The Ethics of Alibaba's Sesame Credit System

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Abstract. In this paper the ethical side of Alibaba's Sesame Credit system is being evaluated.

Keywords: Sesame credit · Ethical analysis · China.

1   Introduction

The Chinese government is planning on building a social credit system which ranks each citizen based on various parameters [5, 14]. These parameters can range from credit history to online purchases to how long a person spends playing video games. The government has granted Ant Financial a licence to create a pilot credit program called sesame credit. Ant Financial is a subsidiary of the Alibaba Group which is described as Amazon, eBay, PayPal and Google all in one and its sales account for more than 80% of Chinas online shopping [1].

Depending on their credit score people can receive incentives when buying goods or renting cars, hotels etc. On the other hand people can also be penalized when their score drops. The system has the potential to have a huge impact for the stakeholders involved, therefore it is interesting to look at the ethics involved.

In this paper we examine the stakeholders involved, the benefits of the program and also the powers at play as well as the risk of harm for the participants. The discussion puts forward reasons why the system needs adjustments based on ethical reasons.

2   Analysis

2.1   Stakeholders and Data Subjects

The data for sesame credit comes from 300 million real-name users and 37 million small businesses that are registered on Alibaba group marketplaces. This contains spending and saving behaviour of users and payment histories from Alipay. Sesame credit is also working with public agencies and financial institutes [2]. There are a lot of companies involved in gathering the data.

Ant Financial wants to improve financial information that will make credit more available to millions of people in China. This will benefit not only consumers that seek a loan, but also landlords and employers. This will make their everyday life easier and help spur the development of a healthy economic and social environment according to Eric Jing, Ant Financials COO [3].

Another stakeholder is the Chinese government. The government is developing their own social credit score which punishes or rewards citizens. Alibaba had close ties to the government from the start [4]. One of partners on the social credit project is Ant Financial [5]. Ant Financial helps in development, but only gives out data to the government in legal cases.

There are a lot of stakeholders involved in Sesame credit. First of all, the Chinese citizens of which data is gathered. This data is gathered by the Alibaba group, its subsidiaries and other public agencies and financial institutes. The stakeholders that have access to the credit scores of citizens are: companies, landlords, employers and the government.

2.2   Benefits

As described above there are four main stakeholders: Ant Financial, The government, The citizens of China and the companies that make use of the credit score. All groups perceive different benefits.

Ant Financial is part of the large Alibaba internet group which also owns several big marketplaces and AliPay [6, 8]. All data from Alibaba's different services feed into the Sesame algorithms which uses the data to calculate someones credit score [9]. By letting other organizations like hospitals, public transport and rental companies use the score to assess peoples trustworthiness, Alibaba benefits from the network effect [6, 7]. This means that people have no choice but to use Alibaba's services because that is their only way to raise their credit scores.

The Chinese government is preparing to create an official government social credit score[10]. The sesame credit system is used as one of a few pilot systems for the government to see the effects of social credit in action [6]. The government benefits from these services as they help the government to understand the algorithms and data needed to create their own system.

The citizens of China. Benefit from this system as they are rewarded for good credit scores. They have for example easy access to loans or do not need to pay a deposit when renting rooms or cars [6, 11]. Citizens also benefit from their scores as a social status badge. In some dating website's in China people can see the score of other users so they can determine whether someone is a good match or not [6].

Finally the companies that use the data benefit from the score because they can asses whether someone is going to be a good customer. A car rental for example can decide to rent people a car without the need for a deposit. If someone does not pay for damages then the company can relay that information to the Sesame credit system which then lowers the persons credit score [6].

2.3   Power Analysis

A high sesame score gives benefits for the customer and a low scores gives penalties. Ant Financial has signed agreements with hundreds of companies and institutions [6]. The example is given of renting a car. With a high score there is no deposit needed. However, with a low sesame score certain services can be denied. For example: a bank loan, plane flight or hotel stays.

Because of the size of the Alibaba group and the amount of transactions with Alipay users are almost obliged to use their service. In some cases the only way to pay for a product or service is through Alipay [6]. On top of this Ant Financial has the power to decide which companies can use sesame score and what will influence the score. Through this, Alibaba has the power to make customers decide to use the service of certain companies instead of others. The power to choose freely among all service providers is taken away from the customer.

Alibaba benefits from the network effect as stated in the section about benefits. Users are compelled to use the Alibaba services to raise their credit score.

Other companies are at a huge disadvantage because of this. Their services are not as appealing, because it does not raise their sesame credit.

The system disrupts a free market where the customer can choose equally among services that is most appealing. Newcomers to the market or competitors are at an unfair disadvantage. The power this system creates can disrupt the whole economy because of the monopoly that Alibaba is creating. This is in contrast with Chinas anti-trust law that tries to improve competition among companies [12]. Although it is not exactly known if data is passed to the government. It is known that data is highly valuable to the government, because of the development of their own credit system. The power of this system is at risk of being abused. And especially in China, because for the third consecutive year it is considered the worst abuser of internet freedom [13]. The impact associated with this is social control by the government.

2.4   Risk of Harm

The Networked systems Ethics guidelines state that Risk of Harm must assessed in light of any likely adversary who could be motivated to use the new information flows, databases, or knowledge to their advantage. In this case the government of China is building a similar system itself [5]. Therefore a serious adversary could be the government that seizes the data and uses it as a basis for their own system. The data then tells the government lots about the day to day lives of its citizens.

