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Post-Socialist Imaginaries of the Digital Third Front: The Case of Guizhou-Cloud Big Data

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Abstract

This article theorizes the politics and poetics of data infrastructure through an examination of Guizhou-Cloud Big Data (GCBD), the state-owned enterprise that landed the deal with Apple to build its first data center in China. I deploy the concept of "post-socialist imaginaries" to analyze how Guizhou, an economically lagging province, has positioned itself as a strategic hub for big data and cloud computing. The "politics" refers to the development policies promoting digital innovation as an engine of growth, while the "poetics" involves the discursive framing of big data through fantasies and desires. The qualifier "post-socialist" highlights the coexistence of multiple temporalities beyond linear developmentalism. By probing this peculiar case, the article aims to generate insights into how data infrastructures are being institutionally reconfigured in China vis-a-vis its modernization trajectory and divergent conditions compared to Western contexts. It calls for alternative theoretical frameworks to unpack the materiality and spatiality of data at the current conjuncture.

Keywords

AI, China, infrastructure, post-socialist imaginaries

In May 2021, Apple Inc. started the operation of its first Chinese data center, which was jointly built by Apple and Guizhou-Cloud Big Data (GCBD) in the southwestern city of Guiyang. While the Chinese state news agency Xinhua celebrated the data center as an important effort "to further improve Chinese users' experience in terms of access speed and service reliability" (Xinhua News Agency, 2021), the New York Times sounded alarm bells about Apple making too much compromise on its commitment to civil liberties and privacy, in exchange for securing access to the world's largest market for its products (Nicas et al., 2021). Few people outside China, unless they have fair amount of knowledge about the geography of the country, would have given much thought to the location of the data center. Among all the 31 administrative regions and provinces in China, Guizhou is often ranked near the bottom in terms of gross domestic product (GDP). Yet, similar to some of the Nordic countries, the bountiful supply of hydropower and wind energy in Guizhou makes it an ideal location for large-scale data centers that usually require cheap electricity and natural cooling environments. Since 2013, the provincial government has locked in on big data and cloud computing as the strategic priority for economic growth and development. GCBD was set up in 2014 as the flagship enterprise, first to aggregate and manage data for delivering e-government services, then evolved into a platform for coordinating data trading and cloud computing activities at the provincial level.

A few immediate questions arise from the somewhat peculiar case of GCBD. How did a province that is commonly perceived as economic backwater set up the first provincial level data sharing platform in China? How did a newly founded state-owned enterprise win the commercially lucrative Apple data center deal by beating formidable private sector competitors such as Huawei and Tencent? Why did Guizhou decide to pivot to data industries as a strategic priority for development and how are institutional arrangements for relevant sectors realigned with such priority? These questions, while could be addressed by providing descriptive accounts of the trajectory of GCBD, point to a much broader set of issues related to the theme of this special issue on platform economies in digital Asia. For example, how to best understand the contemporary pursuit of data as both resource and instrument for economic growth through the historical lens of China's modernization? What new insights can be generated if we pay more attention to the institutional configuration of data industries in China?

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Given the differences in historical and institutional context, do we need alternative theoretical framework to analyze the materiality and spatiality of data infrastructure at the current conjuncture?

In this article, I use post-socialist imaginaries to theorize what media anthropologist Brian Larkin (2013) would call the "politics and poetics of infrastructure" in the Chinese context. Here politics refers to the political rationality underpinning development policies that foreground data infrastructure and digital innovation as the engine that drives growth. Poetics, on the contrary, are contemporary discourses about big data that "emerge out of and store within them forms of desire and fantasy and can take on fetish-like aspects" (Larkin 2013, p. 329). As "the common understanding that makes possible common practices and a widely shared sense of legitimacy" (Taylor, 2002, p. 106), social imaginaries are terrain of historical layering and political contestation. Here, post-socialist as a qualifier is to highlight the coexisting of multiple temporalities rather than the telos of developmentalism, which is a crucial point I will further elaborate in the theoretical section below. Although "digital Third Front" only appears occasionally in policy documents and media reports as a rhetorical device that links the current strategic focus of Guizhou's development with the region's history of industrialization during the Mao era, I find the phrase particularly useful in capturing simultaneously the temporality and the spatiality of GCBD.

