The People's Algorithms: When China's Big Data Dream Meets the Big Brother

Rough Draft

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Abstract

In the late nineteenth century, Chinese intellectuals and political leaders dreamed of being a modern nation inhabited by informed and politically aware citizens. In the subsequent decades, the making of informed citizens often involved the production and circulation of social facts. It was believed that only if they were provided with facts, citizens would be able to make sound judgements and informed decisions, and to function as engaged national citizens. This theory of making citizen continued in the socialist era (1949-1978) when the Communist regime sought to create socialist citizens for a new society. This essay argues that this paradigm of making citizens has changed profoundly in the past few decades as a result of the advance of state-guided neoliberalism. Instead of creating enlightened citizens, the new paradigm of governance aims at producing a social and economic ecology in which citizens seek to align their desires and aspirations with social order and political stability as defined by the state. Focusing especially on the emerging social credit system introduced by the government recently, this essay further illustrates how central planning and neoliberal belief come together to construct a social order using numbers, algorithms, and credit rating in the state most recent attempt to economize society.

Introduction

It is a cliché to say that "The Big Brother is watching us." And, to the extent that we are generally compelled to give up part of our information in exchange for security, he of course is. After all, the basic premise of the social contractual theory is that we need to give up part of our freedom (and in this case information) to exchange for security and protection. However, in public discourse, the idea of the Big Brother particularly conjures the imagery of the secretive and intrusive surveillance state associated with Communism. Such imagery, needless to say, was part of the self-serving political rhetoric embraced by liberal democracies during the Cold War. In this essay, although my focus is the emergence of an undeniably dystopian digital infrastructure currently being implemented by the Chinese government, my intention is not to reinforce the ideological demarcation of the Cold War. Instead, the essay uses an emerging social surveillance project in contemporary China to examine how the older model of Big Brother surveillance has taken on a new turn in the era of big data and total information. By showing the way in which the Chinese government tries to create an incentive structure for producing a socially and politically conforming citizenry through their everyday self-regulation, this essay shows how this Chinese model of governance fantasizes, if not foretells, a future world that awaits us all.

The desire to monitor and reform the thought of the individual is at least partially rooted in China's looming existential crisis at the turn of the twentieth century. As China's last dynasty—the Qing (1644-1912)—repeatedly suffered major military defeats and setbacks in political

and institutional reforms, many intellectuals came to believe that the failure of the empire was due its inability to create a unified body politic to counter the encroachment of foreign powers. The prominent late Qing intellectual Liang Qichao (1873-1929), for example, argued that China was in dire need of creating cohesive, organic, and functioning society. According to him, the prerequisite of forming such a society was to create its national citizens who were motivated and enlightened. Those who led the top-down revolution that ultimately toppled dynasty also shared this view. Sun Yatsen, the revolutionary leader and the "Farther of the Republic" even famously characterized the dysfunctional state of the Chinese nation as "a place of loose sands." Underlying this line of reasoning was of course a fundamental shift in the political logic of the state from that of the dynastic empire to the nation-state. Political legitimacy, in other words, was now derived from the people rather from the imperial lineage and divine sources.

When the new Republic disintegrated soon after its establishment, most intellectuals blamed the top-down approach to political change, and they further highlighted the urgency to create a functional society with politically awakened citizens in order to institute a modern political order. In the famous writer Lu Xun's analogy, there is no use to cure the bodies of the sick man if you cannot also fix their mind.² During the 1910s and 1920s, intellectuals spoke of the need of creating a "new culture" based on "science" and "democracy." They reformed language for the masses and carried education campaign to the countryside with the hope of turning the nation's mass population into new citizens.

Driven by the political imperative of the time, however, the idea of enabling and liberating the people, making them to become enlightened citizens quickly gave way to state-sponsored programs of compelling the masses to abide to the newly declared social and political order that were seen as pivotal to the survival of the nation. Being politically aware, in this context, was to acknowledge the priority of the collective over the individual. The impulse of liberal governmentality, in short, was making an authoritarian turn.⁴

Unsurprisingly, almost immediately after the Second War World, some Nationalist officials were already contemplating how to put the population under surveillance as part of the project of national reconstruction. Nonetheless, it was after the founding the People's Republic in 1949, such dream of engineering new citizens in a large scale became possible. Specifically, social surveillance and control was an integrated part of the socialist party-state. For instance, in addition to household registration, censuses, social surveys, and various forms of policing, the system also penetrated into workplaces, schools, neighborhoods, and residential compounds. While such system was no doubt partially drawn from practices from the Soviet Union and the

¹ Tong Lam, A Passion for Facts: Social Surveys and the Construction of the Chinese Nation-State, 1900-1949 (Berkeley: University of California Press, 2011).

