

**Social Media in the Scoring Society:
An Empirical Investigation of the Implications of the
2014-2020 Social Credit System for Social Media in
China**



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Abstract

The Social Credit System (SCS) in China is a conspicuous example of a citizen scoring system that aims to assess and rate the “trustworthiness” (Chengxin) of Chinese citizens and allocate resources and punishments accordingly. An immense “Government+Market” data assemblage is being constructed to fulfil this objective, among which Internet and social media companies are prominent data providers. Chinese social media has transformed into a multifaceted ecosystem that encompasses social networking, participation, entertainment, shopping and payment, penetrating into the lives of more than 800 million users. During the interaction with social media, user behaviours and many aspects of social life are datified into Big Social Data, which, in the context of the SCS, will be collected and used for governance purposes and affect their lives in a profounder way. This thesis investigates the SCS’s impact on social media uses and explores the repercussions for the future of Chinese social media and its opportunities and affordances. Drawing upon 417 online surveys and 47 interviews, this study finds that the SCS threatens the participatory and networking affordances of social media and its democratic potentials. The pragmatic goal of nursing SCS scores drives users to self-discipline and self-censor online content, monitor and refine their networks, and become more cautious during online shopping. The SCS’s impact on user generated content may be the strongest, whereas online shopping may be less affected. Subjects’ internalisation of the benefits and necessity of the SCS and the consequent tendency to adjust their behaviours correspond to the self-governance dimension of governmentality. Online agency will probably be restricted by the SCS, and the empowering and performative digital citizenship may be limited. This study also finds a significant lack of knowledge about the SCS, mixed attitudes of support, scepticism and unease, and divided stances among users regarding various aspects of social media uses.

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Chapter 1. Introduction

1.1 Introduction and the statement of the problem

The advance in datafication enables human behaviours and many aspects of social life to be transformed into computerised data which can be garnered and analysed by public and commercial sectors. As part of this broader development, governments and public authorities in different countries and regions are using data analytics for various governance purposes (e.g., Eubanks 2018; Dencik et al. 2019; Gillingham 2019; Redden 2020). The new regime of data analytics in public sectors typically entails numeric-indexed “citizen scoring” – the categorisations and segmentations based on “a variety of interoperable data sets, with the goal of allocating resources and services accordingly” (Dencik et al. 2019, p. 3). Although government and public institutions are influential in funding and facilitating new technologies, private sector has often been in the vanguard of the development and application of data-driven solutions. Thus, government and public institutions have been deepening the collaboration with private companies in data extraction and analysis (e.g., Angwin et al. 2016; Big Brother Watch 2018; Cadwalladr and Graham-Harrison 2018). The public-private collaboration in data analytics enables the government to have a more fine-grained “golden view” on citizens to perform more accurate risk assessments, social sorting, and service allocation (Dencik et al. 2019, p. 11). Meanwhile, a series of concerns and ethical dilemmas begin to arise due to the obscure and discriminatory nature of algorithmic systems and the unjustifiability of data analytics, creating ongoing tensions between citizens and government (e.g., Pasquale 2015; McQuillan 2018; Monahan 2018; Dencik et al. 2019; Hintz 2020).

The Social Credit System (SCS) in China is a conspicuous example of citizen scoring systems. The beginning of a nation-wide comprehensive SCS was marked by the release of the 2014-2020 Planning Outline for the Construction of the Social Credit System (*shehui xinyong tixi jianshe guihua gangyao*) by the State Council on 14 June 2014. Being one of the first national citizen scoring systems in the world, the SCS is distinct for its wide-ranging scope and far-reaching implications. Paragraph 11 of Section 2.3 of the Outline demands that an online credit rating system be constructed to evaluate and record the creditability of individuals’ online behaviours, create an online credit profile for each user, and actively share this online credit information with other credit systems from all aspects of society (State Council

2014). This indicates that people's online data will be used along with their financial records and a wide range of other data to rate citizens' creditability (*xinyong*), or "trustworthiness" (*chengxin*). For a decade before the advent of the SCS, user data has been used by commercial social media companies for economic revenue by the business model coined as "platform capitalism" (Srnicek 2017), which relies on monopolising, extracting, analysing, and using big data. However, the SCS is broadening the scope of citizens' credit rating from financial realm to wider social aspects and driving data analytics of social media data towards a new direction – governance purposes.

To achieve this, the Chinese government is pushing forward the building of a giant "Government+Market" data assemblage in which data is shared within and across public and private sectors to provide an inclusive assessment of each citizen (PBoC 2020a). Internet and social media service providers in China, owing to advanced technologies and access to large quantities of online user data, be it information-oriented data (Baidu), transaction data (Alibaba), or social networking data (Tencent, Sina, ByteDance), are vital private agents in constructing the SCS. On the one hand, they operate their own commercial credit scoring systems like Sesame Credit by Alibaba, Sunshine Credit by Weibo and Tencent Credit by Tencent; on the other hand, they are solicited by the government to share their data and credit scoring to the SCS, as in the form of public-private joint venture like Baihang Credit (approved by the government in 2018) and Pudao Credit (approved by the end of 2020). The latest official announcement in 2020 confirms that Alibaba's Sesame Credit begins to share its credit data with People's Bank of China (PBoC), signalling the incorporation of "Market" data analytics in the SCS. In addition to the collaboration in data analytics, Internet and tech companies are supporting the construction of the SCS in various ways. For instance, Baidu is building the cross-referencing website, Credit China, for the SCS; Douyin, the Chinese version of Tik Tok, and WeChat support the SCS by publicly shaming the untrustworthy persons (People 2016; Cha Guan 2018).

The SCS's power extends beyond the analysis of citizens' online behaviour towards actively shaping it. To strengthen the enforcement power of the SCS, sophisticated joint reward and punishment mechanisms, known as the Joint Punishment Mechanism (JPM), are devised and jointly executed by a range of governmental

departments and industries. The Outline declares that restrictions and sanctions will be imposed on defaulters and untrustworthy persons and their family members while outstanding trust-keepers will be rewarded with benefits and privileges (Section 5.1). In terms of cyberspace, it aims to establish an online credit blacklist to list online frauds, rumour spreaders and other offenders, and sanction and publicly expose them (Section 2.3), although until the end of 2020 no such list has been known to the public. The joint incentive and punishment mechanism combined with the rating feature aims to form “societal moral condemnation” and “deterrent” to “discipline citizens’ untrustworthy behaviours” (Section 5.1); in other words, it intends to engineer citizens to behave according to the SCS’s rules. There has been no exact list of good and bad behaviours released to the public, but many cases (e.g., People’s Daily 2018b; Credit China 2020) show that the list can be stretched to accommodate the evolving governance needs. By December 2020, the first milestone set in the official outline, the integrated nationwide SCS has not been implemented yet; nonetheless, many municipal-level and departmental SCS pilots with scoring and incentive features have been rolled out (Huang et al. 2019; Zhang 2019).

1.2 Objective and the main question of this study

Social media has profoundly penetrated into various aspects of daily activities and become an inseparable part of contemporary digital life. Social media users in China have reached 800 million by the end of 2018, taking up more than half of the country’s population (CNNIC 2018). Chinese users spend an average of 3.9 hours per day online for social networking, obtaining news and information, entertaining, and shopping (ibid). Furthermore, driven by the commercial logic, Chinese social media companies expand businesses both vertically and horizontally into various online and offline domains, transforming into “multifaceted and multi-industry digital ecosystem” (Jiang and Kenney 2016). Several largest social media platforms like WeChat and Weibo have incorporated diverse features and playfulness to cultivate a larger number of users to perform activities that are used to be carried out offline on their platforms, such as loans and deposits, travel reservation, food order and delivery, car-hailing, education and public services (CNNIC 2018). As a result, various daily activities have been moved online. When users enjoy the convenience

of clicking a few buttons on their mobile devices, they leave behind a trail of digital footprints that are collected and processed by social media companies to analyse their preferences, habits, tastes, interests and lifestyle. The broadened scope of the SCS entails that user's online behaviours will be cross-referenced with other datasets and used to score their "trustworthiness", based on which rewards, resources, punishments and sanctions are assigned. This means that social media usages will have profounder influence on people's lives, which raises a critical question of how the SCS may impact a core aspect of contemporary digital life – social media and its uses.

Built on Web 2.0, social media is a techno-social system that facilitates the creation and exchange of User Generated Content (UGC) and enables users to interact with other users. Owing to its participatory and interactive feature, social media has been applauded for giving rise to participatory culture (e.g., Jenkins 2006), enabling citizen journalism (e.g., Allan 2013; Allan and Hintz 2019), enhancing online public spheres (e.g., Loader and Mercea 2011; Gerbaudo 2012), expanding political participation (Carpentier 2011), supporting and facilitating communications during social movements (e.g., Sullivan 2009; Diamond 2010; Bennett and Segerberg 2012; Castells 2015), supporting direct participation in public consultations and policymaking (Simmons et al. 2017), as well as radicalising digital citizenship (Isin and Ruppert 2015; Siapera 2016; Hintz 2020). In the context of Chinese Internet and social media, optimists (e.g., Zheng and Wu 2005; Ye et al. 2016; X. Zhou 2009; Xie et al. 2017) argue that it enables users to keep up with instantaneous events, form virtual communities, discuss political issues, expose misconduct of government officials, participate in communication processes during public emergent events, and facilitate higher levels of civic engagement. However, other scholars (e.g., Gladwell 2010; Morozov 2011; Zheng 2007; Y. Jiang 2014; Svensson 2014; Rauchfleisch and Schäfer 2014; Hintz 2016) who have examined social media through more critical lens argue that the above liberating potentials of social media are limited and have been increasingly affected by the manifold and collaborative interventions and restrictions from the government and platforms themselves. Moreover, being a data mine, social media proves to be effective tool for mass indiscriminate surveillance and citizen scoring systems that are designed to monitor, control and shape individuals' lives in a profound way (Andrejevic 2012; Harcourt 2015; Lyon 2017;

Dencik et al. 2019), giving rise to a social condition of surveillance realism (Dencik 2018) in which people acquiesce to surveillance and believe no other alternatives are available, and concerns over person rights and social justice.

Since the release of the Outline, the SCS has attracted much interest in academia. These studies have attempted to investigate Chinese people's awareness and opinions of the SCS (Kostka 2019; Wang 2019; Rieger et al. 2020), unpack the SCS and its components (Chorzempa et al. 2018; Creemers 2018), examine pilot schemes (Zhang and Rieckmann 2018), and explore the broad impact for governance, business, society, and citizens (e.g., Chen and Cheung 2017; Lee 2019; C. Zhang 2020). However, no research has specifically investigated what the SCS, whose pertinent aspects are pervasive data collection and analysis, means for social media and its interactive, participatory and empowering role in society. This is a pressing and significant issue at stake. The SCS has the power to affect social media uses by attaching them with other life opportunities, but through its power to impact social media, which has become an inseparable part of more than half Chinese populace's life, the SCS is affecting a vital aspect of Chinese citizens' contemporary life and shifting the landscape of social media.

This thesis fills in the gap by exploring the impact of the SCS on Chinese social media user online behaviours and uses and the consequent implications for the future of social media in a scoring society. The main research question is

How will the SCS affect the future of social media in China?

Three sub-questions on different aspects are devised to help investigate the main research question:

Sub-question 1: What are Chinese social media users' knowledge and perspectives of the SCS and other credit scoring systems?

Sub-question 2: How are Chinese social media users going to change their social media content, online social networks and online shopping respectively due to the SCS?

Sub-question 3: What are the underlying tensions, concerns and expectations for the SCS from the users' statements? What are the dynamics and implications for the future of social media?

The main research question addresses the interaction between user, social media and governance, and the three sub-questions tackle the main theme from different perspectives. Sub-question 1 probes subjects' awareness and perceptions of the SCS to understand to what extent the SCS has been part of their life and their attitudes towards the SCS. Users' perceptions and attitudes of the SCS are the basis for their behaviour changes, thus are investigated first. Sub-question 2 focuses on the extent of, and the manner in which, the SCS will influence three social media uses – online content generation like posting, commenting and reposting; online networking like friending and interaction; and online shopping. Sub-question 3 seeks to unearth the key tensions, discrepancies, and nuances from subjects' statements and observes how users negotiate these tensions and the subsequent dynamics for the role of social media in a society with the SCS. The first two questions focus on the micro-level of user interaction with governance and platform, but the third question extends beyond the user-level to the macro-level of social media by discussing how users' likely behaviour change due to the SCS may have consequent implications for the future of social media in China.

A mixed-method approach combining e-survey and semi-structured in-depth interviews with social media users are employed to provide first-hand empirical data. This research pays more attention to Weibo and WeChat because they are the most representative and popular social media in China that respectively supports social networking with strangers and with acquaintances (CNNIC 2018). E-surveys containing 23 questions were distributed using snowball sampling method that starts with my personal contacts and groups on WeChat, QQ and Weibo from 20 December 2018 to 26 January 2019. Due to the sensitivity of the topic, the survey could only be created on a foreign-based survey tool, which took respondents longer time to load the page and led to high incomplete rate. Nonetheless, 417 valid responses were obtained. Next, 47 interviews were conducted between February to April 2020 with interviewees obtained with a combination of generic purposive sampling method and snowball sampling. Throughout the whole process, a series of precautions were taken, and ethical guidelines were strictly followed to protect the anonymity and confidentiality of subjects to avoid any ethical issues.

1.3 Structure of the thesis

The next chapter, Chapter 2, sets up the key issues for this thesis by providing a comprehensive description of the research context – the landscape of Chinese social media, governance and regulations on cyberspace, key issues surrounding the SCS, and Chinese users' perspectives and interactions with social media and the SCS. It first introduces several prominent social media companies and their involvement in the SCS. Next, it reviews a series of cyberspace governance in China and key studies on the subsequent impact for social media. It then turns to the SCS and provides a detailed and critical introduction of the 2014-2020 Social Credit System from its historical development, the expansion from financial aspects to broader areas, the drive for comprehensive data assemblages, the Joint Punishment Mechanism, several pilot schemes, and the latest development of the SCS. Finally, I pay attention to user level and presents a comprehensive literature review of relevant studies on Chinese user awareness, attitudes and reactions to Internet governance and the SCS, in addition to a sketch of user demographics and online behaviours.

Chapter 3 positions my research in broader academic context and establishes the theoretical framework for this thesis. It moves from the macro-level issues of governance and social media to the micro-level user interaction with these systems. At the macro-level, it starts with a brief definition, the sociality and business model of social media, which is deeply rooted in surveillance and data analytics. The following two sub-chapters respectively review the intersections between social media with surveillance studies and critical data studies as these two academic fields unravel the key governance practices in the SCS. The next three sub-chapters turn to the micro-level of user interactions with social media, surveillance and datafication. For each theme, concepts and theories that focus on online agency and the impacts of structure over agency are discussed to understand the dynamics and tensions between users, social media and governance in the datafied society. It ends by concluding the concepts and theories into a tighter theoretical framework with two umbrella theories of digital citizenship and governmentality to address the main research question. As part of the review, it also identifies the research gap.

Chapter 4 explains the research questions and methods. This study uses a mixed-method approach combining e-survey and semi-structured interview to investigate the research question of “how will the SCS affect the future of social media in China?” Three sub-questions focusing respectively on knowledge and attitudes towards the SCS, likely reactions and behaviour changes due to the SCS, and tensions and dynamics are proposed to help answer the main research question. After clarifying the research questions and objectives, it justifies the use of the mixed-method approach and respectively describes the operation of the survey and interviews from question design and sampling methods. It presents a thorough record of the demographics of survey respondents and interviewees obtained in this research. For each method, the challenges encountered during field work and the corresponding measures are also described in detail.

The following three chapters present and discuss the research findings as they pertain to the research questions of this thesis. Chapter 5 answers the first sub-question of users’ knowledge and perspectives of the SCS. It first elaborates the lack of awareness and limited knowledge of the SCS, explains users’ mixed attitudes towards the SCS, and discusses users’ disbelief of the SCS and how these findings demonstrate the obscurity of citizen scoring systems. Chapter 6 answers the second sub-question of the ways that users are going to change three types of online behaviours – online content, online networking, online shopping – due to the SCS. It first illustrates users’ internalisation of the SCS as it is the premise for their behaviour changes. With the analysis of behaviour changes for each use, it also discusses the broader implications for user online agency. Building on previous chapters, Chapter 7 responds to the third sub-question of the tensions, dynamics and possible implications for social media at the macro-level and presents an in-depth analysis of how these likely behaviour changes may affect social media in terms of participatory culture, social networking and sociality, mass self-communication, the liberating and empowering potentials, and their business model and economic interest.

Finally, Chapter 8 concludes the study by first summarising the key findings that have been made across the thesis. It then discusses the consistency and discrepancies between my findings and arguments and previous studies and how my study contributes to the existing academic literature. Next, it situates this thesis in the

broader academic field of social media and user studies, surveillance studies, and critical data studies and elaborates how the investigation of the SCS provides new knowledge for key academic debates and concepts, such as participatory culture, mass self-communication, surveillance realism, gamification, digital citizenship and governmentality. Finally, it acknowledges potential limitations of this research and provides suggestions for future studies.

Chapter 2. Research context – social media environment in
China and the Social Credit System

2.1 Introduction

This chapter lays out the key research context for this thesis: Chinese social media and users against the backdrop of Internet governance and an emerging SCS. It examines three aspects: social media companies and their involvement in the SCS, Internet governance and the SCS, and user interaction with social media and cyber governance in this context. Sub-chapter 2.2 starts with an introduction of three most influential Internet and social media companies in China – Alibaba, Tencent, and Sina Weibo, whose services and products have been intertwined in the SCS. This introduction aims to clarify their roles and involvement in the SCS and the society. The next two sub-chapters turn to state controls and governance over social media. Sub-chapter 2.3 presents a comprehensive overview of a series of cyber governance practices to portray the broader socio-political environment in which social media operates. Sub-chapter 2.4 then focuses on the 2014-2020 SCS and provides a critical unpacking of the SCS from historical development, its three key elements, several pilot SCS schemes, and the current stage of the SCS. It finishes with a review of relevant academic studies and evaluation of the SCS to clarify several mischaracterisations. The final sub-chapter 2.5 shifts its attention to users. It first provides demographic background of Chinese users and their Internet usages as they are the key research subject. As one of the research questions is to investigate user knowledge and perspectives of the SCS, the next section reviews previous studies on public awareness and attitudes towards the SCS. Finally, it examines studies on the interaction between user, social media and online governance and the subsequent implications for the role of social media in Chinese society. Finally, sub-chapter 2.6 concludes the research context laid out in this chapter and sets out the key areas of studies to be examined in the next chapter.

2.2 Key Internet companies and commercial credit scoring systems

The governmental SCS was promulgated in 2014, but several commercial credit scoring systems have been operating and providing services to the public long before that. The most prominent one is Sesame Credit operated by Alibaba, which is selected as one of the private data providers in the SCS. To understand social media companies' involvement in the SCS, it is essential to first lay out the social media landscape in China. The five biggest commercial companies – Baidu, Alibaba,

Tencent, Sina, and ByteDance – form the BATSB landscape for Internet industry in China (Jin 2018). This sub-chapter presents a concise introduction to three of the companies in the BATSB: Alibaba, whose Sesame Credit is one of the most prominent commercial credit scoring systems; Tencent, who owns the most popular close-knit social media WeChat; and Sina, whose Weibo is the most influential weak tie-based social media in China. This critical introduction foregrounds the essential background that is relevant to Internet governance and the SCS.

2.2.1 Alibaba, Alipay and Sesame Credit

Alibaba Group owns one of the biggest online shopping sites in China – Taobao.com – and the leading online payment platform Alipay¹, with 900 million active Alipay accounts by June 2019 (Zhang 2019). When users enjoy the convenience of paying bills with a few clicks on their phones, they leave behind data trails of their transactions that enable e-payment platforms to “paint a finely detailed portrait of their lifestyles” (Ahmed and Fong 2017, p.6), which poses threats to users’ privacy (Ahmed and Fong 2017; Ke et al. 2018). Nevertheless, users seem to trust big companies like Alibaba and worry less about their privacy (Chong 2019).

The most prominent financial product on Alipay that has close connection to the SCS is Sesame Credit. Sesame Credit is “a scoring system based on online and offline data to generate individual credit scores for consumers and small business owners” (Alibaba 2015). A Sesame Score ranges from 350-950 points and, as shown on Alibaba’s webpage, is calculated based on the following five factors, the weightings of which vary according to individual profiles:

Credit history reflects a user’s payment history and indebtedness like credit card repayment and utility bill payments.

Behaviour and preference reveal a user’s online behaviours like the websites they visit and the items they buy.

Fulfilment capacity shows a user’s ability to fulfil his/her contract obligations.

¹ Alipay is the third-party payment platform developed by Alibaba in 2004. It was initially incorporated in the Cayman Islands but was transferred to Ant Financial, an affiliate of Alibaba, in 2011. Now Alipay is a domestic company (Ahmed and Fong 2017). Users use Alipay to pay for online and offline shopping, car-hailing, cinemas, restaurants, schools, hospitals, and transactions between accounts. Alipay can also be used abroad in the UK, France, Germany, Thailand, Japan, and other countries where retailers accept Alipay.

Personal characteristics examines the completeness and accuracy of personal information, such as home address and mobile phone numbers. *Interpersonal relationships* evaluate a user's online friends and the interactions between the user and his/her friends. (Alibaba 2015)

Since its launch in 2015, Sesame Credit has become one of the most used privately-owned online credit scoring services. Its success, as Reis and Press (2019) discern, lies in the pointsification strategy that associates user behaviours with points and corresponding incentives. There is no official list of good or bad behaviours disclosed to its users². Users with good Sesame Scores can unlock a wide range of benefits and privileges³ that provide convenience for users' lives while cultivating users' behaviours in ways that align with Sesame Credit's objectives. Thus, Sesame Credit not only monitors and assesses users' behaviours, but it also has the power to shape it (Botsman 2017; Reis and Press 2019).

Sesame Credit is important for this study because it has close connection with the governmental SCS. It is one of the shareholders of a government-led credit scoring organisation – Baihang Credit (see sub-chapter 2.4.2) and one of the officially approved commercial credit rating systems on the Credit China platform⁴ (Credit China 2020). Due to its popularity and strong relevance, Sesame Credit is highlighted by various scholars (e.g., Botsman 2017; Chen and Cheung 2017; Nopparuth and Fabrice 2018; Kostka 2019) as a commercial model of the SCS. However, this study distinguishes Sesame Credit from the governmental SCS because Sesame Credit (at the time of the fieldwork) was still operating its online credit scoring service, whose objective and mechanism are inconsistent with the governmental SCS's. Besides, Sesame Credit is only one of the commercial credit scoring systems that belong to the "Market" data assemblage (see sub-chapter 2.4.2); thus, it cannot be regarded as equivalent to the comprehensive SCS.

² Several studies suggest that buying video games could decrease the score while buying diapers will increase it because the latter implies that the user is highly likely to be a parent – a social identity rated as more responsible by Sesame Credit (Botsman 2017). Verifying real identity and online shopping with a real name are also essential for a better Sesame Score.

³ Benefits and privileges for good Sesame Scores include deposit waiver for bike rental, power bank rental, car rental, and hotel booking; VIP treatment at some airports and hotels; lower interest for loans; better matches on online dating sites; expediting visa application procedures for Singapore and Luxemburg.

⁴ Website for Credit China is <https://www.creditchina.gov.cn/gerenxinyong/?navPage=14>

2.2.2 Tencent, WeChat and Tencent Credit

Tencent owns WeChat, one of the most used social media in China. WeChat has evolved from an instant messaging application into a comprehensive platform with a wide range of features: one-to-one and group chat like WhatsApp; a Facebook/Twitter-like plug-in feature – Moment – where users can post and repost text, photos, or videos that are only viewable by his/her contacts; and the Subscription Account and Service Account for business, media, and government to disseminate information and advertise products and services. Most of a user's contacts on WeChat are strong-tie relations like relatives and friends in real life (CNNIC 2016, p.17), making WeChat a more close-knit SNS. The Monthly Active Users (MAUs) of WeChat in December 2019 reached 1.165 billion (Tencent Global 2020). WeChat is extensively used in China that many studies have singled it out as representative of Chinese social media (e.g., Kantar 2017; CNNIC 2018; Tan and Zhang 2017).

WeChat also enables a plug-in online payment feature: WeChat Pay. Owing to the enormous number of WeChat users, WeChat Pay has become a popular e-payment platform to rival Alipay. On account of WeChat Pay feature and the vast volume of user data, Tencent started a national trial of an online personal credit scoring service, Tencent Credit, on 30 January 2018, but this was halted by PBoC just one day after its launch. Around the same time, Tencent Credit was recruited by the government in Baihang Credit. Although Tencent Credit is listed on Credit China as one of the officially approved commercial credit rating systems, its website was still inaccessible to the public (by October 2020). Previous records show that Tencent Credit used data collected from Tencent's platforms and calculated the score based on five factors – fulfilment, security, wealth, consumption, and social network (Xinhuanet 2018).

2.2.3 Sina Weibo and Sunshine Credit

Sina Weibo is a microblogging site combining features that are known from both Twitter and Facebook. It is the third most popular social media in China, and its MAUs reached 516 million in December 2019 (Sina 2020). Weibo has close ties with Alibaba Group, as the latter is the second biggest shareholder of Weibo. Weibo

differs from WeChat in that it supports unidirectional relations between users and facilitates weak relational ties. The openness endows Weibo with media attributes, making it a site for users to follow trending headlines and obtain news and information (CNNIC 2016, p. 16).

Sina Weibo launched a plug-in called Sunshine Credit (*yangguang xinyong*) in 2016, aiming to build an intrinsic value of a person's online identity (Weibo 2016). Every user's trustworthiness is graded as excellent, good, average, low, or extremely low based on the score and is publicly viewable to all users. Sunshine Credit score ranges from 300-900 and is calculated based on five factors:

Content contribution refers to the frequency of using Weibo, the amount of the content published, and the feedback data obtained from other Weibo users.

Identity characteristics...evaluates the authenticity and completeness of the user's personal data, education history, and professional information, with particular attention to real-name information.

Credit history of Sunshine Credit comprehensively considers the long-term speech history of users on Weibo and the 'healthiness' of their speeches.

Social relations ...pay attention to the quality of mutual friends. If there are more trusted and real-name users among the fans, the site tends to think that the user is more reliable.

Consumer preferences ...comprehensively analyse users' consumption tendency during the use of Weibo. (Weibo 2016)

Weibo (2016) announced several behaviours that can boost Sunshine Credit scores⁵, but there is little information to date about the benefits or restrictions that users can receive from Sunshine Credit. In the broader context of the SCS, as of 2020 no clear official announcement has been given about whether Sunshine Credit or Weibo behaviours will affect an individual's credit or be incorporated into the SCS. Nonetheless, due to its close link to Alibaba Group and the fact that it is a representative credit score that explicitly includes semantic and qualitative big social data, Sunshine Credit is worth further examination in this study.

⁵ E.g., verifying real identity (RIV); posting original content on Weibo more frequently; participating in official campaigns held by Weibo; interacting with users who have done RIV; avoiding being reported by other users due to uncivil behaviours; and by purchasing Weibo membership and linking Weibo account with Alipay.

2.2.4 Other main platforms in China

The other two companies in BATSBS are Baidu and ByteDance. Baidu owns the biggest search engine in China, Baidu App. By the end of 2019, Baidu Search had taken 67.09% of total search engine market share in China (Qianzhan 2020) with an average of 195 million Daily Active Users (DAUs) (Baidu 2019). As the leading company in China for search engines, cloud computing and AI, Baidu is providing “technical support” for the construction of the Credit China website (People’s Daily Online 2016a). According to the limited explanation of “technical support”, Baidu is using its website experience to help with the development and operation of Credit China website so that data from various sources can be aggregated on the website and that people can retrieve credit information from it (People’s Daily Online 2016a). Hence, Baidu’s technical support is essential for the SCS to be constructed as a giant data assemblage.

ByteDance has two successful products in China: Toutiao (“headline” in English), a news and information content platform; and Douyin (the Chinese version of Tik Tok), a social media platform for generating and sharing short videos. The DAUs of Douyin increased from 250 million in Jan 2019 to 400 million in Jan 2020 (Douyin 2020). As a short video platform, Douyin has assisted several municipal courts in broadcasting photos of blacklisted people to its users during the intervals between videos (Cha Guan 2018). Although Baidu and ByteDance are supporting the governmental SCS in various ways, there is limited evidence or information showing their direct involvement in constructing the personal credit scoring systems for the SCS project. Hence, this study does not pay special attention to Baidu and Douyin.

Social media platforms in China have integrated various features and functions, like social networking, e-commerce, payment, education, gaming, insurance services, health care, and e-government services, on one platform (CNNIC 2018, p. 32), transforming them into a “multifaceted and multi-industry digital ecosystem” (Jiang and Kenney 2016). Internet giants have access to vast quantities of user data generated from user activities on their platforms, be it information-oriented data (Baidu), transaction data (Alibaba), or social networking data (Tencent, Sina, ByteDance). As major user data owners in China, private social media companies

have been solicited by the government as a vital patron for cyber governance and the SCS, which is discussed further in the following sub-chapters.

2.3 Social media governance in China

The Internet and social media have been embraced by the Chinese Communist Party (CCP) for economic promises but also strictly monitored and controlled for fear that the surge of public participation on the Internet would become a threat to the governance capacity of CCP (Kalathil and Boas 2003; Qiu 2004). Consequently, the prosperity of Chinese Internet industry has been accompanied by increasingly stringent governance and intervention. Since the 1990s the CCP has developed a system of Internet control that blocks, monitors and filters information from abroad and censors information inside (Chase and Mulvenon 2002; Hughes and Wacker 2003; Kalathil and Boas 2010; Yang 2012). The government justifies Internet governance as an essential measure to achieve “purification of online environment” (Chin and Mozur 2013), improve civility and civilisation (Cui and Wu 2016; Yang 2017), and ensure “national security”⁶ and stability (Creemers 2017; Yang 2017; Xinhuanet 2019). Chinese Internet governance is perceived as the most sophisticated and broad-reaching framework that has the potential to evolve and accommodate new technologies and challenges (e.g., Karatzogianni 2006; Deibert 2010; Cui and Wu 2016). Therefore, this sub-chapter demonstrates a series of key strategies of CCP’s cyber governance regime starting from its bureaucratic deployment, individual-level policy, online access and information controls to soft and governmentality techniques. For each measure, I will discuss its impacts and explain the role and involvement of major Internet companies.

2.3.1 Bureaucratic deployment

Since the Internet was opened to the public, the Chinese government has begun to adjust its bureaucracy. On 3 June 1997 China Internet Network Information Centre

⁶ National security has been widely promoted by party-state as the fundamental interest of the Chinese people (Xinhuanet 2019). From 15th November 2012 to 20th March 2018 the Chairman Xi Jinping has announced over 180 pronouncements on national security. Cybersecurity is considered essential for national security by party-state as can be seen from Xi’s announcement that “national security cannot be achieved without cyber security (meiyou wangluo anquan jiu meiyou guojia anquan)”.

(CNNIC) was established, marking the beginning of a regulated Internet in China. In 2002 the National Computer Network Emergency Response Technical Team/Coordination Centre of China (known as CNCERT or CNCERT/CC) was officially founded and reported to Ministry of Industry and Information Technology (MIIT). In 2011, Cyberspace Administration of China (CAC) was formed to reinforce the construction, development and governance of the Internet (State Council 2011). Seven years later, the Office of the Central Cyberspace Affairs Commission (OCCAC) was established under direct leadership of Xi Jinping (CAC 2018). From 2018 CNCERT no longer answered to MIIT but was assigned under the leadership of the OCCAC. The establishment of the OCCAC infers CCP's strengthened control over cyberspace.

In conjunction with the adjustment and expansion of governmental organs, the government has collaborated with commercial Internet companies and delegated censorship and surveillance work to them. In 2005 the government requested Chinese blog-hosting businesses to censor and police Chinese weblogs (Mackinnon 2008). In 2007 the Internet Society of China, a government-led institution, published its first Blog Service Self-Discipline Convention “encouraging” blog service providers to monitor and delete “illegal” and “inappropriate” content (Wang and Hong 2010, p. 68). What followed is the mega project of the SCS. CAC requires that ISPs establish detailed regulations on how to manage group chats and set up a credit rating system to provide catered service based on the credit rating of the group (CAC 2017a). When microblogging service providers intend to aggregate new features that enable users to perform group activities, they have to report to national or local CAC for security assessment. These regulations exemplify the permeating collaborations between the Chinese government and commercial Internet companies.

2.3.2 Real Identity Verification (RIV) for individual users

To govern the micro- or individual-level activities on the Internet, the CAC (2015b) promulgated RIV in 2015. It is a compulsory policy on social media that requires users to register with or verify real identity on the Internet. ISPs are requested by the government to store a record of users' real identities in their database. Before RIV, cyberspace was an anonymous space where user identity was sheltered behind the screen. The anonymity can act as a “shield against the tyranny of the majority”

because it strengthens a person's right to expression while concealing his/her identity (Lee and Liu 2015, p. 6). However, it does not appeal to the Chinese authority, for whom online anonymity promotes irresponsible and harmful behaviour, thus an obstacle for governance (CAC 2015b; Lee and Liu 2015).

The Chinese government delegates the responsibility of enforcing RIV to commercial ISPs, which posits them in a "principal-agent dilemma" because they have to fulfil two seemingly contradictory roles as the facilitator of free speech and the regulator of online speech (Lagerkvist 2012, p. 2628). In order to ensure ISPs dutifully carry out RIV, the government employs administrative measures such as imposing sanctions on disobedient ISPs and rewarding compliant ones with beneficial policies (ibid). Under constant pressure, ISPs in China adhere to RIV law and only allow users who have completed RIV to access full features of their products and services. For example, WeChat accounts can only be registered with phone numbers (linked with real identity). On Weibo, verified users can post, like, comment and follow other users, whereas unverified users can only browse. Similarly, on Zhihu.com, only RIV users can comment.

RIV is the foundational legislation for cyberspace governance in China (Lu and Zeng 2014, p. 57) because it enables the government to identify every user through the RIV information stored in ISPs' database. On one hand, it reduces the technical difficulty for cyber police to trace and arrest cyber criminals, but on the other hand, exposes the identity of dissenters and investigative journalists and places them in danger. Although the overall impact on personal expression cannot be observed ecologically, Fu et al. (2013) infer that RIV might exert a chilling effect on microbloggers on Weibo and deter them from writing about sensitive issues.

2.3.3 Three-layered censorship scheme

As an integral part of the national strategy for "maintaining stability" (Yang 2012, p. 52), a multi-layered online censorship scheme has been designed by Chinese government to control open information flows (e.g., Murdoch and Anderson 2008; Feng and Guo 2013; King et al. 2013). On the peripheral layer is the Great Firewall (GFW), which uses domain name server (DNS) tampering, keyword filtering, and Internet Protocol (IP) blocking to filter all international gateways (Lu and Zeng 2014,

p. 58). The filtered content is not fixed because the government constantly updates the list to adapt to the latest situation (Lee and Liu 2012). Although considered as “the most sophisticated in the world” (OpenNet Initiative 2005), the GFW can be “scaled by proxy server, secure tunnelling, and other circumvention methods” (MacKinnon 2009). Nonetheless, it is enough to maintain social stability (Boas 2004). The second filter – *keyword blocking* or *keyword censorship* – censors information inside the wall (MacKinnon 2012). China Digital Times has collected more than 4,000 sensitive words from April 2011 to 2014, but it is still impossible to identify all the words as the list is regularly updated (Q.ng 2014, para 2). Most of the filtering and blocking in Chinese cyberspace are executed by commercial ISPs under government’s requirement (Reporters Without Borders 2007; China Digital Times 2011; MacKinnon 2012; Sullivan 2012). Keyword blocking uses “automated algorithms” that can be easily bypassed by replacing the original words with “homophones”, “homographs”, or Chinese *Pinyin*⁷ (King et al. 2013, p. 328). Besides, the degrees and methods of censorship on different blog service providers (BSPs) are found to vary considerably. Thus, politically sensitive content still survives keyword censorship and exists in Chinese blogosphere to some extent (MacKinnon 2009). The third layer is “*hand censoring*” (King et al. 2013, p. 328) by cyber police (Clothey et al. 2015). Cyber police have not been officially acknowledged for around 17 years until 1st June 2015 when they began to make public appearance on the Internet (CAC 2015). They are responsible for 1) 24-hour patrolling on the Internet to spot harmful and illegal content; 2) educating netizens with minor inappropriate behaviours and punishing those with severe illegal activities; 3) reporting cybercrime cases to alert the public; 4) processing reported Internet crimes and scams and conducting online law education (CAC 2015). Yet, one of the main tasks is to refute online rumours (CAC 2015c) (see next sub-chapter).

Contrary to the notion that criticism against the government is more likely to be censored and silenced by censorship scheme, several studies (e.g., King et al. 2013; Lorentzen 2014; Guo and Jiang 2015; Qin et al. 2017) find that it allows aggressive reports on low-level misdemeanours, but constantly adjusts the quantity of reports.

⁷ Chinese *Pinyin* is the official romanisation system for standard Chinese.

The goal, according to King et al. (2013), is to “curtail collective action by silencing comments that represent, reinforce, or spur social mobilisation, regardless of content” (p. 326), but meanwhile using social media to obtain bottom-up public opinion on social problems and political events before they become threats to the regime (Kluver 2005; Guo and Jiang 2015; Qin et al. 2017). King et al. (2013) discover that some highly censored events were irrelevant of political criticism or even supported by the central government. Hence, they speculate that the censors are set to be triggered by likely collective actions. Another study also confirms that the Chinese government adopts a more sophisticated censorship strategy that allows aggressive reports “on low-level malfeasance in order to improve governance, but constantly adjusting the amount of reporting” to keep the public from garnering enough knowledge for a “revolt” (Lorentzen 2014, p. 413). Hence, Chinese users are “individually free but collectively in chains” on the Internet (King et al. 2013, p. 339). The multi-layered and complex blocking and censorship scheme reflect the Chinese government’s anxiety about the destabilising consequences of open information flows (Yang 2012). The sophisticated measures are argued to have created “a matrix of soft and hard control” and “induce[d] a widespread climate of self-discipline” (Lu and Zeng 2014, p. 57).

2.3.4 Online rumours refutation

One of the primary purposes and objectives of implementing RIV and deploying cyber police is to refute online content which the government defines as online rumours (CAC 2015c). Early studies on rumours in China assert that rumours have the attributes of falseness and negativity that can cause panic and confusion (Guo 2011; Jiang and Fang 2019). The Internet and social media are believed to have assisted the spread of rumours; thus, social media companies are requested to scrutinise and censor their platforms jointly with cyber police to tackle down rumours and harmful information (CAC 2018b). From 2016 to 2018, Weibo, Baidu and Tencent launched rumours-refuting platforms⁸ jointly with cyber police. In 2018 the

⁸ On 12th May 2016 Weibo jointly launched the Weibo Rumours Refutation (weibo piyao) platform with 189 official cyber police accounts of and local police (Sina 2016). In 2017 Baidu launched Baidu Rumours Refutation Platform (Baidu piyao pingtai) on which 372 cyber police accounts presented (People’s Daily 2017). Tencent’s WeChat launched its Official Accounts Platform Rumours Refutation Centre to refute rumours from subscription accounts. Until April 2020, more than 1.2 million articles have been refuted as rumours (WeChat 2020).

CAC and official media Xinhuanet initiated the China Cyberspace Joint Rumours Refutation Platform (*zhongguo hulianwang lianhe piyao pingtai*), a comprehensive platform that assembles a wide range of Internet companies, media agencies, and cyber police to scrutinise content on the Internet. Users can report any information to cyber police if they believe it is rumour, and once confirmed, it will be removed.

The Rumours Refutation mechanism allows the government to control the spread of rumours and inform the public through social media platforms. For example, during the COVID outbreak, cyber police have solved several cases of online masks fraud and cleared some rumours about the virus (Xinhuanet 2020). On the other hand, the government's dictating status in rumours refutation poses a threat to the freedom of online speech and even undermines the public's right to information, as in the case of the admonishment of the Covid-19 whistle blower, Li Wenliang⁹. In Li's case, cyber police and the authority ruled his comment in WeChat group as rumour (Xinhuanet 2020), despite the fact that he provided the medical report as evidence on which the diagnose statement was written as SARS. This incident reveals a concerning depiction that government authorities in China has legitimised its power to impede the dissemination of information in the name of rumour refutation regardless of the veracity if the information is believed to pose threats to the regime and social stability. It is for this reason that rumours refutation mechanism is included as another component of CCP's cyber governance regime.

⁹ On 30th of December 2019 Li Wenliang, a physician at Wuhan Central Hospital, sent messages in WeChat group chat to fellow doctors warning them about the possible outbreak of SARS (severe acute respiratory syndrome), later known as COVID-19. On the following morning, Li was punished by hospital executive to write a self-criticism report. On 3rd of January 2020, Li was called at local police station and was admonished by a police officer for "disseminating disinformation online" and was given an admonishment letter. Xinhuanet, the official mouthpiece of the Chinese government, reported the sanction on Li and 7 other people and reinstated that it was rumour (Xinhuanet 2020). Li continued his work and contracted the virus from an infected patient and died on the early morning of 7th February 2020 (People 2020).

After the government had locked down Wuhan city and finally announced the severe situation of the epidemic in late January, Chinese Internet users began to protest against the sanction for Li and other 7 people who alerted the outbreak. Eventually, public's resentment pressured the central government to conduct an inquiry into this incident. On 19th March 2020 the government release an official investigation report and revoked Li's admonishment.

2.3.5 Online public opinion guidance by Internet commentators

In addition to direct intervention in online information, the Chinese government has enlisted a group of “Internet Commentators”¹⁰ (*wangluo pinglun yuan*), or paid astroturfers, who disguise as ordinary users and post pro-government comments on social media to guide public opinion (People’s Daily Online 2016b). The government provides intensive training sessions to strengthen commentators’ ability of guiding online opinion in an unnoticeable manner, such as “professional skills in public opinion guidance” and “how to make comment on current affairs and how to shift topic” (People’s Daily Online 2016b).

Internet commentators have been used by the government as a subtler propaganda tactic to coordinate comments during the outbreaks of instantaneous incident or important political events. For example, the first open trial of a high-ranking CCP official Bo Xilai in 2013 attracted thousands of comments and more than one million Weibo users. The public broadcast of the trial may seem to be an act of liberalism; however, a study argues that it is “highly managed and engineered by the Chinese government” (Guo and Jiang 2015, p. 103). Researchers find that a series of continuous pro-government posts appearing to be written by the same person were posted frequently in the comment section (*ibid*, p. 87). Thus, they conclude that instead of taking more abrupt measures to deal with comments supporting Bo Xilai, such as deleting or blocking posts, CCP has deployed “periodic omnipresent” 50 cents party on Weibo to “set the tone” of the trial as praising the party’s determination in fighting corruption (*ibid*, p. 89). The government “skillfully guided people’s opinions and thought when necessary” (*ibid*, p. 104), which led to highly unified and regulated comments and posts on Weibo. This is one of the examples that Internet commentators are utilised by the Chinese government to influence public opinion. Government’s manipulation of online debates hinders social media from being an online public sphere, for a large number of commentators comment with uniformed opinions, and people tend to interact with those who share similar

¹⁰ Internet Commentators are mocked by Internet users as “50 Cent Party” (*wu mao dang*) for the hearsay that commentators earn 50 cents for each post. The role of commentators is usually acted by staff at governmental institutions, NGOs, and state-owned corporations. Employees at Public Relation companies and media liaisons of big commercial companies have to be trained with commentators as well (People.cn 2016). Faculties and students at universities are encouraged by the government to take the role of commentators (Mao and Wang 2016).

views, which may lead to opinion polarisation and hampers user engagement in online discussion (Wang and Mark 2013, pp. 600-601).

2.3.6 Online news control and agenda setting

Social media has been recognised as an instrumental platform for news and information dissemination (CNNIC 2018); thus, the Chinese government is tightening its control over online news and information by promulgating a series of regulations and restrictions on online news and comments on political, military and diplomatic affairs, and instantaneous incidents (CAC 2017b; 2017c). From 2017, individuals or organisations that intend to broadcast news on Internet platforms should apply for an Internet News and Information Service License¹¹ (INIS License) (*hulianwang xinwen xinxi fuwu xuke*). Without the INIS License, it is illegal to produce, edit or publish news information. The INIS License ensures that all salient information on the Internet is generated by officially proved sources, which signals the party-state's tightened control over the production and dissemination of information.

Moreover, the party-state is strengthening its appearance on social media by registering official accounts on Weibo, WeChat, and Toutiao to disseminate news and information to the public directly, which has become a standard manoeuvre coined as "*liang wei yi duan*" (CNNIC 2020, p. 53; see also Hou 2018). Government departments in 31 provinces have registered their Weibo accounts. By June 2019 a total of 139,000 verified government accounts are registered on Weibo (CNNIC 2020, pp. 62-63). Many local governments offer public services on WeChat, and by June 2019 620 million users have used this feature (CNNIC 2020, p. 59).

Government departments of various levels have launched more than 81 thousand accounts on ByteDance's Toutiao App to disseminate news and information (CNNIC 2020, p. 65). These efforts show the Chinese government's endeavour to strengthen its presence on social media.

¹¹ Currently, only established news agencies like newspapers, TV stations, news agencies and film studios have managed to obtain the INIS Licence (CAC 2019). By 30th September 2019 999 service units have been approved by the authorities, comprising 975 websites, 747 apps, 137 forums, 25 blogs, 4 microblogs, 1 instant messaging tool, 14 live streaming, 3082 public accounts, and 2 other forms (CAC 2019).

Meanwhile, the government is using its administrative power to influence news agenda setting on social media. Early studies believe that trending topics on the Internet could set media agenda (e.g., Kim and Lee 2006), while case studies conducted by Y. Jiang (2014) suggest a “partial reversed agenda effects” in Chinese cyberspace because although Weibo provides a platform for civic participation and public discourse, the government still sets the “political boundary of what is allowed to be criticised” (p. 181). The partial reverse agenda setting on Chinese social media has been weakened by evolving controls. For example, Weibo has to insert a row on top of the trending topic board on which only positive news about the party-state can be displayed¹². Similarly, Toutiao, which uses algorithms to feed news to users, are required to feature official propaganda news as the headlines, making it the intermediacy of government news dissemination (Lv and Luo 2018, p. 3882). These imply the extension of state controls over news information from traditional news media to online platforms.

2.3.7 Techniques of soft and ecological governance of Internet information

Alongside direct controls and regulations, CCP has also employed soft controls to induce citizens’ self-censorship and self-discipline (Yang 2009). These techniques include demobilising emotional expression using civility and national security as moral persuasion, launching online civility campaigns to deter vulgar and negative content, employing Internet civility volunteers to patrol cyberspace, and soliciting commercial Internet companies to conduct discipline and censorship measures (Creemers 2017; Yang 2017). Cui and Wu (2016) also notice that the Chinese government legitimises Internet governance by linking it with moral well-being through official media discourse, whose portrait of the Internet has shifted from content platform before 2010 to opinion platform. Correspondingly, the rationale for Internet governance changes from moral goodness to a pan-morality discourse that focuses on social stability preservation (ibid). Combining “capitalism”, “authoritarianism”, and “Confucianism”, state surveillance and governance on the

¹² The Discover feature on Weibo contains a list of 50 “Weibo Hot Search” (Weibo resou bang) where the most trending topics are shown, and celebrities, influencers and businesses can pay for places on the list. The Beijing Office of Cyber Administration of China banned this feature on Weibo for a week from 27th January to 3rd February 2018 after accusing it of failing to censor the content and promoting improper content. Weibo actively cooperated with the authority, and when the ban was lifted, Weibo inserted a new row above the No. 1 search to display only positive news about the party-state.

Chinese Internet creates an “authoritarian informationalism” (M. Jiang 2010b, p. 80) that regulates the Internet and enhances the state’s legitimacy.

More recently, in December 2019 CAC promulgated the Regulation on Ecological Governance of Internet Information Content. It defines what is endorsed, prohibited, and restrained content and delegates the responsibility of content control to content producers and ISPs. In brief, endorsed content appraises the CCP and the government, promotes Socialist Core Values, and highlights the economic and social advancements. Prohibited content opposes the party-state, undermines China’s unity, distorts spiritual heroes, and contains rumours. Restrained content does not violate the law but is considered immoral or inappropriate by the government (CAC 2019, Article 5, 6 and 7). Content producers should produce and disseminate more endorsed content, stop prohibited content, and prevent restrained content. ISPs should use manual intervention to promote the endorsed content supplement to automated news feeds (CAC 2019, Article 11 and 12). Besides, the government also encourages users to participate in the “ecological governance” of Internet content by making complaints and reporting illegal and inappropriate content (CAC 2019, Article 20). This form of explicit endorsement of peer policing, as argued by Zhong et al. (2017), is likely to induce self-censorship among users and deteriorate the environment of free speech.

The prospect for the Internet and social media remains unclear as the authority constantly add new rules and regulations to the governance framework in order to accommodate new challenges (e.g., Cui and Wu 2016). More than a dozen new regulations have been released since the announcement of the Social Credit System in 2014, covering aspects of instant messaging tools (2014), Internet user account (2015), Internet news information service (2015 & 2017), search engines (2016), mobile internet applications (2016), Internet live broadcast service (2016), Internet forum and community service (2017), Internet following and commentary service (2017), Internet user public account (2017), social media groups (2017), microblog (2018), online video and audio content (2019). With compliance and cooperation from commercial ISPs, the Chinese government can ensure the effectiveness of its governance.

The measures introduced in this sub-chapter, namely bureaucratic structure, RIV, 3-layered censorship scheme, cyber police, rumours refutation platforms, Internet commentators, the INIS License, online agenda setting, and the ecological governance, target different dimensions but are all pieces of the sophisticated matrix of Internet governance. Social media companies have been delegated to be the proxy of these policies and regulations, which enables the government to “govern at a distance” (Guo and Jing 2015, p. 93) and subsequently endows Internet companies with a trifold role as the service provider for users, the regulated subject by the government, and the regulator of online content and information. The next sub-chapter will unpack another governance policy that is vital for this study – SCS.

2.4 The 2014-2020 Social Credit System

Although my focus is not to scrutinise or examine the SCS itself, a fair and comprehensive unpacking of the SCS is vital to investigating the implications of the SCS for social media. In order to provide a relatively objective context of what social media users will face in the coming years, the introduction is based on information from publicly accessible official sources instead of the processed reviews from previous studies. The interplay between social media companies and the government is highlighted throughout the discussion to underscore my focus on social media. Following the unpacking of the SCS, the last section, sub-chapter 2.4.6 reviews existing research and studies on the SCS to provide a more comprehensive depiction and evaluation of the SCS. Some of these conclusions and representations of the SCS accords with my own analysis, while others differ. Both perspectives are presented in an embracing manner because the obscurity and fluctuating state of the SCS poses challenges for researchers to accurately grasp its nature.

2.4.1 Historical overview of social credit systems in China

The first high ranking political mention of Social Credit System in China was at the 16th National Congress of the CCP in 2002, during which Chairman Jiang Zemin called to “establish a social credit system (SCS) that is compatible with a modern market economy”¹³ (People’s Daily Online 2002). Although the report did not

¹³ From 1978 China has carried out a series of economic reform from state ownership and central planning to Socialist Market Economy in which supply and demand co-determines the allocation of social resources under the supervision and regulation of the state.

explicitly explain the connotations of the “social credit system”, judging from the political and economic background of that time, the primary objective was to serve the modern market economy and to improve the economic creditability of organisations and individuals (Chen et al. 2018). In 2006, PBoC established a national credit scoring bureau in charge of clients’ credit reports at banks and other financial institutions – “Credit Reference Centre” (*zhengxin zhongxin*) (CRC) (PBoC 2015). At that time, most Chinese people did not have bank accounts, so it was unfeasible to construct a comprehensive data-driven credit rating system. In 2007, the State Council held a Joint-Ministerial Conference¹⁴. It proposed several suggestions for constructing the SCS, such as setting up an information-sharing system across departments, establishing a data platform based on real identity information, and forming a joint punishment mechanism to impose restrictions for citizens deemed untrustworthy (State Council 2007). In 2011, the government officially broadened the scope of the SCS to four areas: creditability in government affairs, commercial integrity, honesty in society, and judicial creditability, indicating the intent to reform the SCS from an economic-centric rating system to a comprehensive social credit system (Yu and Yan 2014; C. Zhang 2020). This four-area model is consolidated in the Outline of the 2014-2020 SCS.

An early local experiment of the non-financial-centric SCS is the public credit scoring system at Suining county of Jiangsu province. In 2010, Suining county government promulgated a public credit scoring system that aimed to score¹⁵ the creditability of 1.14 million residents based on more than 400 criteria (People’s Daily Online 2014). Residents were classified from A to D based on their scores and were allocated either privileges or sanctions accordingly. A-class individuals could have better opportunities for education, employment, social welfare, army enlistment, and joining the CCP, whereas D-class individuals were denied various permits and job

¹⁴ 18 central government departments, a range of local governments, and state-owned credit investigation firms were involved in this initiative (Yu 2016).

¹⁵ Each citizen was given a default score of 1000, consisting of 530 points for observing government regulations, 200 points for punishment and criminal record, 150 points for business and financial record, and 120 points for bills and tax payment record. If no violations, a citizen will get full points for each category. Score-rewarding behaviours included volunteering social services, making donations, and gaining honourable titles from the government. Score-deducting behaviours included slander, stealing, refusing to provide for senior family members, and punishment from the government and the CCP. The score was updated yearly, and the reward and punishment records were valid for 1-5 years (Baidu 2010).

opportunities at government departments or public services (People's Daily Online 2014). The Suining SCS initiative attracted as much attention as criticism. Official media, People's Daily Online (2014), used an Internet user's comparison of the score to the "good citizen card" (*liangminzheng*), a document used by the Japanese occupation authorities to govern the Chinese during the WWII. A few scholars criticised it for being a social control tool of local government as some of the criteria implied that dissenting from the government and authorities would be punished (People's Daily Online 2014). Despite the criticism, the Suining SCS stands as an early representative of the overarching SCS that extends beyond the financial domain to broader social aspects.

2.4.2 Expanding the scope of the SCS: from *xinyong* to *chengxin*

The beginning of a nation-wide comprehensive SCS was marked by the release of the 2014-2020 Planning Outline for the Construction of a Social Credit System (*shehui xinyong tixi jianshe guihua gangyao*) by the State Council on 14 June 2014. It is a five-year plan that explicitly extends the scope of the SCS from financial-centric to the four areas mentioned in 2011 government announcement. Hence, government departments, judicial sectors, businesses, education, medical and health services, cyberspace, and individuals are all included in the SCS (State Council 2014). The purpose of the SCS is formulated as "to improve the sincerity and creditability of the whole society" and "to improve the overall competitiveness of the country" (State Council 2014). The 2014 Outline extends the connotation of "credit" beyond financial credit to "an important component part of the Socialist market economy system and the Social governance system" (State Council 2014).

To justify the expansion of the SCS's scope, the party-state has infused morality into the official mantra for the SCS. Since the establishment of the People's Republic of China (PRC), the China Communist Party (CCP) has recognised the importance of ideology as a social governance channel (Yang 2017; Creemers 2018). A set of political concepts and theories¹⁶ constitute the foundation for ideological governance,

¹⁶ Chronically, the ideologies that guides Chinese citizens comprises Marxism-Leninism, Mao Zedong Thought (*Mao Zedong sixiang*), Deng Xiaoping Theory (*Deng Xiaoping lilun*), Important Thought of Three Represents (*sange daibiao zhongyao sixiang*), the Scientific Outlook of Development (*kexue fazhan guan*), and Xi Jinping Thought on Socialism with Chinese Characteristics for the New Era (*Xi*

or in CCP's words, the Socialist Spiritual Civilisation Construction (*shehuizhuyi jingshen wenming jianshe*). There are two aspects in this system: the Construction of Materialistic Education, Science and Culture (*jiaoyu kexue wenhua jianshe*) and the Construction of Spiritual Ideology and Morality (*sixiang daode jianshe*). Morality has long been central to the paternalistic governance style of the Chinese party-state that relies on moral authority to build and enforce political power (Li 2009). The government endows itself with the obligation to "protect people from moral corruption" (Cui and Wu 2016, p. 266). Nonetheless, the ideologies have limited power to influence individual's thoughts and behaviours.

However, the 2014 Outline for Constructing the SCS transformed the role of ideologies from a symbolic guideline into a more practical tool for social governance. A prominent manifestation of the government using morality to promote the SCS can be seen in the employment of a moral terminology *chengxin* (trustworthiness), one of the "core socialist values" promoted by Xi Jinping administration. In more recent official media coverage (e.g., CFIS 2019; Xinhuanet 2020), *chengxin* is used interchangeably alongside the original terminology in the SCS – *xinyong* (credit). Although Dai (2018) and Zhang (2020) argue that *xinyong* in the Chinese language is associated with trustworthiness and moral integrity, I suggest that *xinyong* and *chengxin* have distinct and different undertones. *Xinyong*¹⁷ is chiefly concerned with extrinsic financial activities and can be quantitatively evaluated and rewarded, whereas *chengxin*¹⁸ is an intrinsic moral concept that requires continuous self-discipline. Being a moral concept, *chengxin* has the following intrinsic attributes that serve the objective of a comprehensive SCS. First, *chengxin* is a publicly recognised self-justifying stipulation with deep philosophical and cultural roots in the work of ancient Chinese philosophies; thus, is convenient for the government to justify the

Jinping xinshidai zhongguo tese shehuizhuyi sixiang). All the theories and thoughts are added in the China Communist Party's Constitution as the guideline for the political and social life in China (China.org 2018).

¹⁷ According to the Xinhua Dictionary, *xinyong* means trust gained by keeping promises, and the general term for deferred payment or delivery in currency lending and commodity trading. The definition accords with the CRC's explanation that *xinyong* only covers the economic aspect (CRC 2014).

¹⁸ *Chengxin* (trustworthiness), means sincerity and reliable. Credit China website explains that the meaning of *chengxin* should be understood from individual definitions of *cheng* and *xin*. *cheng* means honesty, the internal integrity of an individual; and *Xin* means trust, referring to an individual's trustworthiness as a social unit (Credit China 2018).

campaign of trustworthiness (e.g., Credit Reference centre 2014; Credit China 2020a). Second, the concept and boundary of *chengxin* is ambiguous in nature, which allows the government to alter the interpretation of *chengxin*. *Chengxin* has been stretched to cover most mundane occurrences and citizens of all kinds of professions and social identities. For example, at Tonglu County, being honoured as “civilised family”, “the most beautiful family/mother/daughter-in-law” (herein beautiful refers to moral goodness) means the subject is *chengxin* so that they can get a fast loan of up to RMB300,000 without conveyance from local Construction Bank of China (Credit China 2020b). Besides, being *chengxin* requires an individual to maintain persistent self-discipline, which is likely to result in the internalisation among subjects.

To conclude, moral-centric *chengxin* has several attributes that suit the vision of the SCS as a broad assemblage that encompassed various aspects of social life. Infusing morality into the SCS, the government can expand the governance scope of the SCS and fulfil the ambitious goals of civilising China through information technology incarnated in the SCS (Meissner and Wübbecke 2016). Moreover, the employment of moral goodness may affect people’s perceptions and attitudes to the SCS, the level of trust in the SCS, and their reactions towards it, thus it is examined through my research.

2.4.3 An immense “Government+Market” data assemblage

One of the key objectives of the SCS is to connect the previously isolated data island and create an immense data assemblage. The official Outline¹⁹ suggests two types of credit data sharing: within the government system, data shall be shared across various levels of government departments and administrative zones; and in society, data shall be shared between corporate systems and governmental systems. This sub-chapter first explains the construction of government data assemblage led by NDRC and PBoC, then the construction of market data assemblage led by Baihang Credit, and finally the cooperation between the “Government” and the “Market”.

¹⁹ The official document writes that the SCS aims to “push forward the information exchange and sharing between various governmental credit systems and gradually form a credit information network that covers all credit subjects of a range of industries in all regions nationwide...and encourage social credit rating bureaus to integrate the public governmental and non-governmental credit information in their system and provide service for the public” (State Council 2014).

Herein, “Government” refers to government departments, commissions, and ministries; “Market” refers to data agencies, financial institutions, commercial companies, and other private sectors. The original terms in official documents are kept to best clarify the whole system and avoid ambiguity for later studies.

2.4.3.1 “Government” data assemblage

To construct a comprehensive “Government” data assemblage, the SCS requires that financial data like tax and bank records and non-financial data like personal information, criminal/sanction records, travel records, and social media data be collected and aggregated by a range of government sectors²⁰, among which NDRC and PBoC are the two most significant nodes as they connect to most central agencies (Liang et al. 2018). When data are collected, they are aggregated by the central government. There are at least five national credit data platforms. The first is the Credit Reference Centre (CRC) established by PBoC in 2006 (see sub-chapter 5.5.1). The second is the Blacklist of Untrustworthy Persons Subject to Enforcement” (BUPSE) (since 2013) created by the Supreme People’s Court for persons who fail to fulfil its legal obligations sentenced by the court. The third is the National Enterprise Credit Information Publicity System (NECIP) (since 2014) established by State Administration of Market Regulation, which contains enterprise’s registration information, authorisation, annual report, administrative punishment, inspection results and irregular business activities. The fourth is Credit China, launched by NDRC, PBoC, and State Information Centre (SIC) in 2015, which presents official documents related to the SCS, laws and regulations, regional credit systems’ development, and personal credit information. The fifth is National Credit Information Sharing Platform (NCISP), established by NDRC and SIC in 2015, which shares and exchanges information about administrative authorisation and sanctions, Redlist and Blacklist with provincial credit information platforms (Liang et al. 2018). By January 2020, over 50 billion pieces of information had been aggregated on NCISP (Sina Finance 2020). NCISP emphasises data aggregation and evaluation, while Credit

²⁰ Government departments and agencies involved in the SCS include NDRC, PBoC, MIIT, Ministry of Transport, Ministry of Agriculture, Civil Aviation Administration of China, China Railways, National Health Commission, Cyberspace Administration of China, Ministry of Public Security and other ministries or commissions. Most of data collection tasks are given to economic and commercial bureaus and agencies, but other departments that are mainly responsible for political and social governance are also included, such as Ministry of Public Security and CAC (Liang et al. 2018).

China plays the role of publicising information. In addition to central platforms, all provinces and most cities have established their own local Credit China platforms and are sharing data with NCISP (Hubei Province Credit Information Centre 2019; see Appendix 1). It is expected that government agencies of various sectors nationwide will have access to all public credit information generated by their counterparts (Chen and Cheung 2017).

