "frivolously" and be penalized under China's new social credit system". Vox. November 02, 2018. www.vox.com/the-goods/2018/11/2/18057450/china-social-credit-score-spend-frivolously-video-games

<sup>&</sup>lt;sup>49</sup> Nadra Nittle. "Spend "frivolously" and be penalized under China's new social credit system".

<sup>&</sup>lt;sup>50</sup> All characters presented in this table are fictional.

## **Policy Options**

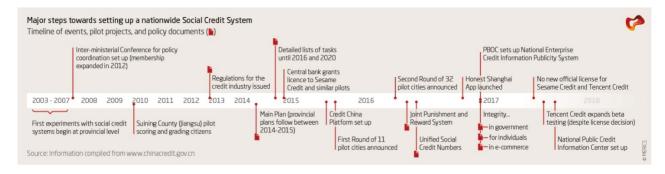
After examining this information Ru Shi mulled over the positive and the negative aspects of the Social Credit Scheme. On one hand, the scheme incentivized individuals and companies to behave ethically by holding them accountable for breaking norms and negatively affecting others, thus strengthening the rule of law. On the other hand, it brought with it concerns over data privacy, as well as multiple ethical and governance issues. Weighing the good against the bad, Ru Shi considered the possibilities of expanding, withdrawing, or reforming the scheme. With this in mind, she asked herself:

- 1. Was the Social Credit System an effective way of increasing trust within the Chinese society? Was it replicable in other countries?
- 2. Could the scheme create a level playing field for those with varying levels of socioeconomic privilege? What policies could be implemented to this effect?
- 3. How was technology used to regulate behaviour in other countries? How was the internet employed to reward and punish individuals or companies?
- 4. What was the intersection between one's online persona and his/her physical persona? What were the System's implications on citizens' human rights?
- 5. What could the government do in the case of a major privacy breach/data theft? How could it pre-empt and prepare for such a scenario?

#### Exhibits

#### Exhibit A:

#### Figure 1: Scaling



(Compiled by MERICS China Monitor)

#### Figure 2: Propaganda



### Exhibit B:

Table 1: Counterfeit goods by origin: Table shows 63.2% of fake goods originate from China.



**Table 2: Bridging in 'communities of choice':** Only 11% of Chinese ascertained that they 'completely' or 'somewhat' trust people they meet for the first time in comparison to 57% of Swedes, 34.8% of Americans, and 30.9% of Germans.

	Brazil	China	Germany	Netherlands	Russia	Sweden	US
Trust completely	0,6	1	2	0,1	1,7	4,7	0,8
Trust somewhat	17,4	9,9	28,9	22,2	18,7	52,2	34,4
Do not trust very much	25	57,9	48,6	57,3	43,2	29,6	47,6
Do not trust at all	56,2	19,4	18,1	12,1	32,4	10,9	16,1
Inapplicable	0	0	0	0	0,1	0,2	0
Not applicable	0	1,3	0	0	0	0	0
No answer	0	5,3	0,1	0,5	0,2	0,4	1,1
Don´t know	0,8	5,2	2,2	7,8	3,8	1,9	0
(N)	1,486	2,3	2,046	1,902	2,5	1,206	2,232

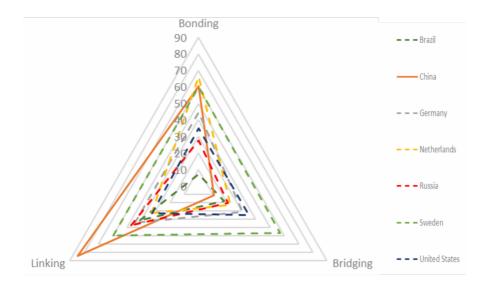
Source: World Values Survey 2010 -2014 ("how much you trust people you meet for the first time?")

**Table 3: Linking in State-Society relations:** When asked about their confidence in the government, 85% of Chinese affirmed that they trusted their government "a great deal" or "quite a lot", in comparison to 59.9% of Swedes, 44.4% of Germans, and 32.6% of Americans.

	Brazil	China	Germany	Netherlands	Russia	Sweden	US
A great deal	5,1	37,7	5,5	1,3	7	9,4	3,7
Quite a lot	35,9	46,9	38,9	31,7	40,4	50,5	28,9
Not very much	26,5	6,2	43,6	48,9	30,6	28,3	51,2
None at all	31,5	1	10,4	13,4	16,6	10,3	14,1
Inappropriate	0	0	0	0	0,5	0	0
No answer	0,1	5,3	0,3	0,5	0,4	0,4	2,1
Don´t know	0,8	3	1,3	4,2	4,5	1,2	0
(N)	1,486	2,3	2,046	1,902	2,5	1,206	2,232

Source: World Values Survey 2010 -2014 ("what about the confidence in the government of your nation's capital?")

**Table 4: Three Dimensions of Social Capital:** When comparing different types of trust across countries, China's image appears severely skewed while other countries maintain a somewhat isosceles-type triangle. This disequilibrium suggests exorbitant level of 'linking' (trust in the government), poor albeit not-uncommon levels of 'bonding' (between communities), and extremely low levels of 'bridging' (amongst competitors and markets).



Source: Doc Research Institute based on World Values Survey 2010-2014.