

Global Data Strategies

Hennemann

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Comparatively, while the GDPR does not stipulate personal/managerial liabilities, the UK Data Protection Act (2018) has ‘Liability of directors etc.’ that penetrate the corporate protection.¹²² Many other Chinese laws that focus on risk-related security compliance also have managerial liabilities, including the *Food Safety Law 2019*, *Cybersecurity Law 2017*, and *Data Security Law 2021*.¹²³

Nevertheless, Art. 58 featuring gatekeeper liabilities appeared in the second draft of 79 China’s PIPL (April 2021). It stipulated a group of obligations onto big-techs which are similar to those in EU’s *Digital Services Act (DSA, Draft 2020)* on ‘very large online platforms’ (VLOPs).¹²⁴ Art. 58 and the DSA share similar requirements on transparency, compliance structures and audits for big-tech companies in order to prevent systemic risks and to better regulate third-party suppliers or App developers¹²⁵. Besides, The MIIT also accompanied the PIPL second draft with an *APP Personal Information Protection Regulations (Draft for comments)* in April 2021, which proposed more details on how to regulate third-party APPs on gatekeepers.¹²⁶

It is worth noting that the Chinese legal academia and legislators became more aware 80 of the term ‘gatekeeper’ after the EU’s *Digital Markets Act (DMA, Draft 2020)* explicitly proposed ‘gatekeeper obligations’ for big-tech platforms in December 2020.¹²⁷ The focus of the *DMA (Draft 2020)* however is on fair competition for third-party developers/suppliers and interoperability, which is different from the obligations on VLOPs stipulated by the EU’s *DSA (Draft 2020)* and the FTC’s mandated gatekeeper’s liabilities concerning data protection.¹²⁸

The third and final version of the PIPL (August 2021) solidified Art. 58 as obligations 81 for ‘personal information handlers that provide important internet services, with very large amounts of users and complex business categories’. It added two more sections which further specified gatekeeper liabilities:

- (i) ‘platforms should set internal compliance institutions’, and
- (ii) ‘platforms should obey transparent, just and fair principles, and should set platform rules that specify third-party’s obligations on handling data.’¹²⁹

These provisions to some extent established the state-market boundary and the division of labours and in regulating third-party providers.

Legal scholars’ efforts are also considerable in the PIPL’s drafting gatekeepers 82 liabilities. For example, a comparative law article by Professor Zhang Xinbao at Renmin Law School introduced the concept of gatekeeper obligations in 2021 after the second draft of PIPL and the EU 2020 DMA and DSA proposals.¹³⁰ Professor Wang Xixin at Peking Law School advocated for a ‘state protection obligation’ from public law

¹²² Data Protection Act 2018 c.12. Section 198.

¹²³ See China’s *Food Safety Law 2019*, *Cybersecurity Law 2017*, and *Data Security Law 2021*.

¹²⁴ 《个人信息保护法草案二次审议稿》 [Second draft PIPL 2021].

¹²⁵ COM (2020) 825: Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC, Procedure 2020/0361/COD.

¹²⁶ 公开征求对《移动互联网应用程序个人信息保护管理暂行规定征求意见稿》的意见 [MIIT Mobile Internet Application Personal Information Protection Provisional Regulations (Draft for Comments), 2021.4.26], available at http://www.gov.cn/hudong/2021-04/26/content_5602780.htm (last accessed 16 December 2022).

¹²⁷ See Zhang Xinbao. 2021.

¹²⁸ COM (2020) 842: Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on contestable and fair markets in the digital sector (Digital Markets Act) Procedure 2020/0374/COD.

¹²⁹ See PIPL.