² Ibid.

³ Chow, Tse-tsung, *The May Fourth Movement: Intellectual Revolution in Modern China* (Cambridge, MA: Harvard University Press, 1960).

⁴ Michel Dean argues that "authoritarian governmentality" differs from liberalism in that it delimits subject populations (whether internal or colonial). It denies their capacities and rights as citizens and expects unquestioned obedience. Authoritarian governmentality deploys more intensive and general "sovereign instruments of repression" in order to neutralize or eliminate any opposition to the dominant state formation. (Michel Dean, Governmentality: Power and Rule in Modern Society (Los Angles: Sage, 1999).

Eastern Bloc, historians have also noticed the existence of longstanding practice of putting the Chinese population under surveillance in the imperial era.⁵ The social surveillance system in twentieth-century China, in that respect, can be seen as a way in which the modern bureaucratic state appropriated native and foreign ideas for its state-building needs. One area of this vast surveillance network, for the purpose of this essay at least, is the personnel file (*geren dangan*) system as it provides a productive departure point for understanding the significance of the new social credit system in the era of big data.

Personnel Files

In the larger context of social surveillance mentioned above, the specific idea of putting the behavior and thought of the individual under constant surveillance was derived directly from the way in which party cadres had been managed within both the Communist and Nationalist Parties in the early twentieth century.⁶ After the founding of the People's Republic, ideological control was seen as the key to consolidate its control of the government and the country. With constant fear that the Nationalists retreated to Taiwan would seek to the penetrate and subvert the new government. In 1956, amid the escalation of the Cold War, the Communist Party further reinforced this practice by issuing a set of guidelines regarding the management of the personal files of its party cadres.⁷

The system was soon expanded to cover all urban residents. At a time when the Communists were struggling to bring the country under its firm control amid the heightening anxieity of the Cold War, one main purpose of the more elaborated surveillance system was to identify and eradicate the so-called class enemies and foreign spies. As well, more than just disciplining the docile body for war mobilization and economic production, the state stroved to monitor and reform the mind of the people to ensure their correctness in order to secure the revolution. Thus, in a certain sense, in the process of creating free-thinking new citizens, intellectuals of the first half of the twentieth-century actually ended up introducing a "dossier society."

Normally, the personnel dossier for each urban resident is created at the moment when the individual enters the school system. The dossier tracks the character, attitudes, performance, and social relations of the person. Although Chinese citizens have no direct access to these files themselves, these dossiers literally follow respective individuals throughout their lives, leaving no temporal and spatial gaps. During the socialist era when Chinese society was organized into work units (*dianwei*), the local unit was responsible for the updating and storage of the dossier. In schools, for example, student dossiers were by updated by teachers. Likewise,

⁵ Lam. 2011.

⁶ Huang 2002, *Journal of Changsha University*, 93. For a contemporary example of how this works, see Maria Edin, "State Capacity and Local Agent Control in China: CCP Cadre Management from a Township Perspective," *The China Quarterly* vo. 173, March 2003, pp. 35-52. <a href="https://www.cambridge.org/core/journals/china-quarterly/article/state-capacity-and-local-agent-control-in-china-ccp-cadre-management-from-a-township-perspective/86D3809B6CAB7E91855AB41DA226D902

⁷ 干部档案管理工作行规定 and Huang 2002, p. 93

in workplaces, individuals were evaluated periodically by supervisors and peers.⁸ Generally, the Chinese socialist dossier system was parallel to but not necessary the same as its counterparts in in the East Bloc. For example, in East Germany, unlike the Chinese system, information about targeted individuals were collected by recruited informants and secret state agents, and those records were centrally managed by the Ministry of State Security commonly known as the Stasi.⁹

Given the way these dossiers were managed in socialist China, the vast rural population who did not work in factories or collectivized farms were generally neglected by the system. Nonetheless, the dossier system was a central pillar in the social surveillance system of the party-state as it allowed the state to monitor the moral character, work ethics, ideological leanings, social relationships, and other basic information of its urban citizens, workers, and students. Furthermore, the contents in these dossiers were often important factors in determining the individual's eligibility for many opportunities and benefits such as school transfer, promotion, better housing, or admission to the party.¹⁰