The empirical materials discussed in this article came from both primary and secondary sources. In addition to doing desk research on policy documents and media reports, the interviews referenced here were conducted during two fieldwork trips in summer 2021 and summer 2023, respectively. All the interviewees were given pseudonyms to protect their identity, although the level of protection that pseudonymity offers can vary depending on their profession and status.

Post-Socialist Imaginaries as Competing Narratives

Academic research on platform economy so far tends to assume that platformization follows the capitalist logic of achieving economies of scale and scope through commodified datafication and network effect (de Kloet et al., 2019; Srnicek, 2016; van Dijck et al., 2018). For example, in van Dijck, Poell, and de Waal's 2018 book, they identified the four key elements of platform as "fuelled by data," organized by algorithms, ruled by "ownership relations driven by business models," and "governed through user" (pp. 9–12). Srnicek (2016), on the contrary, characterize platforms as "intermediary digital infrastructure" that relies on network effects and cross-subsidization to maximize user engagement and profit. Some consider platform studies a strand of the broader "infrastructural turn" in media and communication research, which increasingly pays attention to the multifaceted power relations that shape the materiality and spatiality of digital platforms (Plantin & Punathambekar, 2019). The concern from a critical point of view, therefore, lies in the encroachment of public values, as more and more platform companies start to provide utility services (Chen & Qiu, 2019; van Dijck et al., 2018), and the assimilation of everyday life in general into the data-driven commercial logic (Langlois & Elmer, 2019). To a large extent, platforms are perceived in this strand of literature as the digital and infrastructural extension of neoliberal governmentality.

More recently, important contributions are made by scholars who call for a "geographically and historically conscious approach to platform capitalism," to better understand the nuance and complexity of realities on the ground, as well as to challenge the Euro-American focus in knowledge production. (de Kloet et al., 2019; Mukherjee, 2019; Steinberg et al., 2024; Zhang, 2020; Zhang & Chen, 2022). The case I am analyzing here requires even more radical historicization and contextualization, due to its unique institutional dynamics and its embodiment of a number of contradictions that can only be explained within a longer arc of history. With regard to institutional structure, GCBD is a state controlled company registered under the exclusive ownership of Guizhou Provincial Commission of Economy and Informatization (贵州省经信委), with the collaboration of Aliyun, which is the cloud computing subsidiary of Alibaba Group. From its inception, GCBD's aim and orientation are different from those of private enterprises offering cloud computing services. It is meant to be a pioneering initiative that showcases the provincial government's determination to build data industries as the new engine of economic growth. Instead of maximizing profit, GCBD is oriented toward coordinating data resources for better governance, including aggregating databases from key government agencies to facilitate decision-making. The logic of such seemingly counter-intuitive move, however, cannot be attributed to neoliberal governmentality. Instead, it has to be traced in the trajectory of China's industrial policy, in the current model of state-led development, and in the projection of a prospective good life empowered by big data and digital technologies. These competing narratives about the past, the present, and the future are not always congruent with each other, yet can be sutured together in different ways to articulate post-socialist aspirations. After all, as Stuart Hall explains about the articulation of ideology,

> "the so-called 'unity' of a discourse is really the articulation of different, distinct elements which can be rearticulated in different ways because they have no necessary 'belongingness.' The 'unity' which matters is a linkage between the articulated discourse and the social forces with which it can, under certain historical conditions, but need not necessarily, be connected." (Grossberg, 1996, p. 141)

Here I draw on Arif Dirlik's astute observation of China in the post Mao era, when "the condition of ideological contradictions and uncertainty" was best distilled in the term

postsocialism, "which allows taking Chinese socialism seriously without sweeping under the rug the problems created by its articulation to capitalism" (Dirlik, 1989, p. 34). Dirlik identifies the following key features of the historical condition that he refers to as postsocialism:

> "a) socialism has lost its coherence as a metatheory of politics because of the attenuation of the socialist vision in its historical unfolding, partly because of a perceived need on the part of socialist states to articulate 'actually existing socialism to the demands of a capitalist world order . . . ; b) the articulation of socialism to capitalism is conditioned by the structure of 'actually existing socialism' in any particular context which is the historical premise of all such articulation; c) this premise stands guard over the process of articulation to ensure that it does not result in the restoration of capitalism." (p. 34)

Three and half decades on since Dirlik made the diagnosis in the late 1980s, one could point to ample evidence that suggest the "restoration of capitalism" in China, including for example, the meteoric rise of tech giants such as Alibaba, Tencent, and Huawei. Meanwhile, the Chinese state's sustained investment in both conventional and digital infrastructure, the tightened regulation of platform companies since 2020, such as the last-minute halt of Ant Group's IPO and its subsequent fine of US$985 million in 2023, and the targeted state subsidy to the semi-conductor sector as a reaction to the US–China tech war, all seem to illustrate the "historical premise" of the articulation of socialism to capitalism. In this vein, I argue that GCBD provides an instructive case for understanding the ambiguities and contradictions of such articulation.