¹³⁰ 张新宝互联网生态“守门人”个人信息保护特别义务设置研究, 《比较法研究》, 2021年第3期。 [Zhang Xinbao, *Comparative Law Journal*, 2021 (3)].

perspective which requires the state to take up its protection role on personal information and coordinate both public and private efforts in data protection.¹³¹ Professor Zhou Hanhua at the Chinese Academy of Social Science has also been deeply involved in the 15 year-long legislative process and the three versions of PIPL since 2020.¹³²

3. State-market Co-Production of Data Protection and a soft 'Beijing Effect'

- 83 The above evidence describes China's legislative and regulatory processes on data protection, in particular featuring gatekeeper and managerial liabilities. Together they show the state's institutionalisation strategy that deliberately provides a division of labour between the state and market actors, which clarifies separate spaces for the co-production of common knowledge in data governance communities.
- 84 Data protection practices before the PIPL 2021 already started addressing data violations using criminal punishments which established redlines for data-handling activities. They did not however provide stable private expectations on what constitutes compliant data handling practices in daily operations. PIPL 2021 is the institutionalisation effort that tries to stabilise these accumulated practices and knowledge. The PIPL's gatekeeper provisions in particular provided the state with new tools to enforce data protection through big-techs like Alibaba and DiDi. This aligns with the state's 'cooperation and deterrence' attitude that involves big-techs in the daily data governance of their third-party supplies and users.
- 85 PIPL also competes with the EU's digital governance framework – GDPR (2018), DMA and DSA (drafts 2020) – for high standards of privacy and data protection. Respondent Z in Shanghai claimed that 'by implementing the law well at home, we can set good examples and reach our laws beyond China as best practices (Government official X, Shanghai, 2021.3). This raises the potential of a 'Beijing Effect' in data protection practices in competition with the 'Brussels Effect'.¹³³ More accurately, this can be a soft 'Beijing Effect' (which is more similar to the 'Brussels Effect') that does not necessarily require expansive foreign investments or infrastructure constructions, as compared to the 'hard' Beijing Effect as recently argued through the case of the Digital Silk Road.¹³⁴

III. Antitrust: Data Power and Interoperability

- 86 The Chinese state also started an antitrust movement against big-tech companies during 2020–2021 alongside its institutionalisation on security and data protection. Major cases include first, the Central Bank's 2020 investigation of Ant Group (affiliate of Alibaba Group). Ant is China's Fintech giant for e-payment and consumer loans, and claims to have more than 1 billion annual active users within China. Second, the \$2.75

¹³¹ 王锡锌个人信息国家保护义务及展开, 《中国法学》, 2021年第1期。[Wang Xixin, *China Legal Science*, 2021 (1)].

¹³² See e.g. Top Scholar Zhou Hanhua Illuminates 15+ Years of History Behind China's Personal Information Protection Law | DigiChina (stanford.edu).

¹³³ See Bradford, *The Brussels effect: How the European Union rules the world*, 2020.

¹³⁴ Cf Erie/Strein, *The Beijing Effect: China's 'Digital Silk Road' as Transnational Data Governance*, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3810256 (last accessed 16 December 2022).

billion fine (comparable to \$2.8 billion EU antitrust fine on Google¹³⁵) issued by China's antitrust agency State Administration for Market Regulation (SAMR) on Alibaba Group in April 2021. Alibaba is China's e-commerce tech-giant and equivalent of Amazon.¹³⁶ Third, the SAMR \$530 million fine of Meituan, which is China's food delivery tech-giant and a rough equivalent of Deliveroo/Uber Eats (food delivery) plus Yelp (consumer rating and booking). It serves 340 million annual transacting users by 2018 as claimed in its 2018 IPO at the Hong Kong Stock Exchange (HKEX).¹³⁷

First, on November 3rd 2020 the Shanghai Stock Exchange paused the public listing plan of Ant Group after China's Central Bank and other financial regulators launched a joint investigation¹³⁸. The Central Bank later in its press conference listed 'using market advantage status to exclude competitors' as one of the problems of Ant Group. It also raised 'breaking monopolies ... and maintaining a fair and competitive market order' as the first principle of the future regulations of big-tech platforms.¹³⁹

Soon, in November 2020, data became an important factor in the *Antitrust Guideline on Platform Economy (Draft for comments, 2020)* issued by the State Council Antitrust Committee at the SAMR. This top-level *Antitrust Guideline (2021)* was passed in February 2021, which listed 'the capacity to hold and process relevant data' as a determining factor in the evaluation of a platform's market dominance under the category of the platform's 'financial and technical conditions' (Art. 11 sec. 3).¹⁴⁰