As an authoritarian state, the Chinese government has the unparalleled political power to push forward the construction of the data assemblages. To date, no specific law or regulation²¹ has been legislated to protect personal data and privacy on the Internet; thus, there is neither sufficient legal restraints on the governmental and commercial collection of data, nor domestic resistance (Chen et al. 2018). However, there are various obstacles that may impede the construction of the immense data assemblage, such as the conflicts between the interests of various government departments that are likely to hinder smooth data exchange (Creemers 2018); the intricacy needed to effectively construct meaning from data (ibid); and technical difficulties like insufficient data collection, data islands, and inconsistent quality of data collected (Ohlberg et al. 2017, p. 7). Therefore, the Chinese government does not have the capacity to engineer the technological systems of the SCS itself (Ohlberg et al. 2017; Liang et al. 2018). In order to implement the SCS, the government has been soliciting leading companies from the Internet and financial industries to construct the “Market” data assemblage parallel to the “Government” data assemblage.

2.4.3.2 “Market” data assemblage

The construction of the “Market” data assemblage is represented by Baihang Credit. Notably, the “Market” SCS does not equal to all the commercial credit scoring companies, but only those who have been approved by the PBoC. In 2015, the PBoC granted eight non-bank institutions a two-year trial a personal credit scoring service (Central Government 2015), including Sesame Credit of Ant Financial and Tencent Credit of Tencent, *Qian Hai Zheng Xin* of the insurance giant China Ping’An,

²¹ In China, privacy is a subsection of Right of Fame. Privacy will be taken into consideration only when a person’s reputation is violated. People’s Congress is formulating the Personal Information Protection Law at the moment (Xinhuanet 2020).

Koala Credit (*kaola zhengxin*) of Lakala Payment and Blue Focus, Pengyuan Credit by Shenzhen Municipal government, CCX Credit by China Chengxin Credit Rating Group (CCXI), Sinoway Credit, and Intellicredit. None of the institutions managed to obtain the permit from the government two years later because, according to PBoC, each institution only had a fragmented dataset and was unwilling to share information with their counterparts (People's Daily Online 2017; Chorzempa et al. 2018). Against this background, in early 2018, an overarching organisation that incorporated all the eight companies – Baihang Credit (*Baihang zhengxin*) – was established by the party-state. Baihang Credit is an example of the “Government+Market two-wheel drive” model (Zhu 2020), consisting of the government-led National Internet Finance Association²² (NIFA) and the eight commercial companies mentioned above. NIFA holds 36% of the share, and each of the eight commercial companies holds 8% of the share. By 30th June 2020, Baihang Credit had reached data-sharing negotiation with over one thousand financial agencies, covered 130 million individuals, and provided over 200 million individual credit reports and other services (Baihang Credit 2020). Another company that has similar component and mission is Pudao Credit, which is approved by PBoC by the end of 2020 (PBoC 2020b). There is little information about this new cooperation because it is still under preparation, but the biggest shareholder is a state-own company Beijing Financial Holdings Group (35%), supported by Jingdong (an e-commerce site; 25%), Xiaomi (an electronic company; 17.5%), Megvii (a technology company that designs image recognition and deep-learning software; 17.5%), and Juxinyouxiang company management (a financial company; 5%) (The Paper 2020). The establishment of Baihang Credit and Pudao Credit shows that data gathered by private companies for commercial use would be aggregated and repurposed for other uses such as state surveillance and citizen scoring. Besides, it also suggests that the Chinese government intend to keep tight leash on all the commercial credit scoring services on the “Market” by forming more public-private corporations in the future.

²² The National Internet Finance Association of China (NIFA) was established in 2016 jointly by People's Bank of China, the Ministry of Industry and Information Technology, and the Ministry of Public Security, and the SAIC, the CPC Central Committee and the State Council (NIFA 2016).

2.4.3.3 “Government + Market” cooperation

A few studies (e.g., Horsley 2018) argue that there is no clear official announcement or evidence suggesting Baihang Credit is part of the SCS, but the latest information in July 2020 shows that it has begun to share credit data with the PBoC, the leading constructor of the SCS (PBoC 2020a). One week after the CRC of PBoC and Baihang Credit signed the cooperation agreement, a group of Sesame Credit users noticed that their records on Huabei (Ant Credit Pay), a personal credit loan product on Sesame Credit, were linked to the CRC of PBoC (Beijing Daily 2020). As Sesame Credit incorporates online behaviours, shopping and networks in their scoring, the sharing of Sesame Credit data to PBoC means that users’ Internet data from private companies will be included in the governmental SCS. On this account, the boundaries between the state and commercial actors are blurred by the SCS (see also Creemers 2018; Liang et al. 2018). Moreover, the data sharing between Sesame Credit of Baihang Credit and the CRC of PBoC signifies the commencement of the “Government + Market” cooperation. To explain, Baihang Credit is the “Market” data assemblage comprising data primarily from private data agencies, financial institutions, Internet companies, commercial credit scoring bureaus in the “Market”; and PBoC is the central node of the “Government” data assemblage. Hence, this public announcement of linking Sesame Credit with PBoC proves that private Internet and data companies will play an increasingly significant role in the SCS and that Baihang Credit, as well as Pudao Credit, will be a significant node in the SCS.

Currently, Baihang Credit’s personal credit scoring does not replace existing commercial credit scores, nor can commercial credit scoring systems represent the governmental SCS or the financial model of the SCS because – although being aggregated in the CRC, the primary objective of a commercial credit score is still to serve the business interests of private companies, rather than to fulfil the socio-political objectives outlined by the SCS. Besides, commercial credit scoring systems like Sesame Credit, Tencent Credit and Sunshine Credit operate with their own algorithms and data, and the impact of each system is limited. On the other hand, the governmental SCS encompasses a wider range of aspects and data from various source, which cannot be represented by one commercial credit scoring system like Sesame Credit. Hence, this study recognises the interplay between

commercial credit systems and the governmental SCS but distinguishes them from one another. This stance is vital for the analysis and discussion in my research.

Other Internet and social media companies that do not operate personal credit scoring systems have been supporting the SCS in other ways (see sub-chapter 5.2.4). For example, CAC has promulgated a series of regulations demanding that ISPs set up credit rating systems to assess the creditability of public accounts²³, members in online group chats²⁴, online commentators²⁵, and provide differentiated services and supervisions accordingly (CAC 2017a, b, c). To conclude, Internet and social media companies, owing to their large user datasets, are vital for the giant assemblages of SCS. This section briefly sheds light on the intertwining of private data, Internet, and financial companies in the SCS. It is not the focus of my research, but the private-public partnership in data governance exemplified in the SCS is a crucial frontier for future research.

2.4.4 A sophisticated Joint Punishment Mechanism

The SCS is more than a giant data assemblage; it also entails the power to shape behaviours of individuals and organisations in ways that are compatible with the political goals of the CCP by devising a reward and punishment mechanism (State Council 2014, Section 5). Driven by this objective, in 2016, NDRC, SPC, PBoC, and more than 40 government departments and institutions signed a Memorandum on Implementing Joint Disciplinary Action on the Untrustworthy Persons subject to Enforcement (Memorandum for short) (SPC 2016), signifying the establishment of the Joint Punishment Mechanism (JPM). The principle of the JPM is “if untrustworthy conduct is done in one area, restrictions are imposed everywhere”²⁶ (一处失信，处处受限 *yichu shixin, chuchu shouxian*) (State Council 2014). The JPM is enforced on subjects who are on the SPC or ministerial blacklists of untrustworthy persons jointly by several government bureaus, financial institutions and public institutions following

²³ Article 6 of Regulations on Internet Users' Public Account Service (CAC 2017a).

²⁴ Article 8 of Regulations on Internet Group Service (CAC 2017b).

²⁵ Article 9 of Regulations on Internet Follow-up and Commentary Service (CAC 2017c).

²⁶ This principle can be traced back to 2007 when the State Council held a Joint-Ministerial Conference to construct the social credit system. At that time, the expression was “一处失信，寸步难行” (*yichu shixin, cunbu nanxing*) (State Council 2007), in English “if untrustworthy conduct is done in one area, it is difficult to make even one step”. The current slogan conveys the joint sanction clearer than the previous one.

certain procedures (see Appendix 1). By 1st October 2020, more than 605 million people have been listed on the “untrustworthy persons subject to enforcement” (SPC 2020).

Being on the Blacklist results in joint restrictions on political, economic, and social opportunities. Sanctions for the “untrustworthy persons subject to enforcement” include freezing the person’s Alipay account, synchronising the list with Sesame Credit, forbidding the person’s vehicles from using motorways, and forbidding the person from senior managerial positions at all companies in China. Internet and social media companies are helping to orchestrate sanctions and punishments (see also sub-chapter 5.2.4). E-commerce platforms of Alibaba Group assist the enforcement of JPM by blocking users that are on the government’s Blacklist from making luxury purchases on their platforms (Ahmed and Fong 2017; Chen et al. 2018). The Higher People’s Court of Hebei uses a mini-programme on WeChat to display deadbeat debtors within 500 metres of a user (Zhang 2019). Sanctions are imposed not only on the subject but also the subject’s family members as well (SPC 2016). For example, a lawyer blacklisted by the SPC was forbidden to purchase plane tickets, but his daughter, who was not involved in his business, was banned from private school due to his status (Wang 2017; Pettit 2018). This again shows the government and private cooperation. On the other hand, people who are categorised as honest and trustworthy persons will have the chance to be publicly praised and rewarded with access to the fast track at public services, lower fees or interest at banks, free entry to scenic spots, and other privileges and benefits at public and private sectors (e.g., Credit China 2020b). The rewards and privileges vary according to the administrative body of the specific SCSs.

There have been a few announcements about what kinds of behaviours will decrease the score and what behaviours will be rewarded, but the government only reveals a fraction of the criteria and rules. Although early media reports (e.g., Fullerton 2018; Hodge 2018; Jefferson 2018; Merriman 2018; Pettit 2018; Vincent 2018) have recounted good and bad behaviours (see Appendix 1) and the corresponding rewards and punishments, most of the information has been criticised to be inaccurate (see sub-chapter 2.4.6). Moreover, the governance boundary of the SCS is flexible and can be stretched to suit the needs of specific moments; in other

words, new criteria and aspects can be aggregated in the SCS. For example, NDRC announced that patients who resorted to violence towards medical staff during medical disputes would be listed on the blacklist of untrustworthy people and subject to punishment such as being banned from flights and trains (People's Daily Online 2018). During the Covid-19 pandemic in 2020, governments in Beijing, Hainan, and Qinghai required each person flying from abroad to Beijing to apply for a "Health Code"²⁷ on Alipay or WeChat. False reports or hiding information on the "Health Code" was recorded as bad behaviour in the person's credit score (Credit China 2020c). The SCS at national level uses a binary approach: being on or off the Blacklist (Creemers 2018); but various local pilot schemes have different approaches like using a sophisticated rating mechanism, as explained in the following sub-chapters. To date, no official list of good and bad behaviours has been announced to the public.

2.4.5 Pilot schemes

The 2014 Outline requests the local government to push forward the implementation of the SCS and cross-ministries collaboration (State Council 2014). In the following year, central ministries like the China Securities Regulatory Commission, Ministry of Commerce, Ministry of Finance, and the National Radio and Television Administration formulated regulations and plans for credit systems within their jurisdictions. At the local level, NDRC and PBoC have chosen 43 cities as the first group to construct the SCS. By August 2019, 28 cities were recognised as model cities (NDRC 2018; NDRC 2019). Several city-level personal credit score systems have been constructed as part of the local pilots, like the SCS in Rongcheng and Shanghai (explained below), "Guihua Score" in Suzhou city, "Huixin Score" in Hangzhou city, "Xichu Score" in Suqian city, "Moli Score" in Fuzhou city, and "Bailu Score" in Xiamen city (Huang et al. 2019; Zhang 2019) (see Appendix 2). However, by October 2020, no nation-wide personal credit score system has been constructed.

²⁷ In March 2020, when the Covid-19 pandemic has been controlled in China, the Chinese government began to lift lockdown bans in cities gradually. In order to track population migration, a "Health Code" mechanism is created for citizens to travel for work. Citizens can apply a "Health Code" through Alipay or WeChat by filling in an online survey about health status and past 14 days contact history with patients. The system assigns the citizens with one of the three codes – Code Red (quarantine for 14 days), or Code Yellow (quarantine for no more than 7 days), or Code Green (no quarantine needed) – based on their answers.

The SCS in Rongcheng city of Shandong Province is one of the best known and best examples of the municipal credit scoring system (Mistreanu 2018). In Rongcheng, residents, communities and social organisations are incorporated into the local SCS. Each subject has an initial score of 1,000 points that can be increased by good behaviours and decreased by bad behaviours. The Rongcheng government has listed around 150 bonus behaviours and more than 570 bad behaviours. Encouraged behaviour includes volunteer work and blood donation, whereas bad behaviours include illegal activities and immoral conducts. Citizens are graded from D to AAA based on their scores. AA or AAA-level citizens can have free access to social events or enjoy fast track at city council; whereas C or D-level citizens are blacklisted and will be punished in many domains (Zhao 2018). In Shanghai, the municipal government released the Honest Shanghai App in November 2016. Shanghai citizens are encouraged to sign up for the App using the ID number. The App uses facial recognition to retrieve data from 100+ government sources and almost 3,000 files on its databases to score citizens and classify them as excellent, good, or bad. The Shanghai government has collaborated with a range of industries and companies to provide high-scored citizens with benefits and privileges at libraries, airlines, insurance, car rental, and among other places. Other pilot SCSs have come up with some criteria and tips for increasing the scores, like doing charitable work in Jinan City, and bone marrow donation in Weifang City (Credit China 2020d). Local governments promulgate these pilot schemes following the central government's initiative, but they have tailored their design to suit the local situations. These local SCSs will provide valuable information for investigating the approach and implications of the SCS.

Most of the local pilot schemes ascribe a credit score to citizens, but no clear evidence shows that the SCSs “outside the local level aim to combine the various evaluations across domains to give individuals an overall social credit score” (Chorzempa et al. 2018, p. 2). Similarly, Creemers (2018) emphasises that the official Outline does not explicitly contain any trace of “quantitative scoring as an evaluation method” or “the sort of correlative big data analytics” (p. 13; see also Daum 2019). Nevertheless, many studies (e.g., Zhang et al. 2015; Meissner and Wübbecke 2016; Ohlberg et al. 2017; Liang et al. 2018; Backer 2018) interpret that

the SCS's aim is to construct a centralised rating system that is capable of real-time assessment with the delivery of rewards and punishment.

2.4.6 The SCS in 2020

By December 2020 – the self-imposed milestone of the first five-year Outline of the SCS – no integrated nationwide scoring system that encompasses all aspects for every individual had been implemented. Whether a national unified credit scoring system will be implemented and replace all local SCSs in the future is still unclear. The ongoing SCS involves “an extremely diverse range of decentralized, experimental, and fragmented programs across social, economic, and legal fields” (C. Zhang 2020, p. 566); thus, it is “more like a patchy network of regional pilots and experimental projects” (Wang 2019), or “a multitude of initiatives that have either private or governmental origins and are only loosely connected” (Asian Society 2018), which is far from the famous portrait of a comprehensive national system that determines a citizen's life with a single score. Judging from the latest collaboration between Baihang Credit and the PBoC in 2020, the central government is pushing forward a national level personal credit scoring system that aggregates both public and private data sources; meanwhile, local governments are implementing their own SCSs. Based on these, this study contends that the SCS will likely emerge in the form of an assemblage of national and ministerial SCSs, and local SCSs that incorporates public and private data. Although the SCS is far from being fully implemented, there are 35 laws and 42 administrative regulations about credit scoring at the national level, and nine provinces have promulgated regional regulations (Credit China 2020e). The draft of a foundational and comprehensive national Social Credit Law is under deliberation but had not been legislated by December 2020 (ibid).

2.4.7 (Mis)characterisations and evaluations of the SCS

As the SCS is heterogeneous and evolving in nature, it poses challenges to researchers – previous studies have conveyed divergent understandings of the SCS, mischaracterise or misrepresent it (Daum 2019; C. Zhang 2020). Much western media coverage (e.g., Nelson 2017; Botsman 2017; Bruney 2018; Deen 2018; Fullerton 2018; Jefferson 2018; Merriman 2018; Pettit 2018; Vincent 2018; Locker 2018; Hodge 2018) has portrayed the SCS as an omnipotent and dystopian

Orwellian tool of mass surveillance and digital dictatorship that uses new technologies like AI facial recognition, geo-tracking, and DNA to score citizens' trustworthiness based on all data. The list of good and bad behaviours concluded by these reports is argued to be inaccurate and misleading (Chorzempa 2018; Creemers 2018; Horsley 2018). Several factors contribute to the mischaracterisation. First, these reports mistakenly classify Sesame Credit as the commercial pilot of the governmental SCS and transplanted the former's features to the SCS. Second, there is a language and cultural barrier that makes it difficult for foreign journalists to conduct extensive background research and fact-checking. The third reason concerns the political economy of news production and news values, which is beyond the scope of this study.

A few studies have attempted to assess the SCS from various perspective. Meissner and Wübbecke (2016) conclude that the SCS uses a subtle and invisible governance approach that embeds political goals in the algorithms to enhance central authority and control; hence, the focus and forms of governance shift from "law and regulation to metrics and algorithm" (Backer 2018, p. 9). The seemingly natural and objective algorithms are infused with the ideology of the CCP, which has the ultimate power to decide what are good and bad behaviours. Consequently, citizens' ideological loyalty is presumed to be a decisive factor for scoring their trustworthiness in the SCS (Meissner and Wübbecke 2016). Drawing on Foucauldian governmentality studies, Zhang (2020) identifies three modes of power in the assemblage of social credit governance. First, in terms of the laws and regulations promulgated to ensure compliance like the JPM, the SCS entails the exercise of "sovereign-judicial power" concerned with the enforcement of law. Second, the SCS has the governmental power that uses techniques like data sharing and management, standardisation, and quantification, and the problematisation of trustworthiness to regulate and optimise the conduct of corporates, citizens, and government agencies. Third, the SCS also operates with "disciplinary-pastoral" (ibid, p. 574) power to shape individual subjects into a civilised and morally good members of society, which is exercised through techniques like public campaigning, public shame, and praise on the Black/Red lists, scoring, ranking, incentives and discipline, as well as through "a discourse of morality and *chengxin* education" (ibid, p. 574; original italics). By referencing

pastoral, Zhang (2020) highlights the role of the SCS as being to “promote the well-being of its subjects” (ibid, p. 574).

In addition to Zhang’s (2020), Engelmann et al.’s (2019) study shows that the disciplinary power of the SCS can also be achieved by the asymmetrical disclosure of information. In addition to the lack of a verified list of good and bad behaviours for the SCS, Engelmann et al. (2019) observe that behaviours and sanctions of the blacklisted persons are described in detail. In contrast, the descriptions of rewarding behaviours are obscure, leaving the public no lucidity to contest the decision-making process. This asymmetric disclosure is carefully designed to achieve “particular behavioural engineering goals” (Engelmann et al. 2019, p. 69). A partially transparent criteria leaves people oblivious and cannot contest the decision-making process as there is not enough information. While a fully disclosed criteria will result in less norm-guided behaviours as extrinsic motivation will transform such behaviours into commodity that can be bought, which leads to “crowding-out effect”, a phenomenon where fewer people would comply to the moral code as the consequences can be compensated by financial means (Engelmann et al. 2019, pp. 77-78). In order to reinforce the behavioural engineering power of the SCS, the government incorporates the SCS with gamification features like scoring and JPM to seduce or coerce people to engage in the SCS and change their behaviours (Ramadan 2018), creating a form of “gamified obedience” (Botsman 2017). The enforcement power of JPM lies in its extrinsic punishments and incentives, which are criticised for “disproportionate sanctions” (Chen et al. 2018, p. 3; Creemers 2018, p. 13) because penalties are allocated in arbitrary and unaccountable manner (Wang 2017). The unjustified and disproportionate sanctions, the moral-attached labelling, and the vague description of the rules of the JPM enable the government to expand its control over people’s behaviours beyond the existing legal framework, which eventually undermine the “rule of law” (Chen et al. 2018, p. 3). Furthermore, as most of the Blacklists are available online to the public, private companies are eager to access to and instrumentalise these lists, without authorisation from the subjects in advance (Chen and Cheung 2017), giving rise to more profound issues of privacy violation and social injustice.

The SCS's impact is not only demonstrated by its behavioural engineering power but also prevails in its potential to mobilise citizens to monitor and police each other. A study by Freedom House shows concern that the SCS will incentivise citizens to act as "enforcers for the authoritarian party-state and help to repress their own compatriots" (Cook 2019). Citizens are rewarded by activities like consuming and sharing online articles of "Xi Jinping Thoughts", informing on defaulters (in Hebei's provincial pilot scheme), and reporting harassment or untrue information on Weibo (Cook 2019); on the other hand, people are collectively punished if they are family members of the blacklisted. Subsequently, people are likely to internalise the requirements of the SCS and "subconsciously police each other" (Lee 2019, p. 364), unfriend and distance themselves from members with low scores (Ramadan 2018), and forge a public opinion environment where trust-keeping is glorified, and trust-breaking is shameful. Cook (2019) cautions that the encouragement and incentivisation of peer informing are "reminiscent of the Cultural Revolution" that would undermine social trust, the problem that the SCS aims to address. Eventually, the unjustified social exclusion and discrimination shaped by SCS will create score-based social relations of "guanxi 2.0" (Ramadan 2018, p. 101), creating "a *de facto* lesser social class that is identified as an unwelcome group and walled off from many public spheres" (Chen et al. 2018). Besides, as an algorithmic data system, the perils of datafication and algorithms like discrimination, black-box operation, privacy violation, lack of due process, and ignorance of the contextual background are also innate parts of the SCS (Chen et al. 2018; Botsman 2017). In this context, Botsman (2017) predicts that a reputation black market where people can manipulate their credit scores will emerge.

From a more positive angle, the SCS can improve the trustworthiness, deter fraud, boost consumption, and build a healthy economy (Creemers 2018). For the government, the SCS acts as a laboratory for a reputation-based governance tool to reinforce citizens' morality compliance and achieve social engineering goals (Dai 2018, p. 13). The innate requirement of data sharing and cooperation between different government departments provides an opportunity to monitor the conducts of officials and lead to a more transparent government (Chorzempa et al. 2018). Besides, Grote and Bonomi (2018) claim that the SCS can serve as a cure to break depressing bonding social capitals and promote bridging social capital through

punishments and incentives. However, Hamrin (2016) points out that social capital emerges in a bottom-up manner, whereas the SCS is a top-down hierarchical system that is incapable of promoting bonds between communities.

To sum up, previous studies reach distinct conclusions about the implications of the SCS. Most media coverages and studies are pessimistic about the implications of the SCS, perceiving the SCS as a social control apparatus of the CCP to engineer citizens' behaviours, impose its ideology and values, and reinforce its authoritarian regime. On the other hand, a minority of studies recognise the positive potentials of the SCS being a cure to rebuild social trust and improve government efficiency and transparency. Building on previous sub-chapters of the governance practices, the broader environment of social media, and the SCS, this sub-chapter turns its focus to Chinese social media users and citizens, who are the main research subject of this study.

2.5 Chinese users in the context of Internet governance

This sub-chapter turns to users and discusses their awareness, knowledge, and interactions with social media, the SCS and Internet governance. I start with the demographics of Chinese users and their online behaviours based on the 2018 43rd CNNIC Statistic Report, which is to be consistent with the fieldwork period between December 2018 and April 2019 so that it can be used as a reference for my sample. Following that, I review previous studies on Chinese citizen's awareness and attitudes to the SCS, which is still an emerging research space where my first research question fits in. I then examine Chinese users' attitudes and interactions with online censorship, surveillance and governance based on previous studies, especially how users adjust their behaviours affected by these measures. During the review, I broaden the scope from micro-level impacts on users to the debate on the role of social media in the context of multi-layered evolving Internet governance in China. These discussions address this study's main theme of the interactions between social media, users and governance.

2.5.1 A sketch of Chinese social media users

By December 2018, Chinese Internet users have reached 829 million, taking up 59.6% of total population of China. Internet literacy has developed unevenly geographically as 73.3% of Internet users lived in urban areas, with 26.7% in rural areas (CNNIC 2018, p. 17). The main obstacles for non-users to use the Internet are the lack of necessary Internet skills and illiteracy. Nonetheless, owing to the drop in the price of mobile devices, the Internet has continued to penetrate people's lives and attract more users. By the end of 2018, 98.6% of Internet users were using the Internet from mobile devices (CNNIC 2018, p. 17).

Regarding the ages of Internet users, by December 2018, 67.8% were from the 10-39 age group. People between 20-29 years old were the largest group of Internet users, making up 26.8% of total. Middle-aged (30-39) Internet users have gradually increased and ranked the second, making up 23.5% of total users. 17.5% of users were teenagers aged 10-19 years old. Internet users aged 40-49 constituted 15.6%, and 12.5% of users were over 50 years old. Just 4.1% of users were under 10 years old (CNNIC 2018, pp. 21). The proportion of female to male users was consistent with the gender ratio in China, around 1:1, with slightly more males than females (CNNIC 2018, p. 21).

In terms of education level, 18.2% of users had primary school-equivalent education or lower; 38.7% were middle school-level graduates; 24.5% were high school graduates; 8.7% of users were junior college graduates; and 9.9% had a bachelor's degree or higher (CNNIC 2018, p. 22). Thus, the majority of Chinese Internet users had a medium level of education by December 2018. Regarding users' professions, students were the largest group, accounting for 25.4% of total users. Freelancers/self-employed made up 20% of users; 12.9% were company management and employees; 8.8% were unemployed; 7.8% were workers in agricultural, forestry, animal husbandry and fishery industries. Users who were professional technical staff, workers at manufacturing enterprises, and business service staff respectively made up 5.2% of total users, while 4.1% were retired, 3.9% were rural migrant workers, and 2.8% of users worked at CCP or governmental departments (CNNIC 2018, p. 22). In terms of personal income, by the end of 2018, 39.3% of Chinese Internet users had a monthly income below CNY2,000; around one third (36.7%) of

Internet users had a monthly income between CNY 2,001-5,000; and 24.1% of users earned more than CNY5,000 per month (CNNIC 2018, p. 24). Compared to the per capita disposable income of Chinese residents in 2018, which was CNY 28,228 annually, or CNY 2,352.3 monthly, it is fair to conclude that a considerable percentage of Internet users in China were from an average income group.

Since most Internet users were mobile Internet users, they had more flexibility in terms of time and space, which led to longer hours on the Internet. In 2018, the time that users spent online was an average of 27.6 hours per week, or 3.9 hours per day (CNNIC 2018, p. 13). The Internet has profoundly penetrated various aspects of people's daily lives. Users primarily used the Internet for features like instant messaging, search engines, news, videos, and shopping, respectively accessed by 95.6%, 82.2%, 81.4%, 73.9%, and 73.6% of total users (CNNIC 2018, p. 24). In addition, 72.5% of users used online payment platforms; 69.5% used the Internet for music; 58.4% played online games; 52.1% stayed online for novels and other works of literature; 50.7% used online banking services; 49.5% made reservations for travels and holidays online; 49% used online food delivery services; 47.9% used online live streaming features; 40.2% used online car-hailing services; and 24.3% of users used online education services. These statistics show that entertainment, social networking, news and information, and online payment were the primary purposes for Chinese users on the Internet. Additionally, as various levels of government sectors have been launching their websites and public service features on social media, 47.5% of users also used e-government services (CNNIC 2019).

To sum up, the majority of Chinese Internet users by the end of 2018 used mobile devices, lived in urban areas, were aged between 20 and 39, had a medium level of education, and received an average income. The Internet and social media were used for social networking, entertainment, information and news, and payment and consumption – indicating that Internet applications have become an inseparable part of the lives of more than half of China's population. Since users are increasing their engagement on the Internet for various kinds of activities, they leave behind a more comprehensive digital trails and data that can be collected and analysed to reveal their lifestyles and habits to corporations and the government. In other words, their social media uses are used for governance and economic purposes.

2.5.2 Public awareness and attitudes towards the SCS

A few investigative reports and empirical studies have examined public awareness and attitudes of the SCS. ABC News states that none of the people that they interviewed in Shanghai was aware of the local SCS launched in 2016 (Zhou and Xiao 2020). Bloomberg (2019) finds that Suzhou's Osmanthus Credit System was rarely heard of by residents, whereas Sesame Credit is widely used. People's little awareness of the governmental SCS is presumed to be primarily influenced by the government's deliberate suppress of information, which can be seen from the fact that there are little public campaigns of the SCS (Bloomberg 2019). As for university students, all 30 university students in Nopparuth and Fabrice's (2019) study knew Sesame Credit, and 26 out of 30 of them were aware of the SCS, whereas 30% of Chinese university students in Rieger et al.'s (2020) study were unaware of the governmental SCS.

Regarding people's general attitudes to the SCS, a report by Foreign Policy finds that the local piloting SCS in Rongcheng are embraced by residents (Mistreanu 2018). It notes that even if residents have doubts, they do not voice them, so dissents and complaints are "exception" (ibid). Hence, the report predicts that this wide acceptance and embrace are likely to continue nationwide (Mistreanu 2018). Kostka (2019) discovers that 80% of respondents hold a positive attitude towards the SCSs. Notably, in her study, both commercial credit systems like Sesame Credit and governmental credit systems are categorised as SCSs. The approval for governmental SCSs (64%) is higher than commercial SCSs (55%). Wealthier, better-educated, and urban residents and senior citizens are the strongest supporters for the SCSs in her study. Many respondents perceive the SCS as a facilitator to promote the trustworthiness and improve the quality of life, rather than a privacy breaker and a surveillance system (Kostka 2019). Similarly, the majority of university students in Nopparuth and Fabrice's (2019) study support the SCS for it can "improve the society's quality of life" (p. 171) and supervise "unscrupulous behaviour" (p. 170). Wang (2019) also finds that her interviewees have more positive perceptions of the SCS because they believe that quantified credit score can regulate both "unethical" deeds like fraud and scams and "uncivilised" activities like playing videos loud in public.

The approval rate of the SCS among university students in Rieger et al.'s (2020) study is lower than the above studies but still set between 41% and 57%. They deduce that the collectivism culture in China and concerns about anti-social behaviours and criminality contribute to students' approval of the SCS. Moreover, their study finds that when the researchers inform participants who were unaware of the SCS of neutral information of the SCS, their attitudes change from positive to negative (Rieger et al. 2020). This finding combining with Lee's (2019) finding that keywords like "social credit system" are censored and banned on Baidu BBS lead to the hypothesis that people's approval of the SCS may be due to the censorship and selective media coverage (Rieger et al. 2020; Kostka 2019).

Some of the studies also discussed Chinese people's concerns over the SCS. For example, when users noticed that their Huabei of Sesame Credit is shared with PBoC as mentioned in sub-chapter 4.3.3, a few of them even considered giving up Huabei to avoid negative implications for their credit record at PBoC (Beijing Daily 2020). A few residents in Suzhou worry the system may worsen the inequality in China because people from lower social level would break the rules without knowing it and get punished (Bloomberg 2019). Studies (Mistreanu 2018; Bloomberg 2019; Rieger et al. 2020) also find that the SCS is likely to induce fear in citizens because they would be under surveillance at all times. Some participants in Rieger et al.'s (2020) study are concern about privacy violation, but a few studies (Farrall 2008; McDougall and Hansson 2002) argue that Chinese citizens usually lack privacy concerns due to historical and cultural reasons. Besides indifference to privacy, Kostka's (2019) study reveals that Chinese people believe the government data collection is inevitable. A number of studies (Zhang et al. 2015; Lv and Luo 2018; Wang 2019; Kostka 2019) find that Chinese people are willing to give up some privacy for a higher degree of security and trust.

In the context of a public-private collaborated SCS and the proliferation of commercial credit scoring systems, people's attitudes and trusts in private and public credit rating systems respectively arise as a critical aspect for investigating public opinions of the SCS. Compared to government social credit ratings, private companies, regardless of the size, are in a weak position in terms of public trust

(Wang and Yu 2015; Ohlberg et al. 2017). The contrast between the public's attitudes towards government data collection and private data collection, as reckoned by Ohlberg et al. (2017), might be due to the fact that people are unaware of the government SCS but more familiar with commercial credit scoring systems. Besides, mainstream news coverages in China, which have a profound influence in guiding and shaping public's opinions, are criticising private companies for accessing too much personal information, whereas little criticism is related to the pervasive data collection by the government (Chen et al. 2018; Kostka 2019). These factors combined lead to more trust in governmental SCS. Nevertheless, respondents in Rieger et al.'s (2020) study were more concerned about government surveillance than sharing data with private companies. The discrepant findings suggest the need for further investigation in people's trust in the SCS. The following sub-chapter will look at user reactions to broader online governance and scholarly discussion of the implications for social media.

2.5.3 User interactions with Internet governance and implications for social media

The majority of users in China, as discovered by Wang and Mark (2015), are aware of and have personally experienced Internet censorship. To cope with online censorship, users have to either find ways to circumvent censorship or censor themselves (Zhong et al. 2017). The WeChatscope (2019) project analyses the impact of censorship on WeChat public accounts in 2018 and finds that 8,092 of the censored content (more than 11,000 articles) were deleted by publishers themselves, 2,950 were removed by WeChat administrators, and 206 were taken down due to other users' report. Their findings demonstrate the intensification of self-censorship²⁸ affected by the increasingly stringent controls, which, inferred by Feng and Guo (2013), is the real objective of the complex Internet censorship programme. The government's continuous promulgation of Internet regulations is likely to normalise self-censorship and self-regulation among users (Guo and Jiang 2015; Feng and Guo 2013) and creates "a widespread climate of self-discipline" (Lu and

²⁸ Self-censorship can be in different forms: "Public self-censorship" by which an individual internalises rules and regulations (Cook and Heilmann 2013); "private self-censorship" by which an individual suppresses his/her attitudes even if there is no pressure from outside (ibid); "last-minute self-censorship" that conducted by a user before posts any content (Das and Kramer 2013); self-censorship among media organisation (Lee and Lin 2006; Lee and Chan 2009); and rejection to participate in public discussion or political activities (Zhong et al. 2017).

Zeng 2014, p. 57), which deteriorates the environment for freedom of online speech (Zhong et al. 2017). Therefore, critics contend that social media is more likely to be leveraged by the party-state as a powerful technological architecture for surveillance and a tool to strengthen political control, which impairs citizens' ability to participate in political affairs (e.g., Kalathil & Boas 2003; Wang and Hong 2010; Morozov 2011; MacKinnon 2011).

As for online civic activities, Wang (2009) finds that Chinese users' participation online cannot be classified as democratic political activities, but state-sponsored activities driven by grassroots nationalism. The promotion of cyber nationalism is instrumental in creating "a relatively free cyberspace to nevertheless remain firmly under regime control" (Karatzogianni and Robinson 2014, p. 30). Due to the government's curtailment on collective actions, online activism and protests that censure government's wrongdoings – termed by the party-state as "Internet mass incidents" (Yang 2017) – largely fail to achieve collective goals in China (Lu and Zeng 2014; Xie 2014; Yang 2017). Besides, public discourses on the Chinese Internet are found to be entertainment oriented (Morozov 2008; Wang 2014; Gao 2017). Therefore, social media in China is argued to facilitate merely a superficial impression of a free and open platform but in fact remain "constrained public space" (Guo and Jiang 2015, p. 104), which has limited value as a medium for organised free speech and citizen journalism (Xin 2010; Hu 2011; L. Guo 2014), or a catalyst for the opposition or protest (Karatzogianni and Robinson 2014).

On the other hand, optimistic scholars (e.g., Zheng and Wu 2005; X. Zhou 2009; Ye et al. 2016; Xie et al. 2017) believe that despite stringent control and censorship, the Internet and social media in China still enable users to keep up with instantaneous events, form virtual communities, discuss political issues, expose misconduct of government officials, participate in communication processes during public emergent events, and facilitate higher levels of civic engagement. For example, in a series of his early works Guobin Yang (2003, 2005, 2009) suggests that the Internet engenders an online public sphere in China for individuals and groups to participate in organised protests. A few studies also argue that despite stringent control and censorship, Chinese Internet users still actively participate on the Internet. For example, M. Jiang (2010a) finds that civic-minded users have actively participated in

political deliberation using sarcasm and parody on the Internet. Sullivan (2012) argues that the majority of Chinese social media users are active “initiators” and “commenters” (p. 774) who like to voice their views and interact with other people. Users do not seem to be afraid to post about sensitive and collective events (Qin et al. 2017). Moreover, Zhong et al. (2017) find that suppressed users tend to adopt tactics to circumvent censorship, such as using “digital hidden transcript²⁹” (Yang 2009), or linguistic adaptations like sarcasm, metaphors, humour to express subversions in an indirect way (Clothey et al. 2015).

Moreover, Wu and Wall (2019) find that WeChat merges public, semi-public, and private communicative spheres into a “single, multiversal communicative space” in which both “content producing and metavoicing³⁰” citizen journalism exists (p. 47). The metavoicing affordances blur the divide between being a producer and a consumer on WeChat, and the users are offered alternative perspectives on news information (Wu and Wall 2019). However, they also note that communicative networks in the multiverse on WeChat enable peer-monitoring, resulting in a riskier environment for citizen journalism (ibid). Nonetheless, various successful incidents in China, in which citizens have used the Internet to protest and claim rights (e.g., Tang 2013), prove that citizen journalism and activism still survive on Chinese social media. These findings suggest that there is still space for liberating contestation against government controls and restrictions on Chinese social media. Thus, many scholars (M. Yang 2009; Hu et al. 2015; Shi and Yang 2016; Svensson 2016; Y. Wu 2007; M. Guo 2018) presume that the Internet in China is likely to promote deliberative democracy and become a contested force in Chinese politics that can potentially impair the ideological control of the CCP. Even though democracy has not been achieved in this authoritarian country, public deliberation may still flourish as a precursor of democratic political participation and better governance (M, Jiang 2010, p. 16).

²⁹ According to Scott (1990), people who are oppressed or marginalised by authority have a public transcript and hidden transcript, respectively referring to people’s speech, behaviour and actions in public settings and privately. In public, it is in the interest of the oppressed people to behave in a manner that is expected of them, while in private settings in which people believe they are beyond the surveillance of the authority, their hidden transcript usually contradicts with their public transcript. The hidden transcript is “the privileged site for non-hegemonic dissident subversive discourse” when direct subversion is too dangerous (Scott 1990, p. 25).

³⁰ Metavoicing is defined by Majchrzak et al. (2013) as engaging “in the ongoing online knowledge conversation by reacting online to others’ presence, profiles, content and activities” (p. 41).

Nonetheless, the democratic and liberating potential of the Chinese Internet is largely affected by state controls (e.g., Zheng 2007; Y. Jiang 2014; Rauchfleisch and Schäfer 2014; Svensson 2014). He and Warren (2011) perceive that public deliberation on Chinese Internet takes the form of “authoritarian deliberation”, a free civic and political discourse but only within the boundaries set by the party-state (p. 269; see also He 2006). They predict two outcomes for authoritarian deliberation: one that generates the “legitimacy” (p. 282) of the CCP and stabilises the rule of the government; the other that eventually gives rise to democratisation (p. 269). As the Chinese government has incorporated social media into its public opinion-shaping mechanisms (Svensson 2014), the Internet in China consists of interrelated spaces “embodying multiple dialectics of government control and citizen participation” (M. Jiang 2010a, p. 15). Chinese social media gives rise to multiple “fragmentised public spheres” in which there are ongoing tensions between “participatory democracy, journalism transformation and governmental authority” (Shao and Wang 2017, p. 694).

Least but not last, it is arbitrary to conclude that Chinese users are against online censorship and surveillance. In fact, they have diversified perceptions of government’s role in cyberspace: some argue that it is the government’s responsibility to supervise and control unrestrained online speech, while others criticise the government for suppressing free online expression (Zhong et al. 2017). Early studies (e.g., McDougall and Hansson 2002; Farrall 2008) suggest that Chinese citizens lack privacy concerns for historical and cultural reasons. Chinese users’ decision to disclose personal information is argued to be closely related to user perception of benefits rather than privacy (Zhang et al. 2015; Lv and Luo 2018). Guo and Feng (2011) predict that public resentment towards information control not only exists but is likely to increase in the coming years, whereas Wang and Mark (2015) anticipate that eventually, users will accept censorship as a regular accompaniment to Internet use. Despite different projections about public attitudes towards Internet governance, a number of studies (e.g., Guo 2007; Chen and Dickson 2008; Guo and Feng 2011; Dong 2012; Karatzogianni and Robinson 2014; Wang and Mark 2015) find that the majority of Chinese users trust the government and are relatively comfortable with online censorship and surveillance. The

collectivism in Chinese culture seems to relieve users' anxiety about control and surveillance on the Internet as such measures are exerted on everyone (Zhong et al. 2017). Thus, Chinese user attitudes and reactions to cyber governance and the subsequent implications need to be examined more closely.

2.6 Conclusion

Major social media in China have transformed into a multifaceted digital ecosystem that enables users to move various aspects of lives online. They operate under the multifaceted and multi-layered cyberspace governance that aims to censor and control online information, monitor user behaviours, and supervise platform operations. These measures address different dimensions and stakeholders of social media but co-jointly constitute the sophisticated Internet governance matrix. Both regulatory measures and soft techniques like morality are adopted by the party-state to induce citizens and commercial companies to conduct self-regulation and self-discipline. In the context of stringent cyber governance, social media companies are delegated to be the intermediary and implementor of these policies and regulations, which endows them with a trifold role as the service provider for users, the regulated subject by the government, and the regulator of online speech and information. This study looks particularly at two social media platforms – WeChat and Weibo. WeChat represents strong tie-based messaging and networking platforms, while Weibo weak tie-oriented content and information platforms. Addressing user interaction with both platforms can provide a more thorough understanding of the SCS's impact on user behaviour and social media.

The key policy of this research, the 2014-2020 SCS, is a citizen scoring system that incorporates various aspects of social life into a scoring system in the name of a moral-centric idea of “trustworthiness” (*Chengxin*). It uses a “Government+Market” data assemblage and a sophisticated cross-ministerial Joint Punishment Mechanism to reinforce its enforcement power. Internet companies have been solicited by the government to share data with the public sector through the intermediary of the government-led Baihang Credit and Pudao credit; to provide technical support; to reinforce various regulations and policies; and to allocate punishment and rewards by order of the courts. Several Internet conglomerates, taking advantage of their

access to massive user data, have launched their own commercial credit scoring systems like Sesame Credit by Alibaba, Sunshine Credit by Weibo, and Tencent Credit by Tencent. These commercial credit scoring systems have their own criteria and algorithms and are not substitutes for the commercial model of the governmental SCS, but they can offer valuable insights for understanding how citizen scoring systems can affect people's lives.

The public-private partnership in Internet governance and the SCS has a profound impact on Chinese people's lives as their online activities will have broader impacts on their life opportunities. The majority of western research and media hold a pessimistic outlook and perceives the SCS as an apparatus of social control for the CCP to engineer citizen behaviour, impose its ideology and values, and reinforce the authoritarian regime. A minority of studies recognise the positive potentials of the SCS as a cure for rebuilding social trust. Existing studies have found that the general public has limited awareness of the governmental SCS, yet more expressed positive perceptions of the SCS. As the SCS has been evolving continuously, people's attitudes may shift due to factors like the balance of rewards and punishments, the transparency of the algorithms, the fairness of the scoring, and government propaganda. Similarly, previous studies have drawn different conclusions of users' attitudes and reactions to existing cyber governance. Users, in the context of pervasive online governance practices and controls, have been discovered by a few studies to self-censor and self-discipline their behaviours, resulting in negative consequences for the participatory and liberating role of social media. However, a number of studies have detected traces of contestation against censorship and surveillance. Optimists argue that social media enable users to keep up with instantaneous events, form virtual communities, discuss political issues, expose misconduct of government officials, participate in public events, and facilitate higher levels of civic engagement. As seen from this debate, user interaction with the SCS and online governance and the subsequent implications for social media need to be examined more closely.

Chapter 3. Literature review

3.1 Introduction

This chapter positions my research in the broader academic fields of social media studies, surveillance studies, critical data studies, political studies and establishes the theoretical framework for this thesis. This research aims to investigate how the SCS may affect user behaviours and the implications for the future of social media in China, which speaks to the main theme of the interaction between governance, users and social media. It contains two sub-themes at different levels: the macro-level of social media and governance, and the micro-level of user interactions with them. The first three sub-chapters (3.2, 3.3 and 3.4) presents several key theories that help to understand how digital life is governed at the macro level. It starts with a brief overview of social networking and participation, as these are the key affordances of social media, then discusses the business model that is rooted in surveillance and data collection. In a datafied society, surveillance and data collection are not only the core of digital business but also at the centre of state governance. Thus, the following two sub-chapters respectively examine concepts/theories in surveillance studies and critical data studies to discuss the interactions between social media, datafication and surveillance.

Following the same thematic structure, the next three sub-chapters (3.5, 3.6 and 3.7) turn to the micro-level of user interaction with social media, surveillance and datafication. Both the agency-centric approach that highlights user power and the structuralist approach that focuses more on the influence of structures are presented to illustrate the dynamics of the power relations between user, governance and social media. Sub-chapter 3.5 discusses how online agency, such as online presentation, participatory culture, deliberation and activism, is facilitated by social media as well as limited by state and platform restrictions. Sub-chapter 3.6 illustrates two types of user interactions with social media surveillance: one that highlights the possibility of using it for self-empowerment and subverting the top-down surveillance; the other that describes passive acceptance and self-discipline combined with feelings of disempowerment and resignation in face of pervasive surveillance. Sub-chapter 3.7 probes user awareness, experiences and interaction with datafication and algorithms based on a group of empirical studies, the findings of which point to different conclusions. Then, I bring in self-quantification, which is an emerging but

important behaviour that users may perform during their interaction with data analytics in a datafied society. This review establishes academic grounds for my research and are helpful for unpacking users' knowledge, perspectives and interactions with the SCS.

Sub-chapter 3.8 integrates the key concepts and theories mentioned in previous parts into a tighter framework consisting of the macro and micro sub-themes and uses governmentality and digital citizenship as two umbrella theories to connect the two themes and address the main research question. I also illustrate how other concepts feed into these two theories and how they capture the main theme and help to answer the research question. The last sub-chapter 3.9 concludes the key issues and identifies the research gap for the next chapter.

3.2 Social media: key elements and business model

Social media, since its advent, has attracted enthusiastic claim of being a participatory and networking platform for users. Social media is coined by Kaplan and Haenlein (2010) as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content (UGC)” (p. 61). Two concepts are foregrounded in this definition: Web 2.0 and UGC. Web 2.0 is a platform “whereby content and applications...are continuously modified by all users in a participatory and collaborative fashion” (O’Reilly 2005). User participation (O’Reilly 2006), or “the power of the crowd” (Anderson 2007, p. 6), is the core of Web 2.0 business. In O’Reilly’s (2006) view, the quality of participation increases with the number of participants and vice versa. Thus, the key to more profit is to lower the threshold of participation (O’Reilly 2005) and to construct the “architecture of participation” that allows “the efficient generation, dissemination, sharing and editing/refining of informational content” (Constantinides and Fountain 2008, pp. 232-233). In 2006, TIME magazine declared the “Person of the Year” as “YOU” to acknowledge millions of productive users making contributions on Web 2.0 (Grossman 2006).

The other concept for understanding social media is UGC, which refers to the content created by “active Internet contributors, who put in a certain amount of

creative effort which is created outside of professional routines and platforms” (Van Dijck 2009, p. 41). It is valued as the “lifeblood” and “fuel” of social media (Obar and Wildman 2015, p. 746). As users continuously create, collaborate, share and consume UGC, the role of users transforms from consumers and audiences to “prosumers”, a mix of producers and consumers (Ritzer and Jurgenson 2010, p. 13). Thus, social media has facilitated the reintegration of production and consumption by breaking the barrier between the two (Jenkins 2008) and empowers users with the ability to produce content collaboratively. The shift in users’ role and the emergent participatory feature have generated studies on how it manifests itself in practices such as participatory culture, digital citizenship and online activism, which are discussed in sub-chapter 3.5 on user interaction with social media.

In addition to participation, social media is also a “techno-social system” (Fuchs 2014, p. 47) that supports various levels of social interaction from cognition, communication and cooperation. Three concepts help understand diverse social interactions and sociality on social media. First, Emile Durkheim (1982) perceives sociality as the social fact, “...having an existence of its own, independent of its individual manifestations” (p. 59). From his perspective, all media and social software are inherently social because they are products of the social process. Second, for Max Weber (1978), social activity distinguishes from individual activity in the way that the actor’s social behaviour “is meaningfully oriented to that of others” (p. 22), thus only digital apparatus that enables meaningful human interactions are social media. Third, the Marxism notion contends that sociality is constructed when labourers work together to produce goods that satisfy human needs and share the ownership; thus, cooperation is the foundation for society (Hofkirchner 2013). Durkheim’s, Weber’s and Marx’s notions of sociality respectively speak to the three-tier hierarchical and “mutually conditioned” process of cognition, communication and cooperation in human interaction (Hofkirchner 2013, p. 186). Building on this, Fuchs (2014) argues that social media platforms are social for they facilitate at least one of the social processes. When individuals conduct social behaviours on social media, they “traverse from the state of individuality to that of sociality and fellowship” (Papacharissi 2011, p. 316).

Social media, despite the unique technological affordances on each platform, is argued to strengthen both strong relational ties and create weak relational ties at the same time (Benkler 2006; Ellison et al. 2007). Relational ties are an important element in social networks³¹(Wasserman and Faust 1994, pp. 17-21). Weak relational ties between less close acquaintances can establish connections to other networks and generate important network resources to bridge social capitals (Granovetter 1973; Wellman 2001). Thus, owing to its potential to generate weak social ties, social media is celebrated to create new social connection. At the individual level, Castells (2001) foresees that social media will contribute to individualised person-to-person networks coined as “networked individualism”, which perceives people as communication nodes that connect directly to other people based on preferences, skills, knowledge, and background. At the community level, Rheingold (1993) anticipates that the Internet and new media will eventually give rise to a new social aggregation – virtual community: an open, flexible, decentralised and democratic alliance which is formed based on “shared social practices and interests” (ibid, p. 237). These concepts explain the fundamental question of what is social about social media and how social networks and sociality are facilitated on social media. It lays out several key elements of social media that are key for analysing online agency: participation and social networking.

Social media is not just a socio-technological platform that facilitates user participation and networking; it is fused with the economic goals of commercial corporations and operates following a new type of business model coined as “platform capitalism” (Srniczek 2017). In the digital era, data becomes a new type of “raw material” for advanced capitalism and activities of users as the natural source of data (Srniczek 2017, p. 39). Platform capitalism as a new type of business model derives from monopolising, extracting, analysing and using data (ibid). Platforms are “digital infrastructures that enable two or more groups to interact” (ibid, p. 43). Internet companies and social media companies are a typical type of Srniczek’s platform – advertising platforms. The business model of this type of platform requires

³¹ “Actor” refers to the discrete unit of decision-making and action, which may be either individuals or various forms of organisation. “Relational ties” are the establishment of links between actors, ranging from kinship to other forms of communication. “Dyad” is the information or the contents that are used to establish a relational tie between two actors (Wasserman and Faust 1994, p. 17-21).

the extraction of big data and the constant monitoring and surveillance. User activities on social media are the natural source for data; hence, constant monitoring and surveillance over users is the standard practice of social media companies. Commercial social media platforms collect, store, analyse, and monitor users using cookies, data mining, clickstream analysis to segment “mass consumers into many categories of consumers” (Ogura 2006, p. 275) and deliver targeted advertisements (Fuchs 2012). Similarly, Zuboff (2015) notices this model from the perspective of surveillance and explains her notion of surveillance capitalism as the business model that depends on “the acquisition of user data as the raw material for proprietary analyses and algorithm production that could sell and target advertising through a unique auction model with ever more precision and success” (p. 79). Both notions subvert the established supply-demand mechanism of capitalism and propose a new logic of accumulation of which surveillance and big data are the fundamental components. Data analytics and surveillance can lead to real-time modification and intervention of behaviours and moods (Sandoval 2012; Andrejevic 2013; Zuboff 2015) and have increasingly been employed by both public and private sectors for governance and economic purposes. This generates new potentials for companies and governments but also undesirable consequences for individuals and society. Drawing from the above analysis, this study identifies surveillance studies and critical data studies as two important disciplines underpinning the governance practices embedded in the SCS.

3.3 Social media and surveillance

Users’ activities on social media leave behind data trails, which are collected and used by public sectors for surveillance and governance purposes. Surveillance is the “focused, systematic and routine attention to personal details for purposes of influence, management, protection or direction” (Lyon 2007, p. 14), which has been diffused in the mode of governance even before the Internet and social media. It is a vital process for the SCS to accomplish its objective of monitoring, analysing and regulating citizens’ behaviours. This section encapsulates a chronological review of the evolving approaches, objectives and implications of several key surveillance concepts from Foucault’s Panopticon to more contemporary technological-based

concepts, such as Deleuze's data doubles, Haggerty and Ericson's surveillant assemblage, and social media surveillance.

3.3.1 The Panopticon and disciplinary society

Despite the criticism of being unfit for understanding modern technological-driven surveillance practices (e.g., Poster 1990; Deleuze 1992), Foucault's (1975) Panopticon is still an architectural theory in surveillance studies and worth revisiting. Foucault (1975) develops his theory of Panopticon drawing upon the prison-Panopticon proposed by the British social reformer Jeremy Bentham³² (Bentham and Božovič 1995). Panoptic prison is a circular prison with a watchtower at its centre and individual cells on the periphery wall. Every inmate in a Panoptic prison knows they are watched because they can always see the watchtower, but they have no way to confirm when exactly they are watched because they will never "see a shadow" of the guardian (Foucault 1977, p. 201). In a Panopticon, "the inmate being aware of the gaze of the supervisor through signs of their presence" is more important than the actual presence of the supervisor (Simon 2005, p. 11). Thus, anyone can be the guardian in the watchtower, and inmates will automatically discipline their behaviours continuously as long as they are in "a state of conscious" (Foucault 1977, p. 201).

The structural design of the Panopticon employs Bentham's two principles of power: "visible" and "unverifiable" (Foucault 1977, p. 201), that is, power can and shall always be seen by the public without suggesting exactly when it will be exerted upon them. The visibility and asymmetric knowledge of power are fundamental for administrators to implement social governance in an automatic and de-individualised manner. In addition, subjects' rationality is a prerequisite for the Panopticon to be effective because the internalisation of the structural-deterministic Panopticon only develops on people who are aware of the gaze, and who are "willing and able to

³² Bentham proposes four Panopticon models – prison-Panopticon, pauper-Panopticon, chrestomatic-Panopticon, and constitutional-Panopticon (Bentham and Božovič 1995). The prison-Panopticon and pauper-Panopticon models dealt with the marginalised populations in a society, that is, the prisoners and the poor. The chrestomatic-Panopticon and constitutional-Panopticon were designed for the core populations of a society – the middle-class families and governors respectively. Bentham points out that in a constitutional-Panopticon, citizens can reverse the orthodox top-down gaze and watch over the governors during their working time to prevent misrule (Bentham and Božovič 1995). This can be seen as an early mention of synopticon.

internalise the imperatives” (Andrejevic 2017, p. 885), rather than on those “who are blind, ignorant, or irrational” (Simon 2005, p. 16). Therefore, the Panopticon’s disciplinary power relies on both the panoptic spectacles of the few watching the many and the synoptic spectacle of the many watching the few (Whitake 2010).

Foucault (1977) explains that discipline is “...a type of power, a modality for its exercise, comprising a whole set of instruments, techniques, procedures, levels of application, targets, it is a ‘physics’ or an ‘anatomy’ of power, a technology” (Foucault, p. 215). In a disciplinary society, habits, rituals and social norms are set in a specific way. The objective is to regulate, control and normalise people, instead of promoting individualisation. Power in a disciplinary society is dispersed to various institutions and hidden from the public. “Factories, school, barracks, hospitals” are analogues of the Panopticon that extend beyond prison (Foucault 1977, p. 228). These Panopticons can be used to carry out experiments “to alter behaviour, to train and correct individuals”, and to create “docile bodies” (Foucault 1997, p. 203). During the internalisation of discipline, individual behaviours are de-diversified, driving towards the normation of society (Foucault 1977).

3.3.2 Data doubles and surveillant assemblage

Foucault’s Panopticon is limited to the category of vision and direct body constraints. The Foucauldian notion of surveillance “fail(s) to directly engage contemporary developments in surveillance technology” (Haggerty and Ericson 2000, p. 607) and is “reified” (Haggerty 2006, p. 23) by scholars who are framed in this notion. However, modern digital technologies have transformed Panopticon into “a Superpanopticon, a system of surveillance without walls, windows, towers or guards” (Poster 1990, p. 93). Scholars (e.g., Deleuze 1992; Haggerty and Ericson 2000) in post-panopticon phase have demolished the frame of one-directional top-down Panopticon model and established conceptual framework for contemporary technological-based surveillance. Two theses have far-reaching impacts for further studies: the data double of human activities being the direct subject of surveillance; and surveillance as a multiplicity of various systems from a range of different social sectors and industries.

While Foucault identifies a shift of power from taking life or letting live to a form of bio-power that administers life by fostering or disallowing it, Deleuze (1992) observes another shift towards the control of access. He points out that Foucault's theory of Panopticon is set in "the organisation of vast spaces of enclosure" (ibid, p. 3) that is fixed in structure and seeks for long-term, stable and secure control, but people are entering societies of control in which power is exercised at a distance and through daily regimes to reform bodies and minds. In societies of control, institutions like factory, hospital, school and prison become deforming, transformative and changing corporations that use a new mode of constant and changing control, "modulation" (Deleuze 1992, p. 4), to achieve short-term results. Individuals are not seen by Deleuze (1992) as unities but entities of different roles and activities in society. Individuals' real bodies are no longer the primary subjects of surveillance; instead, data generated by different roles and activities, or the divided "dividuals", are the subjects under surveillance (Deleuze 1992, p. 5). Hence, surveillance in societies of control becomes more invisible and unperceivable to individuals and more abstract and numeric (Deleuze 1992). The goal of surveillance in a Deleuzian society is to mould people.

Built on Deleuze's work, Haggerty and Ericson (2000) propose that formerly discrete surveillance systems have converged into "surveillant assemblage" (p. 608) in the digital context that contains "a multiplicity of heterogeneous objects" that "work' together as a functional entity" (Haggerty and Ericson 2000, p. 608). Horizontally, surveillant assemblage can incorporate surveillance practices from a range of social sectors. Vertically, surveillant assemblage can challenge hierarchical top-down surveillance and enable bottom-up surveillance, but with limited power (Haggerty and Ericson 2000). Thus, instead of serving "a single coherent purpose, such as 'social control'" or discipline, surveillance assemblage can fulfil manifold purposes and be "enjoyable", "leisurely" and "empowering" (Haggerty 2006, p. 28). In surveillant assemblage, the human body is broken down and abstracted from its physical presence and re-assembled in different settings through a series of data flow. During this process, "data double" (Haggerty and Ericson 2000, p. 611), a hybrid of corporeality and technology that carries pure information of our interactions with digital devices, is created and becomes the subject of surveillance, which enables more refined and complicated monitoring of personal tastes, preferences,

habits and lifestyles. Many early studies (e.g., Clark 1988; Marx 2002; Graham and Wood 2003; Lyon 2003, 2010) have foreseen the emergence of data-driven surveillance, or dataveillance. Dataveillance does not need to follow the sequence of first identifying a suspect and then conducting surveillance; instead, it tends to indiscriminately collect as much data as possible of everyone, thus blurs previous boundaries between “mass” and “targeted” surveillance (Lyon 2007, p. 22).

3.3.3 Social media surveillance and social sorting

In the society of self-exposure and self-exhibition, surveillance has penetrated into every aspect of social life (Harcourt 2015) and is becoming a part of life (Lyon 2017). The broader trend of pervasive dataveillance has placed social media at the centre of contemporary surveillant assemblage. Trottier (2012) examines the surveillance practices on social media and classifies four types of surveillance: interpersonal surveillance, that is “people actively watching and being watched by family, friends and former lovers” (p. 30); institutional surveillance conducted by institutions to track, assist and control certain groups of people; market surveillance conducted by economic actors to analyse information about customers and increase profit; political surveillance conducted by police and authorities. On account of these diverse forms of surveillance on social media, Trottier (2012) argues that social media surveillance is characteristic of participation because it is conducted not merely by governments, institutions and companies but jointly actualised by users who seize the opportunity of social interactions and participation on social media. In addition, when users post, comment, like and follow other users on social media, their activities can be quantified into data and used for “platform capitalism” (Srnicsek 2017) and “social media-based intelligence gathering” by state intelligence and police investigation (Hintz 2016, p. 332; see also Kitchin 2014). Therefore, social media surveillance “facilitates participatory surveillance and online sociality” and also “enables data commodification and other types of large-scale scrutiny” (Trottier and Lyon 2011, p. 93).

The implications of social media surveillance extend beyond the monitoring and controlling of behaviours to influencing and shaping individuals’ lives in a profound way (Andrejevic 2012; Harcourt 2015; Lyon 2017). Drawing on Gandy’s (1993, p. 15) concept of the “panoptic sort”, that is, “a discriminatory technology that allocates

options and opportunities on the basis of those measures and the administrative models that they inform”, Lyon (2015) reasons that mass dataveillance is a predominant form of “social sorting”: “The surveillance system obtains personal and group data in order to classify people and populations according to varying criteria, to determine who should be targeted for special treatment, suspicion, eligibility, inclusion, access, and so on” (Lyon 2003, p. 20). In these systems, the population is classified into different groups according to varying criteria and assigned with different risks, suspicion, eligibility, inclusion, access and values. The core connotation in Gandy’s panoptic sort or Lyon’s social sorting is a discriminatory technology that privileges some while disadvantages others because the criteria is inherently discriminatory and biased. Similarly, Vagle (2016) argues that the “structural surveillance” that permeates the datafied society leads to social ordering, the implications of which include limiting economic and spatial mobility, affecting social and political opportunities and civic engagement. At the same time, such data-driven social sorting is marked by entrenched opacity. Hence, dataveillance systems give rise to concerns over “not merely a matter of personal privacy but of social justice” (Lyon 2003, p. 1; See also Monahan 2008; Dencik et al. 2019).