Ever since the start of the reform and opening-up in the late 1970s, the Communist Party of China (CPC) has embarked on the uncharted territory of aligning the political economy of China with global capitalism, while being compelled perennially to reconcile such alignment with the Party's own history, as well as the socialist outlook it steadfastly insists on. Coinciding with what Dirlik would call the inception of postsocialism, was the introduction of information technology and discourses of cybernetics into China, which offered potent ingredients for both the party-state and the populace to imagine a good life and an even better future. Often dubbed the "New Era," the decade immediately following the cultural revolution was full of hopes for a bright future that would make a clean break with the over-politicized Maoist period. "Yet as the possibilities for alternative modes of modernity provided by socialist practices were evaporating and displaced by capitalist modernity, the future would lie somewhere else, to which technology would play the single most important role" (Liu, 2019, p. 31). In particular, it is information technology in the broadest sense that is expected to stitch together "the renewed and reconstructed centennial dream of modernization, technological nationalism, and depoliticized worship of scientific and engineering knowledge in China" (Wu & Yun, 2018, p. 15).

While Maoist approach subjects the development of science and technology to the political considerations of class struggles, self-reliance, and mass mobilization (Kunze & Matten, 2021; Lin, 2019; Neushul & Wang, 2000; Schmalzer, 2014, 2016), postsocialist China reversed that logic by not only depoliticizing science and technology, but also increasingly seeking technological solutions to wider social and political problems (Greenhalgh & Zhang, 2020). For example, thematic analysis of articles published on *People's Daily* that contains the keyword artificial intelligence (AI) detects intensifying technology fetishism in the central party organ's reports on AI since 1980s (Meng, 2023). Not only is AI expected to revolutionize every sector of the economy, from agriculture to manufacturing, and to transform every aspect of public service, from education to healthcare, but more importantly, technological advancement is equated with national development and modernization (Meng, 2023, p. 360).

Against this background, many have presented evidence to argue that platform economy in China is going down the neoliberal route, albeit with Chinese characteristics. The ascendance of neoliberalism manifests at the institutional level in the financialization of Chinese platform companies (Jia & Winseck, 2018), in the commercial mind-set dominating the public realm (Jia & Han, 2020), and in the government outsourcing some of its own functionalities to the private sector (Chen & Qiu, 2019; Hou, 2017). Neoliberal governmentality also seeps into the formation of subjectivity by shaping individual aspirations and the ethics of everyday life (Qian, 2023; Yu, 2017), which gives rise to the proliferation of research in recent years on social media influencers (*wanghong*) in China (Craig et al., 2021; Guo, 2022; Han, 2022; Liao, 2021)

This line of critique, however, has little explanatory power when it comes to the case of GCBD, which runs against market-based calculations in many ways. In fact, much of the discontent toward GCBD that I learned during fieldwork centers around the complaint that the company often "violates the market rules" (违反市场规律). The mission that GCBD tries to accomplish stems from the obligations of a post-socialist developmental state that is balancing the strategic consideration of economic growth and national security. This is why I prefer a non-teleological perspective that is sensitive to both temporal contradictions and spatial variations.

Rearticulating a Digital Third Front

Although postsocialism refers to the condition where "socialism has lost its coherence as a metatheory of politics" (Dirlik, 1989, p. 34), the very formation of the term indicates the continued relevance of, rather than a clean break from, the socialist past. To better understand GCBD, it is useful to revisit a much-neglected historical precedent to the current concerted efforts of upgrading Guizhou's economy through state led mobilization of resources. Between 1964 and 1971, Guizhou was one of the key sites for the Maoist Third Front program that aimed to set up self-sufficient industrial base in the remote regions of southwestern China (Naughton, 1988).