'Platform's data occupation situation (平台占有数据情况)' also became a 'considering factor' in defining whether a platform can be deemed as an 'essential facility' (*bixu sheshi*) (Art. 14). Whether data itself can be deemed as an 'essential facility', however, is not clear under the *Antitrust Guideline 2021*. In fact, the 2021 Guideline explicitly deleted the part on 'deeming data as essential facility' in Art. 14 of the 2020 draft. Data was instead added as a new factor for deeming whether platforms are essential facilities (*cf* 2020 draft).¹⁴¹

Nevertheless, data is listed as one of the 'essential resources and facilities' (必要资源和必需设施) among 'technology, IP', 'channel (*qu dao*), and user' in the consideration of platform-related merger controls (Art. 20). These mixed signals imply the regulator's

¹³⁵ Google loses challenge against EU antitrust ruling, \$2.8- bln fine | Reuters 2021.11.10, available at <https://www.reuters.com/technology/eu-court-upholds-eu-antitrust-ruling-against-google-2021-11-10/> (last accessed 16 December 2022).

¹³⁶ China fines Alibaba record \$2.75 bln for anti-monopoly violations | Reuters, available at <https://www.reuters.com/business/retail-consumer/china-regulators-fine-alibaba-275-bln-anti-monopoly-violations-2021-04-10/> (last accessed 16 December 2022); 市场监管总局依法对阿里巴巴集团控股有限公司在中国境内网络零售平台服务市场实施“二选一”垄断行为作出行政处罚 (samr.gov.cn) 2021 April 10th.

¹³⁷ China Fines Meituan \$530 Million in Second Tech Antitrust Case – The New York Times (nytimes.com); 市场监管总局依法对美团在中国境内网络餐饮外卖平台服务市场实施“二选一”垄断行为作出行政处罚 (samr.gov.cn) 2021; 3802297-t01hkpo (todayir.com).

¹³⁸ 关于暂缓蚂蚁科技集团股份有限公司科创板上市的决定 | 上海证券交易所 (sse.com.cn).

¹³⁹ 央行联合约谈蚂蚁集团情况公布指出存在问题与5大整改要求_监管 (sohu.com).

¹⁴⁰ 国务院反垄断委员会关于平台经济领域的反垄断指南 [State Council Antitrust Committee 2021] 1, *Antitrust Guideline on Platform Economy (2021)*, available at http://www.gov.cn/xinwen/2021-02/07/content_5585758.htm (last accessed 16 December 2022).

¹⁴¹ 《关于平台经济领域的反垄断指南征求意见稿》 (china-cer.com.cn) 2020. '认定相关数据是否构成必需设施，一般需要综合考虑数据对于参与市场竞争是否不可或缺，数据是否存在其他获取渠道，数据开放的技术可行性，以及开放数据对占有数据的经营者可能造成的影响等因素。' 认定相关平台是否构成必需设施，一般需要综合考虑其他平台的可替代性、是否存在潜在在可用平台、发展竞争性平台的可行性、交易相对人对该平台的依赖程度、开放平台对该平台经营者可能造成的影响等因素。国务院反垄断委员会关于平台经济领域的反垄断指南_部门政务_中国政府网 (www.gov.cn).

ambiguous attitudes towards considering data as an essential facility, and have triggered debates among Chinese antitrust scholars.¹⁴²