In short, even if the tracking of the individual through the dossier was only part of the larger surveillance infrastructure, it was an important one. And the idea of having a personnel dossier trailing the life of a citizen like a shadow, deciding on his or her individual fate based on past behaviors and attitudes certainly invokes the menacing imagery of the Big Brother. But such an the omnipresent imagery may overlook the nuances, failures, and contradictions of the system in practice. Not only that most rural citizens were outside of the system, personal favors, revenges, and leniency were conceivably always part of the game for those who were involved in the system. In the film *The Lives of Others (Das Leben der Anderen)* that depicts the surveillance program in former East German, for instance, the Stasi agent assigned to monitor a subversive writer ends up developing empathy with his subject, and eventually refuses to properly

http://milsh.usc.cuhk.edu.hk/book.aspx?cid=6&tid=157&pid=2989

⁸ Scholarship on the Chinese personnel dossier system is very few. An identically copy was reported kept by the local Public Security Bureau (PSB).

⁹ The scope of Stasi's surveillance was nonetheless vast. By the time of the collapse of East German in 1989, the agency employed approximately 91,000 full time staff and 300,000 informants, and it had records of over six million personal files. See Stasi still in charge of Stasi files, https://wikileaks.org/wiki/Stasi still in charge of Stasi files, accessed October 1, 2016.

¹⁰ Despite the prevalence of these dossiers, very little is known about the operations of the secretive system in the socialist era, not to mention any in-depth scholarly analysis of it. Nonetheless, some individual dossiers, including high profile ones, has been leaked. They providing a glimpse of what were recorded in high profiled cases where the individual in question was under intense scrutiny. See, for example, 又见一册遗落的档案

¹¹ For example, these dossiers also worked in tandem with the Public Security Bureau (PSB)'s household registration known as the *hukou* system, which restricted the mobility of citizens. In a sense, whereas the household registration system determined where individuals were allowed to live or work or attending school, the dossier system contained information that could be used to support or deny any request for transfer and relocation.

report his illegal activities. In post-socialist China where ideological control became more relaxed, the ability of the system to keep track of the individual's thought and behavior has probably become even less effective. 12

Indeed, the end of the socialist era in 1978 and the subsequent introduction of a mixed economy has produced new challenges to the dossier system. Since the 1980s, a growing segment of the population was neither employed by any traditional work units such as the government or state enterprises. The non-government workforce has become even more common since the 1990s due to intense privatization. In order to address the changing social and economic order, a network of Talent Exchange Centers (*rencai jiaoliu zhongxin*) with field offices in cities all over China were created. Among many of their functions, these government-run centers are responsible for keeping the personnel files for urban residents who do not work for state-assigned work units. Under this new system, urban residents outside of the state employment system, along with their employees, such as private or foreign corporations, are required to make sure that their own files are properly maintained by the relevant local field offices.

When these field offices first opened in early- to mid-1980s, they only served a relatively small numbers of highly demanded workers—normally experts or with foreign language skills—who worked in foreign companies or Sino-foreign joint ventures. Yet, as more and more workers are no longer working for the government or state enterprises, these talent exchange offices have evolved into general employment centers for the labor market. Meanwhile, the dossiers maintained by these offices have begun to function as a kind of resumes for school, employment, and even evidence for individuals' entitlements to social insurance and social security benefits.¹³

How should the surveillance program once set up for political and ideological control interact with the country's emerging new social and economic order? This is also a central issue that Chinese officials and policy thinkers have been grabbling with. As relocation, job changes, as well as business closures and restructuring become common occurrences, so are the misplacement and loss of dossiers, filing errors, and other management mishaps. Since such occurrences have direct impacts on the livelihoods of affected individuals, disputes on the accuracies of the information in the dossiers have been on the rise. Policy thinkers are now wondering whether to classify these as labor disputes, administrative mishaps, or civic disputes as each of these categories would lead to different legal ramifications. The stake is certainly high since any mishandling of these cases could contribute to social discontent and political disability.

When the Big Brother meets big data

Although the rise of the social credit system is not directly linked to the erosion of the original function of the personnel file system, it does represent the latest attempt to create new

¹² For instance, the refusal to faithfully document thought and behaviors inconsistent with the state has probably become even more commonplace in the post-socialist era. Several of my informants, for instance, told me that their teachers and workplace supervisors were often reluctant to record negative attitudes.

¹³ 王林清, 劳动争议裁诉标准与规范, 人民出版社, 2011 年 10 月, 27.