The name Third Front both indicates the national security concern at the core of the program, and also highlights the spatiality of Chinese industrialization. As China was still reeling from the disastrous consequence of the Great Leap Forward in the early 1960s, the escalating tension with the Soviet Union after the Sino-Soviet split, and the potential military threat from the United States both added to the international vulnerability of the country amid the high tide of the Cold War. In response, Mao proposed the Third Front as a solution to this security predicament at the State Planning Commission meetings in May 1964. The idea was that if any military strike were to hit the First Front along the coast, where the country's industrial bases were concentrated in, and in the northwest, where China borders the Soviet Union, the Third Front in the southwest would provide a safe haven. Based on this strategic consideration, Mao ordered coastal enterprises to relocate to provinces such as Sichuan, Guizhou, and Yunan, both for the sake of safety and to assist the development of heavy industry in these less developed regions (Meyskens, 2020). Meyskens (2020) points out that by backing the establishment of the Third Front, the CPC not only reoriented investment inland, but also shifted the focus of the economic planning "from consumption and material incentives to heavy industry and austere living" (p. 9). Consequently, this kind of "militarized rapid industrialization" would considerably reconfigure China's economic geography.

It is beyond the scope of this article to evaluate the significant multifaceted impact of the Third Front program. What is worth noting, for the purpose of unpacking post-socialist imaginaries, are some of the defining features of Maoist approach to development. First of all, Mao effectively leveraged national security concerns to mobilize resources and personnel on a massive scale in building the Third Front (Meyskens, 2020; Naughton, 1988). Although the logic underpinning the platform economy today is fundamentally different from the "militarized modernity" that the Third Front epitomize, the campaign style mobilization and governance (Bennett, 1976; Heilmann & Perry, 2011) that many scholars of Chinese politics have discussed continue to be relevant. Although big data did not become a buzzword in China until 2013 and the provincial government of Guizhou did not specify data industries as a strategic focus until 2014, more than one government officials mentioned to me the year 2012 as the turning point of Guizhou's new development pathway. This was because in January 2012, the State Council of China issued the No. 2 Central Document on "facilitating better and quicker economic growth and social development in Guizhou" (国务院关于促进贵州经济社会又好又快发展的若干意见),[1] which not only contains a wide range of guidelines on Guizhou's next stage of development, but also sets out specific targets and corresponding supportive policy measures. Responding to the steer of the State Council, the provincial government issued in November 2012 *Opinions on Accelerating the Leapfrog Development of Information Industries* and in July 2013 *Strategic Plan on Developing Cloud Computing in Guizhou* (Gan, 2014). In 2014, the then provincial Party Secretary Chen Min'er proposed a new vision of upgrading Guizhou's economy through "Big Data, Big Poverty Reduction" (大数据, 大扶贫). The rationale is that big data will provide impetus for growth in the burgeoning digital economy, which in turn creates new employment opportunities and new source of revenue that alleviates poverty issues in the region. Shortly after the publication of *Regulation of Guizhou on Information Infrastructure* in May 2014, the first documents of its kind released by a provincial government, GCBD services went online.

Second, the Third Front campaign represented the Maoist view of technoscience, which emphasized achieving self-reliance through native techniques, mass mobilization, and applied science (Schmalzer, 2014). The central idea was that:

> "the Party could adapt the Yan'an way of self-reliance and mass mobilisation into a strategy of rapid industrialization and make use of limited domestic machinery and skilled workers while simultaneously compensating for their lack by channelling China's large rural population into building infrastructure with available local materials." (Meyskens, 2020, p. 25)

In the 1990s and early 2000s, after the end of the Cold War and as China was gearing up to enter the World Trade Organization (WTO), self-reliance was completely superseded by the desire to "catch up with the world" through joining globalization. Regardless of whether one characterizes the current US–China competition as the Second Cold War (Schindler et al., 2023), it has become abundantly clear that geopolitics now looms large in the tech front (Na & Pun, 2023; Qiu et al., 2022; Tang, 2022). GCBD is, therefore, closely linked with concerns over data sovereignty and national interest.

During my interview with Wang Qiang, Party Secretary and Deputy Director of Big Data Development Administration of Guizhou Province, which again is the first government agency of its kind in China, he used the phrase "the new Third Front of data" (数据新三线) to highlight the importance of strategic thinking on data security and data sovereignty. To illustrate his point, Wang made a reference to the 2015 Tianjin Port[2] explosions, which for a moment posed serious threat to the safety of Tencent's WeChat user data.