- 91 'Data and algorithms' were also listed as technical tools to 'restrict transactions' (Art. 15), and added as ways to form horizontal (Art. 6), vertical (Art. 7) or 'Hub-and-spoke' agreements that are monopolistic (Art. 8). 'Depriving of data' (Art. 21 sec. 1) and 'opening data infrastructure' (Art. 21 sec. 2) were added as antitrust enforcement tools.¹⁴³
- 92 After the passing of this *Guideline (2021)*, two massive antitrust fines were respectively issued to Alibaba and Meituan. Among others, the use of 'technical tools of data and algorithms' was deemed by SAMR as conducive to Alibaba and Meituan's abuses of market dominance that excluded competitors by forcing suppliers to 'choose only one (platform) between two (options) (*er xuan yi*)'. Besides these two fines, SAMR also issued two similarly drafted 'administrative guidance' that respectively prohibits Alibaba and Meituan's future anticompetitive behaviours including those that involve 'the use of data and algorithms'¹⁴⁴.
- 93 It is worth noting that SAMR, the antitrust agency, did *not* claim that data or algorithmic power were considered as defining factors for Alibaba or Meituan's market dominance. Therefore, no antitrust measures on firm structures were taken.¹⁴⁵
- 94 Another high-profile antitrust practice focused on data and platform interoperability. In September 2021, the MIIT (the industrial regulator but not the antitrust agency) held an administrative guidance joint-meeting with big-tech companies including Douyin (the Chinese TikTok), Taobao (Alibaba), Wechat (Tencent) and others. The MIIT required these tech-giants to stop blocking each other's links and data flow on their platforms or affiliated companies within a week in order to improve interoperability.¹⁴⁶ This is similar to the EU's *DMA (2020 Draft)* which requires gatekeepers to ensure fair competition for their third-party suppliers.¹⁴⁷ While Wechat is still reported to be partly resisting Taobao (Alibaba) links¹⁴⁸, major platforms including Wechat, Alibaba and Douyin changed their technical architectures to comply with this administrative guidance.¹⁴⁹
- 95 These antitrust practices combine new legislative efforts with state enforcement and administrative guidance, which together require big-techs to develop self-governance rules and help maintain a competitive digital market order. These practices institute a new antitrust regime in the digital economy and co-produce common knowledge in the new epistemic communities of antitrust agencies and private actors.

¹⁴² 王健 吴宗泽论数据作为反垄断法中的必要设施 (shupl.edu.cn) 2021; 陈永伟: 数据是否应适用必需设施原则——基于“两种错误”的分析, 《竞争政策研究》2021:4. 李世佳: 论数据构成必需设施的标准——兼评《关于平台经济领域的反垄断指南》第十四条之修改, 河南财经政法大学学报. 2021,36(05).

¹⁴³ 国务院反垄断委员会关于平台经济领域的反垄断指南_部门政务_中国政府网 (www.gov.cn).

¹⁴⁴ 市场监管总局依法对阿里巴巴集团控股有限公司在中国境内网络零售平台服务市场实施“二选一”垄断行为作出行政处罚, available at https://www.samr.gov.cn/xw/zj/202104/t20210410_327702.html (last accessed 16 December 2022); 市场监管总局依法对美团在中国境内网络餐饮外卖平台服务市场实施“二选一”垄断行为作出行政处罚, available at https://www.samr.gov.cn/xw/zj/202110/t20211008_335364.html (last accessed 16 December 2022).

¹⁴⁵ Id.

¹⁴⁶ 工信部召开“屏蔽网址链接问题行政指导会”, available at <http://tech.china.com.cn/internet/20210911/380718.shtml> (last accessed 16 December 2022).

¹⁴⁷ COM (2020) 842: Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on contestable and fair markets in the digital sector (Digital Markets Act) 2020/0374/COD.

¹⁴⁸ 互联网行业如何“拆墙”“安全”成焦点 乱码现象仍存在, available at <http://news.hsw.cn/system/2021/1001/1377522.shtml> (last accessed 16 December 2022).

¹⁴⁹ 微信能跳转淘宝了, 互联网围墙“潜规则”将成往事, available at <http://www.eeo.com.cn/2021/0917/504983.shtml> (last accessed 16 December 2022).