¹⁴ Ibid., 27-28.

citizens by the state. In fact, in the neoliberal milieu, the idea of placing the moral character of each citizen under surveillance is far from irrelevant. The new emphasis, however, is no longer about ideological purity for political purposes, but about trustworthiness for economic undertaking. Not only that neoliberal capitalism demands a stable political environment guaranteed by the state, but it also values social trust as a basic condition for economic efficiency. Particularly, trustworthiness is thought to be vital to minimize economic risks and facilitate transactions. Following the advocates of rational choice and game theory, Chinese policy thinkers share the belief that the higher level of social trust, the better for economic development. In this context, trust is more than an emotional or psychological issue, but also an important economic variable. The central question then is how to turn trust into social capital, and how to turn social capital into quantifiable and calculable social credit (*shehui xinyong*). And it is under this imperative of converting trustworthiness into creditworthiness, the constant surveillance of the moral character of the individual remains highly relevant and even critical in establishing and maintaining the neoliberal social and economic order.

The idea of a social credit system (SCS) first came into rapid circulation in around 2000. Prior to that, there was only a few mentioning of this concept even though the experiment with marketization had accelerated in the 1990s. Since 2000, however, thousands of articles mentioning this concept have appeared in magazines and academic journals. While many of these publications have appeared in the field of finance, there have also been considerable applications of the concept in field of governance. Nevertheless, it was not until 2014, a detailed document of the new system, called the "Planning Outline for the Construction of a Social Credit System," first came to light. Jointly released by the Central Committee of the Chinese Communist Party and the State Council, which are respectively the highest administrative body of the party and of the central government, the document reveals a central initiative of the government's ongoing effort of "strengthening and innovating social management." As part of the proposed Thirteenth Five-Year Plan (2016-2020), the planning outline stipulates in no ambiguous terms that credit is the foundation of all market operations, and that market economy is essen-

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¹⁵ Zak, P. J., and Knack, S. "Trust and growth", *Economic Journal*, vol. 111 (2001), pp. 295-321. ¹⁶ A quick search of publications on social credit based on the most prominent and comprehensive database China Academic Journals reveals that throughout the 1990s, there were no more than two dozen essays, mostly on finance, ever mentioned the concept of SCS in the passing in Chinese magazine and academic journals. In 2000 alone, however, there were more than 40 of such articles. Moreover, for the first time, SCS appeared in the titles of six articles, suggesting that more in-depth discussions of SCS began to emerge. Since then, SCS has become a frequent topic, with several hundred articles either focusing or mentioning the concept each year. Moreover, starting in 2014, there are over a thousand such articles published each year. Many of them were direct responses to the publication of the central government's planning outline. See Chris Miller, "Changing the Story: Media Influence and the Chinese Credit System," Gnovis: A Journal of Communication, Culture and Technology, http://www.gnovisjournal.org/2015/12/09/changing-the-story-media-influence-and-the-chinese-credit-system/ ¹⁷ State Council, "Planning Outline for the Construction of a Social Credit System" (2014-2020) https://chinacopyrightandmedia.wordpress.com/2014/06/14/planning-outline-for-the-construction-of-a-social-credit-system-2014-2020/

tially a credit economy. Moreover, it goes one step further and argues that the social credit system is vital to the functioning of the socialist market economy and social governance. In so doing, it lays out the rationale for economizing the social world in an unprecedented way,

Needless to say, the idea of using quantifiable data to rate the creditworthiness of an individual or an organization is neither new nor unique in China or elsewhere. In industrial capitalist societies of the nineteenth century, the establishment of trust and subsequently credit relied on data as much as on face-to-face human contact.18 Much like the Chinese dossiers mentioned above, the outcomes of such approach were often shaped by an array of human factors based on direct and yet partial observations. On the contrary, contemporary credit bureaus generally establish credit scores of consumers based on a set of calculable criteria that have little to do with face-to-face interactions. In China, similar rating practices also exist. Yet, unlike in developed countries with well-established credit infrastructure. Chinese credit rating agencies have great difficulties to track a large segment of the population, such as rural residents, migrant workers, and students. Moreover, as the country quickly moves to become cashless, many of the alternative payment methods are now done through direct transfer and new media platforms such as smartphone apps WeChat and Alipay. 19 These new developments, as a result, do not contribute to credit availability in the conventional sense. Meanwhile, aside from credit rating, online ratings of business services such as those of hotels and restaurants are just as common as many other countries, even though the reliability of those ratings are sometimes being called into question like elsewhere.