China has already announced that it will punish citizens with bad scores [14]. This means that people with bad credit are not allowed to enroll into higher education or cannot book a plane ticket. By denying travel and education for people with bad scores, a self fulfilling prophecy emerges. Because the lower someone's score gets, the harder it gets to get it back up. Furthermore the government announced it will also base an individuals score on the scores of the people that they associate with such as friends and family [15]. This means that social pressure to behave to the governments standards increases because people need their friends and family to behave as well. This all poses a serious risk of harm for those whose data is collected and scored.

3   Discussion

Data subjects get incentives for a good credit score from different companies when they apply for a loan or book a plane ticket. With this system it is necessary to be identifiable, so anonymity is not possible. However, all these different companies can see the same score. You might seem less trustworthy to a library because you did not pay your rent in time. While rent does not necessarily have anything to do with renting books, you are still judged by your ability to pay rent in time. In this system there is no place for nuances like simply having a bad day or being unemployed for a few weeks. Your credit score becomes a singular

truth about you as a person for all the companies with which you interact with no room for discussion.

Also, because there are so many stakeholders that have access to the huge amount of data there are huge risks involved. The more people that have access to the system the more vulnerable the system is to malicious acts. Businesses have the power to influence someone's score by providing the system with false feedback for a person increasing or decreasing their score. This could lead to black market trading in social score manipulation. Not to mention the fact that a serious data breech could lead to literally the lives of millions of Chinese citizens in the wrong hands.

The benefits of this system, like incentives, seem like a shallow way to disguise a sophisticated method to force people to use the services of Alibaba. Furthermore when the government launches their version of Sesame Credit people are thrown back to cold war state of minds where the government forces people to control each other in fear of what the government might do to them or take away from them if they don't. Without giving people the ability to opt-out the massive collection of their personal data.

4   Conclusion

In conclusion Alibaba group, with support of the Chinese government, is building a vast and complicated people scoring system. This system uses data from various big Alibaba companies such as Ant Financial, Alibaba's marketplaces and AliPay.

People are scored based on their behaviour on Alibaba's website's and on their transactions. Third parties are also allowed to plug in to the system providing feedback for the scoring algorithms and using peoples score to penalize or rewards them. The main benefit for the people is that they get rewarded for good behaviour. However what 'good' behaviour is, is established by Alibaba.

The main benefit for Alibaba is that people are forced to use their services as that is the only way to increase their score. This method however disrupts the free market and puts competitors at a disadvantage. The Chinese government uses Sesame Credit as a pilot to create their own Social Credit System. When this system becomes active the risk of harm for Chinese citizens increases. By basing scores on people's personal conduct but also on their friends and families conduct, the government creates a system of social pressure. This also means that it keeps getting harder and harder for people with a bad credit to increase their credit again as they are penalized for having a bad credit in the first place.

As discussed in the discussion section while providing benefits for people with a good score, the system seems like a intricate system to force people to use Alibaba's services and punish them if they don't. While seeming like a good way to reward good behaviour the Sesame Credit system is, in our opinion, far from ethically sound.

References

1. Deagon, B.: Chinas Alibaba has Global Ambitions E-Commerce Firm Eyes U.S. Investors Business Daily, 4 (2014)
2. Alibaba Group, https://www.alibabagroup.com/en/news/article?news=p150128. Last accessed 17 Oct 2018
3. Gough, N.: Alibaba Data to Help Provide Consumer Credit Ratings. The New York Times, B9 (2015)
4. Kwak, J., Zhang, Y., Et al: Legitimacy building and e-commerce platform development in China: The experience of Alibaba. In: Technological Forecasting Social Change, pp. 5-6. Elsevier (2018)
5. Chinas Social Credit System Rates how valuable you are as a human, https://futurism.com/china-social-credit-system-rate-human-value. Last accessed 17 Oct 2018
6. Inside China's Vast New Experiment in Social Ranking, https://www.wired.com/story/age-of-social-credit/. Last accessed 18 Oct 2018
7. Author: Uzzi, Brian, The sources and consequences of embeddedness for the economic performance of organizations: The network effect, American sociological review 1996
8. Alibabas social credit rating is a risky game, https://www.ft.com/content/99165d7a-1646-11e8-9376-4a6390addb44. Last accessed 18 Oct 2018
9. Big data meets Big Brother as China moves to rate its citizens, https://www.wired.co.uk/article/chinese-government-social-credit-score-privacy-invasion . Last accessed 18 Oct 2018
10. China's 'social credit' system bans millions from travelling, https://www.telegraph.co.uk/news/2018/03/24/chinas-social-credit-system-bans-millions-travelling/. Last accessed 18 Oct 2018
11. A Quick Guide to Chinas Sesame Credit, https://angrymoo.com/sesame-credit-summary/. Last accessed 18 Oct 2018
12. Round, D., Lin, p.: Introduction: Embracing Competition in the World's Second Giant Economy: China's 2008 Anti-Monopoly Law. In: Review of Indistrial Organization, Vol(41), pp 1-6. Springer US (2012)
13. Freedom on the Net 2017: Manipulating Social Media to Undermine Democracy, https://freedomhouse.org/report/freedom-net/freedom-net-2017. Last accessed 19 Oct 2018
14. China has started ranking citizens with a creepy social credit system heres what you can do wrong, and the embarrassing, demeaning ways they can punish you, https://www.businessinsider.nl/china-social-credit-system-punishments-and-rewards-explained-2018-4/?international=truer=US. Last accessed 21 Oct 2018
15. Under Chinas Social Credit System, cameras and apps grade citizens every move in real time high scorers get rewarded and low scorers get punished, http://theindependent.sg/under-chinas-social-credit-system-cameras-and-apps-grade-citizens-every-move-in-real-time-high-scorers-get-rewarded-and-low-scorers-get-punished/. Last accessed 21 Oct 2018