Summary – State-Market Co-Production via Institutionalisation: The above evidence shows that the Chinese state has in recent years intensively adopted formal institutions in the fields of data security, data protection and antitrust to deal with data harms/risks in the rising digital 'economy'. This institutionalisation strategy co-produces and stabilises common knowledge in the epistemic communities of data governance in order to scale a national digital economy. Co-production means the efforts from both the state's formal practices and the private actors' informal knowledge exchange and self-governance at scales. The data security, privacy, and competitive market order in China's digital economy are provided by both formal and informal labour from public and private actors. 96

D. Activation: Data Property, Commons, or 'Party manages data'?

Evidence in China manifests data fragmentation at all levels. Public and private data handlers keep data to themselves and lack the incentives to share data as an 'essential factor' in the market. To deal with data fragmentation, the Chinese state adopted what this chapter calls the 'activation' strategy since 2015. 97

In the context of China's data governance, activation is used to contest data access and ownership, where the state innovates ways to 'activate' data flow and use by experimenting data licensing, ownership, 'use without retaining', and Party management. These different legal, technical or political arrangements 'code' or contest the socio-legal nature of data, before stabilised institutions and common knowledge can be co-produced. 98

Evidence of 'activation' is drawn from three cases. First, the push and pull between Ant Group and Central Bank over personal credit information, second, the contrasting approaches to data property between Shenzhen and Beijing, and third, Tianjin's case of 'Party manages data'. 99

I. Ant Group v the Central Bank–Licensing or Commons?

1. Central Bank's license to Ant Financial (2015–2018)

Between 2015–2018 the Chinese Central Bank used private licensing to activate the market use of personal financial credit information (which are different from personal public credit information or 'social credit'). Before 2015, the consumer credit-reporting (*geren zheng xin*) business was monopolised by the Central Bank, which meant that only public reporting of personal credit information was legal. This meant first, only the Central Bank's database can be analysed to provide risk-assessment services for commercial banks loan decisions (though commercial banks can always build their own risk models based on internal data for internal use). Second, the data types are also strictly limited, for example including, personal credit cards payment, mortgages payment, and other financial information. 100

However, in 2015 the Central Bank for the first time granted eight provisional licenses of consumer credit-reporting to Big-Techs including Ant Financial (before changing its name to Ant Group in 2020) and Tencent (whose consumer credit product 101

was never effectively online)¹⁵⁰. This gave birth to Sesame Credit (of Ant Financial), which uses people's behavioural data to produce financial/social risk-scores.¹⁵¹

102 Central Bank's licenses in 2015 brought two main changes in terms of the use of personal information. First, it allowed private actors to handle personal credit information that they privately collected or acquired, giving up the Central Bank's monopoly on consumer credit-reporting. Second, the types of data being handled expanded from the narrow consumer credit data to the use of 'alternative data' including social networks, consumer habits, and other information collected by the FinTech giants.¹⁵²

103 It is worth noting that in 2015 there were very few data protection laws in China except for the *Ninth Amendment of the Criminal Code* which served as a redline of deterrence towards novel data practices.¹⁵³ Meanwhile the 2013 *Regulation on Credit-reporting Industry* (similar to the U.S. *Fair Credit Reporting Act 1970*) only provides the legal framework for handling traditional consumer credit data in the credit-reporting industry.¹⁵⁴ The big-techs' handling of 'alternative data' for multiple analytical purposes was thus left in a legal grey zone, before the Central Bank's 2015 licenses granted them with more degrees of regulatory certainty and protections.

104 Respondent A, a law firm partner in Beijing, argued that these provisional licenses were taken not so much as an opening of the private consumer credit-reporting market, but as a regulatory haven for big-techs to collect data and innovate new technologies.

*'The tech giants were desperate to get the Central Bank's provisional licenses not because of the consumer credit-reporting business itself. They wanted to have regulatory protections in collecting and analysing new data. That was a regulatory haven.'*¹⁵⁵

105 In practice, Central Bank's 2015 provisional licenses provided a window period for data-driven and AI technological innovation. Sesame Credit (of Ant Financial) for example was able to experiment 'smart' projects on Alibaba's massive e-commerce ecosystem as well as collaborating with local governments in early social credit and smart city projects, though the real effects and normative aspects of these projects are debatable.¹⁵⁶

2. Central Bank's Data Pooling Attempts after 2018

106 In 2018 however, the Central Bank did not renew the eight consumer credit-reporting licenses after realising the problem of data fragmentation and data silos created by these companies. It criticised the tech-giants like Ant and Tencent who kept their data strictly to themselves as 'data islands'.¹⁵⁷

¹⁵⁰ 人民银行印发《关于做好个人征信业务准备工作的通知》，available at http://www.gov.cn/xinwen/2015-01/05/content_2800381.htm (last accessed 16 December 2022).