To conclude, surveillance is a paradox of risks and potentials for it serves two contrasting goals (Lyon 2011): it can be used either to care and empower citizenship or to control and deepen social inequality, but it is not “intrinsically anti-social or repressive” (Lyon 2001, p. 31). This is echoed by Haggarty’s (2006) argument that contemporary surveillance has multiple purposes and can be conducted in a bottom-up fashion that allows the less powerful agent to monitor the authorities. The Internet extends the scope of surveillance by the state and corporations, but also enables the watched to watch the watcher and reverse the power of surveillance by disseminating injustice or incompetence and creating public attention. This closely relates to how user interact with social media surveillance, which are examined in 3.6.

3.4 Social media and datafication

This section turns its focus to critical data studies which engage specifically with the recent development of big data and algorithm processes and how they shape the

society and individual subjectivity (Hintz et al. 2018, p.6). Big data is vital for this study because it is the subject of technological-based surveillance assemblage; the raw material of platform capitalism; and the fundamental element for the SCS to function. Instead of treating data as technological products, or objective representation of the reality, critical data studies examine data in its social, political, and cultural settings and explore the unique cultural, social, ethical, and critical challenges brought about by big data. This section first elucidates the definition and characteristics of big social data, then expounds the applications of data analytics in political and economic sectors, and finally discusses criticism and pitfalls of dataism, such as bias and discrimination, obscurity and coercion.

3.4.1 Big social data and data scoring

During the interactions with communication devices and digital sensors, human behaviours and many aspects of social life can be transformed into computerised big data, the capability and process of which is datafication (Mayer-Schönberger and Cukier 2013, p. 30). A comprehensive explication of big data, built on the works of Cohan (2012) and Andrejevic and Gates (2014), is that a combination of technology and process comprising a methodological technique which analyses the correlations and patterns of unstructured and structured data garnered from various sources using machine-learning algorithms to generate data-intensive-knowledge for various purposes. Among numerous sources of big data, social media is a primary “data mine” (Andrejevic 2012, p. 71). Olshannikova et al. (2017) synthesise a definition of Big Social data as “any high-volume, high-velocity, high-variety and/or highly semantic data that is generated from technology-mediated social interactions and actions in digital realm, and which can be collected and analysed to model social interactions and behaviour” (p. 11). Based on this, there are three types of Big Social Data: digital self-representation data from profile and self-published content; technology-mediated communication data from interactions and cooperation; digital relationship data like friend/followers list or implicit relational data unearthed from other data (ibid). The concept of big social data helps to clarify the features and types of user data, the nature of human engagement on social media, and the role of social media in contemporary communication and societal events (e.g., Mossberger et al. 2007; Burgess and Bruns 2012; Housley et al. 2014).

Big data systems are used for a wide range of purposes in the emerging datafied society. On one hand, big data can be used to make societies “more secure, safe, competitive, productive, efficient, transparent and accountable”; on the other hand, opens new possibilities to “monitor, discipline, repress, persuade, coerce, and exploit people” (Kitchin 2014, p. 165). For example, economic surveillance contributes to capital accumulation and consumers’ saving but also entails privacy violation and commodification of user data (Fuchs 2012; Andrejevic 2013; Zuboff 2015). In public sectors, governments conduct mass surveillance on citizens for security and protection, but it is highly likely to violate citizens’ privacy and freedom, as proved by the Snowden leaks that Programme PRISM of NSA and Tempora of GCHQ exploit social media data for mass indiscriminate surveillance over citizens without consent (e.g., Lyon 2015).

Amidst the co-existing positive potentials and harms, government and public institutions, driven by the zeal for harvesting valuable information from as much data as possible, have collaborated with prominent private data companies for dataveillance and data analytics (e.g., Hintz 2016; Dencik et al. 2017; Dencik et al. 2019). For instances, courts in a few US states consult data scores provided by private scoring companies like Northpointe as supplementary information for deciding defendants’ sentencing (Angwin et al. 2016). Several local governments in the UK solicit data companies like the global data broker Experian as suppliers of data analytics and demographic profiling tools (Big Brother Watch 2018; Dencik et al. 2019). Although authorities in different places and areas have different applications of big data analysis, they are deepening data sharing with various agencies, driving to build “data warehouse” to attain “the golden view” of citizens – “both additional and more integrated information about populations as well as more granular information about citizens that form the basis of prediction and can drive actions taken” (Dencik et al. 2019, pp. 11-12). This public-private partnership provides new opportunities for the government to perform more accurate risk assessment and social sorting of citizens and allocate services and resources accordingly.

Data analytics used in both public and private sectors usually involve data scoring: the use of big data algorithmic systems to score, rate, and sort users, consumers and citizens in various aspects of social life for various purposes. One of the most

common data scoring applications is probably the credit scoring in financial sectors, which has been carried out for over decades in western countries like the US and UK (e.g., Mackenzie 2014; Pasquale 2015). Traditionally, credit rating agencies score clients' financial responsibility and accountability based on their financial records (Marron 2007; Citron and Pasquale 2014). But they increasingly rely on a wider set of data from social and transaction records (McCann et al. 2018), such as how many financially secure networks a client has on social media, how long he/she spends on various websites and apps, and what activities he/she does online (Citron 2008).

Data scoring has extended from financial industry and private sectors to public sectors. Governments in many countries increasingly use big data analytics to conduct data-driving scoring over citizens, coined by Dencik et al. (2019) as "citizen scoring". It refers to

the typical practices of data analytics in public services to do with the categorisation and segmentation, and sometimes rating and ranking, of populations according to a variety of interoperable data sets, with the goal of allocating resources and services accordingly. (Dencik et al. 2019, p. 3)

Citizen scoring does not necessarily include the production of scores; it can be in the form of population-level analysis of general trends and connections, matching score for identification verification, threshold or ranking for risk assessment (Dencik et al. 2019, p. 12). For example, border controls in some places use data-driven profiling technologies to produce "terrorist credit score" to evaluate the threat of migrants and refugees (Crawford 2016). Social welfare services in the US use data analytics to determine a subject's eligibility (Eubanks 2018). Child welfare systems in countries like US, UK, and New Zealand use predictive risk analytics and scoring systems to estimate the likelihood of child abuse (Teixeira and Boyas 2017; Redden 2020). Police and juridical systems use big data-driven analytical software to determine suspects' prohibition and sentence (Big Brother Watch 2018). These data scoring systems are either operated locally or tackling specific areas, but the SCS in China stands out for its nationwide initiative that aims to encompass various aspects of social life.

3.4.2 Dataism and objectivity

Big data “triggers both utopian and dystopian rhetoric” (boyd and Crawford 2012, p. 662) and gives rise to a growing debate on its objectivity and accuracy. boyd and Crawford (2012) caution that the zeal for big data and datafication is not merely stemmed from technical development but also from the belief that big data has “the aura of truth, objectivity, and accuracy” (p. 663). Likewise, Van Dijck (2014, p. 198) detects an ideology of “dataism” that shows

characteristics of the widespread belief in the objective quantification and potential tracking of all kinds of behaviour and sociality through online media technologies. Besides, dataism also involves trust in the (institutional) agents that collect, interpret, and share (meta)data culled from social media, internet platforms and other communication technologies.

Dataism is problematic because it promotes data as “*imprints or symptoms* of people’s actual behaviour or mood” (Van Dijck 2014, p. 199, original emphasis) and assumes “a self-evident relationship between data and people, subsequently interpreting aggregated data to predict individual behaviour” (ibid, p. 199). For example, Twitter is perceived by many researchers as a site for statistical analysis on emotion and mood patterns (e.g., Golder and Macy 2011; Mayer-Schoenberger and Cukier 2013) and political movement (Lotan et al. 2011). The underlying issue speaks to the objectivity of big data, which is not only at the centre of dataism and datafication debate but has long been a core issue for sociology and the philosophy of science (e.g., Durkheim 1895).

Big data cannot present objective truth because of the following reasons. First, the subjective generation of semantic and contextual data (e.g., Crawford 2013; Van Dijck 2014) undercuts the objectivity of data analytics. Second, at the collection phase, data is collected only when it is “imagined” (Gitelman 2011, p. 7) as useful data based on algorithmic selection driven by subjective norms and standards of various organisation (e.g., MacCormick 2012; Van Dijck 2014). Besides, it is impossible to achieve “N=all”. Without a complete set of data, the acclaim for objectivity is just a mirage (e.g., Hildebrandt 2013; Kitchin 2014; Amoore and Poitukh 2015). Another predominant factor is the discriminatory and biased algorithms that are used to collect and analyse data (e.g., Van Dijck 2014; Kitchin 2017). Algorithms, as highlighted by various scholars (e.g., Bollier 2010; Gillespie 2016), are not neutral

because they are products of subjective human doing designed to fulfil broader social endeavours, be it “to create value and capital; to nudge behaviour and structure preferences in a certain way; and to identify, sort and classify people” (Kitchin 2017, p. 18). Human values like “pre-existing knowledge, intelligence and broader societal understandings of events” (Dencik et al. 2017, p. 13), gender bias³³ (e.g., Bolukbasi et al. 2016), racial discrimination³⁴ (e.g., Angwin et al. 2016), and offensive stereotypes³⁵ (e.g., Big Brother Watch 2018) can be fused in algorithms and replicated (Edwards and Veale 2018). When the selected and incomplete data is analysed and interpreted using discriminatory and biased algorithms, the outcomes are undoubtedly prone to conventional social discrimination and prejudice and likely to reproduce and perpetuate them (e.g., Sandvig et al. 2016; Brayne 2017; McQuillan 2018). Therefore, contrary to optimistic views that big data and algorithms present an unprecedented approach to understanding the world from an objective angle, critics remind that data algorithmic systems are shadowed with ideological conflicts and power struggles because they are comprehensive ecosystems encompassing technologies and social, political and cultural values. The algorithms used to select data, the tools used to analyse data, and the theories used to interpret data are prone to limitation and bias due to the involvement of human subjectivity, which jointly render the outcome of big data unobjective.

3.4.3 Obscurity, transparency paradox and citizen rights

Datafication has given rise to a prominent issue of obscurity as the public still has little knowledge and clarity about how these data systems operate (Diakopoulos 2013; Kerr and Earle 2013; O'Neil 2016). The reasons for this are three-fold. First, these systems operate with complicated and black-boxed algorithms that cannot be unpacked (Pasquale 2015; O'Neil 2016; Kitchin 2017) or comprehended by the public (Nissenbaum 2011; McQuillan 2018). Second, the technological nature of algorithms is complex socio-technical assemblages, which are woven together with a heterogeneous set of relations; hence, it difficult to obtain full transparency or

³³ Google's algorithm Word2ves is found to be sexist as it relates women to the traditional role of nurse or homemaker while men to doctors and programmers (Bolukbasi et al. 2016).

³⁴ The risk algorithms of Northpointe are found to demonstrate racial disparities and tend to bias against black people by mislabelling them as higher risk (Angwin et al. 2016).

³⁵ The Mosaic system of Experian profiles and ranks individuals and households in the UK based on crude and offensive stereotypes (Big Brother Watch 2018).

untangle the logic (Chun 2011; Bucher 2012). Third, algorithms are "never fixed in nature but are emergent and constantly unfolding" (Kitchin 2017, p. 21), thus unable to be grasped. The obscurity of algorithms is creating a "black box society" where "authority is increasingly expressed algorithmically" (Pasquale 2015, p. 8) and ethics are produced in a "machinic" manner (McQuillan 2018, p. 4). Black box-like algorithm invokes the connotation of harm and discrimination as there is no way to know "when it is acting in good faith to help users, and when it is biasing results to favour its own commercial interests" (Pasquale 2015, p. 9).

Many big data analytics agencies, shielded behind the excuses of national security or business propriety, never have to reveal their scoring criteria or algorithms to the public. Due to the lack of knowledge and due process, individuals are incompetent to challenge the results and protect their rights (Citron 2008; Kerr and Earle 2013; McQuillan 2018; Dencik et al. 2019). Furthermore, despite the growing trend of public-private partnership in data analytics, the algorithms developed and owned by private companies are unlikely to be shared with public sectors (Fink 2018). This asymmetry of knowledge between the private and the public sectors could impair the legislative bodies' jurisdiction and oversight over big data analysis, resulting in a "regulatory vacuum" (Dencik et al. 2019, p. 13). Hence, big data algorithmic systems produce a "transparency paradox" because "big data promises to use this data to make the world more transparent, but its collection is invisible, and its tools and techniques are opaque, shrouded by layers of physical, legal, and technical privacy by design" (Richards and King 2013, pp. 42-43).

Although results from big data systems are generated enigmatically and tend to be discriminatory and unreliable, public sectors are increasing their reliance on them to track people's activities, record preferences, cull emotions, analyse behaviours, curate information for the public (Pariser 2011; Bucher 2012; Diakopoulos 2014), and conduct citizen scoring and governance (Dencik et al. 2019). The drive towards a datafied society and the dependence of data analytics may cause negative impacts on people's life opportunities and social justice (Angwin et al. 2016; Big Brother Watch 2018; Dencik et al. 2019). Algorithmic data analytics will "calculate our potential as students, workers, lovers, criminals" (O'Neil 2016, p. 2) and categorise people based on their digital data from various sources into "algorithm-generated

tribes” regardless of personal traits and merits (ibid). The disproportionate sorting and ranking discriminate against risk groups and marginalised communities, and the differentiated treatments will materialise the categorisations and further impact citizens’ rights and opportunities (e.g., Brayne 2017; Taylor 2017; Monahan 2018). When data analytics have the power to influence future opportunities by contributing to or creating the situation they only claim to predict, especially when they are prone to “opacity”, “arbitrary results”, and “disparate impact” on traditionally disadvantaged populations like women and minorities (Citron and Pasquale 2014, p. 10), they give rise to issues of the justifiability of data analytics, citizen rights protection, and data justice, which deserves further research (Dencik et al. 2016; Taylor 2017; Dencik et al. 2019).

The above three sub-chapters discussed issues about social media and governance at the macro level from surveillance and critical data studies; the following three sub-chapters will shift to the micro level of users and examine how users interact with social media, surveillance structure and datafication in a datafied society.

3.5 User interaction with social media: opportunities and challenges

This sub-chapter discusses various approaches of examining user engagement with social media. The first highlights online agency and the uses of social media to achieve human ends and solve social problems. The second pays attention to negativities and restrictions that shape user experience and interaction with social media. The third acknowledges online agency but positions it within the critical assessment of structural limitations (Kidd and McIntosh 2016). For a clear structure, this sub-chapter starts with the agency-centric opportunities and empowerment (3.5.1 and 3.5.2) and then turns towards the negatives on social media for users and citizens (3.5.3). Finally, it places user interaction in the broader political and economic frameworks and discusses the restraints and challenges on and by social media platform that could also affect online agency and the role of social media (3.5.4).

3.5.1 Online agency I: participatory culture and online performance

Agency and structure are a conceptual dichotomy understood differently in different research strands. For structuralist theorists represented by Marxist scholars, agency is opposed to structures which determine, restrict, and oppress individuals. Social action theorists understand agency as the capacity of individual human agents who have the free will and power to act independently and make decisions. The third understanding of agency examines it through the dialectic relationship between structure and agency, which is developed largely based on Giddens' (1984) notion of agency as "action-structure dualism". It argues that structure shapes and constrains agency, and the latter in turn acts against and within the former. Thus, the relationship between structure and agency is dialectic because agents take part in reproducing structure, willingly or not. Agency also implies power because it "refers not to the intentions people have in doing things, but to their capability of doing those things in the first place" (ibid, p.9). Building on Giddens, Layder (2006) stresses that the relationship between agency and structure should not be understood as opposing, separate dualism as in the pair of structure/agency, or society/individual, but viewed as "different aspects of social life which are inextricably interrelated" (p. 3), thus independent and mutually influential. It points to the idea that people are "agents" in the social world – they are able to do things that affect the social relationships which they are embedded in; thus, people are not simply passive victims of social pressure and circumstances. Simultaneously, people rely on social structure because without it people have no meaningful action (Toynbee 2007). The dependency on society and structure imposes limits on what people can do, but it never fully determines actions. This is a more helpful interpretation for my study as it serves to analyse the interaction between users, governance and infrastructure.

Research on online agency on social media falls largely into the "participation paradigm" (Livingstone 2013; Mathieu 2016). The participatory feature of social media, despite the exploitative facet (sub-chapter 3.2.2), has lowered the threshold of entry so that "the people formerly known as the audience" (Rosen 2008; 2012) do not need to master professional skills to produce media content and are freed from the monopoly control of media conglomerations and political powers. Users can create and share content, express themselves, engage with one other, and take collective actions on social media. Social media have become "the most prevalent

location of prosumption” (Ritzer and Jurgenson 2010, p. 20), or sites of “consumer participation” (Jenkins 2008, p. 182), and further facilitate “participatory culture” (Jenkins 2006) and a paradigm shift in the production and consumption of traditional media order (e.g., Shirky 2010; Papacharissi 2010). Participatory culture is a culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one’s creations, and some type of informal mentorship whereby what is known by the most experienced is passed to novices. A participatory culture is also one in which members believe their contributions matter, and feel some degree of social connection with one another (at least they care about what other people think about what they have created). (Jenkins 2006, p. 3).

Participation does not necessarily involve content generation, as mere listening and watching are also participation because people are doing those in a world where they “have the potential to contribute” (Green and Jenkins 2011, p. 110). Although research around participatory culture is usually related with fan culture, it helps understand user agency in terms of the productive and creative practices on social media and also how user interact with social media surveillance (see sub-chapter 3.6.1). Thus, it is foreground as one of the key theories.

This research looks specifically at a type of participatory agency that manifests from users’ online performance through self-presentation and self-disclosure. Social media enables individuals to “construct” individual profiles and connections and “view” and “traverse” those of others on social networking sites (boyd and Ellison 2007, p. 211). The appeal of social media “derives from providing a stage for self-presentation and social connection” (Papacharissi 2011, p. 303). Self-presentation is first conceived by Goffman (1959) as the “activity of an individual which occurs during a period marked by his continuous presence before a particular set of observers, and which has some influence on the observers” (p. 22). In any forms of human interaction, people tend to construct an identity in a specific region for audiences by continuously performing and adjusting their performance according to audiences’ feedback, which constitutes impression management and constructs an identity (Goffman 1959). The sustained observation from the audiences compels the individual to behave in the way that suits the reflexive identity; therefore, online identity is constructed collaboratively by the self-presentation of “cyberperformers”

(Robinson 2007) and the perceived the impression from other users (boyd 2007; Marwick and boyd 2010; Papacharissi 2010). As Papacharissi (2011, p. 304) notes, “SNS provide props that facilitate self-presentation...but the performance is centred around public displays of social connections or friends, which are used to authenticate identity and introduce the self”.

Constructing an identity through self-presentation entails self-disclosure – the “conscious or unconscious revelation of personal information (e.g., thoughts, feelings, likes, dislikes) that is consistent with the image one would like to give” (Kaplan and Haenlein 2010, p. 62; original brackets). Unlike conventional self-disclosure with a trusted recipient (Pearce and Sharp 1973), self-disclosure on social media expands from the conventional two-party communication to a larger group of public audience (Bazarova and Choi 2014). Audiences on social media contains both real and imagined, familiar and unidentified, personal related and random audience, whom cannot be fully anticipated, coined as “networked audience” (Marwick and boyd 2010, p. 129). When disclosing information to overlapping “networked audiences”, the discloser will be more selective about what they want to reveal and what they want to conceal to relieve the tension of managing self-image (Bazarova and Choi 2014; Marwick and boyd 2010). This does not necessarily mean that users will disclose less content online (Bazarova and Choi 2014), rather users will self-disclose and self-present more tactically (Marwick and boyd 2010). For example, users would only exhibit particular aspects of their identity that they wish their online networks see and interpret (boyd 2007); adopt various tactics like using multiple accounts, pseudonyms, nicknames, and creating fakesters (Marwick 2005) to obscure their real identities; self-censoring the content and information that they deem controversial or inappropriate for their imagined audience; and balancing “personal authenticity” and “audience expectations” by strategically revealing personal information (Marwick and boyd 2010, p. 126). Hence, several scholars (e.g., Marwick 2005; boyd 2007; Marwick and boyd 2010) suggest that although most SNSs encourage users to construct authentic representations of themselves, user profiles are never real, and their online identities are “distinct and fluid” (Papacharissi 2011, p. 308).

As affordances on different social media platforms enable various levels of visibility and directedness, or in some cases different features on one platform support different levels of visibility and directedness, users will modify their self-disclosure according to the affordances. For instance, the lateral friendship ties on Facebook softly coerce users to exhibit information for their close friends and relatives (Trottier and Lyon 2010), hence users' online self-disclosure on close-knit social media like Facebook are more likely to be consistent with their real-life identity compared to weak tie social media like Twitter. These two performative activities on social media, as part of the broader participatory culture facilitated on social media, enables users to exhibit their lives, constructing an online identity, collaborate with other users and traverse from individuality to sociality.

3.5.2 Online agency II: mass self-communication and civic engagement

The second type of online agency examined in this thesis relates to social network and political potentials. Social media has helped individuals develop horizontal or vertical networks of interaction, both local and global, at any given times, argued by Castells (2007) as the rise of a network society. Communication in a network society is in the form of "mass self-communication" (Castells 2007) that highlights the horizontal networks of interactive communication. "*It is self-generated in content, self-directed in emission, and self-selected in reception by many that communicate with many*" (Castells 2007, p. 248; emphasis in original). Mass self-communication differs from mass communication and interpersonal communication in that it does not follow the top-down dissemination process of information through mass media to large segments of the population nor only exchange information within two or a few designated people. Various concepts and user agency reflect mass self-communication, due to the scope of this thesis, I only mention citizen journalism, online public sphere and online movements as these are the reoccurring themes that have been extensively examined by Chinese social media studies discussed in sub-chapter 2.5.3.

Citizen journalism is a vital dimension of mass self-communication (Allan 2007). The open and participatory social media provide citizens with technological tools and a broad and always-on news environment for them to perform citizen-initiated journalistic activities (e.g., Bruns and Highfield 2012; Allan and Hintz 2019). Citizen

journalism can be defined by various characterisation, such as the “witnessing”-centric first-person reportage by Allan (2013, p. 9), “citizen commentary” by “producers” by Bruns et al. (2012), opinion-fused “affective news” in the view of Papacharissi and Oliveira (2012), but all denotes the productive and networking power of citizens facilitated by social media. Citizen journalism is argued to have the potential to emancipate, empower and enact citizenship. By facilitating citizen journalism, social media has the power to reconfigure citizen-state relationship (e.g., Deuze et al. 2007; Allan 2007, 2013; Allan and Hintz 2019).

Furthermore, the evolution of ICTs and the proliferation of social media have engendered prospects of the emergence of online public spheres when users deliberate on social media (e.g., Dahlgren 2005; Papacharissi 2002). According to Habermas’ (1989) idealist notion, a public sphere is a space where citizens set aside personal preferences, discuss issues of common concern, and achieve political change as a “public-spirited collectivity” (Fraser 1992, p. 137). Three essential elements for a public sphere to exist are concluded by Kruse et al. (2018) to be open and unlimited access to information, equal and protected participation, and the absence of institutional influence, be it political, economic or cultural. For optimists, social media’s openness and accessibility seem to provide users with unlimited access to information and opportunity for equal participation so that people can use social media “to challenge discourses, share alternative perspectives and publish their own opinions” (Loader and Mercea 2011, p. 760; see also Gerbaudo 2012). Thus, democratic public spheres may take place on social media.

User agency studies also concerns people’s civic and political engagement on social media. Digital ICTs like computers, the Internet and social media are celebrated as “liberation technology” (Diamond 2010) for they enable citizens to “report news, expose wrong-doings, express opinions, mobilise protest, monitor elections, scrutinise government, deepen participation, and expand the horizons of freedom” (p. 70). Being a leading thinker of techno-optimism, Shirky (2008) believes that social media can reduce the risk of people freeloading activists’ altruism and empower “loosely coordinated groups” (p. 47) to achieve “sharing”, “cooperation”, and “collective action” (p. 49). Thus, drawing from his analysis of individual-level interactions, Shirky contends that social media, through its power of changing social

behaviours, can ultimately enhance freedom and lead to “an epochal change” (Shirky 2008, p. 304). Many observers believe that social media have been an “effective catalyst” for social movements (Khamis and Vaugh 2011, p. 1) and one of the useful toolkits for activists (Youmans and York 2012). In the view of Bennett and Segerberg’s (2012), the Internet and social media enable a form of “connective action” (p. 750), which is based on weak-tie networks and is independent of organisational control or the need for collective identity construction (ibid). They believe that connective action can mobilise individuals to participate in movements and react effectively given the right circumstances (ibid). Castells (2009b; 2012; 2015) reiterates his central thesis in a sequence of works that the Internet and social media are a form of communication power that provides people with technologies to communicate “messages of rage and hope” (Castells 2015, p. 301), mobilise emotions, coordinate online initiatives and offline actions during social movements, which eventually lead to social change. To conclude, enthusiastic scholars argue that users can use social media to construct online identity and performance, network with other users, participate as prosumer, and engage in civic activities. The next sub-chapter turns to the negatives.

3.5.3 Negatives: playbour, lurkers, information disorder and slacktivism

The business model of social media entails user exploitation. Studies on the political economy of social media (e.g., Terranova 2000; Cohen 2008; Fuchs 2012) underline that the Internet and social media should not be viewed only as a space for participation, networking, and liberation but also a site for exploiting users’ free labour. Users are not merely voluntary empowered prosumers as optimists (e.g., Banks and Humphreys 2008; Baym and Burnett 2009) claim but are also unpaid “immaterial labour” (e.g., Terranova 2000; Hardt and Negri 2009; Coté and Pybus 2010), who are “simultaneously voluntarily given and unwaged, enjoyed and exploited” (Terranova 2000, p. 33). To make free labour more enjoyable, companies increasingly commercialise and exploit leisure by converging play and labour into “playbour (play+labour)” (Kücklich 2005; see also Fuchs 2012) and make social media both playground and factory (Scholz 2013). The ownership and control over social media platforms are not in the hands of users but corporations who provide free services and access only to users who are submissive to “forms of surveillance, data-mining and target marketing” (Andrejevic 2011, p. 92). The asymmetry of

knowledge between social media companies and users sustains data collection and surveillance (Zuboff 2015); furthermore, the social dependency and peer pressure of connecting with others online makes platform surveillance and data extraction almost irresistible for users. Therefore, the playfulness, openness, participatory affordance, and the seemingly freely agreed contract cannot demolish the exploitative facet of social media (Andrejevic 2011; Fuchs 2014).

A number of studies (e.g., OECD 2007; Crawford 2009; Van Dijck and Nieborg 2009; Van Dijck 2009; Crawford 2009; Mathieu 2016) observe that the availability of social media does not necessarily encourage user agency and turn users into active participants or creators of UGC because a large portion of users remains as passive listeners on social media. A few quantitative empirical studies have found a low level of political discussion on social media (Miller et al. 2015; Pew 2016; Kruse et al. 2018). For example, Miller et al. (2015) observe that users tend to take avoidant actions like rejecting, defriending, unfollowing, or hiding people who constantly post clashing political views. Pew (2016) shares similar findings that 64 per cent of social media users dodge political discussion online to avoid losing friends or being criticised. Kruse et al. (2018) discover that participants are unenthusiastic about political discussion on social media because they perceive social media as a space for entertainment and networking, and that they try to stay away from online harassment and potential interpersonal conflicts. Their study also discovers that users prefer to interact and network with people who share similar views and stay in the self-imposed “echo chamber” (Sunstein’s 2007) on the Internet. More recent studies on the algorithmic power find that social media platforms can select, suspend, and intervene online information and activities by manipulating the visibility of content by feeding customised information to users or folding certain content and users’ posts (Bucher 2012; Gillespie 2016). Algorithmic intervention elevates the self-imposed echo chamber to algorithm-driven “filter bubbles” (Pariser 2011) and obstructs free and open access to information. On account of the lack of respectful and truth-seeking communicative actions³⁶, which is essential for the Habermasian

³⁶ Habermas (2006) believes that the public sphere can be revitalised through speech communities. Speech community designates importance to a specific type of speech called communicative action, which does not involve coercive tactics one uses to swing opinions in a strategic speech; instead, it is characteristic of respectful and open communication aiming at truth-seeking (Habermas 2006).

public sphere to come into being (Habermas 2006), some scholars (e.g., Gladwell 2010; Fuchs 2012; Van Dijck 2012; Kruse et al. 2018) contend that the democratic public sphere is less likely to be revitalised on the Internet and social media.

Furthermore, the openness of social media not only allow more people to access, produce, disseminate information, but combined with automatic algorithmic recommendation feature, also contributes to information disorder, an issue that has been more prominent in recent years in journalism studies (Shu et al. 2020; Kyriakidou and Cushion 2021). According to Wardle and Derakhshan (2017), there are in general three types of information disorder³⁷: dis-information, mis-information, and mal-information (p. 20). Fake stories may employ “moderate levels of sensationalism, misinformation and partisanship to provide anti-establishment narratives”, and this complex nature makes it difficult to defuse fake news using merely technical approaches (Mourão and Robertson 2019, p. 2077). In addition, during political discourse, social bots, cyborg users and troll are deployed to manipulate, mislead and misguide users. Creators of fake news take advantage of the high level of trust in social ties online to disseminate the messages more efficiently, which reinforces the filter bubbles around users and worsen polarisation (Wardle and Derakhshan 2017, p. 50). However, Mourão and Robertson (2019) find that social media users did not engage or click more on fabricated and sensational stories. Kyriakidou et al. (2020) also discover that the public is good at spotting and dismissing blatantly fabricated disinformation and criticised confusing messages from the UK government and the media. These findings support that the public is not easily manipulated by fake news but has the agency to refute fake news on social media; nonetheless, it is still a negative experience of user interaction with social media that undermines free deliberation and open information on social media.

Regarding social media’s potential as “liberation technology” (Diamond 2010), a few scholars (e.g., Gladwell 2010; Morozov 2011; Christensen 2011; Lovink 2012) argue that social media do not completely reconfigure the conditions and options for

³⁷ Dis-information can be false, imposter, manipulated and fabricated content that is deliberately created to harm a person, entity or country; mis-information is also false but without the intention of causing harm; and mal-information is not false but created to inflict harm (Wardle and Derakhshan 2017, p. 20).

activism and social movement. Gladwell (2010) discerns that social media-based movements only bring about small changes compared to high-risk movements and protests which are usually facilitated by “strong ties” (Gladwell 2010, p. 44). However, as a few scholars (e.g., Wellman 2001) argue, the relational ties supported by social media are mostly weak ties or loose networks, the drawbacks of which, such as prone to conflicts and errors, make it challenging to organise successful high-risk movements (Gladwell 2010, pp 45-46). Users tend to perform merely posting and liking forms of participation and activism on social media, which is perceived by Gladwell (2010) as “the kind of commitment that will bring only social acknowledgement and praise” (p. 45) without the need to make real sacrifices. Hence, he declares that “the revolution will not be tweeted” (Gladwell 2010, p. 42). Similarly, Morozov (2011) argues that certain forms of social movements supported by social media, such as online petition and clicktivism, are “slacktivism” because it requires little personal investment and creates a false illusion that low-risk and symbolic forms of online engagement are meaningful and discourages people from participating in the movement and hinders meaningful changes.

The techno-realism or ambivalent scholars (e.g., Gerbaudo 2012; Murthy 2013; Kamel 2014; Haunss 2015; Karatzogianni 2015) acknowledge user online agency and the instrumental role of social media during social movements but remain critical about its potentiality. Gerbaudo (2012) argues that social media is a “crucial” tool used by leaders to “choreograph” collective actions during the revolution but “not an exhaustive one” (p. 74). Kamel (2014) affirms that, despite the contribution of social media, the success of movements fundamentally relies on “a function of people, passion and not of any particular communication technology, social media tool or application” (78). Karatzogianni (2015) argues that the claim of social media being a major catalyst for protest and digital activism is overstated because there is a constant transformation of digital activism, or “cyberconflict”, that goes beyond using social media for mobilisation or as “a weapon for low-level societal largely symbolic attacks” (p. 4) towards a phase of normalisation and mainstreaming. This strand of studies argues that however instrumental social media might be for communication and networking, it does not completely reconfigure the conditions and options for protests and social movements.

3.5.4 Restrictions: Interventions on and by social media

Being a “data mine” (Andrejevic 2012, p. 71) and assuming the “intermediary role as facilitators” of activism (Hintz 2016, p. 325), social media is at the centre of datafication, data analytics and dataveillance. As a matter of course, governments have been regulating and, at the same time, collaborating with social media platforms for purposes that extend beyond restricting dissents to most mundane monitoring and management over citizens. The first dimension of restraints and challenges for social media comes from external interventions by governments. State interventions on the Internet and social media can be imposed on the access to Internet architectures (the GFW of China) and the control of information (the Egyptian government’s shutting down of Internet services during the revolution in 2011). Subsequently, the de-territorialised cyberspace is re-territorialised by governments (Amoore and Poitukh 2016; Hintz 2016). Within virtual cyber territories, various infrastructure-based restrictions are imposed by local governments in forms of keyword filtering and wholesale blocking of Internet services (Hintz 2016). These measures aim to censor illegitimate, immoral and inappropriate content but can also be used to “protect political authority and mitigate dissidence” (Hintz 2016, p. 329). Besides technical methods, governments and authorities resort to legal and regulatory procedures, such as promulgating defamation laws and rules against incitement, prosecuting bloggers and activists, and even the use of physical violence (Greenwald 2015; Hintz 2016). Hintz (2016) discerns that these measures assure governments’ sovereignty over cyberspace and social media but will cause a widespread chilling effect among users.

Intervention also comes from social media companies, who are “both objects and agents in the restriction of information and communication” (Hintz 2016, p. 333). They use “sufficiently vague” (ibid, p. 330) terms of service as a regulatory framework to legitimise their intervention in any issues of their concern, especially those that are not illegal but sensitive, by abusing their interpretation right. Amidst government interventions and platform self-policing, Hintz (2016) notices a shift in “the governance of speech” (p. 336), as government agencies have increasingly transferred data-collection and interpretation from public to private sector by adopting commercial social media platforms as the gold standard for measuring social traffic (Hintz 2016). Consequently, the traditional “vertical, centralised and

state-based modes” of regulatory procedures are supplemented by “collaborative horizontal arrangements” (Hintz 2016, p. 334) that allow civil society networks and social media companies to engage in policymaking through lobbying and collaboration in the western democratic context (ibid). This shift creates new openings and challenges for free expression and activism on commercial social media. This sub-chapter discusses both performative and empowering user interaction with social media and the negatives and restrictions of user online agency from the broader socio-political-economic context where social media operate, which are integrated into the theoretical framework in sub-chapter 3.8.

3.6 User interaction with surveillance

As social media has been a key node in the surveillant assemblage and user data is exploited to be used beyond the business realm to state governance, this sub-chapter corresponds to surveillance studies in sub-chapter 3.3 and discusses user interactions with social media surveillance. Both enthusiastic and critical perspectives on user agency in the context of ubiquitous and pervasive social media surveillance are examined to ground a comprehensive academic debate for my analysis. Therefore, I address different types of user engagements, starting from participatory surveillance, resistance and social media-based contestation to passive acceptance, resignation, chilling effect and lateral surveillance between users.

3.6.1 Participatory surveillance, sousveillance and counter surveillance

Optimistic arguments negate the coercive and forced feature of surveillance and reasons that Internet users are not passive but active participants because they can employ social media to perform mutual, horizontal and potentially empowering and playful “participatory surveillance” that entails subjectivity construction and information sharing (Albrechtslund 2008). The hierarchy between the watcher and the watched in the Panopticon no longer exists in participatory surveillance. Notwithstanding, Albrechtslund (2008) distinguishes between panopticon participation and voluntary participation, stressing that participation induced by brainwashing or setting subjects in particular power relations will lead to participatory Panopticon which disempowers and disengages subjects, rather than the empowering participatory surveillance. Amidst the participatory feature of social

media surveillance, a few scholars (e.g., Latour 1999; Brands and Schwanen 2014) argue that people can use webcams and digital technologies to control the visibility of their lives. Individuals can choose whether to exhibit their lives on social media or not. In this sense, people's active online exhibition becomes a form of liberating power that can be used to rebel against the shame, coined as "empowering exhibitionism" (Koskela 2004. p. 199). People can also control their online visibility by fuzzing the information that they post online using "the deliberate addition of ambiguous, confusing, or misleading information to interfere with surveillance and data collection" (Brunton and Nissenbaum 2013, p. 1). In their view, "obfuscation" can mitigate the impact of surveillance and data analysis by adding noise to dataset to make it "...harder to use and, therefore, less valuable" (Brunton and Nissenbaum 2013, p. 169). Thus, obfuscation is "information self-defence" and both a personal and a political tactic to contest prevailing surveillance and data collection (ibid).

Furthermore, the watched, usually citizens, can watch back at the watchers, the government and companies, using wearable cameras as a resistant model to ubiquitous surveillance, coined as "sousveillance" (Mann 2004). Sousveillance can be achieved using actual cameras, or abstract mechanism of inspection and revelation in virtual environment. For example, citizen journalists reporting on powerful agents on social media (Galič et al. 2017) or using mobile camera phones to record the injustice of oppression in the form of "citizen camera-witnessing" (Andén-Papadopoulos 2014) are such manifestation. In such cases, citizens have extended the participatory feature of social media surveillance and performed a resistant model of surveillance using digital technologies and the Internet. The hierarchy between the supervisor and the surveillant is inverted, giving rise to a "synopticon" that is "parallel" to the Panopticon (Mathiesen 1997, p. 219). When citizens participate in this form of bottom-up reversed mode of surveillance, they could ultimately increase the political accountability because the government, corporations and elites, under the pressure of public observation and activism, are forced to self-censor to avoid any inappropriate actions (Rosenkrands 2004).

3.6.2 Surveillance realism, digital resignation, discipline and lateral surveillance

On the other hand, many scholars hold a more critical and pessimistic view over people's agency and counter power against prevalent surveillance. According to

Galič et al. (2017), two issues are likely to hinder counter-surveillance: the asymmetry of power between the public and powerful agents and the asymmetry of knowledge of surveillance. Both exist in contemporary society where state institutions and corporations usually have more power over the general public (Allmer 2012). Therefore, although the Internet and social media create potentialities for both surveillance and counter-surveillance, the asymmetric distribution of power and resources assists powerful agents and obstructs public's contestation against the top-down surveillance.

In a risk society, the rhetoric of national security and war against terrorism is used by the government to justify and normalise mass surveillance (e.g., Bigo 2006; Klein 2008; Andrejevic 2017). Subsequently, people begin to accept the idea that being under constant surveillance is an undetachable part of contemporary society in pursuit of security (Wahl-Jorgensen and Bennett 2017). Besides, corporates also attempt to normalise data surveillance by taking advantage of the obscurity of data analytics (e.g., Eurobarometer 2015; Uren 2018; Draper and Turow 2019) and emphasising the enjoyable and fun facet (Troullinou 2016). The trend of normalising surveillance gives rise to "surveillance realism", "the imagination where datafication and surveillance is seen as the only legitimate response to social ills" (Dencik and Cable 2017, p. 777). Surveillance realism as a concept is advanced to describe "the nature of acceptance and resignation in relation to the increasing mass collection of data across social life and the active marginalization of alternatives, despite widespread unease and concerns about these infrastructures and systems" (Dencik 2018, p. 35). It is a disposition of feeling that there is no other option or solution except surveillance.

Similarly, Draper and Turow (2019) contend that when people believe they are inescapable from or unable to contest surveillance online, they are likely to generate "digital resignation" – a "rational emotional response" of "resignation" to convince themselves that surveillance is inevitable (p. 1828). A few empirical studies have observed individual disempowerment in face of surveillance. For examples, Marwick and Hargittai (2018) find that compulsory engagement with surveillance structures that demand information disclosure reduce participants' sense of control. Hargittai and Marwick (2016) notices young social media users convey feelings of privacy

fatigue as they believe that “privacy violations are unavoidable” (p. 61) regardless of their efforts, leading to an acceptance of data collection. Moreover, Drape and Turow (2019) alert that feelings of resignation and disempowerment will turn individuals’ dissatisfaction inwards and leads to privacy self-management rather than collective activism. For instance, even though Hsu (2018) reports that the Facebook-Cambridge Analytica scandal has resulted in massive protests against Facebook, scholars (e.g., González-Bailón and Gorham 2018; Statt 2018; Vaidhyanathan 2018; Drape and Turow 2019) point out that user protests are still performed at individual level and unlikely to bring about meaningful changes. Hence, social media surveillance may induce surveillance realism and digital resignation in users and lead to undemocratic implications.

In addition to surveillance realism and digital resignation, users also conduct cost-benefit analysis which concludes that rewards of sharing data outweigh possible risks and rationalise the continuous use of online services despite privacy concerns (Draper 2017). Although most users would continue to use and participate on social media, pervasive surveillance and monitoring will exert a chilling effect on aware users as they tend to self-censor and self-discipline. A few studies discover that, especially after the revelation of mass surveillance, users are likely to distrust digital applications and even stop using them (Kosinski et al. 2013); or will begin to self-regulate and self-censor their online interactions and behaviours (Pen 2013; Reitman 2014); or are less likely to have surveillance debate on social media, creating a spiral of silence online (Hampton et al. 2014); or tend to reduce viewing Wikipedia articles that might damage people’s privacy (Penney 2016); or have decreased searching privacy-sensitive terms on Google (Marthews and Tucker 2017). The tactical self-censorship and self-discipline demonstrate the internalisation of social media surveillance as “individuals train him/herself to think only in line with what is expected and demanded” (Greenwald 2014, pp. 177–178).

Apart from changes in their own perspectives and online participation, users also tend to conduct “lateral surveillance” on social media, which is “the use of surveillance tools by individuals...to keep track of one another” (Andrejevic 2005, p. 488). Lateral surveillance primarily monitors romantic relations, family, friends, as well as acquaintances and other peer-to-peer relations. Instead of featuring the

participatory feature of surveillance, Andrejevic's (2005) notion of "lateral surveillance" addresses the phenomenon that digital technologies amplify top-down monitoring and bring surveillance into our social life to the extent that "everyone is to be considered potentially suspect" (p. 494). In addition, Reeves (2012) finds that governments are mobilising citizens to accommodate lateral surveillance in their daily lives using the mechanism of what Garland (1996) coins as "responsibilisation". That is, governments are rechanneling the responsibility of crime prevention to an increasingly insecure and suspicious population amidst state's frail power to secure and protect citizens (Garland 1996). The scepticism towards discredited social institutions and traditional practices contributes to the ideological framework of "risk and responsibility", which works together with the proliferation of mobile digital devices and the Internet as the driving force that fosters lateral surveillance (Andrejevic 2006, p. 494). The discussion of diverse user interactions with social media surveillance illustrated the dynamics and combined with the review in sub-chapter 2.5.3, helps to situate my analysis of Chinese users' interaction with surveillance in academic texts.

3.7 User interaction with datafication

The previous sub-chapter 3.4 on datafication discussed the prevailing and dominant power of big data and algorithm at the macro level. However, several scholars (e.g., Beer 2009; Couldry and Powell 2014; Gillespie 2017; Bucher 2018; Monahan 2018; Kennedy 2018) argue that the social power of algorithms is actualised in conjunction with people's feelings, experiences, reactions, and negotiations with algorithms. Thus, datafication has engendered the emerging study on smaller-scale agents – individuals, users, citizens – who act and participate against and within the power and structure of algorithmic systems (e.g., Couldry and Powell 2014; Kennedy et al. 2015). The central question is how datafication get used by "social actors" who are not experts but with "social ends over and above the basic aim of generating and analysing data (usually for profit)", involving reflection, monitoring and adjustment (Couldry and Powell 2014, p. 2). Guided by this line of argument, the investigation into the power and implications of datafication can be conducted through people's awareness and interaction with them. As datafication could affect agency in various

ways, this discussion focuses on agency in the context of daily social media uses, and on people's experiences as social media users.

3.7.1 Awareness, imaginary, online exhibition and programmed sociality

The relational dynamics in the agency-structure helps understand the co-option between productive audiences and datafication and how individuals actively work with algorithmic systems and sometimes reject them in daily encounters, instead of contending people are entirely subservient to the impact of algorithmic manipulation (Bucher 2018). Similarly, Hine (2019) pays attention to the mundane uses of smart domestic technology to explore the socio-cultural capabilities located in the everyday context of audiences and users. Kennedy (2018) argues for the need to “listen to the voices of ordinary people speaking about the conditions that they say would enable them to live better with data and, in so doing, arm ourselves with knowledge which advances data studies” (p. x). Her work usefully draws out the intersections between data and emotions and underscores that people generate various emotions during their encounter with data in their everyday lives, from confidence and playfulness to confusions, anxieties and annoyance (Kennedy 2018). To denote “the way in which people imagine, perceive and experience algorithms and what these imaginations make possible”, Bucher (2017) develops the concept of “algorithm imaginary” (p. 31), which probes the social power of algorithmic systems by examining the context in which algorithms are encountered, experienced, and contested by the public, or the “recursive ‘force-relations’ between people and algorithms” (Bucher 2017, p. 42). Therefore, even though the black-boxed algorithms cannot be fully comprehended, they can be examined through people's corresponding practices that “also have the ability to affect the very algorithms that helped generate these responses in the first place” (Bucher 2017, p. 42).

A growing body of empirical research (e.g., Bucher 2018; Kennedy 2018) has examined the bottom-up interactions with datafication that relate to people's awareness, perspectives and experiences. This is an important endeavour as “audiences and users are rarely granted access to their own data, often lack the analytical capacities to unpack such data, and the infrastructural resources to process it, creating vast power differentials” (Andrejevic 2014, p. 9). A few studies (e.g., Cheney-Lippold 2011; Eslami et al. 2015; Rader and Gray 2015; Bucher 2017)

have examined the extent of people's awareness of algorithms' existence on social media and reached varied conclusions. Eslami et al. (2015) find that more than half of 40 Facebook users participated in their study were unaware of the News Feed curation on Facebook. The same pattern is identified by Cheney-Lippold (2011), who concludes that individual user cannot experience the effect of algorithms on social life because algorithms operate without people knowing. However, the survey results from Rader and Gray's (2015) study show that most respondents had fairly sophisticated understanding of the system, and that 75% of 464 Facebook users realised they did not have access to everything on Facebook, suggesting the awareness of the algorithms for post feed. Bucher (2017) examined 25 Facebook users' tweets and personal stories and concludes that users become aware of algorithms during experiences such as targeted advertising based on (inaccurate) profiling; coffee ads popping up when they are having coffee; faulty predictions based on past lives and experiences; and selectively feeds of certain friends' posts.

When users strategically optimise online behaviours and posts according to their own understanding and imaginary of the operational logic of the platform, they are "redesigning their expressions" to be recognised by the algorithms (Gillespie 2014; Bucher 2017). In this context, sociality on social media needs to be examined with an expanded view that embraces the role of algorithms (Bucher 2018). First, online self-presentation discussed in sub-chapter 3.5.1 may transform into asynchronous online exhibition because on social media people are not physically visible and performances are not created for immediate display (Hogan 2010). Users produce texts, photos, or reproducible data that are consistent with the intended identities and submit them to databases; the algorithms of social media platforms will then play the role of the curator and decide to show what data to whom (Hogan 2010). Therefore, online exhibition is collaboratively accomplished by the self-presentation of "cyberperformers" (Robinson 2007), the perceived impression from other users (boyd 2008; Papacharissi 2010), and the algorithms (Hogan 2010).

Second, social networks on social media are not solely articulated and made visible by users but are also "articulated and made visible *for them*" by the platform's "adaptive algorithmic architectures" (Bucher 2015, p. 2, original emphasis). When users are clicking, liking, sharing, reposting on the platform to establish social

networks on social media, they are creating connections between “humans and non-humans alike” (Bucher 2015, p. 2). Thus, the “social” on social media is not a fact as in Durkheim’s notion, but a “doing” (ibid, p. 2). Sociality on social media is a form of “algorithmically conditioned” “programmed sociality”, which is “governed by the sociotechnical and political-economic configurations of specific media platforms” (Bucher 2018, p. 8). For example, Facebook builds on strong-tie connectedness, so its algorithms encourage personal connection and sharing, whereas the operative logic of Twitter emphasises temporary affinities among strangers and weak ties (Birbak and Carlsen 2016). The values embedded in the algorithms of various social media will shape the articulations of sociality on the platforms (Birbak and Carlsen 2016).

3.7.2 Self-quantification and hypernudge

Datafication may induce users to perform another form of active interaction with data systems – self-quantification. Driven by the postulate that intricate details of our life and body contain valuable information that we do not know and “can’t afford to ignore” (Wolf 2010), users begin to engage in self-quantification, “the self-tracking of any kind of biological, physical, behavioural, or environmental information” (Swan 2013, p. 85). The long-term vision of quantified self is to provide real-time performance optimising suggestion and create a new form of “extended exoself” (Swan 2013, p. 85). In order to “enhance their capacity to achieve their particularised version of the ideal self” (Lupton and Smith 2018, p. 6), constant self-monitoring practices are essential. Self-quantification is novel compared to previous body tracking as people are voluntarily monitoring themselves in all kinds of daily scenarios, creating and sharing data automatically through digital devices (Crawford et al. 2015). Hepworth (2019) contends that people who engage in self-quantification are “desire-driven, voluntary, and, frequently, enthusiastic, as it provides a socially and personally valuable sense of self-care” (Hepworth 2019, p. 336)

Self-quantification does not stop at a person him/herself. Data sharing in self-quantification systems can happen between devices, users, companies, institutions, and social media as data flows across the system (Whitson 2014; Crawford et al. 2015). Therefore, self-quantification engenders “other tracking” as data can be shared with a person’s networks (Gabriels and Coeckelbergh 2019). Having insights

into our and other people's data may affect how we perceive ourselves and others and create harmful power relations (Gabriels and Coeckelbergh 2019). This is because when we encounter a person through his/her data on a digital device, the person is flattened into a number or a profile, whose diversity and heterogeneity risk being compressed and degraded to statistics and objectification (ibid). Consequently, self-quantification could create too much distance for people to establish ethical relations, "especially when the design motivates one to subordinate the other in light of one's goals (e.g., attaining a reward or a higher score)" (Gabriels and Coeckelbergh 2019, p. 125; original brackets).

Moreover, a few scholars argue that data systems are designed to "assimilate individual data profiles within larger patterns and nudge individual choices and preferences in directions that align with those patterns" (Cohen 2015, p. 7; see also Li 2011; Whitson 2014; Zuboff 2015). As Yeung (2017) discerns, data analytics produce knowledge about an individual, which in turn is used to shape individual's choice through a subtle, undetectable yet persuasive and manipulative process of "hypernudge"³⁸. The surrounding decisional choice context can be intentionally designed, for instance, with embedded standards, so that it can systematically shape human decision-making in particular directions (Yeung 2017). In this way, data analytics have disciplinary power that amounts to a form of normative coercion (Johnson 2014) and may "seriously erode our capacity for democratic participation and individual flourishing" (Yeung 2017, p. 119). This suggests that data systems can be manipulated to shape people's preferences and behaviours. Moreover, self-quantification systems seem to be objective and transparent as they usually show the results and incentives to users, but particular values and information about what kinds of behaviours are encouraged and how people should behave are inscribed in the system through opaque algorithms (Whitson 2014; Gillespie 2014). This line of questioning directs back to the discriminatory and opaque nature of data systems discussed in sub-chapter 3.4.3 and raises concern over the implications of self-quantification for individuals.

³⁸ A nudge is "any aspect of choice architecture that alters people's behaviours in a predictable way without *forbidding any options or significantly changing their economic incentives*" (Thaler and Sunstein 2008, p. 6, original emphasis).

Above discussions concern every day, emotional and individual experiences with data and algorithms and relate to audience and agency studies, which manifest from people's active interpretative and relational activities with and within algorithmic systems. It provides useful empirical studies on the nascent field of micro-level of user/audience perception and interaction with datafication addressed in my study.

3.8 Theoretical framework

Concept/theories reviewed in previous sections come from a diverse set of research fields of social media studies, audience and user studies, surveillance studies, critical data studies and political economy of social media, but all centres around the interaction between governance, users and infrastructure and jointly establish the academic space to situate my study. Studies on social media, platform and user behaviours have produced concepts that help examine the key characteristics and usages of social media, highlighting online agency and empowerment, but political economy studies on social media offer another perspective that connects user participation and usages with the exploitation of user labour and the monetisation of user data on social media platforms, situating user behaviours in corporates' capitalism accumulation. Surveillance studies and critical data studies provide several key theories and concepts that help understand contemporary governance in a datafied and surveillance society, in which social media and user data plays a key role. Therefore, the reviews of these research fields support the analysis of how data governance through the form of surveillance and datafication is intertwined with social media and how user behaviours are transformed into data and used by social media companies and the governance.

The literature review addresses two levels of sub-themes in sequence. The first part (sub-chapter 3.2, 3.3 and 3.4) presents key concepts and theories that help to understand social media and the governance of the increasingly digitalised and datafied society at the macro-level; the second part (sub-chapter 3.5, 3.6 and 3.7) discusses the micro-level of user interactions with social media and governance frameworks and the implications for their agency in this context. The two sub-themes are not independent from each other but interconnected because the prevalence and uses of social media have engendered evolving modes of data-driven governance

over digital life, which in turn affects people's online agency and various aspects of social media. The three dimensions emerged from the sub-themes are users, governance and infrastructure. To integrate the three dimensions and two sub-themes and incorporate various key concepts/theories emerged from the literature review into a tighter theoretical framework, I will use the two concepts of digital citizenship and governmentality as two umbrella theories. Studies on digital citizenship concerns the changing state-citizen relationship in a datafied society, that is, on one hand, how citizens use digital infrastructures to perform empowering digital acts and assert their positions in society, and on the other hand, how this digital citizenship has been or might be affected by pervasive datafication and surveillance (Hintz 2020). Thus, it is a concept that address the interactions between the three dimensions of governance, users and infrastructures. Governmentality (Foucault 1991) draws on the interrelation between technologies of the state and technologies of the self and analyses various modes of governmentality techniques used by the government to induce people to change their behaviours towards a certain direction aligned with the governance objective. It captures the main theme of how data governance induces users to modify their behaviours on social media. In each section, I explain the definition of the concepts, how other key concepts/theories feed in them, and how they help connect the macro-level of the governance and the micro-level of online agency and tackle the research question.

3.8.1 Digital citizenship

Digital citizenship as an overarching concept connects the two sub-themes of online agency on social media and the impact of governance frameworks over users. Digital citizenship can be understood as the “performative enactment of citizenship in a context of fluid affiliations and networked individual acts” that highlights “the empowerment of the citizen through digital acts and the democratizing effects derived from this” (Hintz 2020, p. 534). It is developed from the notion of performative citizenship that views citizens as active figures who develop their positions in the society and achieve their citizenship by engaging in various civil society communities and activist movements, instead of being only sovereign figures subject to national belonging (Clark et al. 2014; Couldry et al. 2014). Digital resources and infrastructures are crucial for the emergence of digital citizenship because they “provide the means to recognise people in new ways as active

narrators of their individual lives and the issues they share with others” (Couldry et al. 2014, p. 615). Despite the debate over social media’s contribution to social changes, citizens gradually develop self-constituting attributes through “enacting ourselves in cyberspace” (Isin and Ruppert 2015, p. 43). These digital acts include most mundane uses of the Internet and social media as well as assertive and political activities.

Participatory culture (Jenkins 2006) and mass self-communication (Castells 2007) mentioned in sub-chapter 3.5 have emerged as prominent theories to understand the conditioning, manifestation and implications of performative and empowering digital citizenship. Participatory culture was conceived by Jenkins (2006) to address a culture where its members believe their contribution matters and feel some degree of social connections, but in the digital and new media environment, it can be understood from descriptive and aspirational dimensions. The former refers to how participatory and productive practices are carried out by users on social media, such as UGC and social networking (Jenkins et al. 2015). Web 2.0 is seen as an important condition advancing the descriptive dimension for participatory culture as it allows for UGC and online identity construction by providing affordances that support users’ self-expressive and creative activities such as self-presentation and self-disclosure (Marwick and boyd 2010). Web 2.0 and social media also facilitate sociality construction because they enable users to establish social networks with other users and traverse from individuality to sociality (boyd and Ellison 2007) and share their UGC with members in online communities. In a participatory culture, the boundary and power hierarchy between top-down corporate media and bottom-up prosumption on social media has been reconfigured, which leads to the paradigm shift in communicative power between the two. Thus, participatory culture also captures the aspirational dimension of how cultural participation can inspire agency and empowerment in civic engagement and encourage conversations about social and political changes. Jenkins et al. (2015) use “participatory politics” to describe “the ways that the mechanisms of cultural participation get harnessed for political purposes” (p. 157) and argue for the similarities between artistic and cultural participation and political activism. Therefore, although participatory culture describes a broader cultural phenomenon supported by the Internet and social media in which users are able to share creativity contribution and form social

connections, it is a useful theory that not only corresponds to online agency but also feeds into digital citizenship for it entails empowering digital acts of user.

Mass self-communication (Castells 2009a) relates to the empowering digital citizenship as it highlights the communication power in a network society. This new mode of communication differs from mass communication and interpersonal communication in that it does not follow the top-down dissemination process of information through mass media to large segments of the population nor only exchange information within two or a few designated people. Instead, it engenders with advancement of ICTs and the proliferation of social media and mobile devices and has the potential to reach a global audience, supports the digitisation of content and facilitates information distribution (Castells 2009a). This concept also foregrounds user agency and autonomy as the content is self-generated, the emission of the content is self-directed, and the reception of information is also self-selected, which implies that users have seized the communication power on the Internet. On this account, it is closely related to the empowering digital citizenship.

Furthermore, mass self-communication is met with lower barriers to entry compared to mass communication, as Castells (2009a) puts it, “traditional forms of access control are not applicable... Access in this case is the rule; blocking Internet access is the exception” (p. 204). Therefore, Castells (2009) holds optimistic view towards the democratic potentials of mass self-communication because it can escape the controls of government and corporations and the communicating actors in mass self-communication possess more autonomy and freedom. Social actors and activists could use mass self-communication to advance their collective goals, claim their rights, promote their political agenda, and “change the values and interests institutionalized in society” (Castells, 2007, p. 249). Digital acts that embody and are supported by mass self-communication include various performative digital acts like citizen journalism (Allan 2007) and online activism (Castells 2015) discussed in sub-chapter 3.5.2. Citizen journalism as a concept describes citizens’ appropriation of digital technologies to report their witness, comments and opinions about the usually instantaneous incidents as alternatives information and perspectives and share the information through horizontal networks on the Internet, which concurs with the self-generated, self-disseminated and self-reception dimension of mass self-

communication. Online activism summarises the collective citizen-led actions that rely on online social ties to mobilise individuals to participate in movements and coordinate online and offline communications. Mass self-communication captures the key communication power in online activism, which is based on horizontal social networks. Thus, citizen journalism and online activism are also part of the digital citizenship with potentially empowering and liberating effects. Mass self-communication is also evident in China as Fu and Chau's (2014) research shows mass self-communication and online networks facilitated on Chinese microblogs help establish a social force that resists the domination of state power and state-controlled media. Therefore, it is a key theory for the theoretical framework for this study.

However, the changing political-economic context with increasing restrictions over social media and users in a datafied society has challenged the enthusiastic notion of digital citizenship and thus calls for a reevaluation of how performative acts are affected by surveillance and datafication. This evolving governance context of digital citizenship speaks to the key theme of this study which attempts to explore how surveillance and datafication embedded in the new governance system – SCS – might affect online agency, or digital citizenship. The first type of restrictions is the limitations and interventions over the tools, platforms and infrastructure that allow and enable digital acts (see sub-chapter 3.5.4). These interventions create obstacles for citizens to perform digital acts and claim their rights, but they do not shake the agency and empowerment bedrock of digital citizenship (Hintz 2020). The second type of restrictions concerns data governance and surveillance, which reconfigure the notion of digital citizenship (ibid). Platform capitalism (Srnicek 2017) is a key theory that helps unpack restrictions from commercial social media platforms. It illustrates that the business model of social media relies on surveillance and collection of user data, that is, individual's online behaviours are transformed into data doubles (Haggerty and Ericson 2000; see sub-chapter 3.3.2) and then analysed and exploited by companies for capital accumulation. This means user digital acts are intertwined in the business interest of platforms, who tend to employ algorithmic analytics and behaviour modification techniques to maximise their revenue. During this process, user subjectivity and agency on social media might be affected or restricted by platforms.

Moreover, there has been a deepening partnership between public and private sectors in data analytics, and a key practice in this context and for this study is citizen scoring. User online data is incorporated in state governance systems and will be used along with other data to categorise and rank citizens and make decisions based on the data analysis (Dencik et al. 2019). Similar to restrictions from social media platforms, citizen scoring might affect digital citizenship. As individual's digital acts on social media will be used to analyse and rank them and then affect their life opportunities, digital citizenship entails not only the empowering facet where citizens use digital technologies to enact themselves and claim their rights, but also becomes an element in governance apparatus which empowers the state because it provides a means for the state to supervise and govern the increasingly "dispersed" and "atomized" actions of citizens by assigning labels and positions for citizens and to "address a fragmented reality and create a new and governable collectivity" (Hintz 2020, p. 538). Therefore, data governance and surveillance systems like citizen scoring are reshaping the state-citizen relationship, governing more aspects of social life, and creating an ongoing tension between personal privacy and public security (Dencik et al. 2019).

Although digital citizens possess the tools to actively enact themselves for rights and social justice, the government and commercial corporations still dominate technological infrastructures. In the context of such power shift from citizens to the state and the intersecting empowerment and control, individual agency and the empowerment of digital acts will still exist but may be "severely limited" (Hintz 2020, p. 540). Digital citizenship, therefore, is "not only self-constructed and self-defined, but equally – if not more substantially – constructed by the governmental and business realm" (ibid, p. 536). This concept incorporates both the empowerment bedrock of digital citizenship and the interventions from social media, pervasive surveillance and datafication. Thus, my research on how various social media uses under participatory culture and mass self-communication will be affected by the SCS falls into this broad research field of digital citizenship.

Distinct from the empowerment and agency-focused digital citizenships discussed above, most of digital citizenship studies in mainland China or simplified Chinese

language (e.g., Zhang and Wu 2013; Zhang and Zhang 2015; Yang et al. 2016; Liu et al. 2018; Xu et al. 2019; Hui et al. 2019; Qian 2019; Li 2020) conceptualise digital citizenship building on Mike Ribble's framework of "the norms of behaviour with regard to technology use (Ribble et al. 2004, p. 7). This school of digital citizenship pays attention to a person's ethical use of digital technologies and addresses how citizens should learn to respect, educate, and protect themselves and others in order to become responsible users during the applications of the Internet (Ribble and Miller 2013). Digital citizenship, in this understanding, is achieved not through enacting citizen acts but through educating and cultivating citizens to use digital technologies in a civil, respectful, rational manner that is expected in a specific cultural, social and political context. The discrepancy between digital citizenship studies in China and the empowering form of digital citizenship reflects that the responsabilisation of Internet users has been overarching rhetoric in Chinese Internet studies; and that the broader socio-political context could impact the focuses of scholarly studies. This study follows Hintz's (2020) notion of performative and empowering digital citizenship to generate more meaningful and diverse discussion of the SCS's implications over Chinese social media users.