> "You must have heard about the August 12th explosions in Tianjin, right? But did you know at that time Tencent's cloud computing centre, the company's largest data storage facility in the whole Asia, was only one and half kilometres away from where the initial explosion occurred? Pony Ma himself admitted afterwards that the gate of the data centre got distorted from the impact of the explosion. Luckily, there was no power cut, otherwise huge quantity of data could have been lost, maybe everything associated with our WeChat accounts, because Tencent did not have backups. Now, that's a hard lesson learned. Then, in

> 2017, Tencent started building its state of the art Seven Star Data Complex in Gui'An New District. Tens and thousands of servers, all stored in large caverns inside the hill, that's the kind of safety and security we need." (Wang Qiang, 28 August 2023)

In the same year as Tencent began the construction, Apple announced its plan to invest US$1billion in a new data center in Guizhou, which was to be managed by GCBD. Four years later, as mentioned at the beginning of this article, the new facility was put into operation.

It is worth noting that so far there is no mention of "digital third front" or analogies being made between the Maoist Third Front and building data centers in Guizhou in any of the documents issued by the central government. But during my fieldwork, local officials and entrepreneurs often hastened to remind me of both the legacy of the Third Front and the necessity of developing data industries in Guizhou. The divergence has to do with the differentiated priorities of bureaucrats at different levels. Pursuing an overtly developmentalist agenda, the central government shies away from discussing the Maoist project, which was never officially declassified and remained controversial. Any explicit reference to the Third Front in official document invokes the kind of ideological baggage that the central state would prefer circumventing. On the contrary, provincial and municipal Party officials are deploying the historical episode of Third Front construction as well as the geopolitical context of the Cold War as leverage to get more resources and support from the central government. After all, for ambitious economic bureaucrats, "policy is political not only because bureaucrats should toe the party line but also because policies can be used as instruments for grabbing power and advancing careers" (Wang, 2024, p. 11).

Finally, the Third Front was a program explicitly intended to address discrepancies in development across different regions while being sensitive to the spatiality of economic policy. By building a railway network in what used to be isolated and remote parts of China, the Third Front connected the resource-rich Southwest China with industrial centers in Northeast and coastal areas. Lessons learned about the importance of infrastructure and spatial complementarity subsequently informed China's Western Development Project in the 1990s (Naughton, 2004) and, I would argue, Guizhou's recent pivot to data industries as well. During my fieldwork, many informants would remind me how unusual it is for a mountainous province to have such well-developed highway system. In a historically isolated and remote region like Guizhou, the locals seem to take particularly to heart the conventional Chinese wisdom that "if you want to get rich, build the road first" (要想富 先修路). In fact, traveling in the province, it is hard not to notice the scale and the quality of transport infrastructure, which are all government funded projects given the formidable cost of building roads in Guizhou imposed by geography. Li Jun, Director of the Gui'An New District Big Data Service Centre, was unequivocal: "without having built the roads first, there is no way we could now host these large data centres for tech companies" (Li Jun, August 25, 2021).

Adding Big Ecology as the third strategic priority after Big Data and Big Poverty Eradication in 2017, when the new development plan was ratified at the 12th Party Congress of Guizhou Province, was a further step in recognizing the spatiality of data industries. Ecology is related to big data in two important ways. First, being a mountainous province, Guizhou's landscape is not conducive to farming, which partly explains the historical underdevelopment. The constraint that geography has put on development is aptly captured by the common saying that local people often recite, especially to outsiders: "The sunny weather never lasts for more than three days, the flat ground never continues for more than three miles, and no one has more than three ounces of silver" (天无三日晴, 地无三里平, 人无三两银). But the upside of the underdevelopment of the province is well-preserved natural environment and biodiversity. Under these circumstances, both the central and the provincial governments made clear from early on that developmental goals should always be pursued with cautious consideration of environmental cost,[3] and big data is deemed as one area that ticks most boxes of cost benefit analysis. Second, given Guizhou's rich resources in coal and hydropower, and as part of the legacy of the Third Front construction, the province has a strong energy sector that exports a large proportion of the electricity generated to the more developed coastal regions such as Guangdong Province. It is the backbone of China's West-East Electricity Transmission project (西电东送) that balances energy production and energy consumption within the country by taking advantage of the spatial complementarity across different regions. Cheap and ample supply of electricity, combined with cool climate and other natural resources such as water and wind for cooling down the server, provide Guizhou with the right conditions for hosting large quantity of data centers.