¹⁵¹ See, explanation by sesame credit's former ITO 人民银行印发《关于做好个人征信业务准备工作的通知》(antfin.com). Also see Dai, Xin, in: Everling (ed.), *Social Credit Rating: Reputation und Vertrauen beurteilen* (2020), 139–163.

¹⁵² *Ibid.* See Sesame Credit's ITO explains how different types of data are used besides traditional financial credit-reporting data.

¹⁵³ *Ibid.*

¹⁵⁴ State Council's Regulation on Credit-reporting Industry 2013. No.631. 征信业管理条例 (www.gov.cn).

¹⁵⁵ Law firm partner A. Beijing, 2021.4

¹⁵⁶ See, e.g. Dai, Xin, in: Everling (ed.), *Social Credit Rating: Reputation und Vertrauen beurteilen*, 2020, 139–163. 刷芝麻信用“进”杭图借还图书 2017, available at <https://zj.zjol.com.cn/news/621587.html> (last accessed 16 December 2022).

¹⁵⁷ 万存知演讲全文八家个人征信试点机构无一合格，合格机构应该是这样，available at <https://www.leiphone.com/category/fintech/9OZUYsGKPrV6I4fm.html> (last accessed 16 December 2022).

The Central Bank instead established a fully licensed joint-venture, Baihang Credit in Shenzhen, with a shareholding structure that gave Ant Financial, Wechat (Tencent) and other seven companies each 8 % shareholdings. The goal was to incentivise these private tech giants to pool their personal credit data into this joint venture. However, such pooling effort is reported to have stagnated as of 2019.¹⁵⁸ This may have contributed to the motivation of the state to use antitrust measures against Ant Group as discussed above.

In December 2020, the Central Bank fully licensed another consumer credit-reporting company, Pudao Credit, which situates in Beijing and is also a joint venture between state and corporate holders, including big-techs in China like JD.com (25 %), Xiaomi (17.5 %), and Kuangshi Technology (17.5 %)¹⁵⁹. It is reported to be trialling new ways of big-data innovation for micro-finance, but it is unclear if data pooling is arranged between these shareholders as of 2021.¹⁶⁰

This history of the central bank v Ant Group since 2015 shows the push and pull between the state and corporations trying to deal with data fragmentation by activation. Moreover, the following section presents a local competition between Beijing's 'data pooling' approach, and Shenzhen's attempted data property right approach.

II. Beijing v Shenzhen: 'Use without Retaining' or Property Right?

1. Data Fragmentation due to Ownership and Compliance Uncertainties

Respondent X, a Shanghai official, claimed that it is very difficult for local governmental agencies with share data with each other because there are risks that internal mistakes would be made known to another public department. There are not many incentives to share data, while sharing means potential exposure of one's weaknesses.¹⁶¹

Respondent C complained about lack of data access as a data scientist and product manager in a state-affiliated credit-reporting company in Qingdao. The Central Bank's credit payment data is the most important data type to train and test the prediction accuracy of the algorithms. Machine learning (ML) techniques like back-propagation cannot work without this crucial data set.

*'My team cannot train useful machine-learning models because we don't have the data on loan paybacks from the Central Bank's Qingdao branch. Without that data we cannot label our algorithmic predictions as good or bad.'*¹⁶²

The access to credit payment data was expected to be done by negotiation between the Qingdao's municipal (horizontal state) and the local central bank (vertical state). However respondent C was uncertain about the progress during the time of the interview.

Respondent C also mentioned that other important public data like financial reports, tax, and payment for employees' social insurance, all needed negotiation with powerful local governmental agencies like the SAMR, tax agency, and the social security agency.

¹⁵⁸ 百行征信僵局，腾讯阿里困兽之斗，available at <https://www.jiemian.com/article/3542916.html> (last accessed 16 December 2022).