3.8.2 Governmentality

Foucault's governmentality, although formulated before datafication, has captured the mode of governance in a datafied society. Governmentality is defined by Foucault (1991, p. 20) as

the ensemble formed by the institutions, procedures, analyses and reflections, the calculations and tactics, that allow the exercise of this very specific albeit complex form of power, which has as its target: population, as its principal form of knowledge: political economy, and as its essential technical means: apparatus of security.

Governmentality expands the conceptualisation of political power from political structures to "an activity that undertakes to conduct individuals throughout their lives by placing them under the authority of a guide responsible for what they do and for what happens to them" (Foucault 1997, p. 68).

This concept includes two interrelated dimensions: technologies of the state and technologies of the self. The first dimension explains that the government can exert

power by actively engaging and negotiating with the public, instead of merely imposing norms and rules on citizens. This form of informal and subtler techniques of guiding the population is coined as “technologies of the state” (Foucault 1991, p. 20).

It is

not of imposing law on men, but of disposing (of) things; that is to say, of employing tactics rather than laws, and even of using laws themselves as tactics – to arrange things in such a way that, through a certain number of means, such and such ends may be achieved. (Foucault 1991, p. 95)

To explain, the modern art of government, “rather than displacing discipline or sovereignty”, “recasts them within this concern for the population and its optimization...and the forms of knowledge and technical means appropriate to it” (Gordon 1991, p. 7). The other dimension of governmentality is “technologies of the self”, which is the “ways in which human beings come to understand and act upon themselves within certain regimes of authority and knowledge, and by means of certain techniques directed to self-improvement” (Rose et al. 2006, p. 90). Different from the disciplinary society in which people are “docile bodies” and the object of discipline, people in governmentality apparatus own the autonomy to act upon themselves through “technologies of the self” (Foucault 1993) because governmentality is “not to crush their capacity to act, but to acknowledge it and to utilize it for one’s own objectives” (Rose 1999, p. 4). Although it denotes care and self-improvement, technologies of the self are largely influenced and shaped by the government, who uses technologies of the state to direct citizens towards self-modification and self-regulation and make them conform to its political power and objectives (Foucault 1993). As governmentality connects “technologies of the state” and “technologies of the self”, it is instrumental for conceptualising how the state and citizens negotiate and co-determine each other’s emergence in a datafied society, or more specifically, how data governance systems can be enacted as technologies of the state to induce individuals to internalise the governance, self-govern themselves, and eventually effectuate the objective of governmentality.

I will explain how governmentality is relevant for this study and how other concepts/theories in the literature review fit in it from two aspects. First, to understand technologies of the state further, I focus on a specific form of technology of the state – gamification, “the use of game design elements in non-game contexts”

(Deterding et al. 2011), because some of the designs of SCS reflect game elements, and the attributes of gamification are instrumental in enticing people to join the designed system and conform to the pre-set objectives through technologies of the self. For this part, I highlight the concept of hypernudge (Yeung 2017) from sub-chapter 3.7.2 as it helps conceptualise gamification practices. Second, for technologies of the self, I will foreground two key concepts from literature review, surveillance realism (Dencik 2018) and self-quantification (Whitson 2014), because they both correspond to technologies of the self in that each concept entails individual internalisation and self-governance, and then explain how they fit in the governmentality framework.

Due to the scope of this thesis, I will focus on two common gamification designs in citizen scoring systems that contribute to the governmentality power: *reward and punishment mechanisms and constant surveillance and feedback*. Citizen scoring can modify and shape subjects' behaviours when it is combined with effective rewarding and punitive mechanism (Hamari et al. 2014): rewards can be given to encourage desirable behaviours while punishments can be imposed to deter unwanted ones. Rewards can also be used to navigate subjects' motivation in the same direction that aligns with the system's pre-set goals. According to self-determination theory (Gagné and Deci 2005), there are three types of human motivation: no motivation, meaning actions are conducted out of coercion; extrinsic motivation involving objective and universal rewards like money; intrinsic motivation, including autonomy, mastery or technical excellence, and social connections (Kim 2009; 2010), which occurs when accomplishing a task is a reward in itself according to subjective and individual values (Reis and Press 2019). Extrinsic and intrinsic motivations can co-exist, but promoting intrinsic motivation is more desirable than extrinsic motivation (Reis and Press 2019) as it would stimulate people's innate initiative to participate in citizen scoring systems. The reliance on individual intrinsic autonomy aligns with the principle of governmentality which aims to manipulate and mobilise individuals to enact performative actions by themselves. In addition, to ensure the governmentality power of citizen scoring systems, constant surveillance over subjects and in-time feedback are essential because the evaluation of subjects' behaviours could provide them with concrete information to guide them to modify their behaviours in a certain direction. Feedback in data systems can be provided in

a faster or real-time manner owing to algorithmic analytics (Reeves and Read 2009). Quicker feedback tends to create “immediacy and contingency in the interactions” and “close connection between behaviour and feedback”; thus, it is more effective for behavioural modification and reinforcement (ibid, p. 72). Datafication systems are usually capable of monitoring and analysing subjects’ behaviours continuously so that quick or real-time feedback can be provided. On this account, the effectiveness of gamification designs in datafication systems as governmentality technique is rooted in surveillance (Whitson 2014).

These subtle and manipulative gamification designs embedded in citizen scoring systems are apprehended by the concept of hypernudge (Yeung 2017), which expounds that certain data governance system, for example the SCS, extend its power beyond the sorting, scoring and categorisation of the population to nudging individual choices, modifying behaviours, and affecting individual agency and subjectivity. Hypernudge informs that the incentives and punishments provided by algorithms are aspects of choice architecture that are carefully designed to construct the surrounding choice context for individuals to shape their decisions in a persuasive yet undetectable manner. Constant surveillance and feedback add to the efficacy of hypernudge systems because they provide the basis for individuals to change their behaviours. This concept associates with technologies of the state in that it entails the use of manipulative techniques to influence individuals so that they would modify their behaviours by themselves in the guided directions. When the governance apparatus employs gamification designs, such as scores, feedbacks, rewards and punishments as in the case of the SCS, online agency may be affected, and users may change their behaviours in the direction guided by the governance system. The changes seem to be enacted by user themselves but may actually be prompted by gamification designs and hypernudge. Thus, hypernudge is a useful concept for understanding the governmentality power of citizen scoring systems over individual subjectivity and agency.

Following above discussion, user participation and individual internalisation are key arguments for bringing in governmentality as the other umbrella theory in this study as they entail technologies of the self. As explained in sub-chapter 2.4 and sub-chapter 3.5, users are not merely restricted and regulated in a top-down fashion

through the SCS. Instead, they are incentivised by certain designs of the SCS to participate in their own regulation, to self-censor, to actively develop their own scores because of potential gains and punishments, and to internalise and agree with this form of governance and make it feasible. Self-quantification (Whitson 2014), lateral surveillance (Andrejevic 2005) and surveillance realism (Dencik 2018) emerge from literature review as key concepts to address various forms of internalisation and self-governance induced by governmentality apparatus through gamification designs.

The first key concept, self-quantification (Whitson 2014) has close connection with gamification and individual autonomy. As Whitson (2014) argues, “gamification practices, operating under the umbrella of play, foster the quantification of the self; collecting, collating and analysing minute data and providing feedback on how to better care for one’s self” (p.167). To explain, self-quantification in datafication systems refers to an individual’s self-tracking and self-scoring behaviour induced by gamification designs that are conducted in hope of obtaining information for self-improvement and self-care. However, this information also provides valuable knowledge of the to-be-governed subjects for the state. Hence, on one hand, the state uses gamification as technologies of the state to seduce citizens to perform self-quantification and self-discipline towards its objectives; on the other hand, the abundant data and information of the subjects generated from self-quantification can in turn be used by the state. The knowledge of the subjects is the key to the productivity dimension of Foucault’s governmentality (Rose 1999). With the knowledge of the subjects, the state can fabricate personalised incentives or punishments in data governance systems to drive people to modify their behaviours in the planned direction. Self-quantification in this situation corresponds to technology of the self in that this act is performed by users but induced by gamification and taken advantage by the state to achieve its governmentality purpose. Thus, user participation is essential for governmentality power of citizen scoring systems to be effective.

Extending the scope from the self to others, lateral surveillance (Andrejevic 2005) emerges as the second concept to link enticed participation in surveillance and data systems with governmentality. Although lateral surveillance is conducted by individuals with digital tools like social media, it does not entail the empowering and

liberating notion of participation as in bottom-up surveillance with which individuals can resist institutional surveillance. Rather, it refers to the phenomenon where everyone is encouraged to monitor our romantic relations, families, friends and acquaintances. Individuals perform lateral surveillance driven by the postulate that it is for our own good (Andrejevic 2005), which is promoted and induced by the state using various techniques like blurring the public and private responsibilities and soft persuasion (Reeves 2012). Related to lateral surveillance, in a datafication system, other tracking (Gabriels and Coeckelbergh 2019) is a concept that depicts the induced peer-to-peer data monitoring in addition to self-quantification and self-tracking. Other tracking is enabled by the availability of insights into other people's data that is facilitated by data systems. Similar to lateral surveillance, individuals are also enticed to track and monitor their networks' data as it is usually attached with expectations that such data contains valuable information that cannot afford to ignore. Online networks in these scenarios have profounder and broader impacts as governmentality systems manipulate individuals to incorporate network monitoring as part of their self-governance practice. Thus, these two concepts not only relate to technologies of the self but also reiterate the important role of online networks in surveillance and datafication systems, which helps analyse the SCS's impact on online social networks.

The third key concept that pertains to internalisation and speaks to users' self-governance is surveillance realism (Dencik 2018). It is advanced as a concept to describe a disposition that there is no alternative to pervasive surveillance and datafication in contemporary society. This disposition, along with feelings of disempowerment, fatigue and resignation, is the direct manifestation of people's internalisation of the necessity and non-escapism of surveillance. However, this concept points out that public's disposition and feelings are manufactured by the government and corporations in ways of actively promoting and normalising such practices and incorporating them in people's daily lives using various discursive practices and institutional sanctions (ibid). It is a designed social condition that serves to make individuals accept surveillance as a contemporary way of life. In relation to surveillance realism, several other theories have grasped people's internalisation of surveillance and datafication. For example, digital resignation (Draper and Turow 2019) describes the pragmatic response when people convince

that surveillance is inevitable, but it highlights that such response is cultivated by corporates using seductive measures such as emphasising the enjoyable and fun aspects of surveillance to trick users into handing in their data and introducing frictions to frustrate and confuse users. As such, digital resignation and surveillance realism direct to undemocratic implications because these responses turn dissatisfaction inwards and lead to privacy self-management rather than collective actions. Thus, this form of manipulated self-governance driven by surveillance and datafication systems might hinder empowering and liberating digital acts that aim to contest surveillance and datafication, such as sousveillance (Mann 2004).

To conclude, the theoretical framework uses digital citizenship and governmentality as two umbrella theories to understand and analyse the incorporation of social media in the SCS as a governmentality system and the interactions between social media users with platforms and the SCS. Digital citizenship (Hintz 2020) examines both empowering and performative digital acts and the restrictions from surveillance and datafication systems employed by the states and corporates, thus it captures the two sub-themes of this thesis. Participatory culture (Jenkins 2006) and mass self-communication (Castells 2009a) are the two key theories from the literature review that feed in the empowering dimensions of digital citizenship as they highlight online agency and the liberating potential of social media. Platform capitalism (Srnicek 2017) and citizen scoring (Dencik et al. 2019) respectively explains the interventions and restrictions for digital citizenship coming from social media corporates and governments, who drive to aggregate user behaviours in their systems for economic or governance purposes. Governmentality (Foucault 1991) addresses the interaction between technologies of the state and technologies of the self, or how governments use techniques to manipulate citizens' actions and thoughts, which captures the main research questions of the implications of the SCS for users and social media. Gamification is brought in to unpack two technologies of the state used in citizen scoring systems: reward and punishment; and surveillance and feedback. To conceptualise such techniques, I underscore hypernudge (Yeung 2017) as it analyses the behavioural modification power embedded in these techniques. To expound on technologies of the self, self-quantification (Whitson 2014), lateral surveillance (Andrejevic 2005) and surveillance realism (Dencik 2018) are three concepts emerged from literature review that address how individuals perform

various behaviours affected by the governmentality power in surveillance and datafication systems. Integrating various fields of academic research and concepts from literature review, this tightened theoretical framework helps guide my analysis and discussion of the findings.

3.9 Conclusion and research gap

As a techno-social system, social media supports various levels of sociality from cognition, communication to cooperation, but algorithms are still one of the deciding factors for the level of sociality and sociability sustained on a platform. As a commercial platform, social media, is driving by economic goals and operates following the business model coined as platform capitalism, which entails data collection and surveillance. Digitalisation and datafication have transformed Panoptical mode of surveillance in that the surveillant is no longer physical human bodies but data doubles. Human activities and social interactions on social media are transformed into highly semantic big social data. Previously isolated surveillance systems become surveillant assemblages in which various items jointly function as an entity, and data is flowing across various nodes in the assemblage. In this context, social media becomes a vital site for mass dataveillance to serve the purposes of social control, discriminatory social sorting, and behavioural modification. As the driving forces for datafication, governments and public institutions are deepening their collaboration with private sectors in data analytics to obtain both integrated and granular information on citizens. A typical practice of data analytics in public sector is citizen scoring, which involves categorisation, assessment, scoring or ranking the population according to a large dataset with the purpose of distributing resources and services. However, citizen scoring, being an algorithmic system, operates with black boxed algorithms that are designed to fulfil pre-set goals, thus has the pitfalls of replicating and perpetuating the existing social discrimination and undermining citizen rights and social justice. Data analytics may hinder free online public discussion, affect citizens' rights and social justice, dictating over people's free will, engineer people's behaviours and result in normative coercion, discriminate against the underprivileged population, and reshape the state-citizen relationship.

Moving to the user level, the broad context of the digitised, datafied and surveillance society reconfigures users and citizens both positively and negatively. The more positive perspective on user engagement with social media acknowledges online agency, arguing that users can perform social activities, like online self-presentation/exhibition and self-disclosure, to construct their intended identities to interact with other users; participate on social media; perform citizen journalism; have open deliberation in online public spheres; and expand political participation and activism. On the other hand, users can also experience negatives such as being passive audiences, surrounded by fake news and information disorder, and unfruitful online activism. Moreover, users have also been increasingly affected by the manifold and collaborative interventions and restrictions from the government and platforms. For surveillance, users may on one hand take advantage of the open and participatory feature of social media to subvert the Panoptic surveillance by performing participatory and synoptic surveillance. On the other hand, the prevalent and active normalisation of surveillance by public and private sectors gives rise to surveillance realism, feelings of resignation and disempowerment that make users regard surveillance as inescapable and generate a widespread chilling effect. It also enables users to surveil their loved ones and peers, giving rise to a lateral surveillance culture in which everyone is a potential suspect. Regarding user encounter with datafication, an emerging body of study foregrounds user agency and propose that the social power of data systems and algorithms can be examined from user encounter and reaction to them. It justifies the approach for probing the impact of the SCS that examines the power of algorithmic systems from people's imagination, perception and interaction with them and from the socio-technical assemblage where they operate, and also sets the foundation for my question on user knowledge, attitudes and likely behaviours towards the SCS.

To aggregate various concepts and research fields in a tighter theoretical framework, I use digital citizenship (Hintz 2020) and governmentality (Foucault 1991) as two umbrella theories to underpin the main theme of the interactions between governance, users and social media. Both theories address the macro-level of governance power over individuals and the micro-level of interactions and agency. Digital citizenship concerns with performative acts and online agency and the impacts from datafication and surveillance, which draws out participatory culture

(Jenkins 2006), mass self-communication (Castells 2009a), platform capitalism (Srnicek 2017) and citizen scoring (Dencik et al. 2019) from the literature review as key theories/concepts for my analysis. Governmentality assists the analysis of the SCS's power and implications for online usage and the role of social media by examining the interaction between technologies of the state and technologies of the self. Gamification, hypernudge (Yeung 2017), **self-quantification (Whitson 2014), lateral surveillance (Andrejevic 2005) and surveillance realism (Dencik 2018) are the key concepts and theories that feed in governmentality and tackle the research question.**

The majority of the studies on the criticism and concerns of data analytics, the implications for citizen rights and society, the reconfiguration of state-citizenship is situated in the Western political, legal, economic, and social context. With the SCS being implemented in the unique authoritative party-state of China, it needs to be scrutinised along with the broader socio-political context where it operates. A limited number of studies have examined the SCS and its implications from the angles of government strategy (Meissner and Wübbeke 2016; Ohlberg et al. 2017; Chorzempa et al. 2018; Creemers 2018; Chen et al. 2018; Dai 2018; Hansen and Weiskof 2019; Song 2019; Bucker 2019; C. Zhang 2020), incentive mechanisms (Engelmann et al. 2019), gamification strategies (Reis and Press 2019), surveillance power (Botsman 2017; Liang et al. 2018), critical data studies (Lee 2019), political economy (Ji 2018), social capital (Grote and Bonomi 2018), business and marketing (Ramadan 2018), global impact (Hoffman 2018), local pilot schemes (Zhang and Rieckmann 2018), privacy (Chen and Cheung 2017; Lee 2019), public opinion (Kosta 2019; Wang 2019; Rieger et al. 2020), and comparison with different reputations rating systems (Síthigh and Siems 2019). However, no research has explored how the SCS will affect social media usages and the consequent implications for the role of social media in society. These are pressing questions that need extensive investigation because big social data is a major data mine for the SCS, and social media companies – owing to their access to large quantities of user data and advanced technologies – are taking a central role in supporting and implementing the SCS. This thesis fills this gap by investigating how the SCS will change online behaviours and how the SCS, by its influence on users, will affect the participatory culture, social networking and online shopping potentials facilitated by social media in the political,

economic, social context of China. Building on this, the next chapter develops the research questions and methodology employed in this study.

Chapter 4. Methodology

4.1 Introduction

This chapter justifies and explains the use of mixed-method approach that combines online surveys and qualitative interviews. It starts by clarifying the main research question and three sub-questions in sub-chapter 4.2. Next, sub-chapter 4.3 reviews digital methods that have been applied in studies on similar topics and explains why they were not used in this study. It then establishes the rationale of mixed-method approach and justifies the employment of e-surveys and interviews. After that, sub-chapter 4.4 and 4.5 respectively describe the operation of e-surveys and interviews following the structure of: a) a summary of the operation and results; b) an explanation of question design in each method, c) a full account of the sampling procedure and the demographics of acquired samples, d) a critical review and defence of the issues, challenges, and limitations of using each method.

4.2 Research questions

This study aims to fill in the research gap by investigating the main research question of:

RQ: How will the SCS affect the future of social media in China?

Three sub-questions are devised to investigate the main research question:

Sub-question 1: What are Chinese social media users' knowledge and perspectives of the SCS and other credit scoring systems?

Sub-question 2: How are Chinese social media users going to change their social media content, online social networks and online shopping respectively due to the SCS?

Sub-question 3: What are the underlying tensions, concerns and expectations for the SCS from the users' statements? What are the dynamics for the future of social media?

To explain, this study intends to examine whether in the context of the SCS Chinese users are likely to participate, create and share content, and establish online networks more actively; or on the other hand, begin to decrease active content production, limit online networking and even reduce the use of social media; or perhaps, there is no consensus among users so that diverse behaviours may be performed. And eventually, what these different interactions mean for the future of

social media in China in terms of its participatory, networking and liberating potentials. To research this question, this study identifies Chinese social media users as research subjects because their online behaviours and usages are likely to change when they are incorporated in the SCS and used to score them, which may have profound influence on the future of social media.

Sub-question 1 explores users' awareness, knowledge, attitudes and perspectives of the SCS as well as other data scoring systems. This study takes place at a particular historic moment when the SCS is being constructed, which means that Chinese people are experiencing the SCS for the first time. Therefore, users' knowledge and opinions about the SCS need to be investigated and understood before examining their future behaviours. As made clear in Chapter 2, several research on public awareness and attitudes towards the SCS in China reaches varied conclusion. Whether Chinese users are aware of the SCS and other data analytic systems as a few studies notice (e.g., Rader and Gray 2015; Bucher 2018) or totally unaware of data collection and algorithms as other studies suggest (e.g., Cheney-Lippold 2011; Eslami et al. 2015) is a key question that this study aims to find out. Besides, their responses and behaviours towards the SCS will also be considerably affected by their perception of the SCS. As many commercial credit rating systems and local pilots have been rolled out, this question expands its scope to users' attitudes and experiences of all existing credit scoring systems to provide more comprehensive insights.

Sub-question 2 focuses on users' behaviour changes in social media usages due to the SCS. As established in Chapter 3, three specific forms of usages are studied in this research: a) social media content like posts, comments, likes, reposts, and browsing; b) online social networks like friends, followers and followees; c) online shopping like personal preferences and financial capabilities. Changes in these three usages will respectively affect the participatory feature, networking and interactive affordances, and the business model of social media. Thus, they conjointly work as indicators to evaluate the scope and depth of the SCS's impact on social media.

Building on sub-question 1 and 2, sub-question 3 investigates the macro-level implications for social media. A variety of tensions and discrepancies will emerge

from findings of the first two sub-questions, which help to form more comprehensive and in-depth analysis of the research question. Therefore, sub-question 3 seeks to identify reoccurring concerns, major tensions and discrepancies between users' perceptions and behaviours and observes how they negotiate or are affected by these tensions. It pays attention to relevant topics, including users' perspectives about cyber governance, surveillance and data analytics, personal privacy and cybersecurity. This lays the foundation for understanding the underlying reasons and motives for any possible changes in social media usages. Finally, building on the analysis and discussion of users likely changes of online behaviours, it aims to situate this research in the broader academic context and answers the overarching research question of how the SCS would impact social media.

4.3 Justification for methods used in this study

4.3.1 Relevant digital methods for similar studies

The proliferation of digital devices, software and the Internet has reoriented social research with the web, or Internet-related research, in the direction of using more the Internet as “a source, method, and technique” (Rogers 2013, p. 27). Digital methods are methods and techniques for studies that investigate digital artifacts or objects, including “tiny particle” like hyperlinks, memes, website analysis and directory-making, and the “large masses” like search engine, blogosphere and social media (ibid, p. 4). Digital methods can be qualitative or quantitative. Qualitative digital methods used in social media research can be computer-mediated discourse analysis of online memes, posts or debates (e.g., Weaver 2013; Awan 2014; Chui and Fujita 2014; Törnberg, A. and Törnberg, B. 2016; Bouvier and Machin 2018); or netnography, participant-observational research that employs “inherently assimilative practice” and interlinks other methods such as interviews and discourse analysis (Kozinets 2015, p. 66). Netnography allows the researcher to immerse within an online group or community in its specific context to understand the subject's behaviours, habits, rituals, structures and relations in a more holistic and wide-ranging perception. For example, it can be used to research a certain online community (Hu 2016; Ivan 2019); or provide insights for marketing and decision-making (e.g., Wu and Pearce 2013). Compared to other qualitative approaches, netnography usually takes longer time and can be difficult to achieve the objective as

a large group of online users are “lurkers” who do not participate or contribute actively (Hine 2015, p. 177).

Quantitative digital methods usually use automatic analytics tool to process digital data. For example, several studies have used Twitonomy, a Twitter analytics tool, to understand and analyse discussions on a certain topic, online communities, relevant accounts on Twitter (e.g., Ucar et al. 2018; Grossman et al. 2020). An increasing number of studies have investigated networks on social media using software (Bruns 2007; Bruns 2012), including Issuecrawler, a web network location and visualisation tool for mapping the links and interconnections of issues networks; Gephi, an open-source network analysis tool; Pajek, IGraph and other software. Qualitative and quantitative digital methods can be combined in research to harvest larger set of data and probe more valuable insights.

Digital methods may be useful in analysing online debates and communities surrounding the SCS, as well as the gaps that emerge due to the SCS. However, these methods are less beneficial for directly exploring people’s understandings, underlying motivations and concerns, and possible interactions with the system. The objective of this study is not to track what social media users do online but to investigate their knowledges, perspectives, concerns and the driving factors for their behaviours. Therefore, I need to approach to my research subjects directly through surveys and interviews. Digital methods do not offer such communication channel for me to ask questions. Particularly, asking questions directly to social media users is the most suitable approach for this study because the SCS is still in the process of being developed and rolled out, thus there is little domestic publicity or public discussion about it. More importantly, the changes of their online behaviours have not yet materialised to be studied using digital methods. From here, I will focus on my methods – survey and interview – and explain the rationale of employing them and research designs.

4.3.2 The rationale of a mixed-method approach

This study employs a mixed-method approach combining self-completion e-survey and semi-structured in-depth interview. Survey data and interview scripts are triangulated to improve confidence in findings (Webb et al. 1966). However,

quantitative research and qualitative research have historically been regarded as two distinct research paradigms—the distinctions between them root in ontology and epistemology. Quantitative research works with numbers and usually involves collecting and analysing data. It follows natural science and positivism practices, the aim of which is to test a theory using a deductive approach (Bryman 2012). Qualitative research emphasises words over numbers and adopts an inductive approach to generate a theory. It rejects the perception that social science should be studied using natural science practices. Instead, the focus should be on the cultural-subjective interpretation by individuals because social reality, from this point of view, does not exist by itself but is constructed by individual's ideas and experiences in a specific spatial-temporal setting (Neuman 2014).

Consequently, the choice of research methods reflects what a researcher perceives as a social reality and how knowledge is obtained (Morgan and Smircich 1980; Hughs 1990). For scholars (e.g., Smith 1983) who regard the epistemological principles of quantitative and qualitative approach as incompatible, the two methods cannot be integrated in one study. More recently, however, scholars (e.g., Bryman 2012) argue that the connections between methods and ontology and epistemology are not deterministic and that the ontological and epistemological distinctions between quantitative research and qualitative research are not "hard-and-fast" (ibid, p. 37). When conducting an empirical study, "methodological stances are just stances...that are not followed in practice" (Platt 1996, p. 275). Specific characteristics of quantitative research also exist in a study that employs qualitative research strategy, and vice versa. Hence, it is feasible to combine quantitative research and qualitative research in a single project as supplements to each other (Tashakkori and Teddlie 2010).

4.3.3 Justification for employing the online survey

The survey is a useful instrument in a cross-sectional research design to collect quantitative data to "describe, compare, or explain knowledges, attitudes, and behaviour" (Fink 1995, p.1) on more than one case at a single point in time about two or more variables (Bryman 2012, p. 60; see also Coolican 1995; Gunter 2000). The survey can be administered with specific purposes by a list of carefully predesigned questions (Inoue 2003, p. 3); thus, it allows researchers to reach larger

population at a relatively low cost because more than one respondent can answer the survey at the same time. The researcher no longer needs to be on-site to explain each question to respondents; thus, the effect of the researcher is decreased. The majority of studies on people's attitudes and interactions towards digital data tracking in media and communication studies have used survey. For example, Barnes (2006) employed a classroom attitudinal survey to collect data of student attitudes about Facebook and privacy. On a larger scale, Turow et al. (2015) utilised a national phone survey of 1,506 Americans to investigate consumers' attitudes towards personal information and data collection by marketers. Quantitative survey can also combine various types of questions to provide more comprehensive and multi-dimensional data. For instance, Baumer et al. (2015), in their examination of social media reversion, recruited Facebook users who volunteered to stay off Facebook for 99 days and tracked their experience using three email surveys that included closed ended, Likert-style responses and open-ended, free-text responses. Despite diverse results, these studies demonstrate that quantitative survey is useful for revealing the perspectives and general attitudes of a group of population.

Online survey is a helpful instrument for collecting data in this study for the following reasons. First, e-survey can be easily distributed to a large population via the Internet so that the researcher does not need to travel and wait for each respondent to answer the questions (Sue and Ritter 2007). As Chinese social media users are over 800 million (CNNIC 2018) and demographically diverse, the e-survey stands as an efficient and effective method to collect more data. Second, the anonymity and social distance of e-survey are beneficial to investigating sensitive topics (Cantrell and Lupinacci 2007; Beling et al. 2011), as of this study. Sensitive research is "research which potentially poses a substantial threat to those who are or have been involved in it" (Dickson-Swift et al. 2018, p. 2). The SCS is a politic topic that involves government policy, which is usually considered as sensitive issue in China. Its sensitivity can also be proved by the fact that my e-survey was banned on Chinese online survey tools (see sub-chapter 4.4.4.3) and that the SCS is censored on Baidu Tieba (BBS) (Lee 2019). Hence, it is crucial to ensure the anonymity of research subjects, and e-survey can omit identifiable personal information and allow respondents to remain anonymous. As the e-survey was hosted on Survey Monkey rather than a China-based survey tool, it is less likely to be negatively affected by

government surveillance and censorship, and respondents can be more honest with their answers.

Third, as e-survey is distributed via the Internet, respondents can answer the survey on their digital devices at their convenience, which will increase the response rate (Douglas et al. 2005). Fourth, e-survey is "respondent-friendly" due to the filter-question feature that automatically directs respondents to the next appropriate question (Loescher et al. 2011). Fifth, human errors that mostly occur during manual data input (Jones et al. 2008) can be decreased significantly because the entire dataset can be directly imported to SPSS from Survey Monkey. Sixth, e-survey can reduce the likelihood of correlated answers. The researcher can control the number of questions on each page to prevent respondents from previewing questions before they answer. This can maintain the independence of questions and reduce correlated answers (Bryman 2012).

4.3.4 Justification for employing semi-structured interviews

Research that uses qualitative methods to examine social media and data mining have gradually increased (e.g., Miltgen and Peyrat-Guillard 2014; Troullinou 2017). Qualitative non-digital approach, although usually engaging with smaller sample, is useful for obtaining more nuanced textual materials that provide insights into individual experiences, the underlying reasons and concerns. In media and audience studies, qualitative approaches that are commonly employed to study audiences and users include interviews and focus groups. Interviews are conducted by a researcher who asks an interviewee a list of questions or series of topics and can be structured, semi-structured or unstructured based on the flexibility of the questions (Edwards and Holland 2013). Being one of the most widely employed research approaches in qualitative research (Bryman 2012, p. 469), interviews are useful for generating rich and descriptive data and gaining insights through interviewees' own words (Kvale 2007). It is a powerful method for studying people's understandings of the world, their individual experiences, and individual perspectives. For example, Lee et al. (2013) used semi-structured interviews to examine what kinds of risks and benefits exist in context information sharing situations and how users negotiate them and eventually lead to their intention to share on SNS.

On the other hand, focus groups usually contain more than one participant who are involved in “some kind of collective activity” in a form of group discussion to explore a specific set of topics or simply debating a set of questions (Barbour and Kitzinger 1999, p.4). For instance, Hargittai and Marwick’s (2016) study carried out 10 focus group interviews with a total of 40 young adults in the US to investigate their knowledge of privacy and privacy-protective behaviours on social media. Both interviews and focus groups enable the researcher to ask questions to participants directly, thus useful for projects that intend to find out opinions and understand user/audience interpretation or readings of a particular topic. Participants can express their views and experiences in their own word through these methods. However, these two methods have limitations such as much dependence on the interviewer or moderator, the problem of elicitation, and the presence of repeated and learnt “discursive mantra” (Hills 2002, p. 39). Focus groups have been used by previous studies but not used in this study because this study intends to probe individuals who are from diverse background of their attitudes and reactions to the SCS, rather than the census, discussion, or debates within a particular group.

This study employs semi-structured interviews, which are guided by but not limited to an interview guide (Rabionet 2011), to probe into users' perspectives of the SCS, understand the nuances in their statements, and unearth key concerns and tensions. The semi-structured characteristic enables the researcher to cover all the key themes, meanwhile, explore sub-areas of interests. Unlike unstructured interviews that may miss a few themes or result in thresholds of transcripts, semi-structured interviews can probe the pre-set questions while remain flexible (Fontana and Frey 2003). As in this study, 10 pre-set questions were used as the interview guide, and impromptu questions were followed up to probe for further information and enrich the findings. Interviewees could share insights on relevant topics inspired by the pre-set questions. Therefore, the use of a mixed method of e-survey and semi-structured interview in this study is justified.

4.4 Operation of the online survey

4.4.1 Summary

Online survey containing 23 questions was distributed on WeChat, Weibo, and QQ using snowball sampling method from 20 December 2018 to 26 January 2019. A total of 734 responses were received. However, due to technical issues explained in sub-chapter 4.4.4.3, a large number of responses were incomplete. If a survey missed more than three data among the first 19 questions, it was regarded as an invalid response because three or more missing data would affect the crosstabulation comparison between different variables and cases. After eliminating invalid responses, 417 valid responses were obtained and processed with SPSS.

4.4.2 Survey design

A pilot study (see Appendix 3 for a full report) was conducted to test the survey's reliability and validity before sending it to respondents. 41 Chinese students and fellow researchers in Cardiff were invited to complete the pre-test survey and give feedback. The final version (See Appendix 4 and 5) was confirmed after three revisions. It contains 23 questions in five frames. The first frame (Question 1 to 4) records respondents' social media usages: the regularly used social media platforms (Q1); purposes of using social media (Q2); time spent on social media daily (Q3); and the frequency of posting, commenting, reposting, and liking on social media platforms (Q4). Social media habits and usages are an important aspect of this research. This study focuses on Weibo and WeChat, as each of these two platforms stands as a representative of its kind: one supports stranger-based networking and information dissemination; and the other facilitates close-knit networking and instant messaging (CNNIC 2018). Besides, these questions help to investigate if users' social media usages will affect their responses to the SCS and if Weibo and WeChat will be affected by the SCS in the same way.

Before asking users in a more speculative way about their possible future responses to the emerging SCS, the second frame (Question 5 to 9) first asks about their actual responses to existing social media policies – RIV. Compared with the SCS, which might be rather abstract and unknown to respondents, RIV is one of the foundational Internet policies (Lu and Zeng 2014) that has been enforced for more than five

years. It has already impacted users directly and is well-known among them. Besides, RIV means users have to hand in their identity information to social media platforms; therefore, it is used as the starting point to dive into questions about the data driven SCS. Besides, Respondents' attitudes and responses towards the RIV can be used as a reference to understand their perspectives of cyber governance and the SCS. Question 5 to Question 9 asks respectively: whether respondents have done RIV on social media (Q5), the changes in their online behaviours after RIV (Q6), their attitudes towards RIV (Q7), and the reasons to support (Q8) or oppose RIV (Q9).

The third frame (Questions 10 to 12) forms a connecting link between RIV and the SCS. Question 10 and 11 examine users' counter-censorship activities on social media by asking: if respondents have used substitutions when they post content online (Q10), and the reasons for (or not) doing that (Q11). These questions aim to investigate whether users have taken measures to evade the stringent censorship and control over cyberspace and to what extent RIV and cyber governance have exerted a chilling effect on users. Question 12 turns its focus to data and asks to whom respondents grant access to their personal online data. As mentioned in Chapter 2, the collection and analysis of big social data is a key practice to ensure the effectiveness of the SCS. Hence, whether users have a strong sense of data ownership is crucial for understanding how much they will allow the SCS to use their data. It also helps to investigate if Chinese social media users have feelings of disempowerment towards data collection and surveillance.

The fourth frame (Question 13 to 19) contains the core questions that directly measure how the SCS affects social media usages. Question 13 asks whether respondents are aware of the Sunshine Credit on Weibo to evaluate their awareness and interest in non-financial credit rating systems. As the SCS has not been completely implemented at the time of the study, Question 14 to Question 16 probe respondents' tendency to change online behaviours and usages to a more disciplined manner for good credit scores in general. The 10-point Likert Scale is used to measure the likelihood of changing. Three forms of social media usages are examined: social media content like posts, comments, reposts, and likes (Q14); online social networking like following and friending (Q15); and online shopping like

using e-commerce sites and online payments (Q16). A follow-up question (Q17) asks whether respondents, regardless of the motives, have already taken above measures to increase their credit scores. Question 18 probes respondents' interest in the SCS and the scope of the SCS's influence by asking respondents if they have discussed relevant topics with acquaintances. Q19 further investigates respondents' attitudes towards including social media data in a person's credit score, which can show their general attitudes towards the SCS and if there are discrepancies in their attitudes and behaviours.

The last frame contains four questions on demographic background that respectively document respondents' sex (Q20), profession (Q21), age (Q22), and residence (Q23). These questions are set at the end of the survey to reduce the "partial response rate" (Hunter 2012, p.19). Since e-surveys can hardly guarantee an ideal sample of respondents, one objective of tracking demographics is to keep sampling error in check by comparing the sample's demographics with the demographics on the CNNIC (2018) census report. Thus, the classifications of sex, profession, and age group followed those on the official CNNIC report. The other objective is to research whether respondents' demographics have connections with their answers to other questions.

On the last page, there is a short text expressing my gratitude and a blank for respondents to leave comments and feedback. It also informed them that individual in-depth interviews would be carried out after the survey phase and invited them to leave their contact information should they wish to participate.

4.4.3 Survey respondents sampling

4.4.3.1 *Justification of using snowball sampling*

A sample is a subset of a population selected as a representative of the population for investigation (Bryman 2012). Based on whether samples are selected randomly, there are two ways of sampling: probability sampling and non-probability sampling. It is challenging to control the sampling procedure for e-survey approach because it can be passed on just by a single click (Whitehead 2007). Hence, this study used a non-probability sampling approach – snowball sampling. This approach requires existing subjects to introduce new subjects who might have insights or relevant

experience (Vasquez and Wetzel 2009). It is a valuable tool when a research topic is sensitive and delicate (Liamputtong 2007; Waters 2015). When investigating such topics, using snowball sampling to distribute surveys first to acquaintances can get more responses because they are more likely to accept the survey invitation and pass it on to their existing social networks (Hunter 2012). Therefore, snowball sampling is a useful strategy to maximise response rate and improve response quality in this study.

4.4.3.2 Sampling procedure

From 20th December 2018 to 9th January 2019, survey link was sent on WeChat and QQ (Table 1). On WeChat, one link was sent directly to 696 WeChat contacts; 5 of my WeChat groups (Group 1 to Group 5); and shared on my WeChat Moment. The 696 contacts primarily include my former schoolmates at middle and high school in Zhengzhou City, university alumni in Kaifeng City, postgraduate alumni in Hong Kong and Cardiff. Members in 5 WeChat groups mainly comprised my alumni and overlapped with some of my contacts. Although they are my personal acquaintances who shared similar education background at one time, they studied different subjects, have various family background, live in different cities, and work in a range of professions and industries. After sending them the survey, I also kindly asked them to share it with their contacts to reach a diversity of social media users. A few of them have shared the survey link to their WeChat contacts, and several have invited me to some of their WeChat Groups.

The survey was further shared to users who were not my contacts. 14 WeChat Groups (Group 6 to Group 19) were introduced by respondents who had finished the survey. Group 6 contained people from 35-55 years of age, which filled in the age gap. Group 7 to Group 12 were mainly consisted of Chinese students studying in UK, who majored in various subjects and came from different cities in China. Members in Group 13 to Group 15 were undergraduates who were studying in China. Another 4 groups contained people from diverse background: members in Group 16 were volunteers in rural areas in Henan Province; Group 17 was a second-handed trading group with people of 20-35 years old; people in Group 18 were hiking lovers in Hong Kong; and Group 19 was a customer group for a cookware brand. Users in these groups have various demographic background, interests, and

lifestyle; thus, reaching out to them is helpful for increasing the diversity of the sample.

Meanwhile, the e-survey link was shared in five QQ groups of university students in China (Group A to E). Members in these groups were not my acquaintances and were studying at various universities across China. The reason for sending the survey to more university students is that they are an important group of users who are tech-savvy, easy to reach, and whose online behaviours, usages, and opinions of the SCS will have long-term impact on the future of social media. Distribution on WeChat and QQ lasted for 20 days as the recipients on these two platforms are relatively fixed, and the response rate will not change dramatically after two weeks.

As noted in sub-chapter 2.2.3, Weibo is the other key social media to be examined in this study. Therefore, the survey link was posted on my Weibo account with daily hottest hashtags to maximise page views. The Weibo account was registered on 07th March 2018 and had 493 followers, mostly strangers. Ten posts with the survey link and a description of the research purpose were posted during 10th January 2019 to 26th January 2019. As Weibo posts were open to the public and included daily hashtags, it was impossible to trace the recipients as anyone could see the post if they view the hashtags. Nonetheless, the number of views of each post was shown on Weibo and tracked. Table 1 presents a full list of the sampling platforms and the components of subjects.

Platform	Category	People/Views	Component
WeChat	Contact	696	Former schoolmates, friends, families, and other acquaintances
	Group 1	59	Middle school classmates in Zhengzhou City graduated in 2008
	Group 2	38	High school classmates in Zhengzhou City graduated in 2011
	Group 3	30	Undergraduate classmates in Kaifeng City graduated in 2015
	Group 4	34	Undergraduate alumni in Kaifeng City graduated in 2015
	Group 5	81	Postgraduate alumni in Hong Kong graduated in 2016
	Group 6	12	People from 35-55 age group
	Group 7	184	Chinese Undergraduates and postgraduates in Cardiff
	Group 8	457	Chinese Undergraduates and postgraduates in Cardiff
	Group 9	31	Chinese postgraduates in Cardiff
	Group 10	212	Chinese students in Cardiff
	Group 11	162	Career information group for Chinese students in UK
	Group 12	61	Internship information group for Chinese graduates in UK
Group 13	148	Job information group for undergraduates in China	

	Group 14	64	Undergraduates in Henan Province
	Group 15	30	Undergraduates in Henan Province
	Group 16	18	Volunteers in rural areas in Henan Province
	Group 17	69	Second-handed trading group with people of 20-35 yrs. in mainland China
	Group 18	137	Hiking group in Hong Kong with mainlanders and locals
	Group 19	43	Customers of a cookware brand
QQ	Group A	1776	Part-time job information group for undergraduates in China
	Group B	1510	Job information group for postgraduates in China
	Group C	101	Undergraduates in China
	Group D	458	Undergraduates in China
	Group E	479	Undergraduates in China
Weibo	Post 1	249	N/A
	Post 2	221	N/A
	Post 3	236	N/A
	Post 4	163	N/A
	Post 5	183	N/A
	Post 6	207	N/A
	Post 7	190	N/A
	Post 8	197	N/A
	Post 9	231	N/A
	Post 10	264	N/A

Table 1: List of sampling platforms for survey respondents

4.4.3.3 Sample results (Full report see Appendix 6)

A total of 417 valid responses were obtained after eliminating invalid and incomplete answers. 271 respondents were females, and 146 were males (Table 2). In terms of age, 317 of 417 respondents aged 20-29 years, making up for more than three-quarters of total respondents. The rest consisted of 7 people under 20 years old, 54 people aged 30-39, 26 people aged 40 to 49, 10 people aged 50-59, and 3 seniors were over 60 years old (Table 3). Although the majority of respondents were 20-29 years old, the final sample has included users from all age groups.

Survey Respondents' Sex			
		Frequency	Percent
Valid	Male	146	35.0
	Female	271	65.0
	Total	417	100.0

Table 2: Survey respondents' sex ratio

Survey Respondents' Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 20	7	1.7	1.7	1.7
	20-29	317	76.0	76.0	77.7
	30-39	54	12.9	12.9	90.6
	40-49	26	6.2	6.2	96.9
	50-59	10	2.4	2.4	99.3
	60+	3	.7	.7	100.0
	Total	417	100.0	100.0	

Table 3: Survey respondents' age groups

Respondents' professions show that this study successfully obtained people who have worked in all the eleven different sectors and industries listed on the CNNIC census reports (e.g., CNNIC 2018). Consistent to the official report, students were the biggest group among respondents – 134 respondents, accounting for 32.1% of total respondents. 122 respondents worked in private sectors or companies (29.3%); 55 worked at CCP or government departments (13.2%); 40 were professional technical staff (9.6%); and 38 were freelancers or self-employed (9.1%). The rest consisted of 11 workers at manufactural enterprises (2.6%); 6 unemployed (1.4%); 4 retired (1%); 3 workers in agricultural, forestry, animal husbandry, and fishery industries (0.7%); 2 business service staff (0.5%); and 2 rural migrant workers (0.5%).

Respondents were geographically diversified. 354 respondents lived in 87 cities in 20 different provinces, ranging from first tier to sixth tier. Zhengzhou (56 respondents; number in brackets shows the number of respondents in that city), Beijing (54), Shanghai (30), Shenzhen (19), Hong Kong (19), Guangzhou (13), Kaifeng (11), Hangzhou (9), Wuhan (8), Xi'an (8), Xiamen (6), Tianjin (6), Chongqing (5), Hefei (5) are cities and areas in China where at least five respondents resided. The rest 63 respondents lived in 36 cities in 12 other countries at the time of the interview. UK, US, and Australia are the top three countries where most respondents resided, respectively with 19, 15, 8 respondents. In terms of the city, London (10), Singapore (5), Melbourne (4), New York (4), Ulaanbaatar (4), Auckland (3), Moscow (2), Norwich (2), and Sydney (2) are cities abroad where more than one respondent resided. A full list of respondents' domiciles is shown in Appendix 6. Although

respondents' duration of staying abroad was unknown, considering the fact that they were still using Chinese social media, they were all included as eligible subjects in this study.

4.4.4 Challenges and limitations of e-survey method

4.4.4.1 *Representativeness of the sample*

Due to the large number of social media users in China, it is impossible to reach an ideal sample to represent them, especially when this study had no funding, little technic backups, and limited time frame. Survey respondents were obtained using the snowball sampling, which can lead to a homogenous sample, or "an elite sample that has no representative or generalised attributes" (Dantzker and Hunter 2006, p. 131). As the e-survey was first distributed to my contacts and 5 groups on WeChat, my social networks were likely to impact the sample results regarding location, education background, and age. As shown in sub-chapter 4.4.3.3, Zhengzhou City, where most respondents resided, is the home city where I had spent the most time. The biggest group in terms of profession and age accords with my status as a PhD student aged 20-29.

However, to reach a wider group of users and increase respondents' diversity, I had kindly requested my contacts to distribute the survey to their contacts so that the survey could reach a wider population. My acquaintances have been working in different professions and industries across China and abroad, so their networks could help increase respondents' diversity. Besides, several respondents also invited me to 14 new Wechat groups with various focuses, in which I distributed my survey and kindly ask group members to share it further. In addition to WeChat, the survey was also sent to 5 new groups on QQ, which were also a new pool of respondents that were not my own contacts. Weibo was also used to reach another group of new users who use Weibo more regularly. All these measures were taken to maximise the diversity of the sample. Demographics show that the respondents gained in this study consisted of both female and male social media users from all age groups, who have worked in various occupations from across China and other countries.

Despite the efforts, it is realistic to admit that that the majority of the respondents in this research were city-based, had enjoyed higher education, had stable jobs, and

probably earned an average or higher income compared to the whole population of social media users. Nonetheless, the findings based on this sample can still provide valuable insights into how this particular demographic group perceives the SCS and how the SCS might change their social media usages. The sample's specific limitation, which lacks a balanced portion of respondents from rural areas doing manual labours or with a relatively lower level of education and income, is noted when interpreting the results and discussing the implications.

4.4.4.2 Voluntary participation and privacy protection

As a delicate and sensitive political topic that is concerned with government policy, the study on the SCS needs to guarantee respondents' voluntary participation and personal privacy. To make sure that respondents answered the survey voluntarily, the first page of the survey introduced the objectives and themes of the survey and explained the measures to protect their anonymity. It highlighted that they had the full right to decide whether to partake in the study or not and that they could quit the survey at any time for any reason without any consequences. Only when respondents clicked the "Agreed to Proceed" button could they view the survey and begin to answer. These measures aim to guarantee respondents' right to information and their autonomy to make decisions.

Regarding privacy protection, Survey Monkey's feature of "anonymous response" was used throughout the whole phase. When this feature is turned on, it no longer records respondents' IP address or any identifiable personal information. To decrease the long loading times (see sub-chapter 4.4.4.3), various links to the survey were created to diverge Internet traffic. However, this is likely to compromise the anonymity of respondents because a few respondents' identities could be deduced from the demographic information combined with unique links sent to their groups. Hence, in this study, only three links were created and used randomly on different platforms. As the survey's last page provided a blank for respondents to leave contact information for voluntary interview, this information was deleted immediately after I had contacted them. Any information that might reveal the respondent's identity was strictly restricted to me only and treated with caution, so technically all surveys were anonymous.

However, issues that could undermine the anonymity of the respondents still existed. As the survey was distributed using the Survey Monkey platform, user data is subject to data tracking by the platform and its partners. Moreover, the Chinese government's surveillance practices could also compromise the respondents' anonymity as they logged in the survey via Chinese social media platforms. These are external factors over which I had little control. Therefore, it is responsible to state that respondents who participated in the survey may not be completely anonymous.

4.4.4.3 Internet censorship and technical obstacles

The Internet censorship in China has forced this study to use foreign-based survey tool, which took longer for respondents to complete the survey. For example, Tencent Survey platform alerted that my survey contained sensitive information and thus could not be saved nor distributed. Wenjuanxing clearly stated that any surveys containing content about politics, military, religion, ethics, or other sensitive information were not allowed on its platform and demanded its service users to verify real name and ID number before they could proceed. To avoid losing all the data in the end and suffering from unknown consequences, I eventually decided to use Survey Monkey.

Unexpected problems still occurred. During the distribution period, the link and the QR code to the survey were sent to recipients. However, most of the respondents reported that the link was unable to load or barely refreshable. This problem did not occur during the piloting phase, probably because the number of recipients at the piloting phase was not large. The primary obstacle to loading the surveys is probably that the server of Survey Monkey is located outside China, so it took much longer time to load. To solve this, I created three links to diverge the traffic, and increased the time intervals between sending the survey to each group. Although respondents still constantly complained that it took them a long period to refresh each page, 417 valid responses were successfully obtained. This also explains why 43% of 734 responses were incomplete.

4.4.4.4 Limitation of e-survey

The survey instrument has inherent limitations. First, it is unlikely to probe more information or prompt questions when there are valuable insights because

respondents were unable to give feedback to the researcher timely. Besides, it is uncertain whether each individual understands the questions in the same way as the researcher proposes, or whether what they answer during the survey is constant with what they do in real life, especially on a sensitive topic as the SCS. These limitations can undermine ecological validity (Cicourel 1982). To compensate for these shortcomings, blanks for respondents to leave feedback and comments were inserted under most questions and on the last page. The survey had been pretested and revised multiple times before distribution to reduce the ambiguity of the questions. Measures such as anonymity protection and voluntary participation were taken to provoke honest answers from respondents.

Second, a typical limitation of e-survey is that it will exclude the Internet illiterate people (Jones et al. 2008). However, this limitation becomes a filter instrument for this study to approach the target subjects – social media users. During the process, some senior respondents struggled to fill in the e-survey because although they used social media, they had little experience with Internet survey tools and were confused about the buttons and clicks. When they encountered such difficulties and reported to me, I would explain to them in detail how the buttons worked, how to turn to the next page, and other technical problems without influencing their answers.

Despite the challenges and limitations mentioned above, this is the first study that has extensively studied a large number of Chinese users' perspectives of the SCS and how the SCS will affect their social media usages. Although the findings drawn from surveys apply to the sample more than the whole population, they can still offer valuable insights in the implications of the SCS for social media and future studies on the SCS.

4.5 Operation of semi-structured Interviews

4.5.1 summary

Interviews were conducted with 47 Chinese social media users between February 2019 and April 2019. Interviewees were recruited using a mix of generic purposive sampling and snowball sampling. 26 interviews were conducted online via WeChat audio call, and 21 interviews were conducted face-to-face in three cities, Beijing

(North), Zhengzhou (Central), and Shenzhen (South). Each interview lasted 15 to 45 minutes and was audio-taped and transcribed. Useful quotes that are cited in this thesis was translated into English by me. Interview transcripts were analysed using NVivo11.

4.5.2 Interview guide design

The interview guide was being designed at the end of the e-survey phase, when around 400 valid survey responses had been collected. It contains ten questions (see Appendix 7 and 8), which primarily aim to investigate interviewees' perception and attitudes to the SCS, their likely changes in social media behaviours, and their expectations and concerns towards the SCS and citizen scoring. Similar to the first frame on the survey, Question 1 on the interview guide aims to learn about interviewees' social media usages, such as what their regularly used platforms are, how long they spent online per day, how often they use social media, and for what purposes. Interviewees' current social media behaviours and habits, along with their future behaviours affected by the SCS, are the key part of my research. Besides, it can also help to probe whether there are correlations between interviewees' social media usages and their attitudes towards the SCS. Question 2 corresponds to the second frame on the survey about current cyberspace policy – RIV. In addition to the questions on the survey, interviews also probed into interviewees' perception and attitudes to cyber regulations, and to what degree they were willing to conform to those rules and requirements. Their responses can provide qualitative and textual insights for understanding how Chinese users have adapted themselves to the evolving cyber governance.

Question 3 probes interviewees' knowledge of the SCS and the sources of their information on the SCS. Survey results show that a considerable portion of respondents had little awareness of non-financial credit scoring systems; hence, the necessity of probing users' level of knowledge of the SCS became pressing. If interviewees have little knowledge or awareness, it is worth probing the cause. The sources of information are also important because different sources will portray the SCS with embedded ideologies and bias (sub-chapter 2.4). Thus, the sources can help to explain interviewees' perspectives. However, if most interviewees are unaware of the SCS, it will be challenging to probe their attitudes and responses to

the SCS. To extract valuable insights from hard-to-get interviewees, I informed the interviewees who admitted that they had no knowledge of the SCS and its objectives and key features that closely relate to individual credit rating and the Internet using the official 2014-2020 Outline³⁹. This document is the starting point for all studies on the SCS and is a relatively neutral piece which primarily contains instructions compared to media articles and previous studies, which might be affected by framing and digestion; hence, it is used in this study as a reliable source for providing objective background information for interviewees.

Question 4 investigates interviewees' attitudes towards including social media behaviours as scoring criteria for the SCS and the underlying reasons. The objective is to explore to what extent interviewees find it justifiable for credit scoring systems to evaluate a person's trustworthiness and creditability using non-financial activities. Question 5 explores whom interviewees trust to construct the SCS and set the scoring criteria because the constructor can affect the creditability and legitimacy of the system in the perspective of the public. It also asks whether they demand the scoring criteria to be made transparent for the public. The transparency of the criteria addresses the obscurity of data analytics and also the creditability of the SCS. As the SCS entails data collection and surveillance, Question 6 examines interviewees' perspectives about data collection and privacy by asking whether they support the government and/or social media companies to access their social media data for the purpose of credit scoring. It also probes how interviewees negotiate the tensions between personal rights and government requirements.

Similar to the survey, question 7, 8 and 9 on the interview guide respectively focus on three social media usages – online content, networks, and shopping – and investigate how the SCS will change the way interviewees conduct each usage and why. These are the most important questions for this study. Individual investigations

³⁹ The SCS aims to establish and improve the credit rating on the whole society and individuals based on the sharing of social and financial information and implement the joint incentive and punishment mechanism to make trustworthiness a code of conduct for every citizen. It also aims to establish an online credit evaluation system to conduct credit evaluations on online behaviours of Internet users and record credit ratings. The online credit record will be shared with other credit system and applied in all areas of society. Individuals who have committed serious online untrustworthy behaviours such as online fraud, spreading rumours, and infringing on the legitimate rights and interests of others will be listed on an online credit blacklist and be imposed of restrictions and made public.

into each aspect can provide more comprehensive and multi-dimensional insights into the impact of the SCS on social media. Besides, interviews results can complement quantitative data with rich textual materials and present the nuances, discrepancies, and consistencies. The last question of the interview asks if interviewees would like to conclude their answers or add comments. It provides them with a chance to organise their thoughts and give feedback. Interviewees' perspectives and attitudes may shift slightly or change dramatically during the interview; hence, it is necessary to ask them to conclude their ideas at the end of the interview. Additionally, their own conclusion and clarification can help to avoid confusions or misinterpretation.

4.5.3 Interview subjects sampling

4.5.3.1 *Generic purposive sampling and snowball sampling*

This study used generic purposive sampling (Bryman 2012) and snowball sampling in sequence to acquire interviewees. Generic purposive sampling, or sampling method in the “generic inductive qualitative model” (Hood 2007, p. 152), is used in more “open-ended” inductive and investigative studies. It is flexible in terms of sampling criteria and manner (Bryman 2012, p. 422). Generic purposive sampling has the following features: a) it selects subjects purposively but not strictly to generate theories; b) it may be employed in either a sequential or a fixed manner; c) it can follow a priori set of criteria or a contingent one or a mixture of both (Bryman 2012). In a mixed-method study, the results of a survey can be used as a guide for the next stage purposive sampling (Sempik et al. 2007; Bennett et al. 2009), which is the sampling method used to gain the initial group of the interviewees in this study. As noted in sub-chapter 4.4.2, survey respondents were informed of the one-to-one in-depth interview and invited to participate. 44 survey respondents consented to take part in the interview session and left their contact information in the blank on the last page of the e-survey. These candidates consisted of 24 females and 20 males from 25 different cities.

The first group of 26 eligible interviewees were selected from the 44 candidates based on their survey responses and demographics. First, 44 candidates were crudely divided into supporters, neutralists, and objectors, based on their general attitudes and the likelihood to change their behaviours for the SCS. Next, their

responses were examined against their demographics – sex, age group, region, and occupation. The purpose is to acquire the same number of female and male of all age groups from different places of domiciles with various occupations who could have distinct stances towards the SCS. It proved to be challenging to fulfil the diversity of profession and age because more than half of the 44 were students or private company staff and 35 of them aged 20-29. Nonetheless, as the candidates had different responses, the diversity of perspectives was able to be ensured. Finally, 26 subjects were selected for interviews primarily based on their responses and perspectives.

The second group of 21 interviewees were recruited from the first group of interviewees using snowball sampling method. During the one-to-one interviews with the 26 interviewees, I pleaded with them to solicit their acquaintances who might have relevant experiences or insights about the SCS. Many interviewees introduced potential candidates for interviews. During this snowball sampling phase, the researcher purposefully attempted to recruit interviewees from various age groups with distinct professions in order to compensate for the lack of diversity in these criteria. However, the sensitivity of the topic made it challenging to obtain an ideal group of interviewees, as a few interviewees were reluctant to introduce their acquaintances for the interviewed. In several cases, interviewees working in the government only accepted off-the-record chat, which cannot be included in the study. Eventually, another valid 21 interviews were conducted, and the total number of interviews amounts to 47.

4.5.3.2 Sample results

This study recruited a generous sample of 47 interviewees (Table 4). The sex ratio of interviewees was balanced, as 25 were female (coded as F) and 22 were male (coded as M). They were geographically diverse. At the time of the interview, they resided in 20 cities in China. 15 interviewees resided in Zhengzhou, 11 in Beijing, 2 in Shanghai, Shenzhen and Kaifeng respectively, and 13 interviewees resided in 13 different cities in China. 2 interviewees lived abroad at the time of the interview, one in Ulaanbaatar and one in Sheffield. 41 interviewees aged 20-29 at the time of the interview, 5 aged 30-39, 1 was 16 years old.

The classification of interviewees' profession is consistent with the survey's and the official CNNIC reports'. Different from survey on which respondents chose the occupation categories by themselves, the professional category for each interviewee was judged by the researcher based on interviewees' descriptions. 15 interviewees were students (coded as 1): 1 was high school students; 7 were undergraduates; 4 were master students; and 3 were PhD candidates. 18 interviewees were staff at private sectors or commercial companies (coded as 2): 7 worked at banks or other financial institutions; 2 worked at Tech companies; 2 worked at media companies; 2 worked at real estate companies; the rest 5 respectively worked at a tourism company, a furniture company, a medical company, a hospital, and an international company. 8 interviewees worked at the CCP or government departments (coded as 3): 3 worked at government departments; other 5 respectively worked at a government-led financial department, the army, China Central Television, a university administration, and a public sector. 2 interviewees were free-lancers or self-employed (coded as 4). 3 interviewees were professionals (coded as 5): 2 of them worked in the education industry, and 1 was a doctor. 1 interviewee was unemployed at the time of the interview (coded as 11).

Therefore, although most interviewees were from the same age group, this study managed to obtain a heterogeneous group of interviewees as to domicile, education and professions, suggesting the inclusiveness and diversity of research subjects. On the other hand, bearing in mind the limitation of snowball sampling, it is rigorous to conclude that interviewees' responses are more representative for users who are city-based, enjoyed higher-education, and have an average or higher living standard.