Therefore, as the planning outline has noticed, the existing rating system is sporadic and fragmented at best. From the perspective of the government, the system misses the opportunity to piece together all these different platforms and databases to construct a fuller picture of individual citizens and society at large. With this in mind, the newly introduced social credit system is designed to deliver a total information infrastructure that emphasizes consistency, comprehensiveness, accuracy, efficiency, and up-to-dateness. It tracks the creditworthiness of citizens, enterprises, institutions, and even government agencies using a uniform framework. In order to facilitate the implementation of the new system, the government also plans to introduce new laws, regulations, and standards for the social credit system by 2020. Indeed, just months after the outline above was published, the Chinese premier Li Keqiang further included the development of a national unified social credit system in the government immediate activities. Accordingly, such the standardization of credit rating codes would facilitate the sharing and exchanging credit information among governmental agencies, enterprises, and social organizations.²⁰

Significantly, while the insistence on installing a total information system that tracks individuals meticulously and constantly may sound like the arrival of a nightmarish Orwellian world, the rationale of the system is generally not articulated in negative and repressive terms. More often than not, it highlights the importance of generating incentives to reward good behaviors. Not unlike the frequent comments on the lack of morality in Chinese society by Chinese social scientists and media, the planning outline reveals a great deal of anxiety about how the lack of

¹⁸ Barry Cohen and Bruce G. Carruthers, "The Risk of Rating: Negotiating Trust and Responsibility in 19th Century Credit Information," *Sociétés contemporaines*, no. 93 (2014), pp. 39-66. ¹⁹ TBA

²⁰ China Daily, 社会信用代码 (*shehui xinyong daima*): Credit rating codes http://www.china-daily.com.cn/opinion/2015-03/13/content 19801380.htm (2013)

morality and trust will harm the socialist market economy and social stability in general. The social credit system, therefore, is to "build mechanisms to incentivize trust-keeping and punish trust-breaking." An ideal social credit environment is to "guide people towards sincerity and trust-keeping, morality and upholding courtesy." In other words, not unlike previous social engineering projects of cultivating moral citizens for the nation, the social credit system is meant to promote civic virtue and patriotism in order to foster a "harmonic society" (hexie shehui), which has been a state slogan for the past decade.

A central concept underlying in the emerging incentive structure is the so-called "natural person" (*ziran ren*) that appears multiple times in the document. While the concept is certainly linked to the rights discourse of the Enlightenment, its immediate context is actually game theory in economics. Based on a dark vision of humankind, advocates of game theory contends that the natural person is aways calculating, distrustful, and suspicious. And paradoxically, as negative as it is, in modern economics, the natural person is nonetheless adorned as "rational" being who makes "self-interested" decisions based on incentives.²¹ Along with this conception of the human being is the public choice theory, which uses economic theories to address social and political problems. Under this logic, governing is to provide incentives to reward and punish individuals, making their behaviors consistent with the objectives of the state.

Economists have long argued that a sound credit system can guarantee the smooth functioning of the market. Yet, the Chinese social credit system has taken the idea of credit rating to a new level. By evaluating and establishing the creditworthiness of all citizens, businesses, and organizations, the system is therefore designed to economize society. As well, aside from conceptualizing the entire social field in economic terms, the system also seeks to compel individuals and organizations to base their actions on economic calculations. In so doing, the government hopes to reign in the perceived growing culture of fraud, selfishness, and callousness that are regarded as the prominent problems of the post-socialist era. The social credit system, in this sense, is believed to be able to help to safeguard social order and build "social sincerity" and a "sincerity culture." Once the system is in place, the official newspaper *China Daily* predicts, it will "let credit weigh in for malfeasances and lawbreaking."

As mentioned above, in addition to emphasizing on the credit construction for the "natural person," the planning outline also discusses the importance of subjugating businesses, institutions, and government agencies to the same social credit system. Just like the individual citizens and consumers, businesses, social organizations, and government agencies must also be evaluated by people and other organizations in order gain respect and credibility. As if the invisible hand market will magically solve all problems, the planning outline specifies that the construction of the credit infrastructure will help to strengthen healthcare, create better hygiene and birth control, deliver safer food, reinforce scientific and technological development, accomplish stronger environmental protection, and bring improvements in many other sectors. Above all, it will help to construct and maintain what the government calls a "harmonic society." Much like

Wendy Brown, Undoing the Demos: Neoliberalism's Stealth Revolution (MIT Press 2015)
State Council, "Planning Outline for the Construction of a Social Credit System" (2014-2020)
https://chinacopyrightandmedia.wordpress.com/2014/06/14/planning-outline-for-the-construction-of-a-social-credit-system-2014-2020/ (2014)

²³ China Daily, 社会信用代码 (*shehui xinyong daima*): Credit rating codes http://www.china-daily.com.cn/opinion/2015-03/13/content_19801380.htm (2013).

the fantasy embraced by free market fundamentalists, this is like a form of credit fundamentalism that believes an omniscient credit system will save China from the perils of social discontents, instability, and other most pressing issues as perceived by the government.