¹⁵⁹ 央行发放第二张个人征信业务许可 2020，available at http://www.xinhuanet.com/fortune/2020-12/25/c_1126908900.htm (last accessed 16 December 2022).

¹⁶⁰ 朴道征信错位发展，采集信贷之外的信用数据) 2021，<https://www.163.com/dy/article/GC2OIQ6F053257CG.html> (last accessed 16 December 2022).

¹⁶¹ Government official X, Shanghai, 2021.3.

¹⁶² Manager C, Qingdao, 2021.2.

Meanwhile accessing electricity usage data was expensive because large state owned enterprises (SOEs) like the State Grid Corporation of China already charges fees based on data access entries.¹⁶³

- 114 There were also greater uncertainties of data ownership as well as data protection by the time of the interviews before PIPL 2021 was passed in August 2021 (but still left the data ownership problem unanswered).

*'Without clear ownership arrangements and data protection rules how do we access public data? Can we keep the data we used in our hard drives?'*¹⁶⁴

- 115 In spite of these difficulties, this state-affiliated credit-reporting company took an innovative method called 'use without retaining the data'. The technical team basically goes to different local branches of the ministries, accesses their public data and finish the calculation in their office, and takes away the software product/algorithms with some predictive capacities without taking the data away. But the problem was that they need to go to the offices and update the algorithms quite often.¹⁶⁵

- 116 The above interview evidence only reveals the data fragmentation experienced by this particular firm in relation to public information access in Qingdao. However, Respondent C claimed that they have extensively consulted and learnt from practices in other cities like Hangzhou and Shanghai. There has been active informal knowledge exchange between local state and firms on how to access and trade data.¹⁶⁶

- 117 Respondents at an internal discussion in Shanghai also showed their burning concerns on how to define data property and transaction under uncertain compliance regimes, especially concerning the Shanghai's big-data centre and the pilot of *Lingang* free trade zone with the aim to be a data harbour (Shanghai, 2021.3).¹⁶⁷ Interviews with officials at Hefei's big-data centre also show similar questions regarding data ownership and data protection (Hefei, 2021.3). The reported rise of China's big-data centres and companies also evidence the local attempts to 'activate' data use when data is actually fragmented without clear legal coding on data ownership and protection.¹⁶⁸

- 118 Beijing and Shenzhen are two poles within these myriads of local activation experiments. Beijing adopts a commons approach to data access, while Shenzhen tried to formally establish data property right and interest in its legislation (yet without success).

2. Beijing: 'Use without Retaining' – a Data Pooling Approach

- 119 The Beijing International Data Exchange (BIDE) was established in March 2021 under the Beijing Municipality.¹⁶⁹ It partly functions as a traditional trading centre for big-data products like analytics instruments, their future financial gains, i.e. securitised data assets, and cross border data transactions (Art. 5 sec. 2).¹⁷⁰

¹⁶³ Manager C, Qingdao, 2021.2.

¹⁶⁴ Manager C, Qingdao, 2021.2.

¹⁶⁵ Manager C, Qingdao, 2021.2.

¹⁶⁶ Manager C, Qingdao, 2021.2.

¹⁶⁷ Also see Shanghai Data Regulation (Draft for comments) 2021.

¹⁶⁸ 大数据中心互联网时代的“粮仓”, available at http://www.cac.gov.cn/2020-03/18/c_1586070965007725.htm (last accessed 16 December 2022); 关于加快构建全国一体化大数据中心协同创新体系的指导意见 (发改高技〔2020〕1922号), available at https://www.ndrc.gov.cn/xxgk/zcfb/tz/202012/t20201228_1260496.html?code=&state=123 (last accessed 16 December 2022).

¹⁶⁹ 北京国际大数据交易所 (bjindex.com).

¹⁷⁰ 北京市地方金融监督管理局 北京市经济和信息化局关于印发北京国际大数据交易所设立工作实施方案的通知 2020.9.29, 2020.9.29, available at http://www.beijing.gov.cn/zhengce/gfxwj/202103/t20210331_2341258.html (last accessed 16 December 2022).