No.	Sex	Age	Profession	Other	Resident city	Mode of interview	Time of interview
01	F	20-29	2	Bank	Zhengzhou	Face to face	19 Feb 2019
02	M	20-29	2	Bank	Zhengzhou	Face to face	19 Feb 2019
03	M	20-29	3	Hospital HR	Zhengzhou	Face to face	20 Feb 2019
04	F	30-39	4	E-commerce	Zhengzhou	Face to face	21 Feb 2019
05	M	20-29	2	Tourism company	Kaifeng	Face to face	21 Feb 2019
06	M	30-39	5	Education industry	Yantai	Face to face	22 Feb 2019
07	M	20-29	1	Postgraduate	Luohe	Face to face	23 Feb 2019

08	F	20-29	3	University executive	Zhengzhou	Face to face	23 Feb 2019
09	F	20-29	2	Real-estate company	Hong Kong	Face to face	25 Feb 2019
10	F	20-29	1	Postgraduate	Beijing	Face to face	26 Feb 2019
11	F	20-29	2	freelance writer	Shanghai	Face to face	26 Feb 2019
12	F	20-29	1	Undergraduate	Zhengzhou	Face to face	26 Feb 2019
13	F	20-29	5	Doctor	Zhongshan	Face to face	26 Feb 2019
14	F	20-29	2	Tech company HR	Shenzhen	Face to face	26 Feb 2019
15	F	20-29	3	Government IT	Zhengzhou	Face to face	27 Feb 2019
16	M	30-39	2	Real-estate company	Zhengzhou	Face to face	27 Feb 2019
17	M	20-29	2	Finance industry	Haikou	Face to face	28 Feb 2019
18	F	20-29	4	Law firm	Xinyang	Face to face	1 Mar 2019
19	M	20-29	1	Undergraduate	Zhengzhou	Face to face	1 Mar 2019
20	M	20-29	1	Undergraduate	Zhengzhou	Face to face	1 Mar 2019
21	M	20-29	1	Undergraduate	Zhengzhou	Face to face	1 Mar 2019
22	F	30-39	2	Furniture company	Zhengzhou	Face to face	2 Mar 2019
23	F	20-29	2	State-owned medical company	Beijing	Face to face	2 Mar 2019
24	F	20-29	3	Military service	Beijing	Face to face	2 Mar 2019
25	F	20-29	4	Unemployed	Beijing	Face to face	2 Mar 2019
26	M	20-29	3	CCTV	Beijing	Face to face	3 Mar 2019
27	F	20-29	2	Financial industry	Beijing	Face to face	5 Mar 2019
28	M	20-29	1	Postgraduate	Kaifeng	Face to face	6 Mar 2019
29	F	19 and under	1	High school student	Zhengzhou	Face to face	16 Mar 2019
30	F	20-29	1	PhD student	Mongolia	WeChat audio	22 Mar 2019
31	M	20-29	2	Tech company	Beijing	WeChat audio	22 Mar 2019
32	F	20-29	2	Internet finance company	Beijing	WeChat audio	27 Mar 2019
33	M	20-29	3	State-owned finance company	Fuzhou	WeChat audio	28 Mar 2019
34	M	20-29	3	Government department	Zhengzhou	WeChat audio	2 Apr 2019
35	F	20-29	2	Bank	Shanghai	WeChat audio	7 Apr 2019
36	M	20-29	1	Undergraduate	Quanzhou	WeChat audio	7 Apr 2019
37	M	20-29	3	Government department	Beijing	WeChat audio	7 Apr 2019
38	M	20-29	1	Undergraduate	Shenzhen	WeChat audio	7 Apr 2019
39	M	30-39	2	Journalist	Hangzhou	WeChat audio	8 Apr 2019
40	F	20-29	1	Undergraduate	Guangzhou	WeChat audio	8 Apr 2019
41	F	20-29	1	PhD Student	Wuhan	WeChat audio	8 Apr 2019

42	M	20-29	2	Financial industry	Zhengzhou	WeChat audio	8 Apr 2019
43	M	20-29	1	Postgraduate	Xiamen	WeChat audio	8 Apr 2019
44	F	20-29	3	Public institution	Beijing	WeChat audio	8 Apr 2019
45	F	20-29	2	Journalist	Beijing	WeChat audio	8 Apr 2019
46	M	20-29	1	PhD student	Sheffield	WeChat audio	8 Apr 2019
47	F	20-29	3	Education industry	Chongqing	WeChat audio	9 Apr 2019

Table 4: Interviewees' demographic background

4.5.4 Challenges and Limitations of interview

4.5.4.1 *Informed consent*

Interview as a research instrument may cause moral and ethical concerns because it involves human interactions and places private lives and accounts in the public (Mauthner et al. 2002). Ethical issues occur throughout an interview process from thematising to the final reporting stage and should be dealt with great care (Kvale 2007, p. 26). For the protection of both interviewees and the researcher, ethical guidelines have been strictly followed in this study.

After the e-survey had been banned on Chinese survey tools, I began to be more cautious when conducting the interviews as 26 interviews were conducted via WeChat audio call, which is subject to government and companies' surveillance. Before each interview, I would brief interviewees on the research's objective and the interview procedure and give them a formal consent form (see Appendix 9 and 10), either in hard-copy or digital copy. The agreement informed them about a) the nature of this study and their role in it; b) their right to withdraw from the interview at any time; c) their right to access their own interview transcription and the right of final interpretation so that the researcher's analysis was loyal to their statements; d) measures for making complaints. It also asked interviewees to confirm that their participation was completely voluntary; and consent to be audio-taped during the whole interview and used for academic purposes in the future. Interviews only proceeded after interviewees had signed the consent form or gave clear written/oral consent. When interviewees required more information about the research or the topic, a debrief was arranged after the interview to avoid any influence on their answers.

4.5.4.2 *Confidentiality*

Confidentiality in the interview approach demands that identifiable data of subjects be concealed from public access (Kvale 2007, p. 27). It is a crucial technique to protect interviewees from potential harms, especially in a sensitive study; thus, confidentiality should be rigorously respected. However, Parker (2005) argues that anonymity serves the interest of the researcher because it yields the privilege of controlling and publishing information to the researcher him/herself, whereas subjects may want to be named in the research. Taken both sides into consideration, I informed the interviewees that if they expected to be credited with their full name and identity in the thesis, it would be respected; otherwise, access to the recordings and word-to-word transcripts would be strictly limited to the involved interviewee and me. When an excerpt needed to be quoted in the thesis, any information that could reveal interviewees' identity was only used under consent; otherwise, it was anonymised or omitted entirely. During the interview, interviewees could request to quit the interview or say something off the record at any time without any reason, and their anonymity remained unaffected.

4.5.4.3 *Verification and translation of interviewees' statements*

Transcriptions in this study were produced in a word-to-word technique so that verifying transcriptions with interviewees was unnecessary as they precisely presented the original statements, except when confusions occurred or when interviewees requested to have a copy. As stated on the consent form, interviewees could decide how penetrating the interviews were analysed and how their statements were interpreted. In order to report interviewees' viewpoints faithfully, all conclusions and interpretations of their statements were doublechecked with interviewees at the end of each interview. If disagreed, interviewees could either explain or arrange another interview, but both interviews would be kept and used at different levels accordingly. In this way, the researcher can avoid "upholding a monopoly of interpretation over the subject's statements" (Kvale 2007, p. 15). Nonetheless, none of the interviewees requested to see the transcription or a second interview.

As interviews were conducted in Chinese language, translation into the English language is needed. In this research, no external translator was hired. One reason is to ensure confidentiality as some materials contained sensitive or private personal

information. Furthermore, some statements need to be interpreted in a specific context that only the researcher and the interviewee can comprehend. For example, interviewee #02 said: “I am not working at a bank” if translated literally; while the real situation is that he was working at a bank. He used a kind of tag question to emphasize the fact that he was working at a bank. An external translator cannot comprehend the context from transcriptions and will result in mistranslation and incoherence. Hence, whenever a quote was needed, I would translate the text using semantic translation, that is, “reproducing the precise contextual meaning of the author within the bare syntactic and semantic constraints of the target language” (Newmark 1982, p. 22). This technique can convey the meaning without being rigidly framed in the word-to-word translation.

4.5.4.4 Ethical issues regarding minors

Interviewee #29 was a minor aged 16 at the time of the interview. Interviewing minors should be treated carefully and strictly follow ethical guidelines (Alderson 1995). Therefore, the purpose of the research and the consent form were thoroughly explained in straightforward and comprehensible language to the minor and her legal guardians. The interview proceeded after consent from both the minor and her guardians had been obtained. During the whole interview process, the guardians of the minor were present. As agreed with them, the interpretation of the minor’s statement was verified twice with her. All other interviewees who participated in this study were adults. They were questioned personal perspectives of the topic as social media users rather than as their social roles at the workplace; thus, they were able to consent to interviews without obtaining permission from their superiors or other people.

4.5.4.5 Limitations of interview method

Qualitative research is usually more subjective compared to quantitative research. The quality of an interview depends on both the subject’s knowledge and the “craftsmanship” of the researcher, referring to the ability of the researcher to critically question the statements and theoretically interpret the findings (Kvale 2007, p. 87). To procure sufficient knowledge on the topic before fieldwork, I have reviewed abundant literature and background information on the SCS and interview skills. On the other hand, a researcher’ abundant knowledge can cause “an asymmetrical

power relation” (Kvale 2007, p. 14) between the researcher and the interviewee. A researcher has the scientific competence that can decide, navigate, and shape the interview, whereas interviewees may, deliberately or not, tell what they think the researcher wants to hear rather than what exactly they want to say, which can compromise the quality of the interview. Besides, their answers can be affected by the verbalisation and the sequence in which questions are asked. Thus, during the interviews, a few questions like their attitudes towards the SCS were asked multiple times. If their answers contradicted, more questions were prompted to investigate the underlying reasons for discrepancies.

This study used two modes of interviews – face-to-face and WeChat audio call. 21 interviewees who accepted face-to-face interviews might be influenced by my body language and the environment to some extent, but they could reveal more inner feelings without concerns over online surveillance. On the other hand, 26 interviews via WeChat audio calls might be affected by online surveillance but were rid of the influence of the researcher. Furthermore, the replicability of qualitative study is limited due to the sampling procedure, analysis and interpretation, and the unique time of the study when the SCS has not been fully implemented. The timeliness of this study stands as an incomparable value. Another limitation of the qualitative study, similar to small-sampled quantitative studies, is that the scope of the qualitative investigation is restricted so that findings can only be applied to a small group of population. However, Williams (2000) argues that the characteristics of a small group of subjects can reflect the features of a broader population as in “moderatum generalisations” (p. 215). The 47 interviewees gained in this study are demographically diversified and have varied perspectives, so their responses can provide valuable insights into the SCS’s implications for social media usages.

4.6 Conclusion

This study chose a mixed method of e-survey and interview to investigate the implications that SCS will impose on users and social media in China. The questions for the survey and interviewees were devised based on the three supporting research questions of users’ perspectives of the SCS, their likely changes in social media usages due to the SCS, and relevant concerns and issues. The e-survey was

used to collect large sets of quantifiable and straightforward responses from users, which could show general state and trends of their attitudes and behaviours. Semi-structured in-depth interviews were flexible in structure and qualitative in text, thus were used to unearth underlying issues, reasons, nuances and discrepancies. The combined use of two methods compensates the limitations of using just one. Thus, they can provide rich data for answering the research questions.

The field work took place between 20 December 2018 to April 2019. 417 valid survey responses and 47 qualitative interviews were successfully obtained. The survey was first sent to my personal contacts, but many of them introduced new subjects for me or invited me to WeChat and QQ groups in which I could distribute the survey to a new set of diverse users. The first group of 26 interviewees were obtained from survey respondents and most of them were not my own contacts. The second group of 21 interviewees were recruited using snowball sampling from the first group. Therefore, although the sampling started from my own contacts, it was ensured that diverse sets of users are incorporated in the research and diverse perceptions of the SCS are represented. Besides, for this study that contains sensitive topics, snowball sampling was proved to be a productive approach to acquire more voluntary respondents and interviewees. The sample results show that both survey respondents and interviewees were heterogenous in terms of professions and places of domicile. Users from all age groups and both sexes were covered in this study, although the majority aged 20-29, and females were slightly more than males. During the field work, various measures were taken to ensuring the anonymity, confidentiality, and voluntary participation to avoid ethical issues.

Limitations exist in this study as in many studies. Online censorship in China caused obstacles for distributing the survey and recruiting interviewees, and subjects' answers might be affected by their self-censorship. Besides, due to the limitations of resources and time, it is impossible to obtain an ideal sample to represent the whole population of Chinese users. These limitations are recognised and acknowledged during the discussion, but they do not discredit the value of this study that it is the first extensive empirical investigation into the SCS's implications for social media from user's perspectives using a mixed-method approach at the time when the SCS was still being implemented. The following three chapters present the findings drawn

from the survey and interviews. Analysis and discussions are structured in a thematic sequence that corresponds to each sub-research questions.

Chapter 5. Findings and discussion I: knowledge and attitudes of the SCS

5.1 Introduction

This chapter gives answers to the first research question of Chinese users' knowledge and attitudes towards the SCS and Internet regulations like RIV. First, sub-chapter 5.2 presents the key finding of the lack of awareness of non-financial credit scoring systems. Most interviewees were familiar with or have used Sesame Credit, but sub-chapter 5.3 explains that despite the popularity, most interviewees only had a narrow understanding of Sesame Credit. Moving on from the lack of awareness, sub-chapter 5.4 first presents diverse attitudes towards RIV as an exemplifier for users' perception of Internet governance. It then describes the mixed and fluxed attitudes towards the SCS, which are explicated from subjects' perspectives of incorporating three user behaviours in the SCS – social media content like the posts, comments, repost; online social networks like friends and followers; and online shopping. On top of these, there is a general disbelief of the existence of the SCS among interviewees. These findings direct to the underlying issue of the obscurity of data scoring systems and reveal a tension between security and privacy, which are elaborated in sub-chapter 5.5. For conciseness, when both survey respondents and interviewees showed similar response, this study uses "subjects" to refer to "both survey respondents and interviewees".

5.2 Lack of awareness of non-financial and governmental credit systems

This study finds that research subjects in general lacked awareness of credit scoring systems that extended beyond financial dimension. First, regarding subjects' awareness of one non-financial credit rating system that concerns social media behaviours – Sunshine Credit score on Weibo, 60% of survey respondents were unaware of it (Table 5). Among the 38.8% who knew their Sunshine Credit score, 31.3% had excellent or good credit; 2.2% had average credit; and 0.9% had low or bad credit. Among interviewees, only Interviewee #09 heard that Weibo decreased a user's Sunshine Credit score after the user had been reported multiple times by other users due to inappropriate speeches on Weibo, but her knowledge about Sunshine Credit was limited to this news report.

Awareness of Sunshine Credit on Weibo		
	Frequency	Valid Percent

Valid	I know my score	Excellent credit (691-900)	70	160	17	38.8
		Good credit (571-690)	59		14.3	
		Average credit (451-570)	9		2.2	
		Low credit (420-450)	3		0.7	
		Bad credit (300-419)	1		0.2	
		I do not want to tell.	18		4.4	
	I do not know Sunshine Credit at		248	60.0		
	Other		5	1.2		
Total		413	100.0			
Missing	99		4			
Total			417			

Table 5: Awareness of Sunshine Credit on Weibo

In order to test whether the unawareness of Sunshine Credit is due to variables like the unfamiliarity with Weibo and respondents' ages, crosstabulations of respondents' regularly used social media platforms and ages with the awareness of the Sunshine Credit was conducted. Figure 1 shows that the unfamiliarity of Weibo was not the reason for the lack of awareness as most regular Weibo users (60.4%) were unaware of it. Figure 2 illustrates that Sunshine Credit was more known among survey respondents who were under 30 years old.

Do you use both WeChat and Weibo regularly at the moment? * Are you aware of your "Sunshine Credit" score on Weibo? Crosstabulation										
Statistics/Count		Are you aware of your "Sunshine Credit" score on Weibo?								
		Excellent credit (691-900)	Good credit (571-690)	Normal credit (451-570)	Low credit (420-450)	Bad credit (300-419)	I know my Sunshine Credit, but I don't want to say.	I don't know Sunshine Credit at all.	Other	Total
Do you use both WeChat and Weibo regularly at the moment?	I use BOTH regularly.	55	46	6	2	0	13	108	1	231
	I only use WeChat regularly.	0	2	0	0	0	0	1	0	3
	I only use Weibo regularly.	15	10	3	1	1	5	138	3	176
	I use NEITHER regularly.	0	1	0	0	0	0	1	1	3
Total		70	59	9	3	1	18	248	5	413

Figure 1: Cross-tabulation of "regularly used social media" and "awareness of the Sunshine Credit"

Age * Are you aware of your "Sunshine Credit" score on Weibo? Crosstabulation										
Statistics/Count		Are you aware of your "Sunshine Credit" score on Weibo?								
		Excellent credit (691-900)	Good credit (571-690)	Normal credit (451-570)	Low credit (420-450)	Bad credit (300-419)	I know my Sunshine Credit, but I don't want to say.	I don't know Sunshine Credit at all.	Other	Total
Age	19 and under	1	1	0	1	0	0	4	0	7
	20-29	61	52	8	1	0	12	174	5	313
	30-39	5	3	1	0	1	4	40	0	54
	40-49	2	3	0	1	0	2	18	0	26
	50-59	1	0	0	0	0	0	9	0	10
	60+	0	0	0	0	0	0	3	0	3
Total		70	59	9	3	1	18	248	5	413

Figure 2: Cross-tabulation of "age" and "awareness of the Sunshine Credit"

The survey further probed survey respondents' interests in credit scoring systems and the scope of the impact of data scoring system by questioning if they had discussed relevant topics. As showed in Table 6, 61.6% in total had discussed or would discuss credit rating. 38.4% of respondents claimed that they had neither discussed relevant topic nor would they do it in the future. Hence, a minority of respondents were either indifference to credit scoring or might be feared about repercussions resulting from to their answers.

Have you ever discussed credit scores/systems with your acquaintances?			
		Frequency	Percent
Valid	Yes, a lot	10	2.4
	Yes, a little	128	30.7
	No, but I will	119	28.5
	No, and I will not	160	38.4
	Total	417	100.0

Table 6: Discussion about the credit score with acquaintances

Interviews probed deeper into the extend of awareness, the type of knowledge and the experiences people had about the governmental SCS. None of the interviewees brought up the governmental SCS; thus, they were questioned what they knew about the "Social Credit System". When bringing up this specific term, the majority of them admitted that they had never heard of it before. A few believed they knew the "Social Credit System", but when they were asked to elaborate, it was made apparent that

their understandings were limited to the widely known credit rating systems at financial institutions, or commercial credit rating services, rather than the governmental “Social Credit System” that extends beyond the financial aspect. For example, several interviewees (e.g., #02, #17 and #35) who worked at banks or other financial institutions asserted that they knew a lot about the “Social Credit System”, but their descriptions still referred to credit cards. As Interviewee #17 said, “I know a lot about social credit system...When a person wants to get loans from banks, his/her credit history will be examined by the bank”. These interviewees confused commercial credit rating systems for the governmental “Social Credit System” and did not really realise the existence of the latter.

In order to probe whether interviewees were in fact unaware of any aspects of the governmental SCS, a follow-up question asked what they knew about “trustworthiness score”, a moral-connoted term used interchangeably to address the SCS by the government. Four interviewees (Interviewee #04, #28, #36, #46) knew that if a person failed to pay up debt, he/she would be blacklisted and restricted from high-cost consumptions like high-speed trains and planes. Interviewee #17 learned from a news report that a university in China rejected a student because his/her parents were on the blacklist of untrustworthy people. Interviewee #27 knew there was an official website where the names of the blacklisted individuals were listed, but she never looked it up. This group of interviewees seemed to realise that credit scores had been used to measure a person’s trustworthiness. However, it is reckless to claim that they knew the governmental SCS because they only showed scattered knowledge of the specific measures in JPM without realising it was the enforcement mechanism of the governmental SCS. Therefore, this study concludes that no interviewees were aware of the overarching governmental SCS.

5.3 A narrow understanding of Sesame Credit

In contrast to the unknowingness of the governmental SCS, Sesame Credit was known by 40 interviewees (e.g., #01, #02, #18, #22, # 34, #45). As Interviewee #28 commented, “Sesame Credit is really popular among the post-90s generation in China”. Interviewee #26 accredited that “Sesame Credit is the most widely-used assessment of one’s creditability in mainland China”. Many interviewees shared their

experiences of enjoying deposit exemption, convenient personal loans through Huabei, and faster visa application owing to good Sesame Scores, which had made their life “more convenient” (e.g., Interviewee #05, #07 and # 31; see Appendix 11 for a full report on their experience of Sesame Credit).

Although almost all interviewees have used Sesame Credit, most of them appeared to have a narrow understanding of what was included in Sesame Credit. In their view, Sesame Credit was an online credit card that scores users based on their monthly expenditure records on Alipay and fulfilment capacity (e.g., Interviewee #18, #22, #32, #39, #44). A small number of interviewees (e.g., Interviewee #30, #35, #36, #37) realised Sesame Credit’s broader impact on a person’s credit scoring at banks and financial institutions. “Some banks approve loan applications based on applicants’ Sesame Scores” (Interviewee #30). “If you fail to pay up loans in time on Sesame Credit, it will report directly to the Bank of China and influence your credit at many banks” (Interviewee #36). Yet, their understandings were still limited to the financial aspect.

Moreover, most interviewees had limited knowledge of the scoring criteria of Sesame Credit. Interviewees had different loan credits on Sesame Credit: for example, Interviewee #20 had a credit of RMB3000; Interviewee #27 had a credit of RMB9000; and Interviewee #23 had a credit of more than RMB10,000. But they were “not sure” about how their scores were calculated. Most interviewees knew their scores always fluctuated and were calculated based on economic activities such as in-time repayment (Interviewee #20, #27, #32, #44 and #45), in-time returns of bike and power bank rental (Interviewee #28), monthly expenses using Alipay (Interviewee #18 and #23), and transactions (Interviewee #22). Only 8 interviewees (e.g., Interviewee #21 and #28) were aware that personal characteristics, real identity and occupation were included in the scoring criteria. None of the interviewees mentioned interpersonal relationships, although it was clearly stated on Sesame Credit’s website.

Several interviewees (Interviewee #2, #17, #31 and #35) who had more knowledge about the scoring criteria of Sesame Credit or credit rating worked at relevant industries. Interviewee #17, an employee at a private financial institution, explained

that “banks, at this stage, mainly assess customers’ loan history, while some third-party institutions like Alibaba include customers’ consumption patterns and social media data”. Interviewee #35, an IT staff at a multinational bank, revealed that at her bank a considerable part of a customer’s credit record came from third-party Internet companies. She explained that when users registered on social media or e-commerce platforms, they had to agree to terms and conditions of these companies, which granted the companies the right to collect user data and share them with third parties. When customers applied for credit cards at her bank, they also had to agree to the bank’s terms, which granted the bank the right to use customers’ data they garnered from companies. Customers and users had the right to refuse these terms, but they would be denied access to social media and credit card. She was unaware of how Internet and data companies rate users: “they would provide us with credit ratings of their users and the blacklists, but how they rate them is unknown to us, or at least to me”. She agreed that “customers should have the right to know how third-parties score them, but the minimum score for credit card approval at our bank is our business secret” (Interviewee #35).

Interviewee #31, a CEO of an Internet company in Beijing, shared his insights in Internet companies’ scoring mechanism:

money is only one criterion for Sesame Credit. What travel class I book on Ctrip, what kind of hotels I usually stay at, what brands and classes of the cars I rent will affect my Sesame Credit. If I use AutoNavi app, an Alibaba affiliate, it will record the kind of places I usually travel to and use these data in the scoring system. It’s more than just money.... When Alibaba first established Sesame Credit, the company management announced in a public speech that one of the objectives of investing in tourism and navigation systems was to collect big data from various dimensions to set up a comprehensive credit rating system.

He added that Internet giants in China have collaborated with a wide range of businesses to embed online payment in various daily life scenarios. In this way, data companies can garner richer and larger data to analyse users’ habits and lifestyles and sort them into different segmentation for various purposes.

However, Interviewee #31's insights contradicted with the perspectives of a few interviewees who had no working experience in such industries. The discrepancy can be seen from interviewee #18's assertion that Sesame Credit did not investigate into one's credit history because anyone could loan money from Huabei (Ant Credit Pay, a loan service on Sesame Credit). She neglected the fact that users had already been evaluated and sorted by Ant Credit Pay so that they were granted with different credits. Thus, despite frequent usage of Sesame Credit, users still had narrowed understanding of it and insufficient knowledge of its scoring mechanism.

5.4 Mixed attitudes towards Internet governance and the SCS

5.4.1 Mixed attitudes towards current Internet regulation – RIV

This section illustrates subjects' attitudes towards an existing Internet policy, RIV, and the reasons for their support or objection. First, the majority of subjects in this study have done RIV as required. 88.3% of survey respondents did RIV on at least one social media platform. More than half (55.4%) of the survey respondents verified on both Weibo and WeChat. Although 98.5% of respondents used Weibo regularly, only 56.4% did RIV on Weibo. 56.8% of respondents used WeChat more frequently, but 87.3% of them did RIV on WeChat. The low RIV rate on Weibo suggests that almost half of the survey respondents were not active content producers on Weibo as posting and commenting features can only be accessed after RIV. Many interviewees (e.g., #09, #10, #14, #22, #29, and #35) explained that more users completed RIV on WeChat than on Weibo was probably because of WeChat Pay function. "A user has to enter name, ID number, and phone number to verify his/her identity to enable WeChat payment feature" (Interviewee #22). "Weibo had not been widely used as an e-payment app, so people did not have to verify real identities on Weibo" (Interviewee #09).

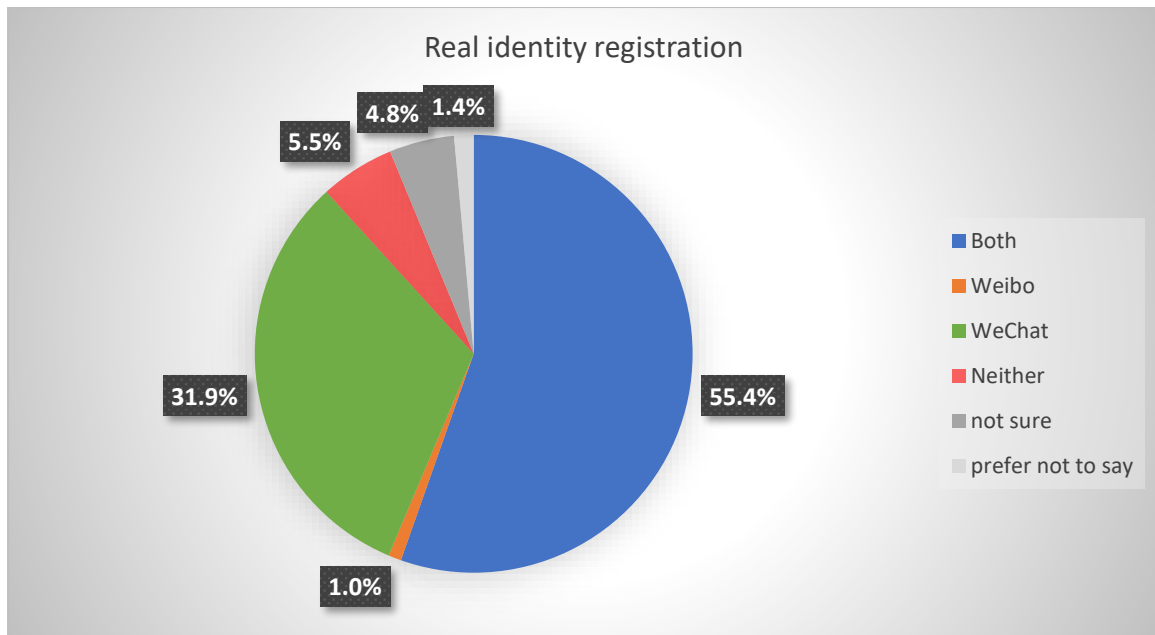


Figure 3: Respondents' Real Identity Verification on social media platforms

Table 7 shows that over half (59.7%) of the respondents supported RIV. 21.1% “strongly support” and 38.6% “support”. 6% were against RIV. The rest 34.3% remained neutral. After assigning each variable with a value, 2 for strongly support, 1 for support, 0 for neutral, -1 for against, -2 for strongly against, the weighted arithmetic mean of the dataset is 0.734, suggesting the tendency towards support.

Do you support real identity registration on social media?					
Attitudes	Value	Frequency		Percentage	
Strongly support	2	88	249	21.1%	59.7%
Support	1	161		38.6%	
Neutral	0	143		34.3%	
Against	-1	19	25	4.6%	6%
Strongly against	-2	6		1.4%	
Total		417		100.0	

Table 7: Attitudes towards RIV

However, the percentage of objections from interviewees is higher than that of survey respondents. Nearly all interviewees did RIV on at least one social media platform, but 18 interviewees explicitly opposed RIV and stated that they were forced to comply with RIV because the platforms would deliberately hinder the usage and

access if they failed to complete RIV. Interviewee #19 used the word “deceived” to express his discontent with the mandatory RIV at the current stage.

Many apps, especially in recent years, started to force users to verify our IDs with our phone number. When I sign up an app, it shows that I can log in via QQ or WeChat account. But after I did that, it still requires me to verify my phone number. (Interviewee #19)

Interviewee #36, #38 and #47 shared their understandings and experiences about RIV.

If you do not verify your identity, you can't play online games developed by Tencent and Ali Group. There will also be problems transferring files via QQ if you do not complete RIV. (Interviewee #36)

(RIV) is required by law now. Failing to comply would affect your account. On Tik Tok, for instance, if you do not verify your real identity, your account will be blocked, and your profile photos and username will be reset by the platform from time to time. (Interviewee #38)

On Weibo, you can only leave a comment on condition that you complete RIV. Basically, users are left with no choice but to obey; otherwise, we cannot use the platform normally. (Interviewee #47)

Their statements show that they had experienced the enforcement of RIV by social media platforms, which forced them to comply even if they were reluctant to do so.

The above findings suggest a discrepancy between survey respondents and interviewees. One possible explanation is that most survey respondents have done RIV on social media, so they were more likely to support RIV for fear that their objections might cause negative consequences. On the other hand, the interviews were conducted either face-to-face or via WeChat audio call, so interviewees might feel less anxious to reveal their real opinions. The other possible explanation is that most survey respondents did RIV on WeChat and regarded it as a necessary measure to secure their WeChat Pay.

This study continued to investigate to what extent respondents' perspectives agreed with the official propaganda of RIV's benefits. Survey respondents who chose “strongly support” and “support” were redirected to a follow-up question to probe the reason(s) for supporting RIV. Four reasons were given on the survey based on

literature review: RIV can curb social media rumours to some extent (e.g., Li 2012; Chen 2014; Ding 2015; Zong et al. 2017); RIV aims to provide “a safe, trustworthy and clean environment for cyberspace in China” (CAC 2017); and RIV has successfully cracked down “professional illegal fake account business” and reduced online fraud (CAC 2019). As shown in Figure 4, the majority of supporters chose all the three reasons presented. 78.7% of them chose “RIV can reduce fake news and enhance users’ right to real information”. 72.7% chose “RIV can prevent a series of cybercrimes such as identity theft and online fraud”. 63.5% chose “RIV can bring transparency to social media, making it a safe and trustworthy space”. It shows that majority of the supporters of RIV agreed with the official proclamation that RIV could improve cyberspace environment.

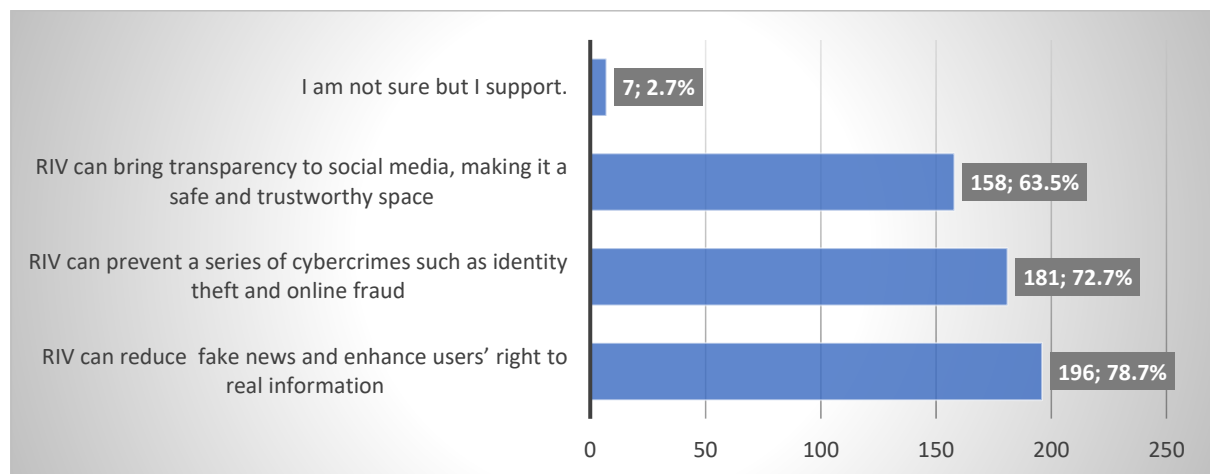


Figure 4: Reasons for supporting RIV

More textual data for supporting RIV were further collected with the 29 interviewees who supported RIV. The main reasons for 7 interviewees (Interviewee #01, #02, #14, #21, #28, #30 and #42) is consistent with the reasons given on the survey. As Interviewee #28 said,

With the help of RIV, whenever a cybercrime or online violence occurs, it is easier to find out the user behind the account...other illegal activities such as online intellectual property infringement can also be contained by RIV.

5 interviewees, #16, #18, #26, #34, #37, believed that RIV could increase the trust between online users and “will also benefit other aspects such as communication and business” (Interviewee #16). Several interviewees believed their social media accounts were “safer” and “more secured” after they had done RIV because “if

someone steal my account and leak my personal information, I will trace my account back with the information that I used when I did RIV” (Interviewee #18).

A new reason for a small group of interviewees (e.g., #01, #03, #10, #11, #13 and #42) to support RIV is the regulative power of RIV over people’s online. As Interviewee #01 stated,

I think RIV is a symbol of credit system because it connects the virtual cyberspace with real life. After RIV on social media, people will self-regulate their behaviours and be responsible for what they say and do on the platforms. People may not dare to say what they really feel... well, after all, only freedom with restrictions is real freedom.

This shows that RIV has induced users to internalise the need to self-regulate and self-discipline when they participate on social media and even consider it as a prerequisite for real freedom.

Moreover, users’ attitudes towards RIV might change with time. For example, interviewee #21 stated that his attitude towards RIV shifted from passive acceptance to active support after he realised the benefits of RIV. In his words,

At first, I did it only because the platform required it. Then I read some news about criminals using social media to defraud and do harmful activities, and I think maybe RIV can solve these problems, so I started to verify voluntarily.

His statement exhibits the effect of media coverages on shaping people’s attitudes towards RIV. To sum up, the majority of interviewees supported RIV for similar reasons as survey respondents.

The 25 survey respondents who opposed RIV were redirected to a follow-up question to choose from the three reason(s) generated based on the discussions in Chapter 2. 76% of objectors agreed that “RIV is a tool for social control and undermines freedom of speech”. Increasing the risk of privacy violation was seconded by 72% of objectors. 48% worried that RIV could not reduce rumours and fraud but active online participation (see Figure 5).

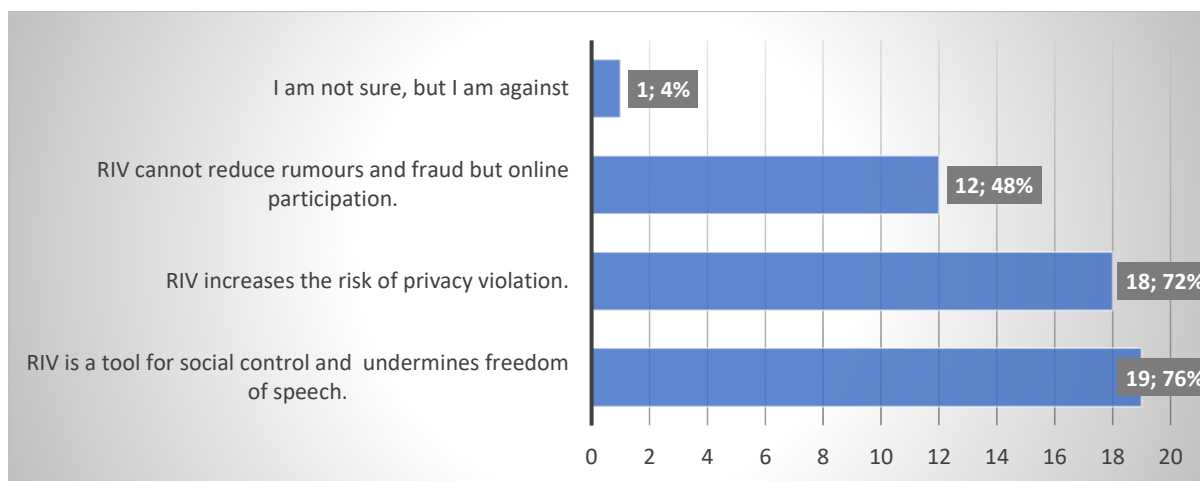


Figure 5: Reasons for opposing RIV

More reasons for objecting RIV were probed with 18 interviewees who objected RIV. Privacy violation was the primary concern for interviewees to oppose RIV. As RIV requires users to submit personal data to ISPs, a few interviewees were sceptical about data security and privacy protection guaranteed by private companies. Interviewee #04, aged between 30-39, explained using her working experience at the state-owned telecommunication corporation China Mobile:

A customer has to use ID card to buy a sim card. However, there are so many employees, and any of them can easily sell your information to a third-party. Customer information is really easy to be leaked...I do not trust my personal information with social media platforms.

Notably, concerns over privacy and data leak were also voiced by supporters of RIV, but they still believed that RIV could bring more benefits than harms. Interviewee #03 shared how he dealt with this concern:

I am selective and cautious when I register and verify my real identity online. On government-led national websites like 12306 (an official website to book train tickets) I would complete RIV as they require. But on platforms developed by small companies I would not.

His view was mirrored by other interviewees (e.g., interviewee #20) who also trusted their personal information with big Internet companies such as Alibaba and Tencent rather than small ones.

Another group of objectors echoed the concern about having less freedom on social media after RIV, but their levels of objection varied based on social media platforms.

Interviewee #09 classified two kinds of social media platforms: “one relates with online payment” and “one for social networking”. She supported RIV on WeChat because of the payment feature WeChat pay but opposed to RIV on Weibo because “it is only a platform for social networking...and people might not comment any more (if forced to verify real identity)” (Interviewee #09). Hence, users’ attitudes towards RIV also depend on the specific features of the platform. To conclude, the majority of subjects supported RIV and accepted to expose their identities because of their pursuit of a more secure and transparent cyberspace. A small group of objectors concerned that it would undermine freedom of speech and threaten personal privacy. The following section turns to their attitudes towards the SCS.

5.4.2 Mixed attitudes towards the SCS

Subjects’ attitudes towards the governmental SCS cannot simply be concluded dichotomically as support or objection but were a mix of support, objection, unease and expectation in a flux state. The survey measured respondents’ general support for including social media behaviours as scoring criteria for the SCS (Figure 6). A 10-point scale was provided for respondents to show their level of support. The value of each point was annotated on the survey: 0 meant firm opposition; 5 meant neutral; and 10 meant strong support. Nearly half of the respondents (45.67%) supported to include social media behaviours in the SCS, while 21.88% opposed. The number of supporters doubles objectors. Around one-third of respondents were indecisive or neutral. The median value and mode value of the dataset are both 5, and the mean value is 5.51. The general attitudes were neutral or irresolute but slid a little to the supportive side. Factors like the fear of Internet surveillance might cause respondents to choose “support” on the e-survey.

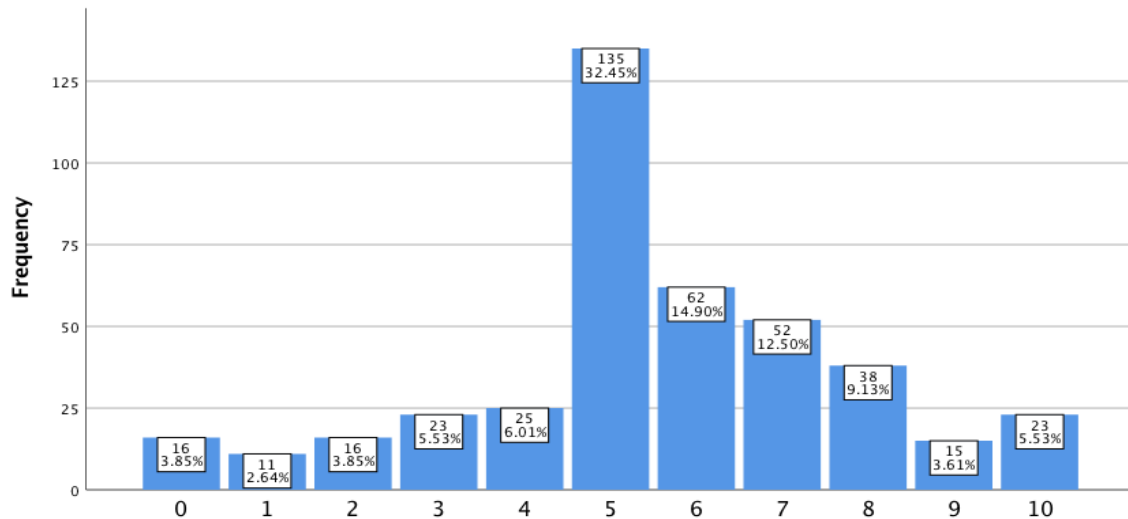


Figure 6: The level of support for including social media behaviours as scoring criteria for the SCS

Interviews probed whether users supported the SCS to score their trustworthiness with three social media usages – online content, online social networks, and online shopping – and the reasons. During the interviews, interviewees showed different perceptions of incorporating these three aspects in the SCS, and their attitudes towards the SCS swung constantly based on the issues being discussed. Building on the nuances and specific reasons from interviewees’ statements, this study highlights the mixed and fluxed feature of people’s perspectives of the SCS. This conclusion echoes Rieger et al.’s (2020) but differs from other studies that adopt a generalising approach and conclude that most of the citizens support the SCS (e.g., Mistreanu 2018; Nopparuth and Fabrice 2019; Kostka 2019; Wang 2019). The following sections respectively present interviewees’ attitudes towards including three online behaviours in the SCS.

5.4.2.1 Including online content in the credit score

First, in terms of their attitudes towards including online content – to what they post, repost, like, comment, browse and search on social media – in the SCS score. The interviews revealed that more than half of the interviewees supported to include their social media content in the credit score because they believed this could improve the cyber environment (e.g., Interviewee #02, #06, #15, #17, #25, #26, #38, #47). “Severe cyber environment” (Interviewee #21), such as “online violence” (Interviewee #15), “fraud” (Interviewee #02), “bots” (Interviewee#45), “fake news” (Interviewee #24), “rumours” (Interviewee #06, #07), and “irrational netizens”

(Interviewee #26), was the key problem that troubled many interviewees. “There are many irrational people on the Internet who have affected other innocent and civil users” (Interviewee #15). Although users were supposed to be “responsible for their behaviours and speeches on social media” (e.g., Interviewee #17, #21 and #25), not every user behaved appropriately all the time because “a person can get away with legal sanction even if he/she posts inappropriate content online. He/she will only get moral condemnation” (Interviewee #21). Supporters believed that including online content in the credit score could reduce illegal or inappropriate speech because the SCS would make users self-regulate their behaviours (e.g., Interviewee #10 and #21). “Sometimes people will do something not good without knowing it. A regulation like this can make people pay more attention to their online behaviours” (Interviewee #20). Interviewee #18 stated that

I think quite a few users are irresponsible online when they post something. They even disseminate rumours. Real name verification and including online speech in the credit score can remind users of possible ramifications.

Personally, I will be more cautious as well.

Interviewee #40 supported to “include online speech in the credit score as this will make people realise that cyberspace is not a place where you can say whatever you want without any consequence”. Similarly, Interviewee #15 favoured “aggregating everything in a person’s credit score”, saying that

if some users attack other people on social media or publish some harmful content that has bad influence on others, they can be controlled. And this stain will affect his/her life... credit score can reduce cyber violence...only freedom with restrictions is real freedom.

Both Interviewee #40 and Interviewee #15 agreed that more regulations for cyberspace were necessary.

Interviewee #38, #39 and #46 used the same case to demonstrate the necessity of tightening the control over online posts and comments. In April 2019, more than ten people were arrested by the police for posting offensive comments on Weibo about firefighters who had sacrificed in a forest fire in Liangshan. Weibo users saw their posts and continuously tagged cyber police under their posts, which eventually led to their arrest.

Thanks to RIV, police could locate the criminals fast and put them to justice. When every account is linked with real identity, and a user's content and posts are included in credit score, the scope of regulation will rise to an unprecedented level. If social media behaviours are aggregated in the credit score, it will certainly cleanse cyberspace. (Interviewee #38).

Several interviewees were concerned that the SCS would place social media users under constant surveillance. Interviewee #08 supported the SCS, but she was agitated about "being under surveillance" if every social media behaviour and content would be included in the SCS. Interviewee #25 considered the SCS as "a double-edged sword" because "on one hand, it can reduce online violence and abuse; on the other hand, it will also prevent people from expressing their fair opinions".

Nonetheless, quite a few interviewees (e.g., Interviewee #03, #04, #05, #07, #08, #09, #11, #13, #18, #33, #41, #45) were more pessimistic and anxious, worrying that including social media content in the SCS would eventually result in stringent social control and undermine freedom of online speech. Interviewee #05 was quite radical and convinced that

such credit rating is just a form of surveillance in the name of trustworthiness planned by the CCP...now the big environment is not free...content on social media has already been filtered by the CCP to guide the public...social media platforms are controlled by the CCP. If a user publishes something that is considered by the government as inappropriate, he/she will disappear the next day... last time I tried to send a sensitive video involving a leader's family via WeChat. On my screen it showed I had sent successfully, but my friend never received it... clearly CCP instructed WeChat to block the video...I am sure the purpose of the SCS is to put everyone under surveillance to serve the rule of the CCP.

Similarly, Interviewee #33 supposed that the credit score would harm people's freedom in cyberspace and "there will be no ways for people to vent their negative emotions". "Ratings and rules will set people in a frame and harm freedom of speech. It is unnecessary as cyberspace environment is acceptable now"

(Interviewee #11). Interviewee #34 criticised that “a credit score that includes my social media behaviours is a violation of my freedom...a mass disciplinary system like this can eliminate a few criminal activities but affects the life of ordinary citizens”. Interviewee #03 called the SCS “scary” because “everyone is reduced to a score. We are not human anymore”. On the other hand, Interviewee#38 believed that the SCS would not undermine the activeness of social media users because

the activeness depends on whether the government is encouraging us to speak more or suppressing us. I think the government intends to achieve neither with the SCS; it simply intends to discipline users to create a safer cyber environment.

For him, disciplining users’ behaviours would not reduce the activeness of users’ participation and usages, which contradicted with other interviewees’ views.

5.4.2.2 Including online social networks in the credit score

The second aspect of social media usages examined in this study is online networks. Online social networks herein include a users’ contacts on WeChat, followers/followees on Weibo, and other social networks and interpersonal relationships on social media. For most interviewees, including online social networks in the credit score was “unreasonable” (e.g., Interviewee #09, #21, #34, #41), “strange” (Interviewee #11), or “just absurd” (Interviewee #19). Interviewee #10 believed that her interpersonal relationships on social media were her liberty and the credit score system had no right to interfere: “it is like another hot topic on birth control policy. It is basic human rights, and it is wrong for the government to control it”. Many interviewees revealed that they were actually unable to decide whom to keep in their contact lists just according to their personal preferences. “In order to make a living one has to deal with all kinds of people. Everyone has many network circles, and online networks do not necessarily have to be the real friends” (Interviewee #34). “Sometimes people cannot choose their online networks due to various reasons, and they certainly cannot delete them” (Interviewee #36). For a few interviewees, online networks were a digital version of real-life networks; while for others, they were an extension or a different realm from real-life networks. Consequently, for the latter, online networks could not represent their real-life social networks.

Moreover, Interviewee #33 reasoned that a user's online content and behaviours were influenced by a mix of factors such as Internet literacy, knowledge, and demographic background. Thus, when he initiated an online social network with a user, he could not anticipate or control what the user would do (Interviewee #33). Some users may repost a rumour without knowing it (Interviewee #09). Interviewee #13 added that more senior members in society began to use social media, and they were more vulnerable to rumours than younger users. "What should I do? Delete my grandfather because he cannot discern rumours and likes to repost them to me, or keep him in my contact list and lose my credit score?" Hence, a number of interviewees asserted that it was unreasonable to burden them with the responsibility of their online social networks' behaviours (Interviewee #03 and #45) because everyone was an "independent individual" (Interviewee #43) and "people have no controls over what their online friends do or say" (Interviewee #44). "It is like collateral damage", Interviewee #07 commented. Interviewee #45 asked "if one of my contacts does not repay his/her debt, what can I do? I cannot force him/her to pay". She was anxious that a new form of scored-based social class would come into being as "people in poor areas will get lower scores while rich people and their networks will always get good scores" (Interviewee #45). In her view, wealthy people were more financially privileged than the poor so that they were less likely to be in debt; and rich people's contacts were likely to be rich, so they could improve each other's scores, while the poor would have a negative influence on each other, leading to a deeper divide between the rich and the poor.

However, this unease about credit score class turned out to be the exact reason that a small group of interviewees supported the SCS to include online social networks. They believed a person's networks would reflect his/her creditability and trustworthiness. "It is reasonable because as the old saying goes, one takes on the attributes of one's company. If your associates and friends are trustworthy people, then you are not bad yourself" (Interviewee #17). For supporters, a quantified SCS score could act as a reference or guarantee for a person's trustworthiness and thus reduce the cost and uncertainty of networking (e.g., Interviewee #31). To conclude, establishing a credit score "... can improve cyber environment and users can be more carefree when they interact with others on the Internet" (Interviewee #02).

5.4.2.3 Including online shopping behaviour in the credit score

The majority of interviewees agreed that online shopping should be included in the credit score because it involved money, which was consistent with their understanding of credit scoring as limited to financial activities. Failing to pay loans (Interviewee #35), returning items too often (Interviewee #08), faking reviews (Interviewee #09, #15) were highlighted by interviewees as untrustworthy behaviours that deserved score reduction.

However, most interviewees disapproved of including the content of their shopping – what they bought – in the credit score. The same issue of adjudication emerged: how to categorise shopping items from good to bad; and who had the right to rule. Several interviewees were questioned what they thought of these rules: buying a diaper would increase credit scores while buying alcohol and cigarettes would lead to score-deduction. It was an excerpt from western media coverage of good and bad behaviours for credit scores (See Chapter 5). Interviewees disapproved of such categorisation because they argued that it was rudimentary to judge a person based on his/her shopping preferences and habits. For instance, Interviewee #45 liked to play computer games and disagreed that game expenses were irresponsible consumption. She opposed to be labelled as an irresponsible and untrustworthy due to her habit. Interviewee #40 commented that

a person's shopping behaviours can suggest his/her lifestyle, but that requires lots of big-data analysis. Besides, it is not right to categorise a person as, for example, violent just based on what he/she buys.

Moreover, what people bought and how often they bought an item were considered by several interviewees as “privacy”, thus should not be included in the credit score (Interviewee #01, #02, #03, #08, #17 and #45). Although they opposed to such data collection in the name of privacy, interviewees had done little to protest or fight against social media companies, who have been collecting these data for over a decade. Instead, they tacitly consent to the collection and analysis of their data by social media companies and other agents.

The same concern over the formation of the score class was brought up again by Interviewee #45. “Does it mean that people who buy first-class seats can have better credit scores than passengers in economy cabin?” She worried that including

shopping behaviours in the credit systems would lead to a scored-based division between the rich and the poor, as wealthier people had sufficient money to forge good shopping records to increase their scores while the poor could only afford a limited range of products.

To sum up the above three sub-chapters, despite limited knowledge of the SCS and mixed attitudes, the common reason for the majority of subjects to support the SCS and RIV was that these measures could regulate people's behaviours, make social media a transparent space, and create a more secure and trusted cyberspace environment, which was consistent with government's propaganda and findings from previous studies (e.g., Guo 2007; Chen and Dickson 2008; Guo and Feng 2011; Wang and Mark 2015). On the other hand, a minority of subjects criticised the SCS for being a tool for surveillance and social control and opposed the aggregation of social media activities to the SCS, arguing that it would decrease active participation, undermine free online expression, and violate users' privacy. These concerns were also raised by subjects who opposed RIV and sustained by a few studies on Chinese Internet governance (e.g., Lu and Zeng 2014; Zhong et al. 2017; WeChatscope 2019). From the statements of these two contrasting groups, a tension has been identified – subjects' pursuit of a secure and civil cyberspace and their desire for protecting personal rights like freedom and privacy, which has been a constant tension in the course of the government's evolving cyber governance and may influence public opinion towards the SCS. More detailed discussion on this tension is presented in sub-chapter 7.3. This offers an opening for future studies to investigate how the government will campaign the SCS and how citizens' perceptions, attitudes, and responses towards the SCS will (not) be shaped by various governance techniques.

5.5 Disbelief of its existence and the obscurity of the SCS

Concluded from above findings, most research subjects had no awareness or knowledge of the governmental SCS or non-financial credit scoring systems, while most knew and used Sesame Credit. This finding somewhat agrees with the findings of Bloomberg's (2019) and Zhou and Xiao's (2020) that almost none of the subjects in their research knew the governmental SCS. Rieger et al.'s (2020) also suggested

a low level of awareness, but not as little as my study. However, more subjects in Nopparuth and Fabrice's (2019) and Kostka's (2019) studies were aware of the governmental SCS than my subjects, which may be due to the following reasons. Interviewees in Nopparuth and Fabrice's (2019) study were university students who might have learned more information about the SCS from schools and peers, whereas my subjects were more diversified in terms of age, profession, gender and location. This could contribute to the lower or zero awareness rate. Kostka's (2019) classifies the governmental SCS, Sesame Credit and other commercial credit systems as the SCSs and concludes the awareness of Sesame Credit as that of the governmental SCS. By contrast, I distinguish private and commercial credit systems from the governmental SCS, so the awareness, knowledge and experience of commercial credit systems cannot represent those of the governmental SCS.

The lack of awareness of the SCS reveals three issues. The first is the SCS's limited and inadequate influence on most citizens' lives at the time of the study, either positive opportunities or negative punishments. This is shown by Sesame Credit's popularity and the unknowingness of another commercial credit system – Sunshine Credit. Sesame Credit's wide-ranging benefits and privileges have provided convenience for most interviewees' lives. By contrast, Sunshine Credit provided only a few perks that were peripheral for less active Weibo users, as most subjects in my study were. Drawing from this comparison, tempting perquisites are probably a key element for a credit scoring system to be used and embraced by more people. So far, rewards and punishments from the governmental SCS only apply to a small group of citizens in certain areas and can be easily substituted by other credit systems (Bloomberg 2019). Since none of the subjects claimed to be on the Black/Red Lists or from places with a pervasive piloting SCS, the SCS had no impact on their lives. Nevertheless, almost all interviewees confirmed that once the governmental SCS began to influence their lives in multiple ways, they would engage in the system.

The second issue revealed from subjects' lack of awareness is the likely restraint of the public's knowledge of the SCS designed by the government during the construction phase. This inference is drawn based on two findings. First, although there are a large number of official news articles about the SCS, only 6 interviewees

exhibited fragmented knowledge about JPM. This was not because they were unconcerned about the topic, as more than half of the respondents expressed interest in credit scoring systems. Relating to the argument that the party-state has dominant agenda-setting and propaganda power through both traditional and social media (Jiang 2014; Lv and Luo 2018), one plausible contention is that the party-state had not designed a nation-wide propaganda campaign for the SCS but more controlled and selective publicity. Second, content about SCS was prohibited on Chinese survey tools (see sub-chapter 4.4.4.3) and censored on Baidu Tieba (Lee 2019), which again suggests that the government intends to suppress online discussion about the SCS. Therefore, this thesis contends that the lack of awareness and deliberation of the SCS at the time of the study may be a designed result of the government's manoeuvre, agreeing with Rieger et al.'s (2020) that the party-state intentionally detains public attention and knowledge of the SCS to constrain potential objections.

The third is that due to the lack of relevant knowledge and various concerns, most interviewees disbelieved the government had started the construction of the SCS or would be able to do so. This disbelief about the existence of the SCS also appeared in several studies (e.g., Matsakis 2019; Wang 2019). Concluding from interviewees' statements, their disbelief appeared with either expectation or consolation. For those who expressed more supportive opinions, their disbelief was accompanied with feelings of expectation: they did not believe the SCS could be constructed due to technological limitation but expected it to exist. However, for interviewees who objected to the SCS but felt powerless to contest it or the government, their disbelief could be seen as a form of a self-consolation: thanks to the limitation of technology, the SCS could not be constructed and control our life. In either case, their scepticism and disbelief are a result of the lack of relevant knowledge of the SCS. Interviewees struggled to contextualise themselves in a giant assemblage of scoring and sorting system that extends far beyond their comprehension. Thus, this feeling of disbelief is a sensible response.

These findings show that the SCS is a prime example demonstrating the obscurity of citizen scoring systems (e.g., Pasquale 2015; Dencik et al. 2019). As the SCS is an algorithmic system, the fundamental cause for the obscurity lies in the complex,

black-boxed and contingent nature of algorithms, which renders obstacles for the public to grasp and understand the systems (e.g., Bucher 2012; Pasquale 2015; Kitchin 2017; McQuillan 2018). In addition, findings in this study suggested the seemingly deliberate orchestration of obscurity by the Chinese government, which is parallel to credit bureaus' obstruction to transparency. Both factors are likely to hinder the public from knowing, understanding, overseeing, interrogating, and challenging the SCS and other scoring systems (Kerr and Earle 2013; Dencik et al. 2019). In this sense, big data scoring systems like the SCS and Sesame Credit foster a "transparency paradox" (Richards and King 2013), for they set out to make people's trustworthiness and creditability more transparent as in the form of three-digit scores or levels, but how the results are calculated and used is innately opaque, which engenders questionings of the creditability of citizen scoring systems. This discussion connects to users' perspective on the transparency of the scoring criteria presented in sub-chapter 6.3.

5.6 Conclusion

This study finds that subjects' awareness and knowledge of non-financial credit scoring systems was quite limited. Both survey respondents and interviewees had little awareness of the governmental SCS. Several interviewees had fragmented information about JPM, but none realised its connection with the overarching SCS. On the other hand, most interviewees have enjoyed various benefits owing to good Sesame Scores but had insufficient knowledge of the scoring criteria of Sesame Credit. Regarding subjects' attitudes towards the SCS, they demonstrated a mix of support, objection, unease, expectation, and disbelief in a flux state. Survey respondents generally supported to incorporate online behaviours in the SCS for scoring. However, when social media behaviours were broken down into three specific aspects, qualitative interviews unearthed nuances and discrepancies in their attitudes. For social media content, most interviewees supported to include it in the SCS because they believed this could regulate users and online information and thus improve cyber environment. A few objectors were concerned about privacy breach, freedom of speech, social control, the objectivity of the scoring criteria, and the justifiability of the system. For online social networks, most interviewees objected to include them in the SCS because they refused to be liable for the conducts of their

online social networks and were sceptical about whether the SCS could discern the closeness of relationships. Several supporters believed that online social networks could reflect a person's trustworthiness and that the SCS could reduce the cost of establishing networks. For online shopping, most interviewees agreed to aggregate it in the SCS because it was consistent with their understanding of credit scoring being financial-centric. However, including the items they bought and personal preferences in the SCS was objected by several interviewees due to privacy concerns and the unease about the adjudication process. A few interviewees worried that including online social networks and online shopping in the SCS could benefit the rich and discriminate the poor and create score-based social class. In general, incorporating social media content and online shopping in the SCS was more acceptable to interviewees than online social networking. Similarly, the majority of subjects supported RIV because of the pursuit of a more secure and transparent cyberspace, while a small group of objectors concerned that it would undermine freedom of speech and threaten personal privacy.

Subjects' lack of awareness and mixed attitudes towards the SCS speak to the broader issue of the obscurity of data scoring systems and algorithms, which is connected with three issues: first, the SCS is still at the implementing phase and have limited impact on people's lives; second, the government may be restraining public knowledge of the SCS to contain objections; third, there is a general disbelief of the existence of the SCS among interviewees. Despite limited knowledge of the SCS, the majority of research participants expressed support for the SCS and RIV and agreed with the promoted advantages from the government. The analysis and discussion also unearthed a tension between users' pursuit of a secure and civil cyberspace and their claim for personal rights like freedom and privacy, which is discussed further in Chapter 7.

Chapter 6. Findings and discussion II: internalisation and
behaviour change

6.1 Introduction

This chapter answers the second research question of how Chinese social media users intend to change their social media content, online social networks and online shopping respectively due to the SCS and discusses implications of their likely behaviour changes at the user level. First, sub-chapter 6.2 demonstrates social media usages of 417 survey respondents and 47 interviewees, as this is a key aspect and the starting point to probe the changes. Before presenting behaviour changes, sub-chapter 6.4 first presents users' internalisation of the SCS drawing from their perspectives towards the transparency of scoring criteria. The following four sub-chapters present subjects' behaviour changes. Sub-chapter 6.4 explains how subjects have changed their social media usages due to RIV, as it helps understand how online governance have already impacted online behaviours and can be used to compare similar trends or discrepancies in the case of the SCS. Next, I turn to the changes under the influence of the SCS. Sub-chapter 6.5 demonstrates the likely changes in social media content, such as their posts, likes, comments, reposts and browse, and what these changes mean for their online identity and performance. Sub-chapter 6.6 presents changes in online social networks, such as a user's list of friends, followers and followees, and discusses the possible consequence of an emergent credit score class. Sub-chapter 6.7 shows the likely changes in online shopping and explains why there was reluctance among interviewees, and how this may disrupt platform's business model. In each sub-chapter, quantitative survey results are displayed in figures to show the general trends of modifying or changing that behaviour, and qualitative materials explicate specific measures that interviewees were going to take, the nuances and the underlying issues.

6.2 Social media uses of research subjects

As shown in Figure 7, 56.1% of survey respondents used both WeChat and Weibo regularly; 42.4% of respondents only used Weibo regularly; 0.7% used only WeChat regularly; 0.7% used neither WeChat nor Weibo regularly. Combining the overlapping data, 98.5% of respondents were regular Weibo users, and 56.8% of respondents were regular WeChat users.