Meanwhile, it is important to note that even though the government's constant preaching of ideas such as "harmonic society," "Chinese virtue," and "socialism with Chinese characteristics" based on the so-called socialist core values as well as some reinvented Confucian principles, what is being articulated is not necessarily Chinese exceptionalism. Or, at the very least, Chinese particularities have to be articulated in universal and numerical terms. Among the frequent keywords such as sincerity, trustworthy, amity, and patriotism that can be found throughout the planning document, there are also explicit references to the desire of integrating the Chinese socialist market economy with the global market economy. For instance, it argues that a positive credit infrastructure will promote corporate responsibility, a productive and efficient workforce, as well as a transparent and accountable government that are crucial for China's global competitiveness.²⁴ After all, at the most fundamental level, the logic of economizing society through quantification is to break down the incommensurable old order and reconstitute it in a perceived universal order that could be translated into numbers.

Where Orwell meets Foucault

In this emerging system, whereas the credibility of organizations is derived from the quality of services and the meeting of performance targets, the tracking of individuals goes further and deeper as if it could render the human interior visible. Not unlike the traditional dossier that tries to peek into the thoughts, attitudes, and behaviors of individual citizens, the social credit system seeks to offer a comprehensive, consistent and even real-time tracking of individuals' daily lives and thoughts. This is made possible through the widespread use of information technology, which includes internet-based consumer activities such as online shopping, social media interactions, as well as conventional databases from financial transactions to school records. With the help of algorithms and high-speed computers, this vision of social surveillance represents a paradigmatic and potentially epistemological shift from the old methods of social control.

WeChat, known as *Weixin* in Chinese, is an ultimate example that offers a glimpse into the new reality. Introduced in 2011 by the China's largest internet company Tencent, WeChat developed first cross-platform instant messaging service. It has quickly evolved into an app that functions as a clearinghouse for a wide range of online activities, including shopping, travels, banking, messaging, and much more. In a way, it is like the combination of Facebook, Whatsapp, Uber, Amazon, Google, and a dozen of other commonly used apps in a single platform. The most significant of all, perhaps, is its ability to make payments, including P2P transfers that has essentially obliterated the everyday use of cash. By 2015, WeChat alone had at least 700 million users, of which about 90% were in China.²⁵ And it is increasingly inconceivable for urban Chinese to conduct many their daily activities without using the app. Together with Alibaba and Baidu, the information collected by these three internet giants can also provide a

 ²⁴ State Council, "Planning Outline for the Construction of a Social Credit System"
25 Fanging Tu, "WeChat and Civil Society in China," *Communication and the Public*, vol 1, no. 3 (2016) pp. 343-350.

detailed picture of their users, tracking their minds and bodies, as well as their social relationships.

There is, of course, no limit to the list. After all, the main purpose of a unified and standardized national system is to eliminate barriers between databases. For businesses, these data are no doubt like a gold mine. For the party-state that has the capacity to regulate and gain access to data managed by public and private organizations, these data provide a comprehensive and penetrating system of surveillance that was unthinkable previously. Interestingly enough, it is not that there is no precedent in dreaming such a total information system. Already in 1965, a group of US social scientists and statisticians proposed to establish a national data center in order to facilitate the storage, sharing, and processing of large datasets own by the government for research, social programs, and policy decisions. However, the proposal was not adopted as it was vigorous opposed by the public and the US Congress precisely for the fear that this would lead to the infringement of privacy and the creation of an Orwellian dossier society.²⁶

In this respect, the Chinese social credit system seems like an Orwellian fantasy that comes true. Yet, the future imagined by Orwell in the first half of last century is antiquated and inadequate in the twenty-first century. In fact, the idea of a centralized national data center as envisioned in the 1960s is no longer relevant in the age of information superhighway, wireless communications, and cloud computing. In his introduction of the concept of "dataveillance" even before the rise of social media, Roger Clarke's has identified the significance of the decentralizing nature of networked surveillance. Specifically, he argues that such practice of surveillance based on mining of data linked by networked information technologies is far more effective than the Orwellian totalitarian state since the monitoring and analysis of the data trails takes place constantly in linked and automated local processes.²⁷ In a similar fashion, the Chinese social credit system is built on this principle of standardizing, linking, and processing data that are otherwise dispersed and unconnected. The significance of such system, in short, is not just about its centralizing but also its decentralizing nature.