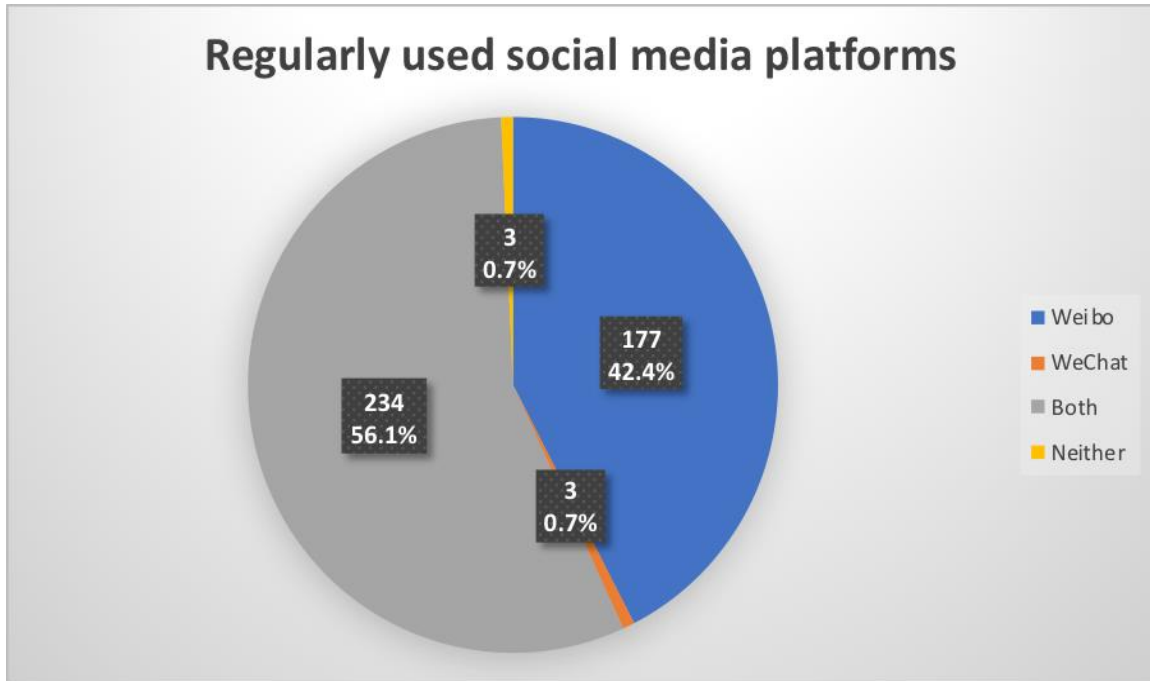


Figure 7: Regularly used social media platforms

The average time survey respondents spent on social media daily is presented in Figure 8. 26.9% of respondents were heavy users who spent an average of 6 hours or more on social media daily. Around half (49.6%) of respondents spent 3 to 5 hours on social media daily. 23.3% of respondents spent 1 to 2 hours on social media daily. 1 respondent was a rare user as he/she spent less than 1 hour on social media every day. The arithmetic mean is 4.14 hours daily, which is close to the official statistics on CNNIC (2018) – 3.9 hours per day, showing that the survey respondents is representative of Chinese Internet users in terms of time spent online.

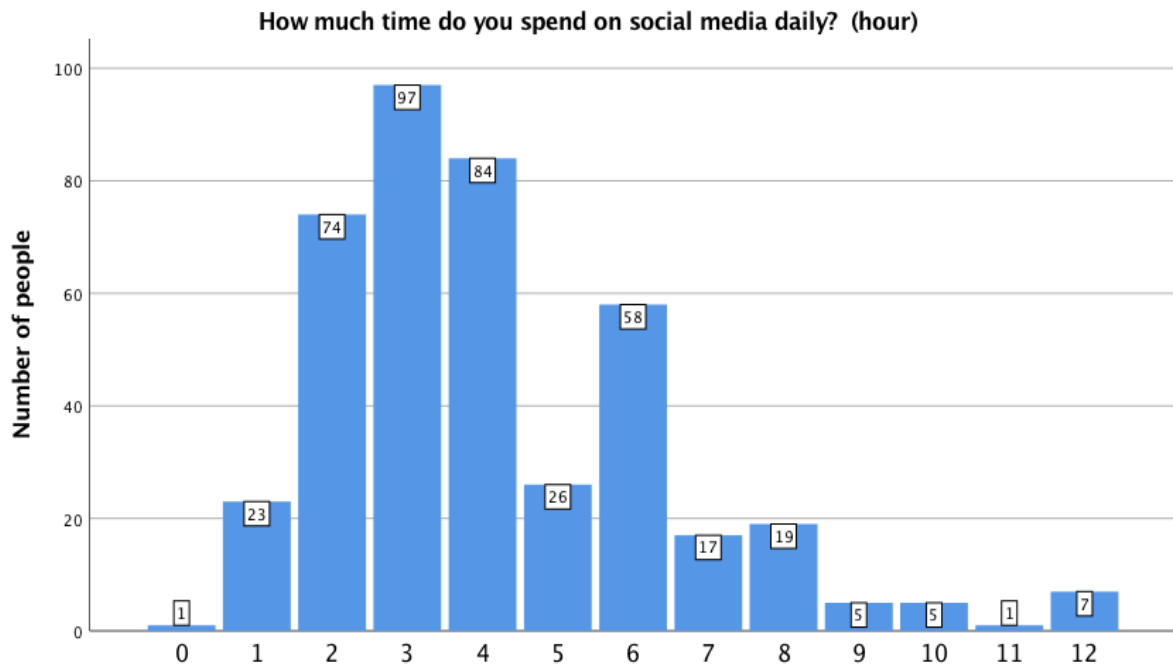


Figure 8: Average hours spent on social media daily

Regarding the purpose for which survey respondents used social media, four most popular purposes were social networking with acquaintances (81.1%); instant messaging (74.6%); browsing current affairs and social news (64.7%); and entertainment (62.1%). Almost half of the respondents (46.5%) used social media for fashion and shopping. 42.9% used public services feature on social media. 41.5% used social media for work and business. 23.5% used social media for education. One-quarter of respondents browsed on social media without a specific purpose. 10.8% used social media to network with strangers. Their usages also accord with the CNNIC’s statistic (2018).

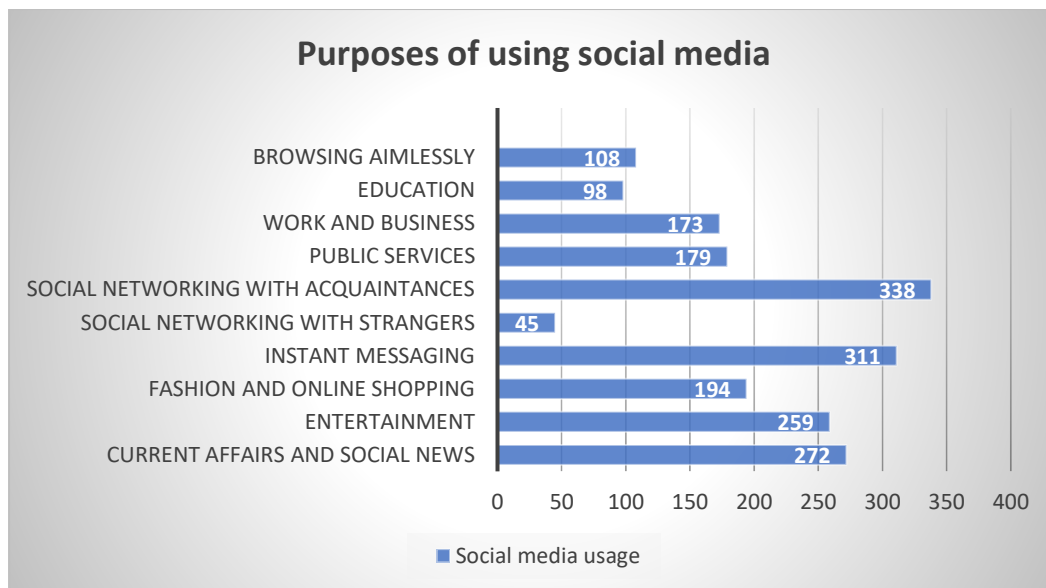


Figure 9: Purposes of using social media

As seen from Figure 10, survey respondents tended to “like” and “comment” on social media more often than to “post” and “repost”. For posting, 12% of respondents were active users who posted several times an hour. 14.9% of them posted several times a day. 17% of them posted several times a week. Around one-third of them posted several times a month. 18.9% of them only posted several times a year. 4.8% of respondents never posted. On commenting, after eliminating 2 missing data, 6% of respondents commented several times per hour. 15.7% of respondents commented several times a day. 36.1% commented several times a week. 25.1% commented several times a month. 12.5% commented several times a year. 4.6% of them never commented. As for reposting, after eliminating 3 missing data, 11.4% of respondents reposted several times an hour. 5.3% of respondents reposted several times a day. 19.6% reposted several times a week. 30.4% reposted on social media several times a month. 25.1% reposted several times a year. 8.2% never reposted on social media. About liking, after eliminating 4 missing data, 8.5% of respondents clicked “like” on social media several times an hour. 38.5% clicked “like” on social media several times a day. 30.3% showed likes several times a week. 15% were less active and showed likes on social media several times a month. 5.3% liked other posts several times a year. 2.4% never showed likes on other posts on social media.

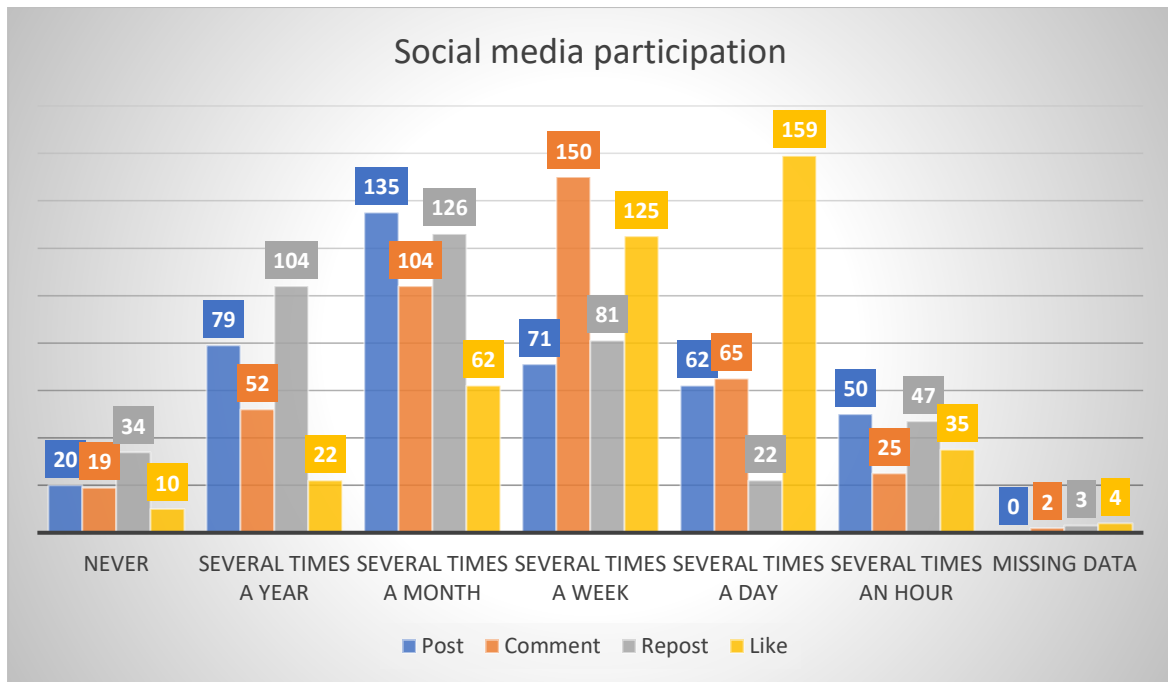


Figure 10: The frequency of social media participation: post, comment, repost, and like

All the interviewees were frequent users as survey respondents, for whom social media constituted an important part of their lives. Similar to survey respondents, interviewees mostly used social media to network with acquaintances and obtain news and information; on the other hand, contrary to survey respondents, more interviewees used WeChat than Weibo. Different affordances on WeChat and Weibo have shaped interviewees' behaviours on each platform. Most interviewees (e.g., Interviewee #11, #12, #14, #19, #21, #23, #26, #28, #35, #41, #44 and #47) used WeChat primarily as an instant messaging tool for networking with families, friends, classmates, and colleagues. Weibo, owing to Weibo Hot Search feature, was used as an open platform for news and information. Interviewees mainly encountered strangers on Weibo. For example, Interviewee #19 stated that

WeChat is more private. I do not have many contacts on WeChat. Most of my contacts are families, so I do not post often. Weibo is different. On Weibo, users are all strangers, so I am less responsible on Weibo.

Overall, all the research subjects were frequent social media users whose online behaviours and usages were likely to be affected by the SCS.

6.3 Internalisation of the SCS and governmentality power

This study finds that regardless of various attitudes towards the SCS in sub-chapter 5.4.2, all the interviewees and a considerable portion of survey respondents admitted that they would take various measures and change their behaviours for good scores. Apart from interviewees' straightforward declaration, this is also disclosed from their perspectives on the transparency of the scoring criteria. Most interviewees wanted to know the criteria, not to interrogate their justifiability, but to use them as behaviour guidelines to get good scores. This means that before actually changing behaviours, a considerable group of subjects have internalised the need to comply to the SCS to various degrees. Based on the nuances in their statements, two forms of internalisation of the SCS can be identified: the internalisation of the purpose of the SCS and the internalisation of the need to comply with the SCS. This section will first discuss each form of internalisation in detail, then turn to their obedience to the SCS, how it corresponds to governmentality, and how the governmentality power of SCS to modify people's behaviour will probably be effective.

First, the purpose of the SCS as a system to score and promote people's trustworthiness have been accepted and internalised by a few interviewees. As presented in Chapter 5, the majority of interviewees lacked sufficient knowledge of the scoring criteria of credit scoring systems. Hence, the interviews probed whether interviewees demanded the rules and scoring criteria of the SCS to be transparent to the public. Most interviewees demanded the criteria to be disclosed to the public

... so that we can clearly know what information, what kind of photos on social media, what kind of interpersonal relations will affect our scores, as well as the consequences. It is our right to information. (Interviewee #30)

Several interviewees argued that announcing the criteria could reduce the misgivings about the SCS among the public and justify the system. If the scoring criteria were confidential, the credit scoring systems could "add or deduct points at will without notifying the users. They would be too powerful as a rating system" (Interviewee #26). On the other hand, "once the rules are announced to the public, people can give feedback to rule makers" (Interviewee #18), which will release the public from a constant state of vagueness. In Interviewee #38's words, "it is wrong if a person just gets a low score without being told the reason. I am being assessed, but if I have no

idea of how the SCS assesses me, then how can I possibly support it?" These statements indicate that if the scoring criteria of the SCS are transparent, it will be more likely to be supported by the public.

Besides, transparent scoring criteria means that users could use them as behavioural "guideline" (e.g., Interviewee #04, #05, #08, #12, #16, #18, #21 and #23). For them, knowing all the criteria means that they can modify their behaviours accordingly and prevent themselves from losing points. As Interviewee #08 said, "the criteria and rules will have disciplinary effect on people who have weak self-control". Interviewee #15 explained that

if you tell a person that he/she does something wrong without explaining what exactly is wrong, he/she will never change... People deserve the right to change their behaviours according to the criteria by themselves (before being punished).

It shows that, on one hand, most subjects, despite their lack of knowledge and varied attitudes, have self-trained to think "in line with what is expected and demanded" (Greenwald 2014, pp. 177–178) by the SCS; on the other hand, the "extrinsic motivations" (Gagné and Deci 2005; Reis and Press 2019) provided by the incentive and punishment mechanism of the SCS may be able to drive interviewees to change their behaviours and make them internalised the necessity to get good SCS scores. This is also proved in C. Zhang's (2020) study in which a local official stated that the objective was to "transform people's inner character" (p. 583) so that people would be driven by no external pressure.

However, being used as behavioural guidance was the reason that two small groups of interviewees objected to transparent scoring criteria. For the first group (e.g., Interviewee #01, #17, #34, #40, #42), the intentional modification of one's behaviours according to the SCS's rules was cheating. For example, Interviewee #17 believed that full disclosure of scoring criteria would undermine the "authenticity" of people's behaviours. Interviewee #40 also alerted that "users will start to fake their behaviours on social media instead of acting genuinely". Interviewee #46 would rather know "when a person is dishonest or behave badly than force him/her to behave in a better way". Interviewee #01 shared a similar opinion, saying that

once the public know the rules and behave according to them, it can be good for society to some extent. However, when some people start to ‘maliciously’ behave in a good manner online while they are not a trustworthy people in the real world, it can be difficult for the system to detect.

By “maliciously”, Interviewee #01 meant that a user would carefully follow all the criteria of the SCS when he/she participated on social media, but it was hypocritical because the person only did that to get a good score – he/she was still the same untrustworthy person. These interviewees worried that once people knew the criteria and rules, they would “take advantage of the system” by intentionally shaping their behaviours to boost their scores (Interviewee #34 and #42). On the other hand, if the scoring criteria are confidential, there will be no clue for people to fake their behaviours. This small group of interviewees has also internalised that the purpose of the SCS being an effective tool to promote moral goodness and punish untrustworthy people. Therefore, they disagreed with full transparency of the scoring criteria because people would intentionally modify their behaviours to get good scores, which was regarded as cheating and fake, driven only by extrinsic material motivations rather than intrinsic moral motivations for trustworthiness. They worried that if people could fake their behaviours to get good scores, the SCS’s efficacy to evaluate behaviours and promote genuine trustworthiness would be undercut. Their statements unearth a tension between people’s demand for transparency and their concerns over the genuineness of behaviours and the effectiveness of the SCS.

For the second group of objectors (e.g., Interviewee #05, #10, #25, #45), changing one’s behaviours to fulfil the requirement was not a form of cheating but the suppression of individuality and free will. They worried that full transparency of scoring criteria would take away people’s freedom because people would be “morally blackmailed” (Interviewee #05). When people know the criteria, they would “have to follow them to get better scores, while deep down inside they may not want to behave in that way” (Interviewee #05). “When the rules are too precise and specific, it would be like an exam, resulting in a kind of score mania and psychological distortion” (Interviewee #10). Gradually, people would become “mummies”:

(Whether or not to announce the detailed rules) requires thorough assessment. For example, if there is a term stating that reporting jaywalking can be rewarded, some bad people will take advantage of it and wait at

crossroads to record jaywalkers. Eventually, everyone in society will inform against each other. This will result in a horrifying scenario. (Interviewee #25)

Although these interviewees worried about freedom, they agreed with transparency advocates' argument that the public should have the right to know the criteria. They also believed that transparency would improve the justifiability and creditability of the SCS. To resolve this paradoxical perspective, they suggested the partial disclosure of the criteria and algorithm. "It is better to publish general factors than to disclose specific articles" (e.g., Interviewee #25) so that people could have an overall idea of what was important for the SCS score. Several interviewees suggested disclosing "some really bad score-deducting behaviours to warn the public" but selectively revealing bonus behaviours so that people could avoid punishment without being too cynical or utilitarian (Interviewee #10 and #45).

This group of interviewees have internalised both the need to comply with the SCS and the purpose of the SCS, as they propose partial transparent scoring criteria so that people can avoid punishment without being too cynical or cheating. Intriguingly, this proposal of partial disclosure of scoring criteria accords with the government's current strategy, which is designed for engineering behaviours as discovered in Engelmann et al.'s (2019) study. This insinuates that the goal of the SCS may not stop at sorting and punishing; thus, the concern for the genuineness of people's behaviour mentioned by a few interviewees might not be a pitfall in the perspective of the government. Partial transparent criteria align with Bentham's two principles of power: "visible" and "unverifiable" (Foucault 1977, p. 201). It means that citizens shall know the existence of the SCS and that their bad behaviours would be targeted but shall never have a full picture of exactly what behaviours increase or decrease their scores, when the SCS exerts its power on them, or what incentives or punishment they are to receive. Due to the unverifiability of the scoring criteria and rules, users are likely to self-discipline their participation continuously to avoid score deduction.

The common assumption of both advocates and opponents emerged in their arguments was that once the scoring criteria were known to the public, people would change their behaviours accordingly to get better scores. Hence, the interviews further probed whether interviewees themselves would also do that. All interviewees

confirmed that they were ready to do so, on condition that the score would impact their lives to a considerable degree. In other words, whether interviewees would change their behaviours depends on how influential the SCS score will be for their lives, not their attitudes or level of approval for the SCS. As Interviewee #40 said, if it is just a score like Sesame Score that has limited impact on my life, then I would not change my behaviours. If it affects my life dramatically and is promogulated by the government, then I will abide by its criteria and rules. This statement proved that the justifiability of the SCS was not the major concern for users, but the influence of the score.

Additionally, interviews show that interviewees' tendency to change their online behaviours depended on how influential the SCS score would be for their lives. If it were only a score without real-life impacts, interviewees would be less likely to modify their behaviours to improve the SCS scores. However, if the SCS score could affect their lives in various ways, interviewees would be more inclined to adjust online behaviours for better scores to enjoy more benefits and privileges. As Interviewee #29 said, "if the score is really influential, I will behave according to its requirements". Notably, this does not mean that interviewees were delighted to follow the rules. A small group of interviewees would obey the rules only as a pragmatic approach for ensuring their interests. In Interviewee #12 words, "if a better score can benefit my life, I am certainly going to behave according to the rules to improve my score; but if it is only a score, then I will not... If something can benefit us, we will go for it".

Therefore, my findings show that driven by the gamification designs in the SCS – the scoring, incentives and punishments mechanism, citizens are likely to be seduced and manipulated to internalise the purpose and requirements of the SCS and constantly monitor and track their online behaviours in the form of self-quantification. Their inclination to actively modify their behaviours to improve the SCS scores corresponds to the self-governance dimension of governmentality. More specifically, their tendency to constantly monitor their SCS scores and self-discipline their behaviours to nurse their scores denotes self-quantification and self-tracking, which can be regarded as a technology of the self as explained in sub-chapter 3.8.2. In terms of the individual credit (as the SCS covers many sectors in society), the SCS

can be seen as a governmentality technique employed by the Chinese government to induce citizens to conduct technologies of the self to achieve its objective. The subtle yet persuasive process where the SCS uses the knowledge of a person and gamification designs to shape his/her behaviours and choices manifest the notion of “hypernudge” (Yeung’s 2017). The findings provide valuable citizen-centric insights for understanding the governmentality power of the SCS and the interaction between user and governance.

When individuals begin to internalise the rules and criteria set by the SCS and modify their behaviours accordingly, they may become what Foucault (1977) calls “docile bodies” (p. 203) whose behaviours are de-diversified by the same set of rules, potentially resulting in the normation of society (Foucault 1977). In this context, user agency and subjectivity are largely shaped and limited by the SCS. On the other hand, drawing from Deleuzian societies of control, the SCS is able to exercise its power at a distance using data analytics to reform body and minds through daily regimes. With the enforcement power of the JPM and the constant-updated Blacklists, the SCS’s influence can also exist in the form of Deleuzian’s constant and changing modulation that aims at short-term results (Deleuze 1992, p. 4). Based on above discussions, this study draws the inference that there are two possible scenarios: the SCS may modify citizen’s behaviours through modulation and result in short-term rather than long term changes; or SCS may be internalised by citizens and create docile bodies and lead to normalisation in the long term. Two scenarios may appear simultaneously depending on government’s design, that is, users may be continuously affected by the SCS in the short-term which adds up to long-term behaviour changes. Although the discussion in this section leans towards the latter, it is worth addressing both possible dynamics, as they will lead to nuanced implications for social media business and the efficacy of the SCS.

6.4 Changes of online behaviours due to RIV: self-censorship

Before probing into their reactions to the SCS, I first examined to what extent users have internalised RIV and how their online behaviours have been affected. As both qualitative and quantitative results suggest, most subjects have been more cautious and less active on social media. Although 70.9% of survey respondents who did RIV

claimed that they had not changed their online behaviours yet (See Figure 11), 45.1% expressed the intention to be more cautious. Among those who claimed they had changed their behaviours on social media, 7.3% stopped active participation and only browsed on social media, and 19.9% continued to participate, but cautiously. Therefore, regardless of whether respondents had changed the way they participated on social media at the time of the study, 72.3% of them stated that they had been or would be more cautious and less active when they participated on social media. Thus, current social media governance measures like RIV and online censorship has exerted a chilling effect on users.

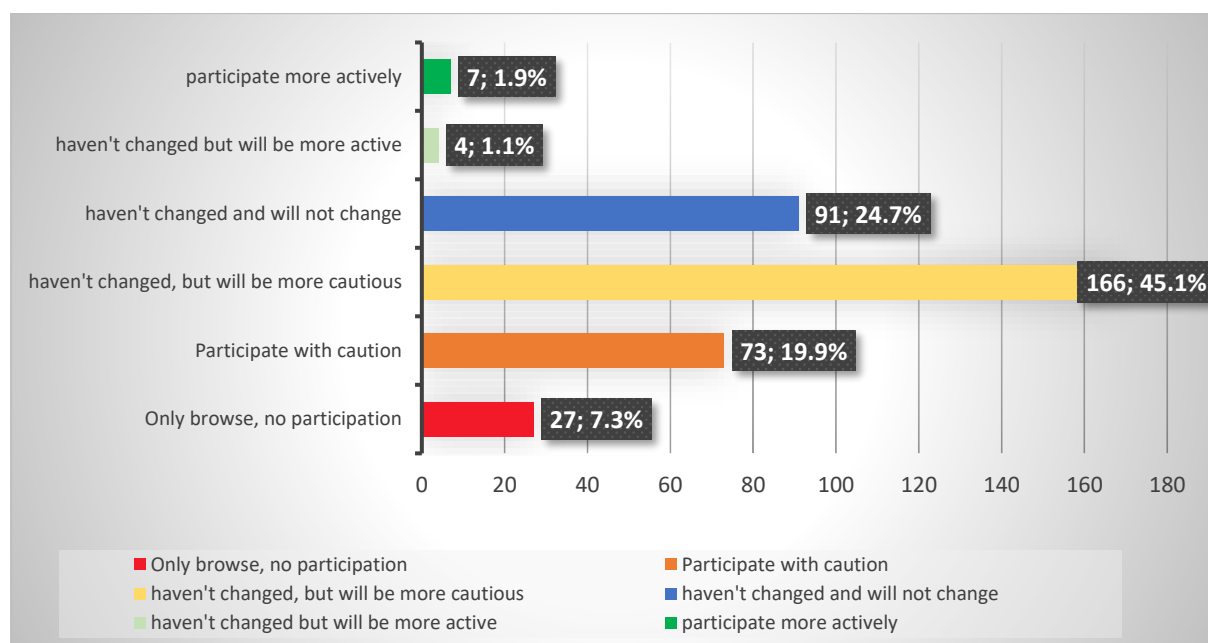


Figure 11: Changes in social media usages after RIV

Following that, this study also finds that a large percentage of survey respondents (72.4%) self-censored their posts on social media as they had used homographs or homophones to replace sensitive content before posting on social media (see Figure 12). The respective percentages of respondents who used substitutions usually, sometimes, and seldom are 7.4%, 32.1% and 32.9%. 40.1% of the 302 respondents who took such measures believed that they had to use replacements on social media; otherwise, their content would be blocked or deleted. 33.4% did not want to have some negative influence on their accounts. 22.5% believed using substitutions was necessary. Around 10% of them thought it was unnecessary, but other users

were using replacements, so they followed suit. A quarter of them (25.4%) never did that.

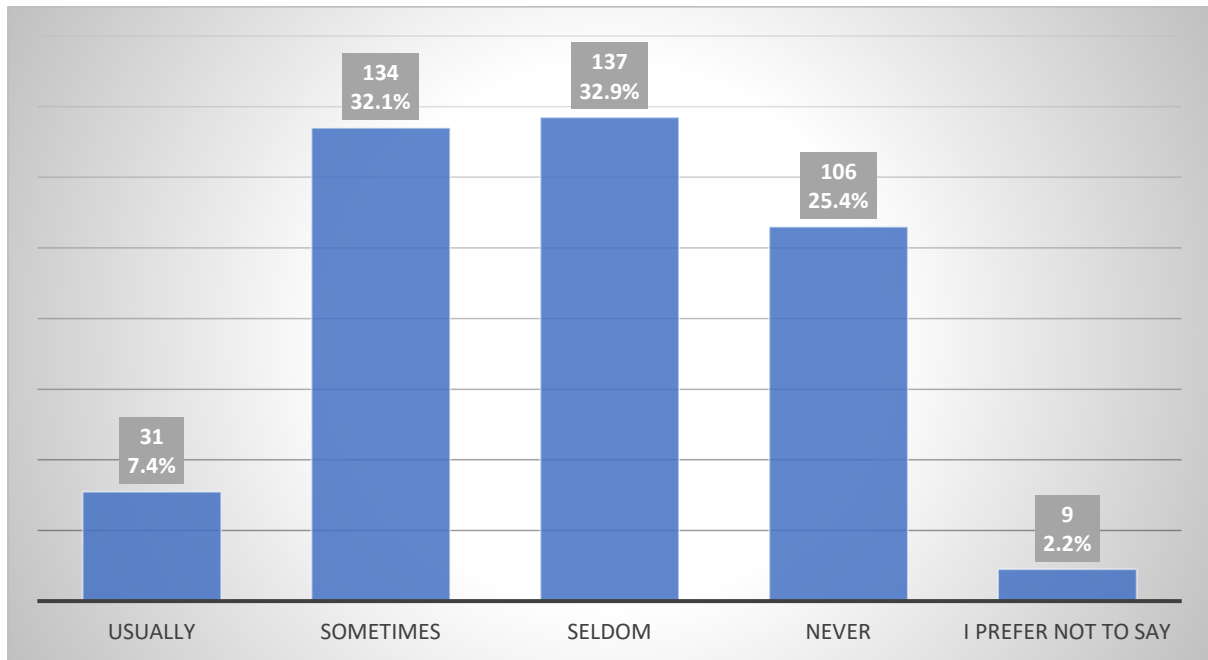


Figure 12: Frequency of using homophones and/or homographs to replace sensitive content on social media

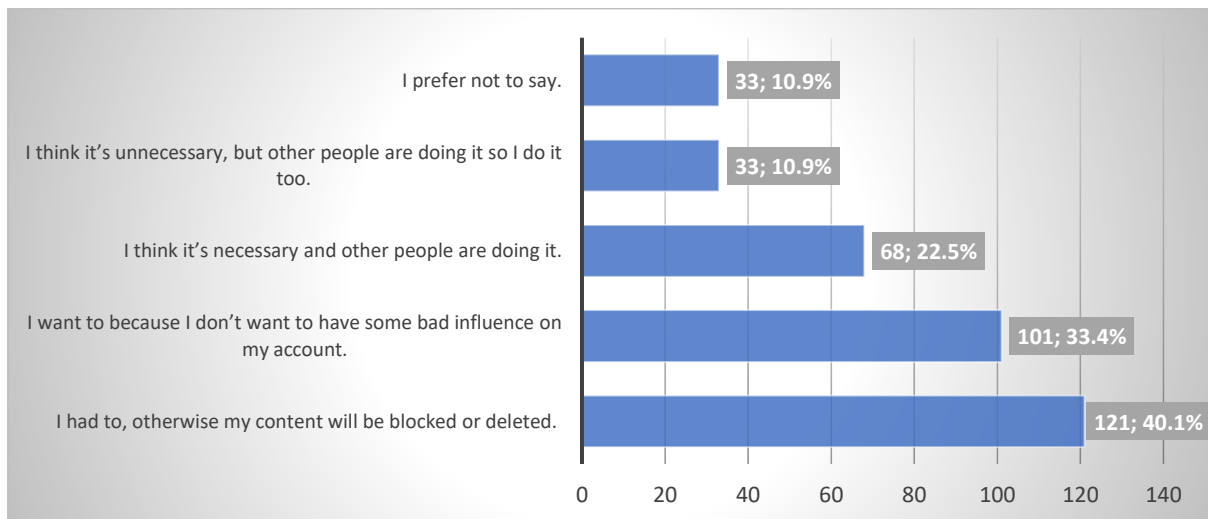


Figure 13: Reasons for using homophones and/or homographs on social media

Several inconsistencies between subjects' attitudes (sub-chapter 5.4.1) and behaviours towards RIV are found in these findings. The consistent response is supposed be that supporters do not reduce or self-censor online participation because they believe RIV can create a better cyber environment for participation; on the other hand, it is more reasonable for those who are neutral or opposing RIV to

self-discipline on social media for fear of privacy violation, surveillance and social control. However, the majority of them (72.3%) tended to be more cautious and self-censored their posts on social media to deter negative influence, or even reduced participation after RIV. In contrast, interviewees' attitudes were consistent with their claimed responses. Supporters did not reduce or self-censor their online participation because they would "never do something immoral" (Interviewee #14). Interviewees who were neutral about RIV became "more responsible for what I say on the Internet" (Interviewee #06). Objectors reduced participation on Weibo. For example, Interviewee #43 used to "publish some criticism that is considered politically sensitive but now do not dare to post anymore". As the survey was distributed via Chinese social media, this inconsistency is probably due to the chilling effect and self-censorship exerted by RIV that made respondents expressed more support for it. This sub-chapter explains subjects' online behaviour changes due to RIV; the following sections will turn to their likely online behaviour changes due to the SCS.

6.5 Changes of online content: self-discipline and online performance

One-third of survey respondents and the majority of interviewees were willing to censor their social media content in a disciplinary direction for better SCS scores on condition that the score would be influential for their lives. As shown in Figure 14, survey results show that more respondents (33.8%) expressed the tendency to self-discipline and self-censor their posting and commenting activities on social media than those who would not (25%), while a large group of respondents (41.2%) were uncertain and might shift from one side to the other. The statistic mean of the dataset is 5.25, and the standard deviation is 2.243, suggesting the general tendency is leaning towards the changing side.

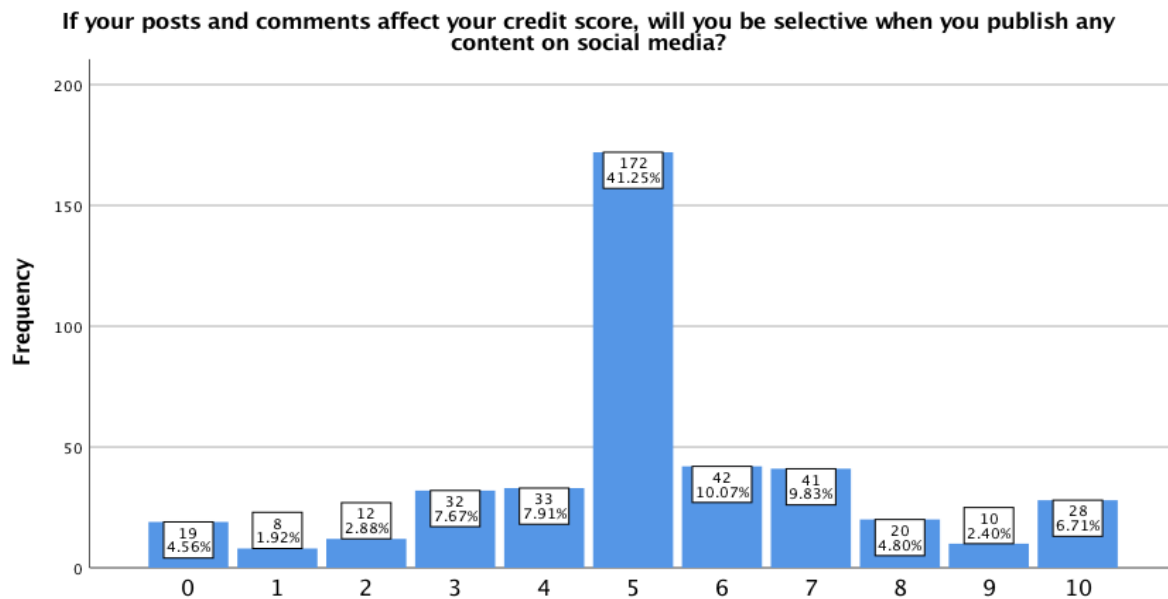


Figure 14: Tendency to be selective to publish content on social media for the SCS score

Regardless of diverse attitudes towards incorporating social media content in the SCS score presented in sub-chapter 5.6.2.1, none of the interviewees expressed the tendency to be more active on social media. Most interviewees (e.g., Interviewee #06, #07, #11, #15, #16, #17, #18, #20, #21, #22, #23, #25, #27, #28, #37, #39, #40, #42, #43, #47) claimed that they were to be more “self-regulated” and “disciplined”. For example, Interviewee #20 would be more disciplined on social media “because the SCS is like a law”. Interviewee #25 stated that

If online behaviours really affect one’s credit score, then users will certainly be more cautious because it closely relates with their personal interest. Even before the SCS, I have already been changing my behaviours on social media. I will be more disciplined under the SCS.

The findings basically concur with previous studies (Kosinski et al. 2013; Penney 2016; Zhong et al. 2017) which suggest the awareness and knowledge of online censorship and surveillance may affect users’ social media behaviours to a more self-censored and regulated manner. Before elaborating on the specific behaviours and impacts, two interesting discrepancies need to be addressed.

The first is the difference between survey and interview results that only a small group of respondents responded the same way as most interviewees. This is

probably because most respondents were unfamiliar with the SCS to reveal how they would react to it, whereas interviewees, despite the same lack of knowledge, could reflect on the topic in the interview setting. Based on their reactions to the regulation that they were more familiar with, i.e., RIV, and interview results, although almost half of the survey respondents were indecisive, it is expected that if the respondents know more about the SCS, or when the SCS influences their lives, those who were undecided will lean towards the disciplinary direction.

The second is the inconsistency between interviewees' attitudes to the SCS and the subsequent behaviour change, which is similar to the inconsistency between survey respondents' attitudes and behaviour change unearthed for RIV in sub-chapter 6.2. For interviewees perceiving the SCS as a tool for social control and mass surveillance, it is comprehensible to self-discipline due to the fear of being monitored and punished. However, for most interviewees who supported the SCS and pursued a more trustworthy and safer cyberspace, it seems contradictory that they did not want to participate more actively in an improved environment. This inconsistency can be understood as a result of pragmatism. As several interviewees explained, most people, regardless of their attitudes, would follow the mainstream and do what was the best for themselves. In this case, self-censor and self-discipline on social media as a tactic for nursing their SCS scores. This again proves that most interviewees have already internalised the need to adjust their online participation strategically.

Regarding likely changes in producing and posting online content, most interviewees submitted the tendency to conduct "last-minute self-censorship" (Das and Kramer 2013) on social media to be selective and cautious about the content they were going to post. The purpose was to avoid breaking any rules without even knowing it. As interviewee #04 said,

I am not sure what content is labelled as inappropriate or illegal because many things can be inappropriate nowadays. You think your post is totally fine, but cyberpolice or the platform will label it as inappropriate...thus, I will be more selective about the content I want to post.

Interviewee #35 shared similar views, saying that

I will not post something freely as I do now because I do not know the rules or what content is considered as sensitive. I am afraid to hit sensitive words

unconsciously...I think most people who value their credibility and trustworthiness will be more cautious. I will feel restrained, but if everyone is restrained, I am fine with that.

These statements indicated that the vagueness of the scoring criteria would keep interviewees in a state of unknown and anxiety, causing them to continually self-censor the content they were going to publish and reduce active posting on social media, which also explains why most interviewees demanded transparent scoring criteria in sub-chapter 6.4.

A few interviewees were going to reduce “listening and watching” (Green and Jenkins 2011) forms of participation by browsing less than before. For example, Interviewee #33 used to “click on an eye-catching headline on the Internet to see what it is about”, but he would avoid doing that “if there is a credit score that keeps track of my browse history”. Interviewee #34 would “decrease the frequency of using social media”. Interviewee #45 would “abandon social media” because

I am afraid to get into trouble. We used to participate on social media because we have freedom of speech on the Internet. If online participation is included in the credit score, it means that my score can be deducted due to one sentence I post online and affect my life.

Several interviewees claimed to reduce the frequency of using social media or even recoil from social media to avoid breaking any rules accidentally. Several interviewees who used to post political or sensitive content would reduce or stop posting, which agrees with Zhong et al.’s (2017) study that stringent Internet governance cause users to disengage from public discussion or political activities. Interviewees explained that they chose these tactics because they did not know what content would be labelled as bad in the SCS. In order not to violate any rules accidentally and get their scores deducted, they must continuously filter the content they browse, self-censor their post, and be disciplined. This further demonstrates the efficacy of partial disclosure and gamification design of the SCS to induce self-discipline into users.

A small group of interviewees would not change online participation because they have already been self-censored and disciplined after RIV. Hence, no change would

be needed (e.g., Interviewee #09, #26, #38, #41, #44, #46). For example, Interviewee #26 claimed that “the score will not change my participation because I have never been someone who says whatever he/she thinks online. I am more rational...I usually think more and post less”. Interviewee #41 stated that “I have already been self-disciplined (on social media) for some time; hence, imposing extra disciplines will not affect me so much”. She added that “even if without the oversight of the credit score, one must be responsible for their online speech. No one can disseminate nonsense because he/she is anonymous online” (Interviewee #41). Interviewees #38 said that he had been “...consistent in cyberspace and in real life. What I post online is the same as what I express in real life...I will not be affected by the credit score at all”. Nonetheless, he believed that

most people will be more cautious and speak less online if the SCS works...my roommate never expresses aggressive views in real life, but he always posts aggressive and biased opinions on the Internet, which makes people uncomfortable. If a new policy like the SCS comes out, people like my roommate will not post so wilfully online. (Interviewee #38)

Thus, having been self-disciplined may also be the reason that a quarter of survey respondents were not going to be more selective about what they post on social media. This is consistent with the findings of previous studies on the impacts of the RIV (e.g., Guo and Jiang 2015; Feng and Guo 2013; Lee and Lin 2006; Lee and Chan 2009; WeChatscope 2019). Therefore, the widespread chilling climate due to online surveillance and governance, which has been accounted by studies on Chinese cyberspace (Wang and Hong 2010; Lu and Zeng 2014; Zhong et al. 2017) as well as by studies in the western context (Kosinski et al. 2013; Reitman 2014; Hampton et al. 2014; Penney 2016), also appears in the context of the SCS.

Although users have the autonomy to choose whether they would like to obey the SCS, the scoring and JPM in the SCS may induce most users to internalise and accept the SCS, and users eventually may obey the rules. Users will probably adapt their social media behaviours by acting or performing to the (imagined⁴⁰) requirements of the SCS for the pragmatic goal of nursing their SCS scores,

⁴⁰ It can sometimes be imagined criteria of the SCS because they do not know all the rules and the rules are always evolving (see sub-chapter 5.5.4).

regardless of their personal preferences, habits, intentions and values. As several users asserted, they are highly likely to modify or even fake their behaviours to get good SCS scores. The new spiral of self-censorship and self-discipline induced by the SCS may have negative implications for online self-presentation and self-disclosure (Marwick and boyd 2010) as these behaviours are highly likely to be shaped by the (imagined) criteria of the SCS. Self-presentation and self-disclosure on social media are important participatory activities that form users' unique online identities and establish social networks with other users. It is a collaborative work between the user and audiences. In the context of the SCS, the system's surveillance over a user's online activities resembles the observation from "networked audience" (Marwick and boyd 2010), which compels the users to tactically disclose information online and manage their impressions for the SCS. Thus, the online identity that a user intends to create for the SCS will potentially be based on what the user imagines may be scored higher by the SCS, rather than solely on what the user wants to present. In this context, a user's online presentation is collaborative between the user and the SCS as well. Thus, the behavioural management objective of the SCS can be achieved in cyberspace, whereas the "distinct and fluid" online identities of users (Papacharissi 2009, p. 308) will probably become less diversified. This type of impression management or online performance is conducted by user themselves but is also manipulated by the gamification designs of the SCS, corresponding to the framework of governmentality which technologies of the state are used to entice people to conduce technologies of the self in the direction that aligns with the governmentality objective. Self-presentation and self-disclosure speak to the broader participatory culture (Jenkin 2006), thus the SCS would also affect the latter to some extent, which is discussed further in sub-chapter 7.4.

6.6 Changes of online networking: network refinement and credit score class

Around one-tenth of respondents and the majority of interviewees were willing to sacrifice online networks for better SCS scores if the score would affect their lives in various ways and if the relationships were not too close. Figure 15 illustrates how likely survey respondents would delete or unfollow their online networks to maintain good SCS scores. 12.2% of people expressed the intention to sacrifice their online

networks for better SCS scores (chose 6-10). On the other hand, 36.5% of respondents were on the side of not deleting or unfollowing online networks for SCS scores (chose 0-4). Around half of the respondents (51.3%) were uncertain about their choices (chose 5). The statistic mean of the dataset is 4.19, and the standard deviation is 2.136. Thus, respondents were generally uncertain about whether they would delete or unfollow their online networks for SCS score, but respondents who claimed that they would not do that were three times more than those who were willing to, showing a prevalent opposition to such measures. In contrast to survey results, most interviewees, despite their objection to incorporating networks in the SCS, claimed they would refine their networks. This discrepancy is probably because the interview setting offered people a better opportunity to consider the scenario and express their stances more thoroughly. Nonetheless, the large group of hesitated respondents, and even the resisting ones, are likely to shift to the willing side, as most interviewees who opposed to be scored with online networks eventually agreed to refine their networks.

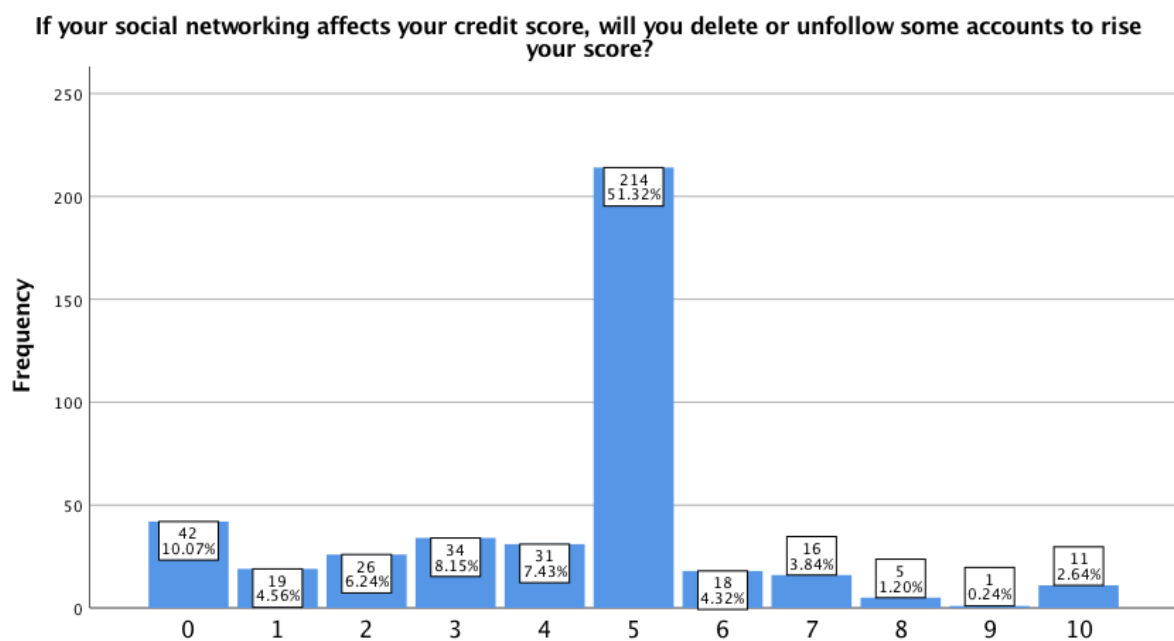


Figure 15: Tendency to delete or unfollow online network for the SCS scores

In-depth interviews further probed how the interviewees were going to refine their online networks for the SCS and the underlying reasons that drove them (not) to take

such measures. This study uses “refine” to describe the activity that users delete, block, estrange, or alert their existing contacts who had low scores and filter whom they will establish networks in the future for the purpose of maintaining their own SCS scores at a relatively good level. Concluded from interviewees’ statements, there were three factors for them to decide whether they would manage their online networks for the SCS. The first was the importance of the SCS score. If the score would affect people’s lives in various ways, most interviewees tended to sacrifice their online networks for better scores. For example, Interviewee #33 was firmly against including online network in the SCS score, but if the score “can impact my personal interest, then I will delete some friends on social media”. The second factor was the closeness of the relation ties. If the user was just a distant acquaintance or strangers whom they never met in real life, the majority of interviewees tended to unfriend, delete, or unfollow the user for credit score; however, if the user was a close friend or could not be deleted, a large group of interviewees claimed they would not unfriend the user (e.g., #05, #13, #16, #20, #27, #37, #46). In the words of Interviewee #05, “some are really close friends that I cannot delete or block, but I will delete unimportant or distant ones, in case they affect my credit score” (Interviewee #05). The third factor is the social media platform. Most interviewees were more willing to unfriend networks on entertainment-oriented weak-tie based Weibo than on strong-tie centred WeChat because they felt obliged to maintain close networks on WeChat free from the influence of the SCS. Besides, many interviewees’ WeChat contacts contained business and work networks whom they could not delete or block. On the other hand, it was easier for most interviewees to give up networks on Weibo as their networks on Weibo were interest-based and less solid than WeChat networks. For example, Interviewee #06, who was a regular user of both WeChat and Weibo, explained that she would use different approaches to deal with networks on these two platforms.

On Weibo most of my contacts are strangers who share interests or opinions similar to mine. If they post rumours or inappropriate content, I will unfollow them. However, on WeChat most of my contacts are family members, friends and schoolmates, so I will be more tolerant with them. (Interviewee #06)

Therefore, the influence of the SCS on online social networks may vary according to the different strength of social ties supported by various platforms.

The SCS will probably have three nuanced implications for users' *existing* online social networks. First, the SCS may impose restrictions on users' online networks as many interviewees would delete or block low-scored users if they were not close personal friends, which indicates that the gamification designs like scoring and JPM can compel users to filter their social networks. Notably, stronger social ties may be more durable under the influence of the SCS and that social networking on Weibo and other weak-tie oriented platforms may be affected by the SCS to a larger degree. Second, the SCS has the power to reconfigure the depth of interaction and the strength of relational ties in the long term. In terms of lower-scored networks that could not be deleted, unfollowed or unfriended, a few interviewees (e.g., Interviewee #18 and #38) declared that they would reduce interactions or financial transactions to evade negative influences on their SCS scores. As Interviewee #38 reasoned, "if the credit score is proved to be scientific...there is no need to hide your contacts by deleting them. A low score shows that my online social networks do have problems". He would "keep them in my contact list but try to avoid interactions with them, especially financial interactions" (Interviewee #38). Several people claimed that they would delete their contacts online but would try to maintain relationships in real life. As interviewee #15 said, "if one of my online friends has a low credit score and affect me, I will probably delete him/her from social media but maintain an offline relationship". However, as one primary purpose of using social media for subject is to network and keep in touch with close acquaintances, it is not promising to maintain relationships to the same closeness only through offline scenarios. Therefore, in the long term, the SCS can reconfigure the depth of interaction and the strength of relational ties. Consequently, the capability of social media as "techno-social systems" (Fuchs 2014, p. 47) to maintain, solidify, and strengthen existing social networks (e.g., Benkler 2006; Ellison et al. 2007) may be undermined by the SCS.

Third, the SCS may give rise to peer-to-peer lateral surveillance. A small group of interviewees (e.g., #06, #07, #13, #16) refused to give up their close networks but did not want to be affected by others' behaviours; thus, they decided to patrol their social media and alert valued relations about bad behaviours that could hurt their SCS scores so that neither of them would be punished. For example, Interviewee #06 would "tell them if what they post are rumours. Whether they listen or not is not

my concern, and it will not affect our relations” (Interviewee #06). Similarly, Interviewee #07 stated that

when online friends affect my credit score, I will probably message my friend and tell him to be careful of what they do on social media because it does not only affect him/herself but also affect his/her friends.

The underlying logic is that in the SCS a person’s online networks are assumed as potential risks that could harm his/her SCS scores and life. This is also a form of responsabilisation. Unlike the original connotation of Garland’s (1996) “responsibilisation” that solicits citizens for crime prevention and national security, the SCS rechannels the responsibility of protecting your credit score and your friends’ by incorporating networks in the SCS score. Using such responsabilisation, the SCS has successfully mobilised users to accommodate peer surveillance in their daily lives as some interviewees have internalised the need to monitor their online networks. When users take the tasks of patrolling, detecting, and alerting their online contacts, they are performing the peer-to-peer “lateral surveillance” (Andrejevic 2005). Moreover, knowing that his/her behaviours will affect his/her networks’ scores, a user may self-discipline and self-censor even stricter to avoid becoming a liability for their contacts and getting socially alienated; thus, external lateral surveillance has the potential to cause another spiral of more stringent self-discipline.

The lateral or interpersonal surveillance in a data system can be in a form of “other tracking” (Gabriels and Coeckelbergh 2019), especially when users begin to peer monitor their networks’ SCS scores. If various features and characteristics of each individual are evaluated, quantified and degraded to a “score double”, the SCS may create more distance for people to establish ethical relations, especially when there are incentives and punishments attached to the score (Gabriels and Coeckelbergh 2019), which may cause more users to sacrifice online networks. My findings of how subjects would refine their existing online networks agree with previous literature on the SCS, which argues that the SCS will incentivise citizens to distance themselves from the low scored (Ramadan 2018), “subconsciously police each other” (Lee 2019, p. 364), and act as “enforcers for the authoritarian party-state” (Cook 2019). Although this outlook contrasts the advertised objective of the SCS being to promote moral goodness and social trust (Cook 2019), the findings suggest that “other

tracking” or having insights into other people’s SCS score may create harmful interpersonal relations.

The possible consequence of network refinement is the formation of credit class. Users with good scores will be appreciated by both the SCS and their networks, whereas users with low scores will be discriminated by the system and alienated by their networks. Consequently, after a period of time’s sorting and filtering by the system and citizens themselves, new social classes based on credit score will probably emerge. The segregation process may not be achieved smoothly, for a small group of interviewees were resolute in their stand that they would select or delete their online networks solely based on personal judgements, rather than the SCS score. As Interviewee #09 said, “I will make my own judgement about whom I interact and keep in touch with based on another user’s regular posts because I doubt the objectiveness of the credit score”. Interviewee #17 shared the same perspective, saying that “if a person publishes something that I really disagree or hate, I will delete or block him/her. But I will not do that for the credit score”. Interviewee #10 declared that “if my online friends have low scores, then the system can deduct my score and punish me as well. I will not delete them, and the system cannot nudge me to do that”. However, the incentives and punishments of JPM are likely to push forward the segregation. If a person refuses to sacrifice the lower scored contacts, his/her own credit score risks being decreased. Eventually, the person either has to follow the trend and sacrifice his/her networks or wait for high-scored networks to give him/her up. As discussed above, the score double and other tracking may increase the likelihood of sacrificing social networks. Hence, the gaps between different credit score class are expected to expand, resulting in a new form of top-down imposed, incentives and punishments-driven *credit score class*. As interviewees tended to be more tolerant with lower-scored networks on WeChat than with stranger-based networks on Weibo, credit score class may be more likely to form on platforms supporting stranger-based networks.

Furthermore, credit score class will probably be consolidated by people’s dependence on the SCS score in establishing new and future networks, as a considerable group of interviewees (e.g., #08, #12, #20, #24, #25, #28, #31, #32, #39, #42, #44 and #45) admitted that they would use the SCS score as a character

reference to decide if they should establish relationships with new online contacts. As Interviewee #28 said, “a quantitative measurement for online social networks can be helpful for people to judge whether a person is worth interacting or not”.

Interviewee #12 assumed that

most people would do that (use the SCS as a reference). I think if a person’s credit score is low, then there must be something wrong with him/her... the first impression is important. If someone’s credit score is not good, it’s normal that most people would not want to network with him/her.

Interviewee #24 “would not add or friend users who have low scores on my social media”. Interviewee #45 had already been using credit score to decide to whom she would sell her items.

For example, when I choose a buyer or a seller on Xianyu, a second-handed item trading website developed by Alibaba...I give priority to buyers with 700+ Sesame Credit scores. If a buyer has low credit level, I will never sell my items to him/her. You see, credit score has already affected me.

This group of interviewees praised the SCS for being a revolutionary method to materialise the formerly abstract and indefinable character and present it in a quantitative and visual score. They preferred to interact with high-scored users because they believed that those with low or poor credit scores must have done something wrong. Even some of the interviewees who were against the SCS seconded this action. None of these interviewees has questioned the SCS’s objectivity and justifiability of scoring citizens. Without sufficient knowledge of the scoring criteria and rules, they were still ready to use the score to filter their online social networks. They trusted that the SCS could accurately reflect the trustworthiness of a person and agreed by default that the low-scored were untrustworthy. As a result, the low-scored will not only be alienated by their existing networks but also discriminated by potential networks, in addition to being marginalised from society. Their internalisation of the unjustified social exclusion and discrimination driven by SCS will probably give rise to “a *de facto* lesser social class” (Chen et al. 2018) and create “guanxi 2.0” (Ramadan 2018, p. 101). The previous forms of online networks and communities based mainly on shared social practices and interests, as in the form of networked individualism (Castells 2001), will be reconfigured by the time when the SCS scores are used along with other qualities

such as background, power, wealth, and expertise to determine a person's networks and social status. This change will affect the sociality on social media and the nature of social media being a techno-social apparatus at the macro level, which is discussed further in sub-chapter 7.4.

6.7 Changes of online shopping: credit nursing and reluctance to change

For online shopping, almost half of the survey respondents claimed they would change their online shopping habit, but only a few interviewees were willing to change their shopping habit and be more responsible in what they buy for the SCS. As shown in Figure 16, 47.8% of respondents suggested that they were going to change their online shopping behaviours for better SCS scores (chose 6-10). Less than one-fifth of the respondents (18.9%) expressed reluctance to change shopping behaviours (chose 0-4). Respondents who showed the tendency to adjust their online shopping behaviours are 2.5 times more than those who chose not to do so. One-third of the respondents (33.3%) were undecided about whether to change their online shopping behaviours (chose 5). The statistic mean of the dataset is 5.73, and the standard deviation is 2.470. Thus, more respondents expressed the willingness to change online shopping behaviours for better SCS scores. Compared to previous results of changing content generation and changing online networks, respondents were more decisive and more willing to modify their online shopping behaviours for the SCS.

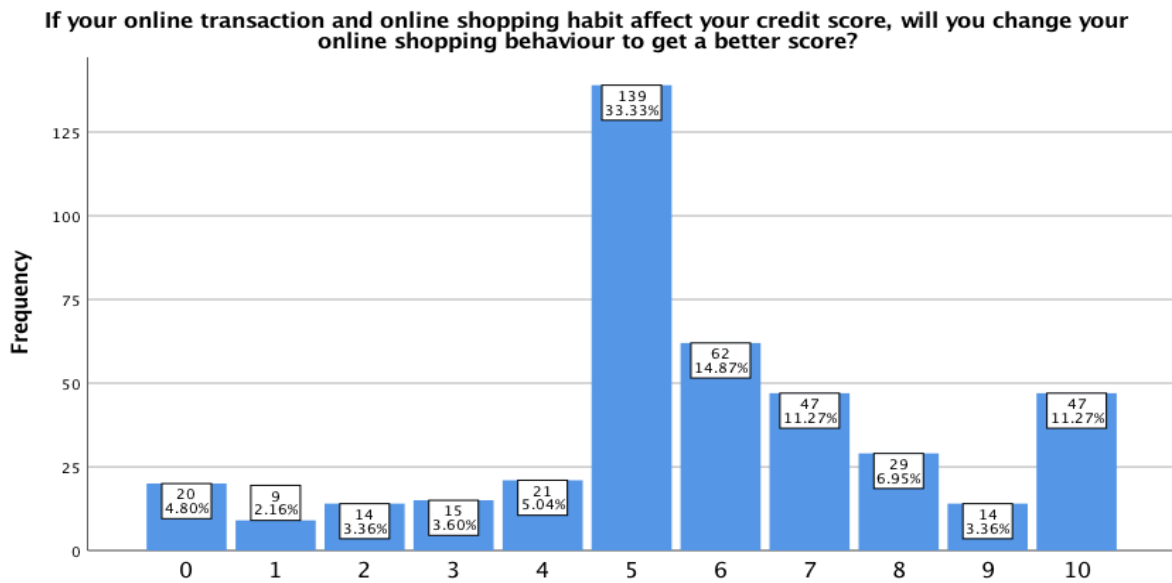


Figure 16: Tendency to change online shopping behaviours for the SCS score

Interviews investigated not only users' willingness to change online shopping for the SCS but also the nuances of specific aspects of shopping behaviours and underlying reasons and concerns. Although most of the interviewees thought it was reasonable to include online shopping in the credit score, they were very reluctant to change their online shopping habits because it was too troublesome for them to do that. Online shopping has become an integral part of most interviewees' lives. Changing shopping habits meant changing their lifestyle, which was inconvenient for interviewees, so they claimed that even if they cared about the SCS score, they would not go that far and change their shopping habits and preferences for it. As Interviewee #09 said, "online shopping is too convenient to give up nowadays so I will not change payment method for a credit score". Concerning a specific aspect of online shopping, shopping content, or what users buy, most interviewees objected to being scored by what they bought, so they were unwilling to change their personal preferences for the SCS. As Interviewee #17 said, "everyone has different tastes. I will not let a credit score to affect my lifestyle. I will continue to buy whatever I want".

Driven by the desire to get better SCS scores, a few interviewees were willing to change their shopping habit and be more responsible in what they buy for the SCS. For instance, despite of unwillingness, Interviewee #11 was ready to change her shopping habit. "If what I buy would affect my credit score and my life, I would

change my shopping habit.” (Interviewee #11). Although most interviewees said that they had “reasonable” (Interviewee #43) shopping habits that would not harm their credit, several people mentioned that they would be “more responsible before making any purchase” (Interviewee #24). On account of this, the SCS might make a small group of users “nurse” their SCS scores by shopping more responsibly and wisely and paying up loans in time.

Compared with subjects’ answers for changing online participation and networks, more survey respondents (almost half) and fewer interviewees (only several) expressed the willingness to adjust their shopping behaviours to a more responsible and reasonable fashion to “nurse” their SCS score. The discrepancies may be due to the following reasons. Regarding survey results, this question of changing online shopping behaviours appeared on the survey after the previous two about online content and networks. Thus, respondents may find it more acceptable and easier to adjust online shopping compared to the previous two usages. Besides, online shopping is consistent with the most common understanding of credit scoring being financial-centric. During interviews, however, users had more time to analyse the scenario of changing online shopping behaviours, which allowed them to realise that online shopping had become part of their life and thus changing it would disrupt their lifestyle. Most of them also believed that they had good shopping behaviours that required no adjustment. Subjects showed discrepant stances regarding this aspect, suggesting the SCS might have little impact on online shopping behaviours, or might influence users to change shopping behaviours in a more cautious manner.

The likely changes in online shopping, jointly with those in online content generation and networking practices, may affect another aspect of social media – the data-driven business model of “platform capitalism” (Srnicsek 2017). Social media users’ active and continuous activities on social media create Big Social Data (Olshannikova et al. 2017), which is one of the key resources for capital accumulation of commercial social media platforms (e.g., Fuchs 2012; Andrejevic 2013; Zuboff 2015). Social media companies have been driving to attract more users to engage in their platforms. However, the SCS, despite the same need for Big Social Data, may disrupt this crucial component of platform capitalism through its likely chilling effect on users’ online activities. As the SCS depends on the public-

private partnership to analyse data and enforce JPM, corporates are placed in a dilemma in which assisting to implement the SCS might undermine their fundamental business interest. Thus, as the SCS rolls out and its impacts become broader and more penetrating for people's lives, it can create unwelcome repercussions for social media companies and shake the public and private partnership in the SCS. To what extent this will be true depends on the interactions between user, social media and the SCS, which are diffused with dynamics and tensions discussed in the next chapter.

6.8 Conclusion

This chapter presented findings addressing the second research question of how users would change their online behaviours for the SCS and the subsequent implications. First, based on subjects' perspectives on the transparency of the SCS's scoring criteria, it is found that most subjects have internalised both the need to comply with the SCS and the benefits of the SCS, which were the reasons that all interviewees claimed they would obey the rules and change online behaviours if the SCS score would affect their lives in various ways. The findings can be understood using governmentality theory, as the gamified scoring and incentive mechanism in the SCS have induced users to internalise the SCS in that they wanted to know the scoring criteria to self-discipline and align their behaviours to the requirements, which feeds into technologies of the self. Whether interviewees would modify their behaviours depended significantly on the scope and depth of the SCS's influence on their lives. If the credit score affects various aspects of social life, interviewees will be score-driven and modify their behaviours to the rules and criteria. The tendency to change demonstrates the internalisation and normalisation of the SCS, which could either have long-term disciplinary effect on users and affect the data-based capital accumulation, or short-term modulation for users and limited impact on digital business in the long term. These are preliminary assessments which will be discussed further in the following chapters.

For all three online usages, survey results showed a general high level of uncertainty about whether to change online behaviours for the SCS score, as a large portion of respondents vacillated. Regarding online content generation, a small group of survey

respondents and the majority of interviewees showed the inclination to self-discipline and self-censor the content they were to post or browse, the driving force for which is to avoid posting or browsing any score-deducting content. This potential behaviour change might affect users' online self-presentation and self-disclosure as they would adapt social media behaviours to the (imagined) requirements of the SCS for the pragmatic goal of nursing their SCS scores, regardless of their personal preferences, habits, intentions and values. This may impact the participatory culture on social media in two possible directions: one that leads to a more civil and trustworthy cyberspace in which users begin to actively participate more than before; the other that results in the deterioration of online participation and content production because users will continue to self-censor and discipline.

Regarding online social networks, a larger group of survey respondents refused to delete or unfriend online networks for the SCS. However, most interviewees were going to filter their existing networks on social media for the SCS by measures like deleting or unfollowing online networks, reducing interactions with low-scored contacts, or alerting closer networks. Interviewees' inclination to do so was associated with the closeness of networks. The stronger the social tie was, the less likely interviewees would give up the relationship. The SCS is also likely to induce many interviewees to conduct peer-to-peer lateral surveillance, refine their existing online networks and use the score as a reference for future networks, which might give rise to a new form of top-down imposed, incentives and punishments-driven credit score class. Previous forms of online networks and communities based mainly on shared social practices and interests are likely to be reconfigured when the SCS scores are used along with other qualities such as background, power, wealth, and expertise to determine a person's networks and social status. This may also impact the various levels of sociality of social media discussed in the next chapter.

Almost half of the survey respondents claimed they were willing to change their online shopping for better credit score, whereas the majority of interviewees were reluctant because it was too inconvenient to change their lifestyle or personal preference. Most believed they had rational shopping behaviours that needed no adjustment. Nonetheless, a few interviewees were willing to change their shopping habit or self-regulate their shopping behaviours for the SCS. The discrepancy

between survey and interview gives rise to two possible scenarios: one that users use online shopping in the same way and create no disruption; the other that online shopping will be decreased and disrupt e-commerce. These scenarios will result in different consequences for platform capitalism and the public-private partnership, which will be discussed further in the next chapter.

Nonetheless, it does not mean that all the interviewees would completely disregard their criticism and scepticism about the justifiability of the SCS. In fact, a range of tensions and dynamics have emerged from survey and interviews. Previous chapters have discussed several tensions, such as users' demands for transparent scoring criteria and their concerns over the genuineness of the behaviours and the fear of normation of society (sub-chapter 6.3); users' inclination to modify social media behaviours for better credit scores and their unwillingness and unease to monitor and filter their networks (sub-chapter 6.5 and 6.6); and the acceptance of including financial behaviours and the worries about perpetuating the existing economic inequality through the SCS (sub-chapter 5.4.2.3 and 6.7). The findings address various aspects of digital citizenship and governmentality and are discussed preliminarily in this chapter. The next chapter will continue to analyse significant concerns, tensions, and negotiations unearthed from the findings and discuss dynamics and implications for the future of social media.

Chapter 7. Findings and discussion III: tensions, dynamics
and implications

7.1 Introduction

This chapter answers the third and the main research questions of the dynamics and implications of the SCS for social media. Sub-chapter 7.2 presents the trust in the government as the protector and moral regulator of the public and the scepticism about the justifiability, objectivity and feasibility of the SCS. These discussions reveal many concerns that may affect user interaction with social media and the SCS. As the SCS involves pervasive data collection of users' personal information, sub-chapter 7.3 presents findings of subjects' perspectives to data collection and privacy and the tension between users' pursuit for security and their claim to personal privacy emerged from this. I then discuss how research subjects negotiated this tension and generated feelings of disempowerment. Building on previous findings and discussions of user interaction with the SCS and social media, sub-chapter 7.4 discusses the vital theme of how digital citizenship in China will be shaped and the SCS's impacts on sociality and participatory culture on social media at the macro level. This directly responds to the main research question of the SCS's implications for social media. Sub-chapter 7.5 extends the focus from user and analyses the implications for the business model of social media and the public-private partnership, as there might be a conflict of interest between social media companies' exploitation of large quantities of objective user data and the SCS's chilling effect on users' social media usages. As part of the discussion, I also connect to key literature and evaluate this study's consistency or discrepancies with them and point out potential directions for future exploration.

7.2 Trust and scepticism about the SCS

7.2.1 Trust in the government as the constructor of the SCS

Since none of the interviewees was aware of the SCS, or the fact that the government and social media companies had joined forces to construct the SCS, after the general principles and objectives of the SCS were introduced to interviewees (see sub-chapter 4.5.2), they were asked "what body, for example, the government, non-governmental organisations, or social media companies, do you trust to be in charge of the construction and implementation of the SCS?" This question intends to evaluate how likely users will endorse or oppose the SCS on

account of their trust in various stakeholders – the Chinese government, social media companies, and other institutions.

Interviews revealed that the majority of interviewees (e.g., Interviewee #11, #12, #17, #20, # 28, #35, #36, #37, #38, #40, #42 and #44) wanted the government to be the leading constructor of the system because they believed that only the government had the power to coordinate a range of stakeholders. As Interviewee #17 noted, “the government is the most authoritative body in China. Although Tencent and Alibaba own large quantities of data, I do not think they will act better than the government in constructing the SCS...the construction of the SCS has to be led by the government”. Interviewee #38 also noted that “it is unacceptable if Tencent is going to rate my creditability and affect my loans at banks...but if it is done by the government, it will be easier for me to accept the whole rating thing”. Interviewee #28 commented that

the government should be the leader (of the SCS) ...if a company is conducting credit rating on individuals, people will question why a company has the right to rate me. Alipay, to my knowledge, has connections with the State Council and the Cyberspace Administration of China...I think the key is to find a way to justify the SCS... (the government) should promote the SCS by emphasising the convenience it will bring to people’s life, instead of using executive orders to force people to participate.

Interviewee #33 remarked that it was unnecessary to disclose the scoring criteria because “even if the criteria or rules are published, I won’t bother to check them because I trust in the system”. Interviewee #27 expressed her concerns over the low efficiency of the government because

there are too many things that people think the government should do, whereas the government can never do all. Whenever there is a mistake in my score, it will be troublesome to report to government departments and hold it accountable.

Regardless, she still thought that the SCS should be constructed and led by the government: “whoever constructs the SCS, there will always be blunders... however it does sound like something the government should do. (Interviewee #27).

In addition to the government, other organisations were proposed by interviewees to be the supporting constructors of the SCS. Commercial companies, especially Internet giants, were named by most interviewees as the essential co-constructor owing to their advances in data analytics (e.g., Interviewee #14, #17, #21, #22, #29, #31, #32, #41 and #47). Several interviewees (e.g., Interviewee #27 and #33) worried that the business interest of commercial companies would undermine the impartiality of credit rating, so they proposed a government-business cooperation to take advantage of the technological edge of private companies and meanwhile keep them in check. This proposal resembles the current “Government+Market” model, although no interviewee was aware of that. Their answers suggest that most of them believed the public-private partnership was the best choice for constructing and supervising the SCS. Financial institutions and banks “with government background” were proposed by 5 Interviewees (Interviewees #25, #30, #33, #34, #45) to be the supporting policymakers.

On the other hand, a small group of interviewees realised the latent influence of the system designers and challenged the belief in the creditability of the government and datafication. Interviewee #43 opposed the government to be the constructor because “the government does not always have creditability”. For several interviewees, it was disturbing to think that the government would be the primary constructor and rule-maker for the SCS, as this meant that the government would hold the ultimate power to decide what kinds of behaviours were good and what kinds were bad, along with the corresponding punishments and rewards. As Interviewee #10 cautioned,

the values of the rule maker will have profound influence in deciding the morality of every behaviour, which is problematic... even if the government is more suitable to construct the SCS owing to its prestige, it is always trying to maintain certain power relations; hence, it is unobjective and unfair on the scoring.

“If the government alone is to establish the SCS, people would comment that the government is shutting everyone else up and creating a mono-voice sphere (*yiyantang*)” (Interviewee #26). Furthermore, only a few interviewees argued that the question should not be “who can be the reliable constructor” because there was a more fundamental question of whether the SCS should be constructed at all. For example, Interviewee #05 believed that the SCS was “the Chinese Communist

Party's tool to control and monitor every move of citizens"; thus, he contended that the SCS should not be constructed. Interviewee #19 commented in a sarcastic tone that "*I believe* the government can represent the people and guarantee everyone's right. Of course, I believe" (emphasis added). He alerted that policymaker would take advantage of the system to impose their ideologies on the public. As Interviewee #23 stated, "sometimes people have different but reasonable views from the government, and if their credit score will be deducted (because of dissent), it is not really reasonable".

As argued in sub-chapter 3.4.2, the designer of data analytics systems will inevitably undermine the objectivity of the scoring through the discriminatory and biased algorithms that are designed to fulfil pre-set objectives (Kitchin 2017; Monahan 2018). In the case of the SCS, the chief designer and rule-maker is the Chinese government. Unlike most respondents who trusted the government, a few interviewees believed that the government would force their values and beliefs on citizens through the SCS, which is also alerted by Meissner and Wübbecke (2016). Several worried that the SCS would discriminate against the less privileged and marginalised those with insufficient knowledge, less money and lower-scored networks. This reflects the concern that citizen scoring systems, by producing unobjective scores and impacting people's life opportunities, may cause and perpetuate discrimination and social sorting (Dencik et al. 2019). Nonetheless, it is noteworthy that only a few interviewees were sceptical about the Chinese government's intention embedded in the SCS, whereas the majority still trusted the government and named it as the leading policymaker and constructor of the SCS. This trust demonstrates people's internalisation of the legitimacy of the Chinese government.

7.2.2 Scepticism of the SCS

In addition to their lack of knowledge and mixed attitudes, interviewees expressed various scepticism about the SCS. Based on the nuances in their statements, the scepticism mainly concerned three aspects: the scepticism of the fundamental justifiability of the SCS; the scepticism of the objectivity of the SCS; and the scepticism of the feasibility of constructing the SCS due to the distrust in the capability of current technologies. The following section will elaborate on each point.

The grounds for the SCS to incorporate online speech, networks, and personal preferences and shopping in the system and quantitatively score them were not justifiable for a large group of interviewees, who (e.g., Interviewee #14, #35) questioned the correlation between social media behaviours and trustworthiness as they did not understand “how social media behaviours can be judged in terms of trustworthiness” (Interviewee #05). This is mainly due to the fact that the official name of the SCS is still Social “Credit” System. Most interviewees still differentiated between “credit” (xinyong) and “trustworthiness” (chengxin) and negated the assimilation of the two concepts. For them, credit was a financial concept that only relates to money-related activities while trustworthiness was a moral concept that could not be quantitatively assessed. For example, although Interviewees #40 and #43 thought the advantages of implementing the SCS outweighed the disadvantages, they could not comprehend the correlation between a person’s social media behaviours and his/her creditability. Interviewee #14 also wondered how social media behaviours could be assessed, asking “how can you prove some behaviours worth higher credit scores and vice-versa?” What they questioned was the justifiability of the SCS and the fundamental rationale for scoring people’s trustworthiness from their social media usages. A few interviewees (e.g., Interviewee #04, #05, #23, #31, #36 and #44) were also concerned about the justice of ruling since there was no specified law or regulation on speech and content. “To include social media content and behaviours, the (credit scoring) system needs to be really just and objective, but it is impossible to achieve that” (Interviewee #31). The subsequent punishments were also questionable for several interviewees. Regarding the case of the assault speech about the firefighters mentioned above, a few interviewees suspected if there was solid legal ground to justify the capture of the assaulters (Interviewee #46); and whether the punishment was reasonable (Interviewee #39).

On the other hand, including online shopping in the Social “Credit” System was accepted by more interviewees as it is financial activity. However, when breaking down online shopping, most interviewees opposed to being scored by personal preferences and the shopping items because those were not financial records, and it was rudimentary to judge a person’s creditability based on personal tastes. An

interviewee also worried once shopping behaviours were included in the SCS, the rich could have advantage over the poor in the system and the social inequality may be widened by the SCS. These arguments revealed interviewees' unease about the SCS. Besides, the disapproval of incorporating networks and personal preferences reflects interviewees' lack of relevant knowledge of credit scoring systems as Sesame Credit scores users with those criteria, which interviewees, instead of criticising or doubting, accepted and enjoyed.

The second scepticism addresses the objectivity of the SCS. A small group of interviewees did not question the justifiability of the SCS but were mainly concerned with whether the SCS could score online behaviours and personal preferences in an objective manner. For example, Interviewee #01, #14, #35, #39 and #44 argued that online speeches and other behaviours were too subjective to be assessed quantitatively. They queried how the SCS would adjudicate semantic social media content objectively. Interviewees agreed that the case of offensive comments on firefighters mentioned in sub-chapter 5.5.2.1 was unambiguously malicious. However, they argued that the nature of other online speech and content could not be easily ruled. Interviewee #39 asked

How does the SCS decide whether a post or comment displays positive energy (*Zhengnengliang*) or negative energy (*Funengliang*)? Rumours and fake news are easy to judge, but the positiveness of the speech is tricky.

Interviewee #02 added that

every post or speech has to be evaluated in the right context, but due to the limitation of current technology, algorithms cannot fully interpret the comprehensive meanings in each post... Even if there is a panel of human adjudicators, they were unable to examine the context of every scenario.

Another layer of scepticism relates to the feasibility of constructing the SCS, that is, the doubt that the SCS could be constructed. It was resulted from the presumption that current technology was incapable of constructing the SCS. A few interviewees realised that to harvest deeper insights from semantic and contextual-sensitive Big Social Data, highly intelligent and automatic technologies were needed, as also debated by previous studies (Tufekci 2014; Ishikawa 2015; Olshannikova et al. 2017). However, interviewees, either with relevant knowledge or not, distrusted

current technology's capacity to sufficiently carry out complex tasks entailed in the SCS. As explained in Chapter 6, in order to proceed the interviews, a brief mention of the official outline of the SCS was introduced to interviewees if they had no relevant knowledge. A large group of interviewees were still sceptical about its existence. To explain, they disbelieved current technologies were capable of constructing a comprehensive Social Credit System that integrated all aspects of social lives (e.g., Interviewee #02, #09, #21, #32, #32, #35, #38). Interviewee #03 asserted that "credit rating only concerns financial history at current stage".

Interviewee #02, staff at a bank with ICTs background, noted that

credit rating at current stage only involves financial activities, with money. I do not think that online speech will be included in credit rating...I have ICTs background and I think it is difficult to aggregate non-financial activities in the credit rating because it requires complex algorithm and state-of-the-art technologies.

Interviewee #09 also contended that it was impossible to construct a comprehensive SCS because "the process is too complicated, and it takes a long time to formulate rules and make it workable. Much effort is needed to build the system". Interviewee #20 supported an all-encompassing credit rating system, but "it would be impossible to include every aspect". "The scope of non-financial aspects is too broad to be fully included in the system; thus, the score will fail to be comprehensive" (Interviewee #12).

Besides, many interviewees were sceptic about the SCS's capability to discern the closeness of every online social network. They were worried that once the SCS aggregated online social networks, they had to be accountable for their networks' behaviours even if they had little interaction with them in real life. Interviewee #41 claimed that "I have many online friends with whom I get along well, but I have never met some of them in real life. My trust in them is still relatively weak, so I am not willing to take responsibility for their behaviours". Interviewee #36 was upset that the frequency of interaction would be considered as a criterion to decide the closeness of social relations because "many frequently contacted users have no interaction with me in real life" (Interviewee #36). Hence, including online social networks in their credit score was unacceptable for them.

The scepticism about the justifiability, objectivity, and feasibility of the SCS will be influential factors that might weaken people's trust and obedience to the SCS. On the other hand, the findings show that when surveillance and cyber governance were coated with a good cause, most interviewees would accept or acquiesce to it. Besides, the SCS is also likely to earn prestige and "legitimacy" among citizens⁴¹ in terms of the constructor of the SCS, which is the foundation for a ruling regime to sustain in China (M. Jiang 2010b). These two factors jointly may gain support and trust for the SCS and alleviate concerns and scepticism; however, they are unlikely to eradicate the latter, especially when the SCS's expanding initiatives conflicted with interviewees' appeals for a stricter protocol for government surveillance (see sub-chapter 7.3.2). Therefore, when the SCS is fully implemented to sort citizens, allocate resources and services and affect various opportunities, public's scepticism, if not mitigated by the government, may add to feelings of unease. Consequently, the group of score-driven users are likely to be more self-disciplined and cautious to avoid being scored poorly by the SCS; the other small group of users may attempt to contest against the SCS.

7.3 Pursuit for security and the claim to personal privacy

7.3.1 Awareness and perspectives of data collection and surveillance

A large percentage of subjects in this study were aware of data collection and online surveillance and demonstrated a general strong scepticism towards data collection. As shown in Figure 17, half of the respondents (50.1%) allowed access to their data for government departments. One-third of the respondents (32.1%) trusted friends with their social media data. 6.7% of respondents allowed social media companies to access their data. 3.1% of respondents accepted other users. Only 1.9% of respondents allowed public relation companies and advertisers to access their social media data. 68.1% of respondents chose themselves. This might be due to respondents' misunderstanding that they could only choose one from the six options. The results suggest that they were more tolerant with data collection by governmental bodies than private and commercial companies, even though social media companies are the fundamental agents who collect and sell user data.

⁴¹ Although interviewees were unaware of the SCS, most of them preferred the government to be the trusted initiator and supervisor of the SCS and big data companies to be supporting technical sectors (see sub-chapter 8.3), which accords with the "Government+Market" co-operation (PBoC 2020a).

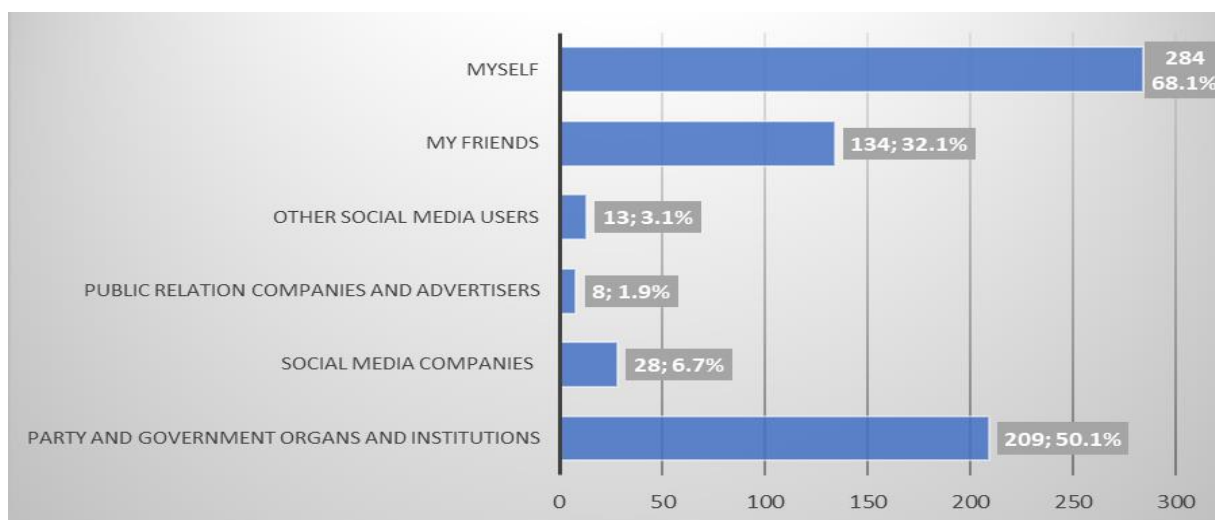


Figure 17: Whom you accept to access your online data and record

Around one third interviewees (e.g., Interviewee #05, #08, #15, #21, #25, #26, #30, #31, #34, #37, #39, #41, #43, #44, #45 and #46) realised that government and social media companies had already been collecting and analysing their online data.

Interviewee #37 knew “the government has been collecting chat record on WeChat and QQ” because of “my job at the government”. Interviewee #39, a journalist from 30-39 age group, shared his knowledge on group chat monitoring:

Widely circulated but unhealthy articles, pictures and videos are censored in group chat. You cannot send them in a group chat. On your phone it might show it is sent, but other group members will never receive them. Any WeChat group of more than 10 people is subject to cyber police’s monitor. If there is some illegal content, then the group will be dismissed by police.

Other interviewees might not have first-hand knowledge, but they also had similar understandings. Interviewee #44 heard that

all chats are recorded. For example, if someone is suspected of plotting illegal activities on WeChat, police will extract the suspect’s chat history as evidence. Even if he/she has deleted some parts, the police are still able to retrieve the record from Tencent’s databases.

As interviewee #08 said, “I feel that the government and social media companies are already doing this. All of our activities on social media are under surveillance”.

Although the above statements did not refer to the cooperation between the government and social media companies, what they mentioned seemed to be

carried out by private companies under the government's requirement. Interviewee #30 conveyed his "feeling" that the government had controls over social media because "during certain period, some political sensitive words are blocked".

In addition to government data collection, several interviewees were aware that data had been collected and analysed for commercial purpose like tailored advertising.

After you search an item on an e-commerce APP, the next time you open the APP the item you searched last time will appear on your list...Many companies have been collecting data of users' lifestyles and sort them into various groups. (Interviewee #21)

Interviewee #41 noticed the cross-platform collaboration in data collection between social media and e-commerce platforms.

I read an article the other day. It says that if I chat with my friends on WeChat about travelling, then at the bottom of subscription accounts I will see ads about travelling. After reading it, I began to pay attention and I noticed that when I talked about my needs on Weibo or WeChat, I will be recommended with exactly the items I wanted, but on Taobao and Red, where I have never searched those items...so different companies are definitely sharing user data.

Similar to survey results, a small group of interviewees welcomed tailored content because it made their life more convenient, but most interviewees were more against data collection by private commercial companies than by government departments. Social media companies were perceived as profit-driven and unreliable. Interviewee #45 asserted that "there is a department in Tencent called the Department of Security. Every group chat with more than six members are subject to surveillance, but I am highly sceptical of its qualification as a private company to handle private user data". Hence, stronger level of distrust in private companies and concerns over this pervasive data collection and sharing were exhibited again among interviewees. "Advertisers can collect data for targeted advertising but including them in the governmental SCS is not good" (Interviewee #45). Nonetheless, a large group of interviewees regarded the government as the symbol of authority and prestige. Interviewee #10 argued that "the government has the responsibility of supervising people's speech and maintaining security", so it should be granted access to social

media data. Nonetheless, although the government was more trusted than private companies, the majority of interviewees were reluctant to share their social media data with any party due to privacy concerns, including the government. This slight discrepancy can be explained in two ways: first, survey respondents answered the questions based on their understandings of the current situation where the government could access user data, rather than their personal choice; second, survey respondents were worried about online surveillance and data tracking, so they tended to be more supportive of the government.

7.3.2 The claim to personal privacy and the willingness to yield it

Interviews reveal that privacy violation was the prominent concern for interviewees to oppose to data collection. Hence, interviewees' understandings of what types of information should be considered as private information on social media were probed. It turned out that there was no consensus view among interviewees. One-to-one chats on WeChat were considered by all interviewees as private data that "under no circumstances should they be accessed by anyone (other than the participants of the conversation)" (Interviewee #06). Several interviewees proposed that "when one party files a report on the other" (Interviewee #02), or "when both parties agree or when someone is harassing the other party" (Interviewee #15), one-to-one chats could be accessed. However, several interviewees claimed that their "private chats have already been monitored" (e.g., Interviewee #34 and #41).

Interviewees had varied opinions about whether or not group chats were private information. A few interviewees (e.g., Interviewee #42) treated group chats as public content while others (e.g., Interviewee #47) regarded them as private conversations. Interviewee #35 allowed access to his group chats "as long as all the other people in the group agree". However, for Interviewee #39, "it takes only one person (in the group to approve the access to group chat). Anyone in the group can show the chat history to cyber police if they want to report some inappropriate content".

Interviewees also disagreed on the nature of Moments posts. Interviewees #02, #06, #12, #13, #17, #20, #29, #35, #40, #42, #47 believed that posts on Moments were public information just like posts on Weibo. However, in the opinion of several other interviewees (e.g., Interviewee #24), posts on Moment were private because they

were “only viewable to my own contacts”. Interviewees’ different opinions suggest that there was a lack of relevant laws or regulations to clarify this confusion.

In terms of the content on Weibo, most interviewees (e.g., #02, #06, #12, #13, #17, #20, #29, #35, #40, #42, #47) perceived their posts on Weibo as public content that everyone could access. As interviewee #06 explained, “posts, comments, likes, reposts on Weibo are public information because Weibo is an open platform that every user can access another user’s content unless it is set as private”. Interviewee #19 advised that on more public social media platforms like Weibo “one has to be responsible for his/her speech and think over the consequences before posting or commenting”. Online search history was understood as a user’s privacy by Interviewee #05, #12 and #20, and online friends’ list by Interviewee #14 and #35.

As privacy was one of the primary concerns for interviewees to oppose data collection, and cybersecurity has been used to justify surveillance, interviewees who expressed objection were asked a follow-up question: “are you willing to yield private data if it is for cybersecurity?” Most interviewees changed their attitudes from ambivalence, disempowerment and unease to a willingness to sacrifice their privacy for “the country’s need” (e.g., Interviewee #07, #10, #17, #18, #20, #21, #22, #23, #27, #28, #29, #30, #34, #35, #37, #39, #42, #47). For example, Interviewee #20 initially opposed collecting users’ chat history and search history, but “if yielding my privacy can contribute to the greater good, I certainly will make the sacrifice”. Interviewee #22 expected to have personal space and privacy, but she was willing to “sacrifice privacy for the sake of cybersecurity”. Interviewee #23 disagreed with being scored for online speech but was willing to “hand in my data to support cybersecurity”. Interviewee #46 lowered his standard for privacy, saying “privacy is not as important as people think”. Interviewee #42 agreed to yield “most of my privacy but not all”.

A small group of interviewees stressed that they would only accept trained personnel at a selective range of government departments to access their data on condition that citizens were informed beforehand. Interviewee #28 believed it was a citizen’s duty to yield private data for more significant goals like cybersecurity, but he also worried that “if the government abuses its power, and no supervisory board is able to

oversee it, it will turn into something horrible". He added that "nowadays, Chinese citizens have stronger sense of civil rights. Once the government crosses the line, people will think that the government is violating my privacy, without even knowing what privacy actually means" (Interviewee #28). Therefore, he proposed to establish "an authorisation procedure" for the government to access user data legitimately. Similarly, Interviewee #14 demanded that a consent procedure should be in place before the government access user data because "we need to be informed". In the opinion of several interviewees (Interviewee #07, #14, #18, #25, #35 and #39), only National Security Bureaus and police department were legit governmental bodies that could have the right to access private data. Even within these departments, restrictions should also be in place, like "a security clearance system to allow only trained personnel at police department to access our private data" (Interviewee #25). They also expected that data were to be collected from targeted subjects regarding specific aspects using keyword detecting mechanism, rather than mass indiscriminate data collection on all social media users. For example, interviewees #17 and #47 would accept the police department to access private data "to assist cybercrime investigation" (Interviewee #47) but opposed the continuous and indiscriminate surveillance on all social media users, demanding that "government should use big data analysis to filter certain keywords, instead of stealing every user's day-to-day chat" (Interviewee #17).

7.3.3 Surveillance realism

A tension has emerged from the above two sub-chapters – subjects' pursuit of a secure and civil cyberspace and their desire for protecting personal rights like freedom and privacy, which has been a constant feature of Chinese cyberspace in the course of the government's evolving cyber governance and is also influencing public opinion and response towards the SCS. To explore how users are going to cope with this tension, I listened to users, explored their mundane interactions with algorithm and data collection instead of assuming they would be subservient to algorithmic manipulation and dataveillance, as stressed in the theoretical framework. Unlike the unawareness of the SCS, it is found that a considerable portion of users were aware of and had experiences with various types of data analytics. This conclusion is consistent with several empirical studies which also find that users are aware of algorithms and data analytics during their daily uses of social media (e.g., Rader and

Gray 2015; Bucher 2018). Although the knowledge of algorithms and data analytics from subjects in this study varied from their profession and experiences, they were able to share their diverse attitudes and emotions towards it, such as support, objection, anxieties, concerns and unease, as highlighted in Kennedy's (2018) study. The following section presents the nuances and intricacy of people's opinions and response towards data collection and how they are likely to interact with these systems.

In the context of pervasive dataveillance, most interviewees generated ambivalence towards data collection. As Interviewee #08 stated, "I can't really say I support or not, rather I am quite neutral because, on one hand, I don't like being watched; but on the other hand, there are many rumours and fake news flooding cyberspace". This statement reveals that some users have internalised the benefit of surveillance as a cure for fake news and rumours on social media. Interviewee #46 commented that "almost all governments worldwide are collecting data so certainly there are some benefits... ..Afterall I cannot change the situation by myself...so I partially support and partially oppose this practice". Interviewee #26 argued that data collection should be compulsory if the government wanted the SCS to function. "Citizens have to agree and accept the terms and conditions, or they would be excluded from the system and sanctioned, such as being banned from loans or buying houses" (Interviewee #26). Interviewee #30 objected to yielding his privacy, but, as a CEO in an Internet company himself, he was desensitised to data collection because it was a "norm in the industry" that could not be changed. He shared similar understanding as Interviewee #26:

Honestly everyone is reluctant to yield privacy, but it is essential for this (online credit) system as it certainly will capture user data. Even though we do not consent now, the fact is that the government and social media companies have already been doing this, so it does not matter anymore. It is a latent rule. Your phone is accessing your location daily and getting all your information. It is not something new. (Interviewee #30)

On top of the diverse attitudes and ambivalence, there were two dominant responses. The first is feelings of disempowerment and resignation. Although most interviewees were concerned about abusive dataveillance and analytics, they felt

powerless to take any meaningful countermeasures to escape from the situation as they have to accept data collection by social media companies, otherwise “it would be impossible to use social media platforms normally again” (Interviewee #21). Weighed against being restricted from social media, sharing personal data seems to have less impact on interviewees. Moreover, many interviewees (e.g., Interviewee #08, #21, #34, #41, #44, #46) felt more vulnerable and incompetent in face of government surveillance: “I strongly object to it, but it is happening already and what can I do? Only accept it”. Therefore, despite objections, they chose to acquiesce in the authority to avoid repercussions. The disempowerment, in turn, adds up to most interviewees’ ambivalence and passive acceptance of data collection and surveillance. This is an expected response in an authoritarian state with a paternalistic governance style, where the conviction or fear of the government’s authority makes people feel disempowered to take any counteractions. Besides, users lack sufficient knowledge or legal tools to protest against surveillance, as interviewees had no knowledge of what was classified as online private information. Although several interviewees argued that Chinese people had begun to claim their personal rights, the lack of legislative tools (e.g., Chen et al. 2018) and the vagueness of online privacy make it difficult for users to effectively protect their rights, which may also add up to feelings of disempowerment. Consequently, a substantial group of interviewees demonstrated reactions which have been conceptualised as “digital resignation” (Draper and Turow 2019), “privacy fatigue” (Hargittai and Marwick 2016) and “privacy cynicism” (Hoffman et al. 2016).

Second, quite a few subjects have internalised the benefits and necessity of cyber governance and surveillance as the government promoted. As described in Chapter 2, the Chinese government uses a pan-morality discourse that links cyber governance to social stability preservation and moral goodness, along with mass campaigns and propagandas to promote the importance of a secure and civil cyber environment (e.g., Cui and Wu 2016; Creemers 2017; Yang 2017). These techniques seem effective, as a small group of interviewees stressed that cyberspace was not a space for people to behave willingly. Besides, almost all interviewees were willing to sacrifice personal privacy and rights for the bigger collective goal of national security and moral goodness (see also Wang 2019). This trade-off is an understandable negotiation in a collectivism culture in which the

welfare of the group comes before the interest of an individual (see also Rieger et al. 2020).

Moreover, after evaluating the pros and cons, many interviewees did not perceive the SCS as a surveillance apparatus⁴²; instead, they argued that surveillance was the means to an end – by surveilling the public would the SCS effectively regulate online behaviours and improve the trustworthiness on cyberspace. Potential harms like privacy violation and social control were regarded as the side effects that could be solved by technological or legislative methods. Subsequently, interviewees' initial feelings of disempowerment and resignation moves to an acceptance of the trade-offs, which they believed to be a necessary part of living in modern societies. This acceptance was driven by a number of factors: the government's normalisation of surveillance by prioritising national security and civility; subjects' internalisation of government's moral request; their perception of the government as the protector of the public; their negotiations between their personal rights and the government's demands. Subsequently, interviewees regarded datafication and pervasive surveillance as the only legitimate response to build a secure cyberspace, improve the trustworthiness of society, enjoy the benefits and convenience to an extent that they were unable to “articulate a coherent alternative to surveillance culture and dataism”, which corresponds to “surveillance realism” (Dencik 2018, p. 40). The willingness to sacrifice personal rights does not mean that interviewees completely disregarded the potential threats to privacy and freedom of speech, rather they eventually tended to marginalise their concerns and accept to trade off their personal privacy for security and convenience. As explained in theoretical framework, surveillance realism is a form of internalisation induced by the governmentality power of the state and corporates, thus my analysis concurs that the SCS is a governmentality apparatus that uses techniques to shape people's perception and behaviours.

⁴² Findings supported this include: almost half of survey respondents supported to incorporate social media behaviours in the SCS; more than half of interviewees supported to incorporate social media participation in the SCS for the better cyber environment; a few interviewees supported to incorporate online networks in the SCS for more trustful networking; and most interviewees supported to incorporated online shopping in the SCS to regulate shopping behaviours.

Compared to governmental surveillance, most subjects claimed they were more concerned with surveillance conducted by private companies⁴³, which agrees with Wang and Yu's (2015) and Ohlberg et al.'s (2017) findings but contradicts with Rieger et al.'s (2016) study. Interviewees generally felt less powerless in face of private companies than the government, but a few interviewees still expressed feelings of "digital resignation" (Draper and Turow 2019) towards commercial surveillance because they had to give up part of their privacy as a quid pro quo for access to services and platforms, especially for big companies like BATSB. On the other hand, most of them were quite affirmative about their experiences of Sesame Credit, and a small number of interviewees welcomed commercial surveillance and tailored advertisements, for these practices had made their lives more convenient. This contradictory attitude shows again their acceptance of the trade-off between their data and the benefits provided by commercial companies, which contributes to the status quo and non-escapism and in turn limits other alternatives for re-organising their relationship with social media companies.

7.4 Impacts on digital citizenship and sociality of social media

This sub-chapter builds on the discussion of the SCS's implications for user interaction with social media in Chapter 6 and explore the subsequent macro-level impacts for participatory culture (Jenkins 2006), online public sphere (Habermas 1989), online social networking, and mass self-communication (Castells 2009a) on social media, under the overarching theme of how digital citizenship and sociality on social media may be reshaped by the SCS. The implications of subjects' tendency to self-discipline and perform or act on social media extend beyond users themselves to the broad participatory culture facilitated by social media. From the positive perspective, the trend towards self-discipline and self-censorship induced by the SCS can curb uncivil and illegal content and behaviours and thus contribute to a more trustworthy and safer cyber environment. A few previous studies on the SCS also suggest that the SCS can contribute to a more trustworthy environment (e.g., Creemers 2018; Chorzempa et al. 2018; Dai 2018; Grote and Bonomi 2018). In this scenario, subjects who complained about unsatisfactory cyber environment may

⁴³ Less trust in private companies may be due to selective media coverages in China that criticise private companies for abusing personal information while situate the government as the protector of citizens and regulator of industries (Chen et al. 2018; Kostka 2019).

become active participants and content producers on social media, which might prosper the participatory culture on Chinese cyberspace. However, as subjects revealed a permeating chilling effect and the tendency to act and perform on social media, the free, voluntary and meaningful content generation, or UGC, will likely be repressed. Free and voluntary participation on Chinese social media, which is argued to have been restrained by the evolving control of the government (e.g., Xin 2010; MacKinnon 2011; L. Guo 2014), will probably be further impaired by the SCS. As shown from subjects' inconsistent attitudes and behaviour change for RIV, it is highly likely that even if they supported RIV and SCS, the majority of users will still be self-censored and self-disciplined. For this reason, the celebrated "participatory culture" (Jenkins 2006) is likely to deteriorate on Chinese social media platforms. If users gradually decrease or limit "produsage" activities on social media, their role of "prosumer" (Ritzer and Jurgenson 2010) or "producer" (Bruns et al. 2012) may be degraded to previous notions of consumers and audiences. Subsequently, the enthusiasts claim that the free and open participation affordances on social media support user agency and enable users to share their lives, express their opinions, engage in civic activities, participate in the communication process during public emergent events, and act as citizen journalists on social media (e.g., Zheng and Wu 2005; X. Zhou 2009; Y. Jiang 2014; Ye et al. 2016; Xie et al. 2017; Qin et al. 2017) may need a re-examination in the context of the SCS.

In relation to the decrease in participatory culture, Chinese social media might fail to meet the requirement for Habermasian public sphere that equal and protected participation absent of institutional influence is needed (Habermas 1989; Fraser 1992; Kruse et al. 2018), as the SCS may cause users to self-discipline and self-censor their social media usages. The likelihood for Chinese social media to form the democratic public sphere and support political deliberation in the context of the SCS is not promising, as users tend to reduce posts about politics and sensitive issues. Thus, online deliberation in China under the influence of the SCS will probably take the form of "authoritarian deliberation" (He 2006; He and Warren 2011) that happens within the political boundary set by the government (Y. Jiang 2014) and the SCS's scoring criteria. Social media may still support "fragmentised public spheres" (Shao and Wang 2017), but the duration and depth of the discussion in these spheres may not be sufficient to generate meaningful outcomes. Subsequently, public discourse

on the Chinese Internet may slide towards more entertainment information-oriented, as has been projected by a few scholar (e.g., Morozov 2008; Wang 2014; Gao 2017).

Based on the findings that users would refine online networks, this study argues that the SCS are likely to hinder various levels human interactions – cognition (Durkheim 1982), communication (Weber 1978) and cooperation (Marx 1976) processes – and sociality on social media. The impacts need to be discussed on the platform basis, meaning to take into consideration of what forms of social interactions are mainly supported on each platform. One of the key social media in this study, Weibo, with its news information feature, provides an open platform for cognition and cooperation. Drawing from the findings that most interviewees would self-censor their content and sacrifice weak social ties on Weibo, the cooperation process on Weibo may be reduced to minimum scale under the influence of the SCS. At the time of the study, almost all survey respondents had already been less active in posting and reposting on Weibo. The SCS may further discourage them from active content generation and online interactions. Cognition process on Weibo may also be affected as several interviewees intended to reduce browsing or even quit social media. On the other hand, WeChat was mostly used by subjects for communicating with acquaintances, hence the communication process on WeChat is likely to shrink as a large number of interviewees would delete, avoid, or alert the low-scored networks. Although strong tie-based networks on WeChat seem to be more durable, they are still at the risk of being sacrificed for better SCS scores. Despite different impacts that the SCS may have on various platforms, the general trend is that all levels of social interactions – cognition, communication and cooperation – will probably decline. Social networks and interactions on social media in China in the era of the SCS may be a form of programmed score-based sociality that is affected, conditioned and shaped by the SCS⁴⁴ through its power to entice users' active refinement of online networks. This opens another line of questioning into the

⁴⁴ As noted in Chapter 5, the specific configurations of social media in China align with the party-state's political objective, and several social media platforms have been collaborating with the SCS by public shaming the blacklisted. If social media platforms would use algorithmic architectures to articulate social networks based on scores in ways of promoting or highlighting the posts of high-scored profiles for users, hiding, blocking or alerting users of the low-scored, online social networking and sociality on social media can be seen as co-constructed by users and the SCS. Due to the limited information at this stage, it is yet to be seen to what extent this scenario will be true.

algorithmic production of social networks and knowledge, which is worth investigation by future studies.

The SCS's influence over participatory culture and online social networking may cripple the potential for mass self-communication (Castells 2009a) as users might self-discipline and reduce their production of content, limit their self-directed information dissemination, and restrict the selection of received information. As part of this, although various citizen-led journalistic activities have been taking place on Chinese Internet, the likely changes in users behaviours induced by the SCS may impede citizens' initiatives to grab the communicative power and perform journalistic activities, thus impair social media's potential as a tool for citizen journalism.

Subsequently, the prospect of social media being used as an empowering tool for citizens to supervise the government, raise concerns for injustice and incompetence, and perform sousveillance (Mann 2004) will probably be limited. Furthermore, online network is also a vital prerequisite for mass self-communication and the liberating potential of social media, but users' tendency to refine, filter and sacrifice their online networks for the SCS score undermines the strength of social ties. Social ties, either weak ties for "connective action" (Bennett and Segerberg 2012), or strong ties for high-risk activism (Gladwell 2010), are regarded as the catalyst for organising social and political movements. However, as the majority of subjects were going to limit active participation and refine networks, without sufficient liberal participation and social networking, individualised actions are unlikely to mobilise and organise people to participate in collective movements.

Besides, incorporating social media content and networks in the SCS means that the risk of online dissents and protest will be higher, and the consequences will be more penetrating, long-lasting, and radiating as punishments can be imposed in various aspects of a user's life as well as his/her networks' lives. As this study finds that the SCS could induce lateral surveillance, dissenters and subverters may be subject to their networks' scrutiny. Most interviewees and some survey respondents admitted that driven by the pursuit for good scores and the internalisation of the importance of security and moral goodness, they are likely to report or alienate dissenters. This will further deteriorate the essential element of social ties for collective actions.

Regardless of their unease and scepticism, almost all interviewees declared their

docility with the SCS. As several interviewees commented, once the SCS is in place, they would not be the one to challenge the system because it would be the same as challenging the rule of the government, which was regarded by these interviewees as a highly risky activity in China. Thus, social media as a “liberation technology” (Diamond 2010) that can facilitate social changes (Castells 2015) may be restricted.

The above discussion indicates that the enacting and empowering form of digital citizenship (Hintz 2020) may be limited in China. Social media has been praised for possessing the power to reconfigure the citizen-state relationship by emancipating, empowering and enacting digital citizenship (e.g., Allan and Hintz 2019; Hintz 2020). However, due to users’ internalisation of the SCS and the inclination to self-discipline on social media induced by it, users are less likely to engage in both daily uses and civic activities and protests, campaigns and movements. This influence extends beyond political acts to the most mundane uses on social media as subjects did not feel they have the right to act freely on social media under the influence of the SCS. Therefore, the SCS, jointly with existing Internet governance measures, may restrict digital acts and performative digital citizenship in China. Moreover, when the SCS is categorising and labelling citizenship using the SCS based on their online behaviours, digital citizenship is co-constructed by the government and “supervised citizenship” (Hintz 2020) constituted by government and corporate data analysis of citizen scoring systems may be enhanced. The responsibility-centric notion of citizenship in China that urges citizens to be civil and responsible when using digital devices (Li 2020) is likely to be strengthened by state supervision and citizen internalisation of the SCS.

These negative implications in general apply to weak-tie based Weibo more than close-tie based WeChat due to the SCS’s stronger impact on weak ties. Studies find that individualised actions, opinions, and criticism are allowed on the Internet (King et al. 2013; Guo and Jiang 2015); however, without sufficient social ties to mobilise a sufficient number of people to participate in the movement, collective activism is likely to fail to achieve the collective goals and shrink on Weibo. Thus, the early optimism of Weibo being a liberating tool for political discourse, dissents and activism (e.g., X. Zhou 2009; Xie et al. 2017; Ye et al. 2016) may need a re-evaluation. WeChat, on the other hand, due to its strong tie-based network and

better durability in face of the SCS, may continue to facilitate “content producing and metavoicing” forms of citizen journalism (Wu and Wall 2019, p. 47). Further research on the SCS's impacts on each specific social media platform is needed for more insights.

7.5 Two prospective scenarios for platform capitalism

The SCS may also affect platform capitalism (Srnicek 2017) on Chinese social media and hinder the current public-private partnership in cyberspace governance and the implementation of the SCS. Social media companies in China have a trifold role as the service providers for users, the regulated subject by the government, and the delegating regulator of users (see sub-chapter 2.3). The most profitable role for commercial companies is the service providers for users. However, without diligently fulfilling the other two roles, social media companies will face various forms of administrative sanctions, policy bias, and fines from the party-state, which obstruct their operations and decrease revenue. Thus, the economic interest of commercial social media companies in China is intertwined with political objectives of the state. Internet and social media companies have been diligently fulfilling the responsibility of executing cyber governance and censorship for the past two decades. During this time, Internet and data industries has undergone much development. However, the SCS may disrupt the social media industry on account of its impact on user behaviour and data.

There are two possible implications for social media business in China and the public-private partnership depending on how users would internalise and normalise the SCS, as mentioned in sub-chapter 6.3. The first possible scenario correlates with the SCS's disciplinary power which leads to long-term normalisation of society. In this case, users are inclined to internalise the requirement of the SCS and self-censor their online content, perform a more trustworthy identity on social media, refine online networks, and regulate online shopping to achieve good SCS score as discussed above. These self-disciplinary behaviours will probably be long-term because one of the requirements of moral-related trustworthiness is continuous maintenance (see sub-chapter 2.4.2). The participatory culture and sociality on social media will be restricted deteriorated as argued above. Consequently, on social

media the amount of work generated by users' "playbour" (Kücklich 2005) may decrease, and the value of users' big data for gaining insights into their behaviours, preferences and moods may be undercut due to users' pragmatic tactics to nurse their scores and the normative coercion imposed by the SCS. The decrease in both quantity and quality of user data is highly likely to hinder the data-driven platform capitalism (Srnicek 2017), and moreover, undercut the accuracy of data analytics. In this scenario, the SCS will probably be unwelcome by social media companies because its chilling impact on user online behaviours damages the fundamental business interests of commercial companies. This might give rise to tensions for the "Government+Market" Model, which deserves examination by future studies.

In the second scenario, the SCS primarily aims at short-term modulation. It is likely that users, after the initial period of concern, may get used to the fact that the SCS exists. They may stop being worried about it and return to their previous social media practices, which means that digital business can continue as usual after a period of disruption. As a result, the platform capitalism based on data collection and surveillance and the "Government+Market" Model will not be affected by the SCS in the long run. According to the findings, the possibility of this scenario is lower than the first one but not unlikely, as shown from users' reactions to existing cyber governance. Besides, there was a large percentage of indecisive survey respondents, who may react to the SCS and interact with social media in various ways, thus creating new prospects. Nonetheless, in both scenario, users will begin to accept that the SCS is an inseparable part of modern life and find ways to accommodate it in their daily lives, as most of them already have, demonstrating the governmentality power of the SCS.

The tensions surfaced in this study suggest possibility for resistance and dynamics. As the findings reveal, the majority of survey respondents have used substitutions like homographs and homophones when they posted online as a countermeasure to evade online censorship and express their opinion. Although interviewees who were anxious or discontent with the SCS conveyed disempowerment and surveillance realism (Dencik 2018), two interviewees (#27 and #36) still suspected that the SCS could trigger grievance and protests among a small group of people who will "post more illegal or inappropriate content because the law cannot punish everyone"

(Interviewee #36). Interviewee #27 also contended that “the credit score may have good intentions, but if it violates people’s privacy, it can trigger rebels among users because not everyone is willing to sacrifice privacy” (Interviewee #27). However, these two interviewees themselves would not join the dissenters, as they affirmed that they would also be cautious and self-discipline when using social media. A few studies (e.g., Yang 2009; Clothey et al. 2015; Zhong et al. 2017) also find traces of democratic contestation over online censorship on social media in China. Whether these protests will shrink, survive or burgeon under the influence of the SCS requires continuous examinations.

Furthermore, the governmentality power of the SCS might be undercut by people’s indifference to the rules and requirements of the SCS. More than one-third survey respondents were apathetic towards the topics about SCS and credit scoring, and a large group of interviewees were indifferent to the scoring criteria of the commercial scoring systems that they had been using. Their indifference might be due to the lack of awareness and the obscurity of the SCS; the fact that they already had good scores and could enjoy the benefits and convenience so that there was no need to be concerned; and their mistrust in data handlers, such as the government and big companies like Alibaba. In the case of the SCS, this mistrust may give rise to social discrimination based on scores, privacy infringement, and digital dictatorship on a national scale as data are flowing across public and private sectors and processed with discriminatory algorithms for multiple purposes. However, due to the indifference and trust in the system, a small group of interviewees might not check the specific scoring criteria and adjust their behaviours until they receive low scores that affect their lives. This indifference can undercut the behavioural engineering and disciplinary power of the SCS as it relies on the autonomy of conscious citizens who are willing to enact upon themselves in a pre-designed direction. However, this thesis infers that the unawareness and apathetic will probably be temporary. If the objective of the SCS is to fulfil “particular behavioural engineering goals” (Engelmann et al. 2019, p. 69), it requires the public to actively act upon themselves in line with the SCS’s rules because the power of governance structure can only exert on aware subjects who are able to internalise the imperatives (Rose et al. 2006; Andrejevic 2017). In this case, people’s awareness and knowledge of the SCS become essential. Therefore, it is highly likely that in the future, the government will launch

campaigns to promulgate the SCS to the public and explicitly announce the aggregation of social media behaviours in the SCS in order to mobilise people to participate in the SCS, if it intends to shape online activities.

7.6 Conclusion

This chapter concluded several tensions emerged from the findings. The first tension is the trust in the government as the constructor of the SCS against the scepticisms of the justifiability, objectivity and feasibility of the SCS. Most interviewees disclosed a considerable level of trust in the government and accredited it with the prestige of constructing the SCS with the support from the Internet and related industries, which was consistent with the current model of “Government+Market” mechanism. Their scepticisms lead to the disbelief and mixed attitudes of the SCS. Yet, due to the majority’s trust in the government, it is highly likely that when the SCS is announced to the public, it will enjoy high prestige among the Chinese people. The scepticisms about the SCS may be relieved by official propaganda or still exist among a small group of the public. The second tension is between their pursuit for security and claim for personal privacy. Regarding data collection, which is at the core of SCS, both survey and interview results show a general feeling of scepticism and discontent about data collection and surveillance. The biggest concern was privacy violation, but interviewees lacked sufficient knowledge and uniform perspective of what was private information on social media and should be protected. Interviewees conveyed feelings of disempowerment, inescapability, and ambivalence about pervasive dataveillance by government and commercial companies, leading to most interviewees' passive acceptance of surveillance, generating prevalent feelings of disempowerment and resignation that demonstrate surveillance realism (Dencik 2018). Nonetheless, the Chinese government was more trusted by subjects compared to commercial social media companies. When the purpose of data collection was postulated as cybersecurity, a large group of interviewees changed their stances from objection or ambivalence to a willingness to yield personal privacy and data for national security. It shows that the promotion and justification of dataveillance and cyber governance will have significant influence on users’ perceptions and behaviours. These tensions, along with others revealed in previous

chapters, create dynamics for the interactions between users, the SCS and social media.

From a positive angle, the SCS might contribute to a better cyberspace environment by containing uncivil and illegal content. On the other hand, it is plausible that the SCS may weaken the empowering and liberating potential of social media as a space for participatory culture, social networking, mass self-communication and digital acts, and might transform social media into a more controlled space for government surveillance and social governance. The various levels of sociality on different social media may be hindered in that the cooperation on stranger-based Weibo and the communication on close-knit WeChat may be limited. Thus, in addition to platform algorithms, the SCS is likely to engender a form of programmed score-based sociality that is affected, conditioned and shaped by the SCS through its power to entice users' active refinement of online networks. Owing to its chilling effect and users' tendency to self-discipline, the participatory culture and mass self-communication facilitated by social media may be undercut, which subsequently affects online public sphere, grassroots investigation and activism on social media. Consequently, the SCS will limit the performative and empowering form of digital citizenship and reshape digital citizenship in China towards the supervised and responsibility-centric direction.

The social media platform's business model in China may be affected by the SCS in two possible ways. In the first scenario, the SCS exerts disciplinary power over user behaviours and drives them to be more cautious in the long term. This may disrupt the business model of commercial social media because the quantity and quality of user data will decrease. In this case, when the SCS becomes more influential in people's lives, the public-private partnership in the SCS may be affected. The other scenario is that the SCS aims for short-term modulation which leads to limited impacts on users in the long term. There may be a short term of disturbance on user interaction with social media but eventually users will use social media as normal. Due to the current stage in which the SCS is still being implemented and users' likely behaviour changes have not been materialised, these dynamics will continue to exist and directs the implications to various tracks.

Chapter 8. Conclusion

8.1 Key findings and answers to research questions

This study probes the interactions between Chinese users, social media and the SCS. It discusses how the SCS and Internet governance may shape user online behaviour, and how users, through their changes of behaviours, in turn may affect the participatory, networking and liberating potentials of social media. The overarching research question of this thesis is “How will the SCS affect the future of social media in China?”. It is investigated using three sub-questions: 1) users’ awareness, knowledge, experiences and attitudes of the SCS; 2) their online behaviour changes due to the SCS and the subsequent implications; 3) and the underlying tensions identified from user statements and the dynamics for the role of social media in society. The answers to these questions address both a) the micro-level of user agency and digital acts on social media and b) the macro-level implications for social media in the context of surveillance, datafication and governance. The first three sub-chapters below (8.1.1, 8.1.2 and 8.1.3) summarise the key findings and the answers to three sub-questions. Sub-chapter 8.1.4 discusses the implications of the SCS for social media in relation to the theoretical framework of digital citizenship and governmentality.

8.1.1 Lack of sufficient knowledge and mixed attitudes of the SCS

For the first sub-research question, this study finds a widespread lack of awareness and knowledge of the governmental SCS, its implementation, objectives, and the broader scope of non-financial aspect. This finding is consistent with some studies (e.g., Bloomberg 2019; Zhou and Xiao 2020), but disagrees with others (e.g., Kostka 2019; Nopparuth and Fabrice 2019; Reiger et al. 2020). With a broader scope of research subjects, the findings of my research contribute to previous studies by providing a new set of empirical data of Chinese users’ knowledge, understanding and attitudes towards the SCS. It also extends previous knowledge by identifying three underlying issues from the lack of knowledge of the SCS. First, most people understood the SCS as a financial credit score rather than an all-encompassing trustworthiness score, which has profound impact on their attitudes towards the SCS and their likely behaviour changes on social media. Second, the SCS had limited and inadequate influence on most subjects’ lives during the time of field research. Third, several interviewees’ scattered knowledge of JPM without realising its

connection with the SCS, along with the censorship of relevant information on Chinese survey tools, revealed the government's purposive restraint of public knowledge of the SCS at this stage. The prevalent lack of knowledge of the SCS demonstrates the obscurity of data analytics (e.g., Pasquale 2015; Dencik et al. 2019) that results from deliberate obstruction of transparency by institutions. On top of these, owing to the lack of knowledge, mixed attitudes, and various concerns, most interviewees expressed a general disbelief about the existence of the SCS. However, this study infers that in order to achieve the objective of behavioural engineering, the SCS needs to be known and engaged by rational and conscious public in the future.

Instead of adopting a generalising approach as previous studies (e.g., Mistreanu 2018; Nopparuth and Fabrice 2019; Kostka 2019; Wang 2019) that concludes citizens' attitudes towards the SCS as supportive, this study argues that users demonstrated a mix of support, objection, unease, expectation, and disbelief about the SCS in a flux state, which was affected by various scepticism, unease, expectations, disbelief and the specific issues being discussed. Although survey respondents generally supported to incorporate social media behaviour in the SCS, interviews revealed more nuances. Most interviewees supported to include social media content in the SCS in hope that it could regulate online speech and improve cyber environment, while a few objectors were concerned about privacy breach, freedom of speech, social control, the objectivity of the scoring criteria, and the justifiability of the system. For online social networks, most interviewees objected to include them in the SCS because they were sceptical about the SCS's capability to discern the closeness of relationships. Several supporters argued that the SCS could help people detect more trustworthy and reliable users to network with. For online shopping, most interviewees agreed to include it in the SCS because it was consistent with their understanding of credit scoring being financial-centric. However, including what they bought and personal preferences in the SCS was objected by several interviewees due to privacy concerns and the unease about the adjudication process. A few interviewees worried that including online social networks and online shopping in the SCS could result in a score-based social class that benefits the rich while discriminates the poor.

Concluded from their statements, the prominent expectation for the SCS was that it would promote trustworthiness and civility in cyberspace so that users can participate in a better and safer online environment. This expectation demonstrates public recognition of the Chinese government as the protector and moral enforcer of citizens, which have been noticed by previous studies on Chinese Internet governance (e.g., Guo and Feng 2011; Wang and Mark 2015). On the other hand, interviewees were uneasy about the SCS for fear that it would be a surveillance tool for the party-state to monitor people's online activities, which would violate personal privacy, reduce active online participation, and disrupt free speech, as also alerted by several studies on government's online censorship and monitoring (Zhong et al. 2017; WeChatscope 2019).

8.1.2 Internalisation and changes of social media usages

For the second sub-research question, this study finds that despite the lack of knowledge and mixed attitudes, most interviewees have internalised a) the benefits of the SCS being a tool to assess the trustworthiness of a person; and b) the need to comply with the rules of the SCS. This is shown from the findings that the majority of interviewees demanded the scoring criteria of the SCS to be transparent so that they could use the rules to guide their behaviours. A small group of interviewees suggested a partial disclosure, and another small group was against transparent scoring criteria for fear that people would fake their behaviours and undercut the SCS's effectiveness of assessing people's trustworthiness. Regardless of diverse perspectives, all interviewees claimed they would obey the rules and change online behaviours if the SCS score would affect their lives in various ways.

For online content generation, only a small group of survey respondents showed the inclination to self-censor their posts for better SCS score, but a vast majority of interviewees would either change their behaviours or have already changed. Their changes include: "last-minute self-censorship" (Das and Kramer 2013) before posting; reducing or stopping posting and commenting political or sensitive content; being cautious and selective about what they browse and search; reducing the frequency of using social media; ceasing to use social media. All these possible responses suggest that the SCS is likely to exert another spiral of self-discipline and self-censorship on top of the chilling effect induced by existing cyber governance and

surveillance that has been noticed by previous studies (e.g., Feng and Guo 2013; Lu and Zeng 2014; Guo and Jiang 2015; Zhong et al. 2017; WeChatscope 2019). When the SCS has the power to affect online content generation, users' online self-presentation and impression management will likely be affected. The SCS may give rise to online performance or act, meaning that users are likely to modify what they are going to post on social media according to the (imagined) requirements of the SCS regardless of their personal preferences, habits, intentions and values for the pragmatic goal of nursing their SCS scores. Through online performance, the behavioural management objective of the SCS can be achieved in cyberspace, whereas users' online content will probably become less diversified.

For online networks, a larger portion of survey respondents refused to delete or unfriend online contacts for the SCS, but most interviewees were going to "refine" their existing and potential online networks for the SCS score. These "refinement" measures include: deleting or blocking lower-scored networks who were not close; estranging or reducing interaction, especially financial transactions with some lower scored; conducting "lateral surveillance" (Andrejevic 2005), or "other tracking" (Gabriels and Coeckelbergh 2019) on their networks; alerting valued or important contacts; filtering future networks using the SCS score. Whether users would like to take these refinement measures depended on the importance of the score and the closeness of the relationships. The ultimate goal driving them was to maintain their SCS scores at a relatively good level. Due to people's active refinement of existing and potential networks based on the SCS score, this thesis argues that the SCS could create a new form of top-down imposed, incentives and punishments-driven "credit score classes". This conclusion of the SCS's implications for online networks is consistent with a few previous arguments (e.g., Ramadan 2018; Cook 2019; Lee 2019).

For online shopping, the SCS might make only a limited number of users "nurse" their SCS scores by shopping more responsibly and wisely and paying up loans in time. Most interviewees were reluctant to change their online shopping habit for the SCS because it was part of their lifestyle and too troublesome for them to do so, while half of the survey respondents claimed they would change their online shopping habit and a few interviewees were willing to be more responsible in what

they buy. The discrepancies between survey respondents and interviewees also occur to themes on online content and networking but in the opposite direction: most interviewees would modify their online participation and networking to get better SCS score while fewer survey respondents would do that. As elaborated in Chapter 6, these discrepancies could be due to the lack of knowledge of the SCS, different research methods used (survey and interview), and the order of the questions asked.

Around half of the survey respondents were indecisive about how they would react to the SCS at the time of the study; however, according to their reactions to RIV, it is likely that the veiled users would join the mainstream and follow what the majority of the populace do, which is likely to be in the more disciplinary direction. The findings show that these behaviour changes will not be carried out by all users and achieved smoothly. Whether users would perform these behaviour changes mostly depends on how influential the SCS score will be for their lives. These findings and arguments fill in the research gap established in Chapter 3 that little empirical study has extensively looked into how social media users might change their online uses affected by the SCS.

8.1.3 Tensions and dynamics

This research provides valuable empirical insights into the SCS's implications for social media, but it is important to highlight that the mixed attitudes and behaviour change due to the SCS will be influenced by on-going tensions between users, the SCS and social media. The answers to the third and main research questions concludes several key tensions that might cause dynamics in online behaviour changes and lead to various implications for social media. First, subjects show a general feeling of scepticism and discontent about data collection and surveillance due to privacy concerns, but a large group of interviewees changed their stances from objection or ambivalence to the willingness to yield personal privacy and data when the purpose of dataveillance and collection was postulated as cybersecurity. The tension between the pursuit for cyber security and the claim to personal rights is a persistent characteristic in Chinese cyberspace in the course of the government's evolving Internet governance. In face of this tension, interviewees lacked sufficient knowledge to protect their privacy and conveyed feelings of disempowerment, resignation and inescapability about pervasive dataveillance by government and

commercial companies, leading to most interviewees' passive acceptance of the trade-off between privacy and security. This finding sustains that “surveillance realism” (Dencik 2018) also applies to people’s interaction with the normalisation of surveillance in the Chinese context.