As social critics and privacy advocates in liberal democracies in Europe and North America who are deeply concerned with the way in which big corporations such as Google and Facebook amass data of our lives with little transparency and governmental supervision, the Chinese government is developing and standardizing a network of dataveillance essentially transgress such private and state boundaries.

A peek into the future that is now

In January 2015, just six months after the State Council had issued the comprehensive guideline to constructing the social credit system by 2020, the Central Bank of China issued a directive to eight major Chinese companies to develop a credit rating system into their respec-

²⁶ Rebecca S. Krausm, "Statistical Déjà Vu: The National Data Center Proposal of 1965 and Its Descendants; Laudon, K.C. Dossier Society, Value Choices in the Design of National Information Systems. Colombia University Press, New York, 1986.

²⁷ Roger Clake, "Information Technology and Dataveillance," *Communications of the ACM*, Vol. 31, No. 5 (May 1988), pp. 498-512.

tive businesses. Among them, the most visible are Alibaba Group and Tencent Holdings Limited. The former provides e-commerce service with at least 400 million users worldwide and is the biggest retailer and online shopping platform in the world. The latter provides media, entertainment, internet, and mobile services through its subsidiaries. By the summer, the financial wing of Alibaba launched the beta version of its personal credit rating system named Sesame Credit. Specifically, the platform tracks the personal identity, credit history, contractual reliability, behavior preferences, and personal social network of each users who choose to participate in the service, and assign the user a social credit score that is visible to other users.²⁸ Meanwhile. as Alibaba's Sesame Credit mines data from shopping and online dealing patterns, Tencent collects its data from its popular social media platforms. Together, these two personal credit score systems could potentially construct a revealing picture of many Chinese citizens, rating and creating profiling of them based on their lifestyles, online comments, and networks of friends. On this last point, it is worthwhile to know, for instance, one's social credit score is partially influenced by his or her friends's social credit scores. The system, in short, encourage individuals to choose their friends wisely in the spirit of constructing a "harmonic society." Needless to say, all these take place in the backdrop of concerted efforts to develop and implement the social credit system by government authorities in the provincial, city, and township levels.

It is important to underscore that, at this point at least, neither platform mentioned above is officially part of the official social credit system, and, neither platform is mandatory nor linked. But even if participation of the commercial pilot projects are still entirely voluntarily, there has been reports that some of those who have opted in seem to embrace it. Some users, for example, see the advantages of displaying high social credit scores in their dating profiles.²⁹ Moreover, Sesame Credit offers plenty of perks for those who have high credit scores, such as faster loan approvals, expedited visa applications, and even faster check-in at some airports. It seems that these personal social credit scores, which may or may not be consistent with the state agenda, has become a game. From corporations' point of view, such personal social credit system can reach a much larger segment of the population, including low-income workers and students who are not covered by traditional credit rating offered by financial institutions.³⁰ And if all these datasets are eventually linked together, the scope and depth of the system's coverage would surely look ominous.

Indeed, the gamification of social credits reveals something rather profound about dataveillance in the digital landscape of the twenty-first century. Whereas previous studies focus mostly on the disciplinary nature of surveillance, contemporary digital lifestyles entail the active and constant submission of data and self-exposure by individuals and groups. The willingness of individuals to surrender their privacy and anonymity in order to exchange for convenience, security, and social belonging is, in a sense, like the incarcerated subjects in Jeremy Bentham's

²⁸ "Data From Alibaba's E-Commerce Sites Is Now Powering A Credit-Scoring Service", http://techcrunch.com/2015/01/27/data-from-alibabas-e-commerce-sites-is-now-powering-a-credit-scoring-service/ (2015)

²⁹ Celia Hatton, "China 'social credit': Beijing sets up huge system," *BBC News* http://www.bbc.com/news/world-asia-china-34592186

³⁰ Chai Hua, "Mainland credit-rating network takes shape," *China Daily*, http://www.chinadailya-sia.com/business/2015-06/09/content 15274221.html

classic panopticon wanting to be seen, rather than just being seen helplessness.³¹ In this brave new world where the society of discipline is also the society of spectacle, being watched by others and by power has increasingly become a desirable condition of life for many people. Bernard Harcourt characterizes this as the "expository society" in which we are increasingly feeling the pleasure, and indeed addicted to, the experience of being seen.³²