The second major tension is the trust in the government as the rightful constructor and enforcer of the SCS against the scepticism of the SCS. Most interviewees disclosed a considerable level of trust in the government and accredited it with the prestige of constructing the SCS with the support from the Internet and related industries, which was consistent with the current model of “Government+Market” mechanism. However, they were also sceptical about the SCS regarding three aspects: the justifiability of the SCS to quantitatively evaluate non-financial aspects of social media usage; the objectivity of the scoring criteria and the reliability of the rule-maker; the feasibility of constructing the SCS with current technologies. Their scepticisms contributed to their disbelief and mixed attitudes of the SCS. Users’ perspectives about the SCS could slide to either positive support or scepticism and objection, but due to the trust in the government, it is highly likely that when the SCS is announce to the public, it will enjoy high levels of trust among the Chinese people. The scepticisms surround the SCS may be relieved by official propaganda or still exist among a small group of the public.

In addition to the above two major tensions, there were several other tensions. Subjects demanded the scoring criteria be transparent so that they would use it as behaviour guidance, but they were concerned that the genuineness of the behaviours would be undercut and feared that the rules and criteria might restrain people in frames and lead to the normation of the society. Nonetheless, most interviewees were going to adapt their social media behaviours according to the requirements of the SCS to get better scores, which clashed with their unwillingness and uncomfortableness to monitor, police and sacrifice online networks and lifestyles. Moreover, the acceptance and internalisation that financial activities should be included in the SCS was accompanied by the concern that it would perpetuate the existing economic inequality through the SCS and result in a credit score class. As for social media, companies’ exploitation of large quantities of objective user data may be affected by the SCS’s chilling effect on user online behaviours and the

quantity and quality of big social data, which may thus disrupt platform capitalism that depends on data and surveillance, as well as the public-private partnership in the SCS. There were also traces of potential resistance drawing from subjects' counter-censorship measures, and the likely inefficacy of the SCS due to people's indifference and disbelief. The negotiations between these tensions are dynamic and point to diverse directions for the outlook of Chinese social media in a datafied and surveillance society, which invites continuous scrutiny by future studies.

8.1.4 The SCS's Implications for social media

On top of the tensions and dynamics, several inferences to the implications for social media can still be made building on the theoretical framework of digital citizenship (Hintz 2020) and governmentality (Foucault 1991). Digital citizenship as a concept denotes peoples' use of social media to support various empowering and performative digital acts, which indicates the role of social media as the technical tool and facilitator for digital citizenship. From a viewpoint that pays more attention to the benefits, the SCS is expected to detain inappropriate, uncivil and illegal content so that cyberspace environment can be improved to be more transparent and trustworthy. In this scenario, performative digital acts will be encouraged and thus increase on Chinese social media, and the SCS may enhance social media's role as a platform and medium for people to share their lives, express their opinion, engage in civil activities, participate in the communication process during public emergent events, act as citizen journalists, form public sphere for online discussion, promote deliberative democracy and become a contested force in Chinese politics, as some studies suggest (e.g., Y. Jiang 2014; Ye et al. 2016; Xie et al. 2017; Qin et al. 2017; M. Guo 2018). However, due to the SCS's chilling effect on users, the enthusiastic perspective that social media as open and participatory platforms that contribute to a "participatory culture" (Jenkins 2006) may be restricted. As users tend to perform and act on social media to get better SCS scores, their online self-presentation (Marwick and boyd 2010) may be affected by the SCS, and social media's function as a site for online identity construction would be undercut by the SCS. In addition, the SCS's power to drive users to refine online networks has the potential to hinder the sociality of social media as a techno-social system by undermining the cognition, communication and cooperation processes to various extent. Moreover, it may create a form of score-based sociality on social media that is not only affected by

users' refinement but may also be affected, conditioned and shaped by the SCS. Due to its likely negative impact on existing and future online social ties, which are argued to be important element for mass self-communication (Castells 2009a) and online collective movements, the SCS may limit social media-based activism in China and the role of social media as a "liberation technology" (Diamond 2010). The finding that this type of empowering digital citizenship in China will probably be limited by the SCS is consistent with Hintz's (2020) observation that digital citizenship are restricted in a datafied and surveillance society. However, based on obligation-infused notion of digital citizenship adopted in mainstream scholars in China (Li 2020) and the "supervised citizen" (Hintz 2020, p. 539), this study inferred that digital citizenship in the SCS might be diffused with state supervision and citizen obligations, and social media might become more like a site and tool for the state and business to monitor, govern and construct this form of citizenship.

Foucault's governmentality (1991) and related concepts help understand various behaviour changes suggested by users in the framework of how the gamification designs in the SCS exert governance power to induce social media users to modify their online behaviours. Surveillance realism (Dencik 2018) demonstrated among subjects, their internalisation of the SCS, and the tendency to engage with and comply to the SCS's criteria correspond to self-governance dimension of governmentality. All suggests that the gamification designs of the SCS like the JPM and scoring have the power to seduce and manipulate users to conduct technologies of the self to participate in the SCS in a playful manner. Since users are inclined to constantly monitor their SCS scores and actively modify their online behaviours to nurse the SCS scores, they showed a form of self-quantification and self-tracking (Whitson 2014) in datafication systems, which, as explained in sub-chapter 3.8.2, corresponds to the self-governance dimension of governmentality. Moreover, users tend to conduct lateral surveillance (Andrejevic 2005) and other tracking (Gabriels and Coeckelbergh 2019), which are also induced by the SCS in way of aggregating online networks in the scoring and assigning the responsibility of promoting a trustworthy online environment to individual users. Therefore, the SCS, using gamification designs like the JPM and scoring, has the power to seduce and manipulate users to change their behaviours in a designed direction, which renders it a governmentality system. This study contributes to studies attempting to

conceptualise how citizen scoring and data governance systems can be used as technologies of governance to enact self-governance subjects (e.g., Whitson 2014; Aradau and Blanke 2017; Engelmann et al. 2019; Reis and Press 2019; C. Zhang 2020). Chinese social media in this framework is part of the governmentality apparatus of the SCS and used by citizens to perform their self-quantification and self-governance, rather than empowering digital citizenship.

The SCS may affect the platform capitalism (Srnicek 2017) on Chinese social media if users continuously adjust their online behaviours as mentioned above. This means that users would internalise the requirements of the SCS and carry out self-discipline and network refining tactics continuously. In this scenario, the data created by their online activities may decrease in volume, or be imprinted with less of their real emotions, preferences, and habits. Therefore, the values embedded in user data being exploited by social media companies and data analytics are likely to decrease. It means the fundamental business interest based on data and surveillance may be disturbed by the SCS, giving rise to new tensions in the “Government+Market” collaboration in the SCS. This thesis also proposes another possible scenario that the SCS will be normalised by the government and internalised by users. In this scenario, after the initial stage of anxiety, users will eventually accept that the SCS is an inseparable part of modern life, and gradually get used to the scoring, sorting and differentiated treatment, and accommodate the SCS in their daily lives. As a result, they are likely to stop being worried and continue their previous social media behaviours. This form of normalisation has been seen in their response to current online censorship and government surveillance. The platform capitalism on social media in this scenario will probably remain viable. To probe which scenario is taking place requires future studies to follow up the examination.

To conclude, the theoretical findings of the implications of the SCS on digital citizenship and governmentality offer some insights into the future of social media in China. As social media is incorporated in the SCS, it is a major data mine for a citizen scoring system that used to shape people’s behaviours in a certain direction. Users are compelled to self-discipline and perform or act in, monitor their online networks, conduct self-quantification and self-governance. Social media, therefore, becomes a platform that facilitates disciplined and regulated participation and

scored-driven social networking, in addition to, or instead of, a platform that enables free and equal participation and sociality construction. Its affordance as liberating and empowering technology that contributes to social changes and movements will thus be undercut. On the other hand, its roles as a surveillance tool for the government, a site for monitoring and engineering the public's behaviours, and part of the gamified governmentality system will probably be enhanced by the SCS.

8.2 Wider implication and scholarly contribution

The findings and arguments filled in the research gap that no empirical study has extensively investigated how the SCS would affect social media and how Chinese social media users would react in a scoring society. My study recognises the key role of social media in contemporary digital life and the potential impact of the SCS on social media, especially when users' behaviours and usages are transformed into Big Social Data and incorporated in the citizen scoring system to score their trustworthiness and affect their lives. This study followed this new opening and conducted empirical research on Chinese users and offers a timely new set of empirical data for studies on the SCS with regard to public knowledge and opinion of the SCS, citizens' concerns and expectations, and more importantly, their likely changes of online behaviours due to the SCS and the implications for social media and the digital culture in China. Cutting in through the angle of the SCS, it contributes to studies on Chinese social media and cyberspace governance by providing quantitative and qualitative data to understand users' feelings and behaviours towards existing cyber regulations, their negotiations between personal privacy and cybersecurity, and their complex perspectives about data collection and surveillance. The discussion also situated the findings in the body of studies on potentials and pitfalls that social media brings for citizens and civil society and examined how the SCS might affect some of the optimistic expectations for social media (e.g., Benkler 2006; Jenkins 2006; Shirky 2008; Diamond 2010; Loader and Mercea 2011; Bennett and Segerberg 2012; Castells 2015).

During the investigation of the research question, this research also probed into many relevant and constructive issues about the SCS. Chapter 2 provided a critical elaboration of the key aspects in the SCS assemblage, including the interplay

between the government and social media companies, the expansion of the scope from financial aspects to the broader morality realm, and the latest development of the SCS by the end of the first government-set 5-year milestone of 2020. The SCS is distinct for its wide-ranging scope, far-reaching implications for citizens' lives, and the unique confluence of authoritative politics, state capitalism, and ethical-based Confucianism; nevertheless, it is one the first citizen scoring systems on a national scale. This research provides some references about the implications of "citizen scoring" (Dencik et al. 2019) and "social sorting" (Lyon 2015) systems for future studies of data analytics in other countries.

Last but not least, this study took place during 2016-2020, which is the first 5-year plan of the SCS project and the transitioning period from a society with no citizen scoring systems to the one that will have. Therefore, my study accompanies the development and emergence of the SCS and provide unique insights into Chinese people's perspectives and responses to the SCS at this particular historical window. The value of this study lies in this for it provide valuable data for later studies to compare for discrepancies and consistencies in the longevity angle and explore the reasons, relevance, and implications.

8.3 Limitations and suggestions for future research

Chapter 4 explained some of the limitations due to research instruments regarding the representativeness of the sample, generalisation of the results, and the sensitivity of the topic. Despite my attempts to draw research subjects from a wide range of social sectors, studying the perceptions of social media users in a country with more than 800 million social media users is inevitably challenging and will have limitations in terms of its representativeness. This is particularly the case as the SCS is a sensitive topic and my attempts to reach a wide range of people hit some obstacles. Although various measures have been taken to protect the anonymity and confidentiality of research subjects, many subjects still expressed various levels of unease and caution to discuss the SCS, especially online survey respondents and interviewees who were questioned via WeChat audio-call. The sensitivity of some topics and questions and the fear of online surveillance may hinder subjects from revealing real or complete answers. Future studies can create a more carefree

environment for subjects to reveal their authentic perspectives without external institutional influence or anxiety.

Due to the scope of this study, several interesting and valuable topics that emerged during the discussion were not probed but worth further investigation. For example, this study did not probe into the distinctions and the nuances of the implications for different social media platforms. Future studies can probe into one specific social media or conduct a comparative study on how the SCS may have different implications for various social media platforms. Moreover, this thesis also discovered that the SCS might engender a tension between the government and social media companies which might disrupt the "Government+Market" Model. As recognised in literature review and background chapters, private data and Internet companies are deeply ingrained in the SCS and other citizen scoring systems; thus, the role of private data companies and the public-private partnership will be a frontier of future research in data-driven governance systems.

8.4 Summary

In conclusion, this study finds that the SCS has the potential to affect Chinese social media users' online behaviours in a more disciplinary direction and thus threatens the participatory and networking affordances of social media and its democratic potentials. The SCS, using gamification designs of scoring and JPM, is an effective governmentality technique that has induced most users to internalise the benefits of the SCS and the necessity to comply with it. Consequently, driven by the pragmatic goal of nursing their SCS scores, users were going to take various measures. Regarding online content generation, they would self-censor the content they post, reduce political discussion, remain cautious and selective about what they browse and search, reduce the frequency of using social media or stop using it. In terms of online networking, they expressed the inclination to refine their networks by deleting or blocking lower-scored users, estranging or reducing interaction, conducting lateral surveillance on their networks, alerting closer contacts, filtering future networks using the SCS score. As for online shopping, users were willing to be more responsible and cautious about what they buy to nurse their SCS scores. The SCS's impact on user generated content is found to be stronger than that on online shopping. This

study also finds a significant lack of knowledge about the SCS, mixed attitudes of support, scepticism and unease, and divided stances among users regarding various aspects of social media uses.

By the end of the first five-year plan, the envisioned SCS being an all-encompassing citizen scoring system has not been fully implemented. The findings provide valuable empirical insights into the SCS's potential implications for social media at its initiation stage, but also highlight that these conclusions and inferences are drawn based on on-going tensions, concerns and dynamics. People's perspectives and interactions to the SCS, the likely changes in their behaviours, the efficacy of the SCS, and the implications for social media would be affected by to what extent the official propaganda and political rhetoric of the party-state can ease the tensions and concerns unearthed in this study while promoting citizen's support and trust, as well as users' interaction with the SCS that either resists the SCS or incorporates it in their daily lives. Thus, it invites future research to keep track of the dynamics and examine the socio-political power of the SCS on the participatory and networking affordances of social media. Besides, at the platform level, the prospect for the public-private partnership in the SCS needs to be analysed taken into consideration the power interplay between the state and commercial data giants in the complex political-economic context. The negotiations between these tensions are dynamic and point to different directions for the outlook of the social media in China, which is also worth continuous scrutiny.

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Appendixes

APPENDIX 1: THE JOINT PUNISHMENT MECHANISM AND DATA SHARING WITHIN THE SCS

The Joint Punishment mechanism is carried out by the collaboration between a range of government bureaus, financial institutions and public institutions. Liang et al. (2018, pp. 432-433) provide a detailed description of how a subject is listed on the Redlist or the Blacklist. First, local government and public affairs institutions determine the subjects on Redlist or Blacklist, be it a person or an organisation. Other actors like data companies, media, and organisations will provide supporting information relating to rewards or punishment. Second, the local Redlist and Blacklist is shared with NCISP within 10 days (NDRC 2017). There are three methods of transmitting data to NCISP from Hubei credit information platform based on the category of data. The first is to share information to NCISP and subscribed by National Credit Information Centre. Two kinds of information are shared in this way: the detailed information of individuals or the companies, e.g., name, qualifications, license, ID numbers; and local Blacklist and Redlist. The second one is to share data privately to NCISP that the public cannot access. Sensitive data regarding tax payment, social fund payment, and other fines are transmitted in this way. Another data sharing method is to publish the information on NCISP directly as well as to report to other platforms. Records of administrative authorisation (name of the subject, license) and administrative punishment (identity, the reasons and sentence of the punishment) are published this way. In order to ensure data from various local credit platform will be compatible, the central government also regulates the format of the data. Nonetheless, the details of the data aggregating mechanism are still unclear as limited information is available. Following that, if the subject's trust-breaking conduct is grave, NCISP will share this information directly to Credit China platform. Otherwise, NCISP will list the trust-breakers who have not meet the criteria of the national Blacklist on the Focus Group List. If they are mentioned by three different sources, NCISP will list them into a Big Data Warning List for further investigation. Finally, Credit China, local credit platforms, and sectoral credit platforms will publish the Redlist and Blacklist shared by NCISP to public. Only a fraction of the subject will be listed on the Redlist or the Blacklist.

In addition to government sectors, the Supreme People's Court oversees two lists: a blacklist of "untrustworthy persons subject to enforcement" (失信被执行人 *shixin bei zhixing ren*) and a blacklist of "untrustworthy persons restricted from high consumptions" (限制消费人员 *xianzhi xiaofei renyuan*). Subjects on both lists are restricted from high consumptions, but the Joint Punishment is only imposed on persons on the blacklist of "untrustworthy persons subject to enforcement", which is shared by SPC with Credit China and published to the public. Restrictions from high consumptions is issued by court when a defendant fails to repay his/her debt or fulfil the payment obligation (SPC 2020) or when the person fails to fulfil the legal obligations and conducts activities like refusing to perform the settlement agreement without proper reason (SPC 2016).

Besides the blacklist of "untrustworthy persons subject to enforcement" from the Supreme People's Court, 7 ministerial blacklists of untrustworthy subjects are published on Credit China website. These lists are created by various ministerial departments of different sectors. NDRC has blacklisted persons who have raised funds illegally or have done illegal activities in financial aspect. Ministry of Transport blacklisted the drivers and companies that have overloaded or exceeded speed limit. Civil Aviation Administration of China (CAAC) updates monthly its own blacklist of individuals that are banned from aircraft travel for a period of one year due to misbehaviour on airplanes or at airports. The reasons for being banned from air travel include taking illegal objects on the plane, smoking on airplanes, using fake ID, obstructing the work of CAAC staffs, blocking the passages (CAAC 2018). China State Railway Group Co., Ltd. (China Railway) prohibits individuals who have disrupted social order on trains and railway stations, smoked on a non-smoking carriage, used forged ID from railway travel for a period of 90 to 180 days (China Railway 2020). Notably, the reason for people to be banned from air travel or railway travel can be either that they are on the blacklists of CAAC or China Railway for violating their regulations, or that it is the result of Joint Punishment because they are on the national Blacklist.

On the other hand, honest and trustworthy behaviours will be encouraged, honoured, and rewarded with privileges. Subjects on the Redlist will be publicly praised and

rewarded with access to “Green Channel” (绿色通道 *lvse tongdao*), which, as the green traffic light that signals pass, provides priority access at public services, hassle-free service at government bureaus, and cheaper transaction fees, lowered as well as other privileges and benefits offered by the government and private sectors. In addition, a list of good behaviours and bad behaviours as well as the corresponding rewards and punishment can be summarised from early news reports. Completing community service” and “buying Chinese products” are considered as good behaviours that can raise the score (Tracy 2018; Pettit 2018). Citizens with high scores can enjoy privileges such as getting more matches on dating websites; waived deposits on hotels, bike rental, car rental, accommodation rental, power bank rental; VIP treatment at the airport; access to better schools; easier access to loans or a discount loan rate; shorter waiting time at hospitals (Hatton 2015; Botsman 2017; Ma 2018; Pettit 2018; Monru 2018). On the other hand, playing videos for long hours; smoking at unpermitted areas; buying alcohol; failing to pay fines and debt in time; spreading rumours and false information online; fraud; obstructing footpaths with vehicles; jaywalking; skip train fares; failing to visit elderly parents; failing to sort out garbage; posting about Tian’anmen Square event are all on the bad behaviours list according to news reports (Tracy 2018; Pettit 2018; Botsman 2017; Hodge 2018; Ma 2018; Fullerton 2018). Punishment can be restrictions to government subsidies support, barred from best jobs, deprivation of honorary titles, limiting children’s education opportunities, being banned, or blacklisted from high-speed trains and planes, banned from luxury hotels, throttling the Internet speeds, being publicly named as a bad citizen (Mills 2015; Hatton 2015; Botsman 2017; Hodge 2018; Ma 2018; Fullerton 2018; Pettit 2018; Munro 2018; Tracy 2018; Carney 2018). However, some of these items have proved to be inaccurate. Until now, no clear list of good and bad behaviour is officially announced.

APPENDIX 2: AN OVERVIEW OF SEVERAL LOCAL PILOTING SCS

Several city-level personal credit score systems have been constructed as part of the local pilots. “Guihua Score” in Suzhou city was established on 24th November 2016. It selects 5 dimensions from a person’s basic information, assets information, morality information and other information combined with 243 scoring criteria like age, place of birth, marital status, education level to calculate the score for citizens. It cooperates with Sesame Credit to make up data deficiency in Internet credit (Huang et al. 2019). People with good “Guihua Score” can enjoy extended rent period for public bikes, more books to loan at local libraries, and discounts on park card or leisure card.

“Huixin Score” in Hangzhou city was established on 23rd August 2017 by Hangzhou Citizen Card Co., Ltd. It is calculated using data of daily life credit and government affair credit from six dimensions – social relations, charitable activities, compliance with laws and regulations, credit activities, public bills payment, and professional violations. People are divided into four levels according to the score: Excellent Credit (700-950), Good Credit (550-699), Fine Credit (500-549), and Credit Needed Improvement (150-499). People with high “Huixin Score” can enjoy convenient services for social welfare, public transportation and medical treatment.

“Xichu Score” of Suqian city was founded on 23rd March 2018. It is calculated using data collected from the city’s public information platform like personal information, business credit record, judicial credit record. The scores are divided into 8 levels: AAA (1250 points and above), AA (1100-1249), A+ (1040-1099), A (1000-1039), A- (960-999), B (850-959), C (600-849), D (599 points and under). People with good scores can enjoy benefits such as 40% off on old nursing service and bus travel card, deposit waiver for inpatients (Huang et al. 2019).

“Moli Score” of Fuzhou city was founded on 3rd June 2018. It is calculated using data from public information platform from 6 dimensions of personal ability, professions, public credit, financial credit, administrative credit, and judicial credit. People are divided into 6 levels based on the score: excellent credit (850-1000), good credit (750-849), fine credit (650-749), ordinary credit (550-649), bad credit

(350-549), extremely bad credit (0-349). “Moli Score” can be used for travel, healthcare, education, finance, entertainment, public transport, and governmental services.

“Bailu Score” in Xiamen city was founded on 5th July 2018. Xiamen City, a port city on the Taiwan Straits, has been commended for expanding the scope of the credit system to the import/export business. The city designed the Xiamen Citizen App where citizens can report illegal and misconduct and obtain an individual credit score called “Bailu Score” (Xinhua Finance 2018). “Bailu Score” is based on data generated from government administration and citizens’ daily life and is calculated according to 750 elements from 5 dimensions of basic information, trust-keeping record, trust-breaking record, credit repair history, and credit activities. Scores are classified into excellent, good, fine, ordinary, and bad. Citizens with high scores can earn benefits like deposit waiver for bike-sharing and library loans, extend rent payment, skip lines for ferries, and discount for parking fees. “Bailu Score” plans to cooperate with private credit rating companies to construct a comprehensive public-private individual credit rating system (Huang et al. 2019).

APPENDIX 3: PILOT STUDY REPORT

Pilot Study Report

The pilot study was conducted in December 2018 to ensure that the questionnaire is:

1. Clearly structured and worded to avoid ambiguities
2. Answerable to maximise the response rate
3. Comprehensive and covering the central aspects of the thesis

The importance and necessity of the pilot study in this research

One of the data collecting tools for this study is the self-completion e-questionnaire. The advantage of e-questionnaire that the presence of an interviewer will not influence respondents can be a drawback as an interviewer cannot clear up any confusion that might occur during the process. Therefore, it is crucial to ensure the questionnaire is well structured and written to avoid ambiguities that will decrease the response rate and reliability of the result. A pilot study can, on the one hand, identify vague questions that need further clarification and those that should be eliminated (Sudman and Braburn 1982, p. 284). On the other hand, it can ensure the research instrument functions to expectation and avoid wastage (Bryman 2012, p. 263). Thus, a pilot study is essential for this research to ensure the content validity and reliability of the questionnaire.

Concerning the sample of a pilot study, it is best to resemble the real population of the study (Bryman 2012, p. 264; Oppenheim 1992). The sample size for a pilot study varies according to the purpose of the pilot study. An interval of 24-36 is suggested when the purpose is a preliminary survey or scale development (Johanson and Brooks 2010). However, due to the restraints of time and location, this pilot study cannot take sample respondents from China, so a convenience sampling method was used. Web-based questionnaires were handed out through WeChat groups to Chinese students in Cardiff, who come from different cities in China and vary in ages, and to my friends and family members.

Phase 1: web-based questionnaires

The pilot study was conducted in December 2018 at Cardiff. During the first phase, web-based questionnaires were sent to fellow Chinese students doing BAs, MAs and

PhDs in Cardiff, through WeChat group chats. Members of the group chats are doing a range of subjects in different schools, but they are all residence at one student accommodation. Besides, the questionnaire was also sent to several senior family members to test the acceptance among senior members of the population. Before sending out questionnaires, I had consulted with my supervisor about the questionnaire design and modified twice to formulate the pre-test questionnaires. The pre-test questionnaire consisted of 20 questions from 5 aspects relating to the issues that this thesis intends to address.

A total response of 41 questionnaires was received, and 39 were completed. The average time spent to complete the questionnaire is 4 minutes. Among the 39 respondents, 21 were female, and 18 were male. 31 were students, 3 worked in private companies, 2 worked in the government and other public sectors, 1 was professional technician, 1 was retired, and 1 was unemployed. 31 of them aged between 20-29, and the rest aged from 19 up to 59. Respondents were from various cities like Beijing, Shanghai, Wuhan, Zhengzhou, Taizhou, Tianjin, Xi'an, Hangzhou, Kaifeng, Xinyang.

Phase 2: interviews

In this stage, interviews were conducted with 3 PhD students at Cardiff University who were in the writing-up stage. They are working respectively on the democratic discourse on social media, the soft power of martial arts, and Internet security. Two of them have experience for survey methods and have done surveys for their studies before, and another one is familiar with the topic. They were given the questionnaires to preview before the interview. Two respondents were interviewed through WeChat, and one was interviewed in person. During the interview, they provided valuable suggestions for refining the questionnaire.

Pilot study results

This pilot study has gained useful findings for perfecting the content and structure of the questionnaire. Respondents addressed several issues after they finished the questionnaires:

1. Three people reported that they did not know how to operate the scale range labels on their phone and the exact number or percentage of the point that they mark.
2. One respondent suggested that the questionnaire clarify the number of choices they can choose for each question.
3. One respondent found it difficult to choose the best answer for some questions because the choices were similar.
4. A few respondents felt it was inconvenient to check their Sunshine Credit score as required by Question 11 on the pre-test questionnaire.

3 fellow researchers also offered detailed suggestions on how to improve the formulation of the questionnaire:

1. An introductory section should be added to explain the usage of the questionnaire and ethical concerns, and allow respondents to choose whether to proceed with the questionnaire or not before showing the first question.
2. They provided detailed advice on how to modify some questions in terms of wording and grammar.
3. On the last page of the questionnaire, a proposal of interviews could be added to encourage respondents to participate in interviews.
4. An "other, please specify" section should be added to several questions in case the respondents have more comment on the questions.

The final questionnaire was the edited version based on suggestions from this pilot study to ensure the clarity, completeness and validity.

APPENDIX 4: QUESTIONNAIRE (ENGLISH)

Dear respondents,

thank you for participating in this survey!

I am a PhD student at School of Journalism, Media and Culture at Cardiff University. This questionnaire is an important part of my research project, which aims to investigate the implications for social media in China in the context of the 2014-2020 Social Credit System. I really appreciate your cooperation.

This survey should only take you 3-5 minutes to complete on your digital device. I highly value your privacy and data security. Please be assured that all the information you provided will be kept in strict confidentiality and only be used for the purpose of this study. During which time you have the right to quit the questionnaire for any reason.

Have you read the above statement and are willing to answer the questionnaire?

- ◇ I have read and am willing to proceed. (skip to the first question)
- ◇ I don't want to proceed. (skip to the end of the questionnaire)

1. Do you use both WeChat and Weibo regularly at the moment?

- ◇ I use **BOTH** regularly.
- ◇ I only use **WeChat** regularly.
- ◇ I only use **Weibo** regularly.
- ◇ I use **NEITHER** regularly.
- ◇ Other, please specify _____

2. What do you use social media for? (can choose more than 1)

- ◇ Current affairs and social news
- ◇ Entertainment
- ◇ Fashion and online shopping
- ◇ Instant messaging
- ◇ Social networking with strangers
- ◇ Social networking with acquaintances
- ◇ Life service
- ◇ Work and business
- ◇ Education
- ◇ Browsing without aim

Other, please specify _____

3. How much time do you spend on social media daily? (hour)

0-1 1-2 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12+

4. How often do you usually do the following activities on social media? (tick)

	Every hour or more	Several times a day	Once a day	Several times a week	Once a week	Several times a month	Once a month	Several times a year	Once a year	never
Read other posts										
Publish new posts										
Comment										
Like										
Repost										
Share										

5. Have you registered on WeChat and Weibo with your real identity (sim card/ID number)?

- ◇ I registered with real identity on **BOTH** sites. (skip to Question 6)
- ◇ I registered with real identity on **Weibo**. (skip to Question 6)
- ◇ I registered with real identity on **WeChat**. (skip to Question 6)
- ◇ I registered with real identity on **NEITHER**. (skip to Question 7)
- ◇ I am not sure. (skip to Question 7)
- ◇ I prefer not to say. (skip to Question 7)

6. Have you changed your behaviour on WeChat and Weibo after real identity registration?

- ◇ I only browse now, and don't post/comment on/like/share any content.
- ◇ I become more careful when I post/comment on/like/share content.
- ◇ I tend to be more active and more willingly to post/comment on/like/share.
- ◇ I haven't changed significantly, but I will be more cautious.
- ◇ I haven't changed at all, but I will be more active.
- ◇ I haven't changed at all, and I will not change
- ◇ Other, please specify _____

7. Do you support real identity registration on social media?

- ◇ Strongly support (skip to Question 8)
- ◇ Support (skip to Question 8)
- ◇ Neutral (skip to Question 10)
- ◇ Against (skip to Question 9)
- ◇ Strongly against (skip to Question 9)

8. Which best describes your reason for supporting real identity registration?

- ◇ It can bring transparency and freshness to cyberspace and social media.
- ◇ It can reduce fake news and enhance netizens' right to information.
- ◇ It can prevent a series of online crimes, e.g. online rumours and fraud.
- ◇ I am not sure, but I support.
- ◇ Other, please specify _____

9. Which best describes your reason for being against real identity registration?

- ◇ It is a tool of social control and will undermine freedom of speech.
- ◇ It requires private information, which increases the risks of privacy breach.
- ◇ It cannot reduce rumours and fraud, but it will reduce online participation.
- ◇ I am not sure, but I am against.
- ◇ Other, please specify _____

10. Have you used homophones or homographs to replace “sensitive” phrases?

- ◇ Usually (skip to Question 11)
- ◇ Sometimes (skip to Question 11)
- ◇ Seldom (skip to Question 11)
- ◇ Never (skip to Question 12)
- ◇ I prefer not to say (skip to Question 12)

11. Why do you use homophones or homographs to replace “sensitive” phrases?

(can choose more than 1)

- ◇ I **had to**, otherwise my content will be blocked or deleted.
- ◇ I **want to** because I don’t want to have some bad influence on my account.
- ◇ I think it’s **necessary** and other people are doing it.
- ◇ I think it’s **unnecessary**, but other people are doing it, so I do it too.
- ◇ I prefer not to say.
- ◇ Other, please specify _____

12. Whom can you accept to access your personal information and social media account history? (can choose more than one)

- ◇ Party and government organs and institutions
- ◇ Social media companies
- ◇ Public relation companies and advertisers
- ◇ Other social media users
- ◇ My friends
- ◇ Myself
- ◇ Other, please specify _____

13. Are you aware of your “Sunshine Credit” score on Weibo?

- ◇ Excellent credit (691-900)
- ◇ Good credit (571-690)
- ◇ Normal credit (451-570)
- ◇ Low credit (420-450)
- ◇ Bad credit (300-419)
- ◇ I know my Sunshine Credit, but I don’t want to say.
- ◇ I don’t know Sunshine Credit at all.

14. If your social networking affects your credit score, will you delete or unfollow some accounts to rise your score?

- ◇ Definitely yes
- ◇ Likely yes
- ◇ Neutral, it depends
- ◇ Likely no
- ◇ Definitely no

15. If your posts and comments affect your credit score, will you be selective when you publish any content on social media?

- ◇ Definitely yes
- ◇ Likely yes
- ◇ Neutral, it depends
- ◇ Likely no
- ◇ Definitely no

16. If your online transaction and online shopping habit affect your credit score, will you change your online shopping behaviour to get a better score?

- ◇ Definitely yes
- ◇ Likely yes
- ◇ Neutral, it depends
- ◇ Likely no
- ◇ Definitely no

17. Have you already taken any measure to rise your credit score? (can choose more than 1)

- ◇ I have deleted/unfollowed some friends that will harm my score.
- ◇ I have been selective when I post/comment on any content.
- ◇ I have changed my online shopping behaviour.
- ◇ I haven't yet, but maybe I will in the future.
- ◇ I haven't yet, and maybe I will not in the future.
- ◇ Other, please specify_____

18. Have you ever discussed about the credit score with your acquaintances?

- ◇ Yes, a lot
- ◇ Yes, a little
- ◇ No, but I will
- ◇ No, and I will not
- ◇ Other, please specify_____

19. To what extent do you support to include social media behaviour as scoring criteria for individual credit score?

- ◇ Strongly support
- ◇ Support
- ◇ Neutral
- ◇ Oppose
- ◇ Strongly oppose

20. What is your gender?

- ◇ Female
- ◇ Male
- ◇ Other, please specify_____

21. What is your profession?

- ◇ Student
- ◇ Company/Private sector management or staff
- ◇ Party and government organs and institutions leader or general personal

- ◇ Freelancers/ self-employed
- ◇ Professional and technical
- ◇ Manufactural enterprise worker
- ◇ Business service staff
- ◇ Rural migrant worker
- ◇ Agriculture, forestry, animal husbandry and fishery worker
- ◇ Retired
- ◇ Unemployed
- ◇ Other, please specify_____

22. What is your age?

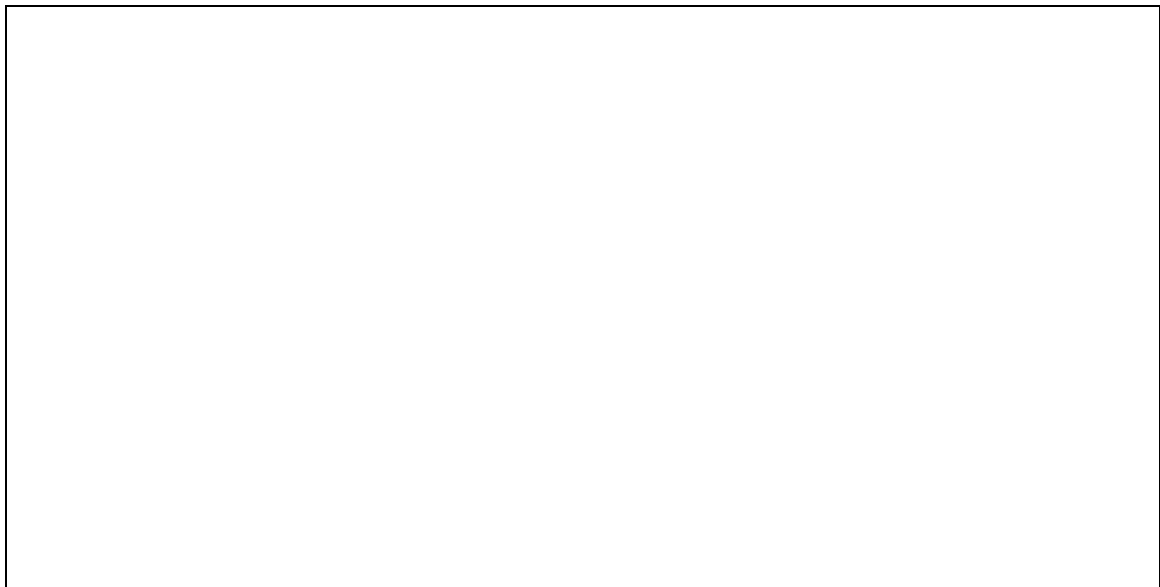
- ◇ 19 and under
- ◇ 20-29
- ◇ 30-39
- ◇ 40-49
- ◇ 50-59
- ◇ 60 and above

23. What is the city where you spend most of your time?

Thanks for your cooperation!

If you have any thoughts on the questionnaire or the research project, please leave a comment below.

If you want to participate in an 1-1 Interview, you are more than welcome to contact me via my email: Maw6@cardiff.ac.uk or leave your contact information below.



APPENDIX 5: QUESTIONNAIRE (CHINESE)

社会信用体系对中国互联网用户社交媒体行为的影响问卷调查

您好！

我是英国卡迪夫大学新闻与传播学院的博士研究生，课题为**2014-2020**社会信用体系对中国社交媒体的影响。这份问卷是我研究中很重要的一部分，衷心希望您能认真作答。

完成本问卷仅需花费您不到5分钟的时间，您只用简单地在电子设备上操作即可。我极度重视您的信息安全及隐私，您所提供的信息仅会被用于学术用途，并将以匿名处理。在填写的过程中，您有权在任何时间以任何理由退出问卷。

您是否已经阅读上述信息，并愿意进行问卷？

- 已阅读，同意。
- 不同意。

社会信用体系对中国互联网用户社交媒体行为的影响问卷调查

您目前是否日常性使用微信和微博？

- 两者都经常使用
- 只经常使用微博
- 只经常使用微信
- 两者都不经常使用

其他（请指明）

您使用社交媒体的主要用途为？（可多选）

- 时政和社会类新闻
- 娱乐类新闻及资讯
- 时尚资讯和网络购物
- 即时通信
- 与陌生人社交
- 与熟人社交
- 生活服务
- 工作及商业
- 教育
- 漫无目的随机浏览

其他，请补充

您平均每天在社交媒体上花费多长时间？（请左右滑动）

0 6小时 12小时以上



您在社交媒体上进行下列行为的频率为？（数字越大越频繁）

	5 每小时至少一次	4 每天多次	3 每周多次	2 每月多次	1 每年多次	0 从来不
发布	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
评论	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
转发	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
点赞	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

您是否在微博或微信上为实名注册（手机号/身份证等）？

- 两者都为实名注册
- 只在微博实名注册
- 只在微信实名注册
- 两者都无实名注册
- 我不太清楚
- 我选择不作答此题

在您实名认证后，您在微信和微博上的行为有变化吗？

- 我现在只浏览，不进行任何其他行为如发帖/评论/点赞/转发等。
- 我比以前更谨慎，更不愿意去发帖/评论/点赞/转发等。
- 我比以前更活跃，更愿意去发帖/评论/点赞/转发等。
- 我还没有明显变化，但我将会变得更加谨慎。
- 我还没有明显变化，但我将会变得更加活跃。
- 我还没有明显变化，我也不会改变。

其他，请简要说明

您是否支持社交媒体实名制？

- 强烈支持
- 支持
- 中立
- 反对
- 强烈反对

下列哪项理由能最好解释您支持实名制的原因？（可多选）

- 实名制能使网络空间更清爽，社交媒体变得透明化。
- 实名制能大大减少虚假信息数量，强化网民的知情权。
- 实名制能防止网络谣言，网络诈骗等一系列网络犯罪。
- 我不太清楚，但是我支持。

其他，请简要说明

下列哪项理由能解释您反对实名制的原因？（可多选）

- 网络实名制就是加强社会控制的策略，会减少言论自由。
- 网络实名制需要私密信息，信息泄露风险会增加。
- 网络实名制并不能减少网络谣言和诈骗，反而会减少用户参与度。
- 我不太清楚，但是我反对。
- 其他（请指明）

您在社交媒体上使用过拼音、缩写、同音替代词等来指代一些“敏感”话题吗？

- 经常
- 有时
- 极少
- 从来不
- 我选择不作答

其他（请指明）

您为什么选用替代词呢？（可多选）

- 我不得不使用，否则我的内容无法发布，或被屏蔽，或删除。
- 我自觉想使用，因为我不想对我的账号有不好影响。
- 我觉得有必要，而且其他人都这样做。
- 我觉得没必要，但是其他人都这样做，我也跟着使用。
- 我选择不回答

其他，请简要说明

您能接受下列哪方获取您的个人信息及社交媒体记录？（可多选）

- 党政机关/事业单位/公安司法检等部门
- 社交媒体公司
- 公关公司/广告商等
- 其他社交媒体用户
- 我的好友
- 我自己

其他（请指明）

您知道微博个人资料显示的**阳光信用级别**吗？（在个人基本资料页面显示，每个账户都有，无需开通）

- 信用极好 (691-900)
- 信用较好 (571-690)
- 信用一般 (451-570)
- 信用较低 (420-450)
- 信用极低 (300-419)
- 我知道有阳光信用，但是我不想透露我的级别。
- 我根本不知道有阳光信用分

其他（请指明）

如果您的**网络社交人脉**会影响您的信用分，您会**删除或取关**好友来提高自己的分数吗？（请左右滑动）

坚决不会 中立，视情况而定 肯定会

如果您在**社交媒体上发布的内容或言论**会影响您的信用分，您会**只发布有利的内容**，省略不利的内容吗？（请左右滑动）

坚决不会 中立，视情况而定 肯定会

如果您的**网购记录和习惯**会影响您的信用分，您会**选择性的匿名或者线下**购买一些商品吗？（请左右滑动）

坚决不会 中立，视情况而定 肯定会

您有已经采取过相应的行动来提高自己的信用分吗？（可多选）

- 已经删除或取关过影响自己信用分的好友
- 已经有选择性的仅发布一些对自己有利的内容
- 已经调整自己的网购习惯
- 还没有，但可能会有
- 还没有，也不会有

其他（请指明）

您的年龄为？

- 19岁及以下
- 20-29岁
- 30-39岁
- 40-49岁
- 50-59岁
- 60岁及以上

您大部分时间所居住的城市为？

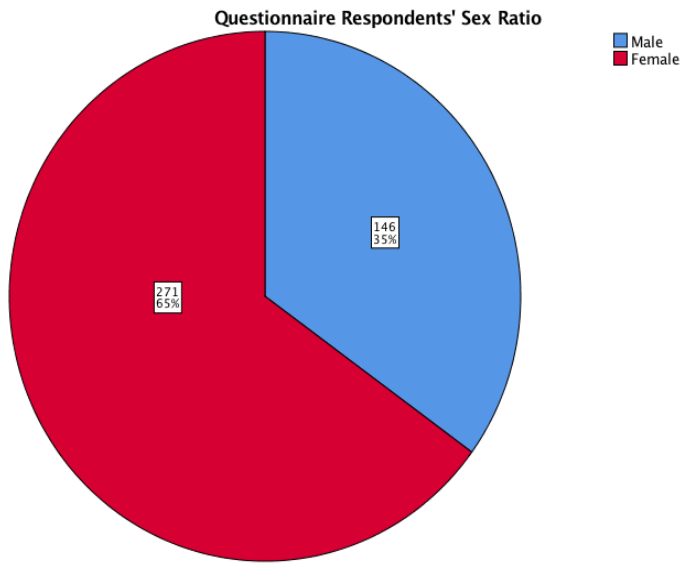
感谢您的耐心作答！

如您对问卷内容或此课题有更多的想法，欢迎在此评论！

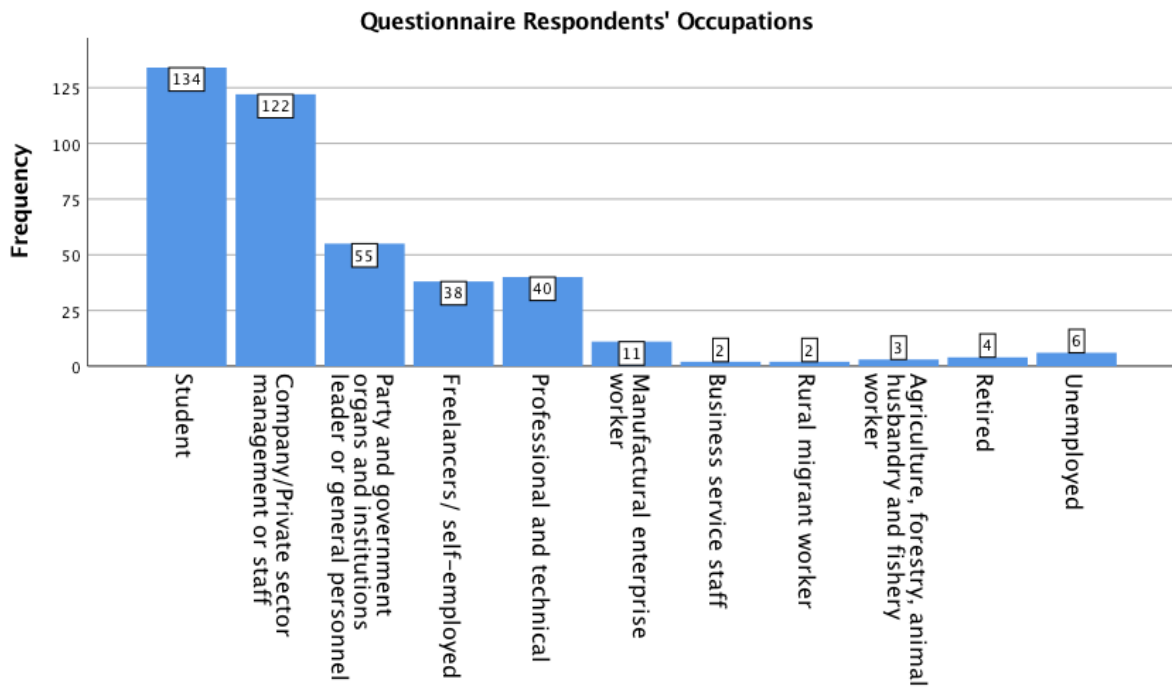
如您愿意接受一对一采访，请您联系我的邮箱：[**maw6@cardiff.ac.uk**](mailto:maw6@cardiff.ac.uk)

或者在下方留下您的联系方式，您的信息将会被严格保密，谢谢！

APPENDIX 6: QUESTIONNAIRE RESPONDENTS

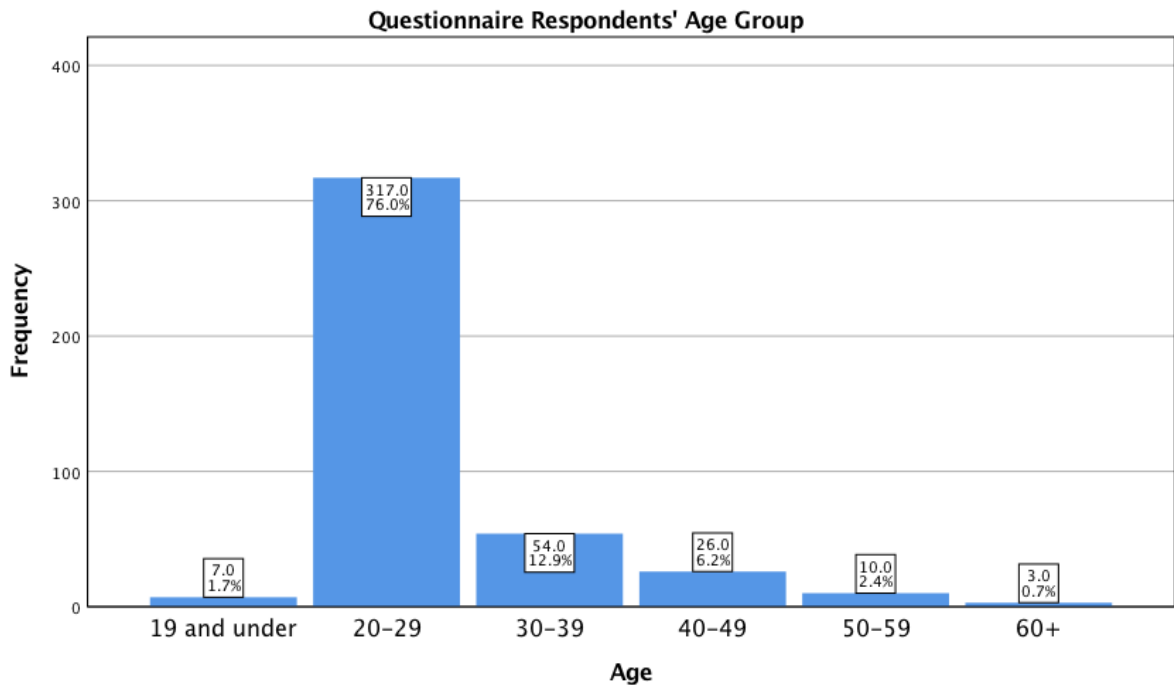


Questionnaire Respondents' Sex Ratio		Frequency	Percent
Valid	Male	146	35.0
	Female	271	65.0
Total		417	100.0



Questionnaire Respondents' Occupations

		Frequency	Percent
Valid	Student	134	32.1
	Company/Private sector management or staff	122	29.3
	Party and government organs and institutions leader or general personnel	55	13.2
	Freelancers/ self-employed	38	9.1
	Professional and technical	40	9.6
	Manufactural enterprise worker	11	2.6
	Business service staff	2	.5
	Rural migrant worker	2	.5
	Agriculture, forestry, animal husbandry and fishery worker	3	.7
	Retired	4	1.0
	Unemployed	6	1.4
	Total	417	100.0



Questionnaire Respondents' Age Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19 and under	7	1.7	1.7	1.7
	20-29	317	76.0	76.0	77.7
	30-39	54	12.9	12.9	90.6
	40-49	26	6.2	6.2	96.9
	50-59	10	2.4	2.4	99.3
	60+	3	.7	.7	100.0
	Total	417	100.0	100.0	

Questionnaire Respondents' Domicile

		Frequency	Percent
Valid	Adelaide, Australia	1	.2
	Auckland, New Zealand	3	.7
	Austin, US	1	.2
	Bangkok, Thailand	1	.2
	Berlin, Germany	1	.2
	Boston, US	1	.2
	Bristol, UK	1	.2
	California, US	1	.2
	Cardiff, UK	1	.2
	Chicago, US	1	.2
	Colombia, US	1	.2
	Dallas, US	1	.2
	Eugene, US	1	.2
	Houston, US	1	.2
	Indiana, US	1	.2
	Jena, Germany	1	.2
	Leeds, UK	1	.2
	Leicester, UK	1	.2
	London, UK	10	2.4
	Lyon, France	1	.2
	Melbourne, Australia	4	1.0
	Moscow, Russia	2	.5
	New York, US	4	1.0
	Norwich, UK	2	.5
	Ottawa, Canada	1	.2
	Oxford, UK	1	.2
	Perth, Australia	1	.2

Portland, US	1	.2
Rennes, France	1	.2
Seattle, US	1	.2
Sheffield, UK	1	.2
Singapore	5	1.2
Stirling, UK	1	.2
Sydney, Australia	2	.5
Tokyo, Japan	1	.2
Ulaanbaatar, Mongolia	4	1.0
三明 Sanming	1	.2
三门峡 Sanmenxia	1	.2
上海 Shanghai	30	7.2
上饶 Shangrao	1	.2
东莞 Dongguan	2	.5
东营 Dongying	1	.2
中山 Zhongshan	2	.5
乌鲁木齐 Urumqi	1	.2
乐山 Leshan	1	.2
亳州 Bozhou	1	.2
佛山 Foshan	1	.2
兰州 Lanzhou	1	.2
北京 Beijing	54	12.9
北海 Beihai	1	.2
南京 Nanjing	3	.7
南充 Nanchong	1	.2
南宁 Nanning	1	.2
厦门 Xiamen	6	1.4
台州 Taizhou	2	.5
合肥 Hefei	5	1.2
吉林 Jilin	1	.2
呼和浩特 Hohhot	1	.2
商丘 Shangqiu	1	.2
嘉兴 Jiaxing	1	.2
大连 Dalian	1	.2
天津 Tianjin	6	1.4
太原 Taiyuan	2	.5
威海 Weihai	1	.2
宁波 Ningbo	3	.7
安庆 Anqing	1	.2
安阳 Anyang	2	.5

安顺 Anshun	1	.2
宝鸡 Baoji	1	.2
巴彦淖尔 Bayannur	1	.2
平顶山 Pingdingshan	2	.5
广州 Guangzhou	13	3.1
廊坊 Langfang	1	.2
开封 Kaifeng	11	2.6
张家口 Zhangjiakou	1	.2
徐州 Xuzhou	3	.7
成都 Chengdu	4	1.0
新乡 Xinxiang	3	.7
朔州 Shuozhou	1	.2
杭州 Hangzhou	9	2.2
松原 Songyuan	1	.2
桂林 Guilin	1	.2
武汉 Wuhan	8	1.9
沈阳 Shenyang	3	.7
泉州 Quanzhou	2	.5
泰安 Taian	1	.2
泸县 Luxian	1	.2
泸州 Luzhou	1	.2
洛阳 Luoyang	2	.5
济南 Ji'nan	1	.2
海口 Haikou	3	.7
深圳 Shenzhen	19	4.6
温州 Wenzhou	2	.5
滁州 Chuzhou	1	.2
滨州 Binzhou	1	.2
漯河 Luohe	2	.5
澳门 Macau	1	.2
濮阳 Puyang	1	.2
烟台 Yantai	2	.5
珠海 Zhuhai	2	.5
白山 Baishan	1	.2
盐城 Yancheng	1	.2
石家庄 Shijiazhuang	2	.5
福州 Fuzhou	1	.2
腾冲 Tengchong	1	.2
苏州 Suzhou	2	.5
莒县 Juxian	1	.2

西安 Xi'an	8	1.9
许昌 Xuchang	1	.2
贵阳 Guiyang	1	.2
邯郸 Handan	1	.2
郑州 Zhengzhou	56	13.4
重庆 Chongqing	5	1.2
金华 Jinhua	1	.2
银川 Yinchuan	1	.2
镇江 Zhenjiang	1	.2
长春 Changchun	1	.2
长沙 Changsha	3	.7
阳泉 Yangquan	1	.2
青岛 Qingdao	1	.2
香港 Hong Kong	19	4.6
鹤壁 Hebi	1	.2
黑龙江 Heilongjiang	2	.5
Total	417	100.0

APPENDIX 7: INTERVIEW GUIDE (ENGLISH)

1. What social media do you use? Frequency and purpose?
2. Have you verified with your real identity on these platforms? why/why not? What are the benefits or concerns?
3. What do you know about the SCS/ credit score/ trustworthy score? Where did you acquire this information?
4. Do you think that trustworthy/credit score should include social media behaviour, online shopping recording and other Internet activities as marking criteria besides economic behaviour?
5. Who do you think has the credibility to establish this system and the scoring criteria? Should the criteria and detailed rules be open to the public?
6. Do you support government, or social media companies accessing your social media record to evaluate your trustworthiness?
7. How would trustworthy/credit score affect your social media activities, such as post, comment, like and repost?
8. How would trustworthy/credit score affect your social networking?
9. How would trustworthy/credit score affect your online shopping habit?
10. Overall, what implication would the SCS and trustworthy/credit score have for social media in China in your opinion? Is there something that you want to add?

APPENDIX 8: INTERVIEW GUIDE (CHINESE)

1. 您使用哪些社交媒体？频率？目的？
2. 您是否实名验证过了？为什么？好处和坏处？
3. 您对社会信用体系/信用分/诚信建设有哪些了解？如何获得这些信息？
4. 您认为诚信分是否应该把除了经济行为以外的社交媒体行为&网络购物&互联网行为（游戏，搜索等）作为评分标准？
5. 您是否支持政府/社交媒体等获取您的社交媒体记录来对您进行诚信评估？
6. 您认为谁作为诚信分的评分细则制定者/体系建构者比较有公信力？您认为评分细则需要公布出来吗？
7. 诚信分对您在社交媒体的平台选择/发帖/转发/点赞等产生影响吗？
8. 诚信分对你的网络社交关系产生影响吗？
9. 诚信分对你的网络购物/支付方式行为产生影响吗？
10. 您认为信用体系对社交媒体有影响吗？您有什么补充吗？

APPENDIX 9: INTERVIEW CONSENT FORM (ENGLISH)

Consent form for interview participants

Project title: The implications for social media in the context of the Social Credit System in China

Researcher's name: Wen Ma

- The nature and purpose of the research project has been explained to me and I understand the purpose of the research project and my involvement in it.
- I understand that I may withdraw from the research project at any stage and that this will not affect my status now or in the future.
- I understand that any data that the researcher extracts from the interviews for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics.
- I understand that I may contact the researcher or supervisor if I require more information about the research and that I may contact the Research Ethics Committee of Cardiff University if I wish to make a complaint related to my involvement in the research.
- I agree to be interviewed by the researcher.
- I agree to allow the interview to be audio-taped.
- I agree to make myself available for a further interview if required.
- Other _____

Print name: _____

Signature: _____

Date: _____

APPENDIX 10: INTERVIEW CONSENT FORM (CHINESE)

访谈同意书

研究课题：社会信用体系对中国社交媒体的影响

研究者姓名：马雯

- 研究者已经向我解释了研究项目的性质和宗旨，我理解研究项目的目的和我在项目中的参与作用。
- 我明白我可以在研究项目的任何阶段退出，且我现在以及将来的状况不会因此影响。
- 我明白研究过程中访谈内容可能会被公开或发表，但任何有关个人身份的信息将始终会被保密。
- 我知道，如果需要更多有关研究课题的信息可以联系研究者或者其导师；如果需要参与研究提出投诉则可以联系卡迪夫大学科研伦理委员会。
- 我同意接受研究者的访谈。
- 我同意访谈被录音。
- 我同意接受进一步访谈需求（如需要的情况下）。
- 其他_____

姓名：_____

签名：_____

日期：_____

APPENDIX 11: EXPERIENCES OF CREDIT SCORING SYSTEMS

Deposit waiver

The majority of interviewees acknowledged that they enjoyed convenient deposit waiver privileges on Sesame Credit. Six deposit waiver privileges were mentioned by interviewees. First, users with good Sesame Scores could rent shared bikes without deposits in a wide range of cities like Beijing (e.g., Interviewee #26), Shenzhen (e.g., Interviewee #38), Zhengzhou (e.g., Interviewee #15), Hangzhou (e.g., Interviewee #39), Zhongshan (e.g., Interviewee #13), Kaifeng (e.g., Interviewee #28) and Luohe (e.g., Interviewee #07). For instance, Interviewee #36, an undergraduate student in Quanzhou City, was exempted from RMB 199 deposit for bike rental owing to his high Sesame Score, while his friend did not have Sesame Score and thus had to pay. Second, users with good Sesame Scores could rent power banks without deposits in Shenzhen (e.g., Interviewee #14 and #38), Beijing (e.g., Interviewee #26 and #44), Zhengzhou (e.g., Interviewee #01), Kaifeng (e.g., Interviewee #5), and Chongqing (e.g., Interviewee #47).

Third, good Sesame Scores enabled users to book and stay at hotels without deposits or advance payment (e.g., Interviewee #02, #31, #38 and #40). For example, Interviewee #38 was exempted from deposits when he booked hotels on Fliggy, an online travel agent platform owned by Alibaba, and enjoyed VIP treatment owing to his excellent Sesame Score. Fourth, users with Sesame Scores of more than 650 points can rent cars without deposits at Car Inc. (shenzhouzuche) (Interviewee #05 and #31). Fifth, good Sesame Scores were also beneficial for apartments rental. Interviewee #26 said that Sesame Credit could help users when they rent rooms through Ziroom, a subsidiary of a Chinese real-estate brokerage company Lianjia. Users with 650 points can pay the rent monthly instead of paying all upfront (Interviewee #26). Sixth, Sesame Credit helped Interviewee #13 to get a loan card at a local library in Zhongshan City without a deposit. 1

Convenient personal loan

Another popular service of Sesame Credit used by interviewees was Huabei on Alipay. As explained by Interviewee #18 and #28, Huabei resembled virtual credit cards that loaned users a certain amount of money and could be repaid in one

instalment or several instalments with or without interest. It was more convenient to get loans than traditional credit cards. Huabei was used mostly when an item was expensive or when users were tight on budget, so it was quite popular among students (e.g., Interviewee #07, #20, #21 and #28). Interviewee #21, an undergraduate student, confirmed that “it comes very handy when I shop on Taobao. It really relieves me from financial pressure”. Ant Credit Pay was popular among white collars as well. Interviewee #27, who worked in the financial industry, shared her experience of using Ant Credit Pay:

When I want to buy something expensive, like a camera, a vacuum cleaner, or Apple products, the system will recommend me to use Huabei. Last time I wanted to buy Apple earphones, which costed around RMB1300. I did not have enough money at that time, so I used Huabei. It paid for me, and I got the earphones. I paid it up in three instalments within three months so there was no interest.

Visa application

Interviewees suggested that the influence of Sesame Credit had reached beyond the Chinese border. Interviewee #01 read on social media that “if a user’s Sesame Score reaches certain points, he/she does not need to provide financial statement from banks for Japanese visa application”. Interviewee #45 applied for a digital financial statement through Sesame Credit and gave a detailed instruction:

In Sesame Credit, there is a Credit Management window. Open that window, you can see sesame visa service. Click ‘Apply Now’ button, complete the 3D facial recognition, verify your name, passport number and home address, then click ‘Complete’. It will generate a Sesame Visa Report for you in no time.... Users with Sesame score of more than 750 can apply for a credit report, which can substitute the bank record required by Canada embassy and Latvia embassy.

Computer games

In addition to experiences of Sesame Credit, two respondents’ shared their experiences of non-financial credit scorings on computer gaming platforms. Interviewee #02 introduced that

there is a computer game platform called Steam. All the games on Steam have a cheating detect system call VAC (Valve Anti-Cheat System), which is a very advanced system to detect plug-ins and cheating. When you register on the platform, you must verify with your ID card. If you are detected cheating, your account will be blocked. It is quite strict.

He added that “game is game, and shopping is shopping...however, if a person cheats for something as small as computer games, then I believe he/she must be unreliable” (Interviewee #02). Interviewee #19 said that Kings of Glory (Wangzhe Rongyao), a multiplayer online battle game developed by Tencent, also assigned credit scores for its players.

I am more familiar with the credit scoring on Wangzhe Rongyao. When you play the game using unapproved plug-ins, your score will be decreased and you will be barred from the game, or high-level mode... I think it is a miniature of the Social Credit System. (Interviewee #19)

If a player’s credit score went under 80, he/she would be banned from combat mode for some time. The score was calculated only based on gaming behaviours and only affected players’ status on the gaming platform (Interviewee #02 and #19). However, as users must register with their real identity in order to play the game, whether the game credit score will be aggregated in other credit systems raises concern.