Viewing in this light, the social credit system is a technology of subjectivity and citizenship that seeks to calibrate the goals and desires of individuals, groups, and institutions, making them consistent with social order and political stability as defined by the state. By using reward and punishment as the everyday incentives to instill a structure of responsibility and self-regulation, the Chinese government is therefore exercising its power though what Foucault has come to call "the conduct of conduct." As Foucault argues, "to 'conduct' is at the same time to 'lead' others (according to mechanisms of coercion which are, to varying degrees, strict) and a way of behaving within a more or less open field of possibilities. The exercise of power consists in guiding the possibility of conduct and putting in order the possible outcome." 34

In short, power exists through its constant circulation and reanimation. Not surprisingly, whereas the functioning of the top-down, all-powerful "Big Brother" in Orwell's fictional world requires the so-called "memory hole" to filter out inconvenient facts and embarrassing information, the social credit system, as a big data project, strives to collect and remember all. And it is through its relentless mining, storing, calculating, and sharing of data, the system strives to subjugate individuals and organizations to the market logic, turning the nation into an "economic machine." The idea that God (and Devil) is in the details is now taken on a whole different level of meaning.

Neoliberalism with Chinese characteristics

All in all, this emerging system points to a paradigm of development and governance that could be characterized as state-led neoliberalism with Chinese characteristics. Although the idea of state-guided neoliberalism may sound oxymoronic for some, neoliberalism should never simply a set of naive laissez-faire practices. Behind the facade of market fundamentalism is also

³¹ Jeremey Bentham, *An Introduction to the Principles of Morals and Legislation* (New York: Hafner Publishing Co., 1948); Michel Foucault, *Discipline and Punish: The Birth of the Prison* (New York: Random House, 1977).

³² Bernard Harcourt, *Exposed: Desire and Disobedience in the Digital Age* (Cambridge, MA: Harvard University Press, 2015).

³³ Colin Gordon (1991). "Governmental rationality: an introduction", in Graham Burchell, Colin Gordon and Peter Miller (eds) *The Foucault Effect: Studies in Governmentality*, Chicago: University of Chicago Press, 1991, p. 48.

³⁴ Michel Foucault, "The Subject of Power", *Critical Inquiry,* Vol. 8, No. 4 (Summer, 1982), p. 789.

³⁵ Nikolas Rose, "Governing 'Advanced' Liberal Democracies," *Foucault and Political Reason,* Chicago: University of Chicago Press, 1996, p. 37.

belief that the ecology of the market has be created and guaranteed by state power.³⁶ The Chinese version of neoliberalism is a one such example. As David Harvey has observed, the so-called market reform started in 1978 under the late paramount leader Deng Xiaoping has to be understood in the context of the global advance of neoliberalism.³⁷ The social credit system, in this regard, represents yet another forceful attempt to economize the social world. With the help of latest information technologies, the state is striving to introduce a mandatory credit infrastructure. In so doing, it hopes to implant the market logic and ensure its saturation in every conceivable way. The Chinese social credit system, in this sense, is hybrid in nature. It is driven by a determined central authority on the one hand, and made possible by the diffused power of dataveillance on the other. If this sounds paradoxical, it is only because neoliberalism is.

Although the Western media have a tendency to scandalize the Chinese social credit system by invoking an old Cold War imagery that puts "Communist" China on the other side of the great divide, decades of relentless pursuit of capital accumulation by the Chinese regime has long put "them" on "our" side. If the proposed Chinese social credit system looks dystopian and yet strangely familiar, that is because we have already seen fragmentary versions of it from Amazon to Google, Facebook to Twitter, not to mentioned the NSA and other state apparatuses. In the post Edward Snowden world, we are not no longer doubting what governments and corporations can and will do. Perhaps, it is just that the Chinese government has done it faster and more overtly with little constraint or public resistance. As Jeffrey Wasserstrom and others put it in a different context, "The future arrives earlier in Palo Alto (but when it's high noon there, it's already tomorrow in Asia."

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³⁶ Andrew Barry, Thomas Osborne, and Nikolas Rose, "Introduction", in Andrew Barry, Thomas Osborne, and Nikolas Rose (eds) *Foucault and Political Reason* (Chicago: University of Chicago Press, 1996), pp.1-17.

David Harvey, A Brief history of Neoliberalism (Oxford: Oxford University Press, 2005).
Anna Greenspan, Anil Menon, Kavita Philip and Jeffery Wasserstrom, "The Futures Arrives

³⁸ Anna Greenspan, Anil Menon, Kavita Philip and Jeffery Wasserstrom, "The Futures Arrives Earlier in Palo Alto (But When It's High Noon There, It's Already Tomorrow in Asia): A Conversation about Writing Science Fiction and Reimagining Histories of Science and Technology, in *BJHS Themes: Science of Giants: China and India in the Twentieth Century*, pp. 249.