To be sure, neither the specific set-up of GCBD nor Guizhou's overall pivoting toward data industries is a revitalization of the Maoist approach to development as such. They are attempts made by the post-socialist developmental state to rearticulate some of the political considerations, such as concerns with national security and regional inequality, and governing tactics, such as campaign-style mobilization of resources, from the socialist era, with the overarching goal of maintaining legitimacy through delivering prosperity. If Chinese socialism always had a strong nationalistic orientation, in post-socialist China, where socialism "appears more transparently than ever today as a disposable instrument in the search for wealth and power" (Dirlik, 1989, p. 35), technology, especially data-driven digital innovations, is now widely perceived as the key driver of such pursuit. Far from being a seamless process though, the rearticulation is fraught with contradictions and provokes discontent, due to the inherent tension between the residual socialist commitments

of the CPC and its recalibration within the global capitalist context in the past few decades.

Marvelous Clouds and Its Discontents

Playing with the double meaning of clouds in the book title, John Peters (2016) argues in *Marvellous Clouds* that data clouds as we know today are as "elemental" as cumulus, in the sense that today's digital media form the environment we live in. Yet while cumulus is up in the sky, we need to think about data clouds as infrastructure on the ground that enables human life to thrive, rather than something ethereal. Similarly, although GCBD (云上贵州) in Chinese literally means "Guizhou on the cloud," we cannot unpack the politics of the cloud unless taking notice of what is happening on the ground.

The headquarter of GCBD occupies a large glass building in Guanshanhu, which is a newly developed urban district of Guiyang that focuses on finance, real estate, high tech, and high-end commercial services. With slick skyscrapers of a similar style lined up on both sides of the district's many avenues, one could easily miss the GCBD building if not for the company's logo of a colorful cloud at the top. The remit of the company has expanded considerably since the initial launch in 2014, from a platform that primarily aggregates data from various government agencies for the purpose of streamlining e-government services, to encompass a wide range of activities in cloud computing and data services. GCBD's website lists their main businesses as government informatization, information innovation, cloud services, information security, data governance, and application of data development. Among these six areas, government informatization is the most established area of operation that started long before big data and cloud computing captivated public imagination. In a literal sense, the phrase refers to the process of using telecommunication and information technologies to transform the work of government agencies for the sake of transparency, efficiency, and efficacy. But the connotation of informatization as a discursive device goes far beyond the functionality of information and communication technologies to appeal to desire and fantasy that can "take on fetish-like aspects" (Larkin, 2013, p. 329).

As Xiao Liu (2019) eloquently argued in her book *Information Fantasy*, the fascination with informatics and cybernetics in post-Mao China was

> "inseparable from the boundary-destroying and boundary-redrawing processes in various social arenas, the reshuffling of Cold War powers, and the emergence of new sorts of connectivity that were generated during socioeconomic changes. The sense of liberation and excitement accompanied by these processes inspired imaginations of information technologically advanced futures." (p.10)

Although Liu was focusing on cultural texts from the 1980s and 1990s, the information fantasy sustains, only being rendered in new terms with the latest wave of technological advancement. While in the early 2000s, government informatization is all about moving services online (上线), it is now all about uploading data to the cloud (上云). While in the early decades, the key marker of information fantasy is having the prefix of "electronic," as in e-commerce or e-government, the contemporary register often centers around the word "smart," which draws associations with AI and data-driven machine-based decision-making in general.

Following the Outline of Guizhou Big Data Industries Development and Application Plan (贵州大数据产业发展应用规划纲要) released in 2014, GCBD started with the ambition to build "seven clouds (七朵云)" that offers cloud computing and data services to seven key sectors, including e-government, smart transportation, smart logistics, smart tourism, smart industry, e-commerce, and food safety. By the time I visited GCBD in summer 2023, Deputy General Manager Mr. Liu told me with visible pride that "seven clouds have now become '7+N' clouds that cover many more aspects of governance," as we were sitting in front of a huge plasma screen that was at least 4 m tall and 10 m long. I was given a well-polished introduction to GCBD by a staff member who talked me through the slideshow on the screen, which explains both the organization and some of the applications of a wide array of government databases. For example, Rural Revitalization Cloud (乡村振兴云) stores and analyses data that has to do with government initiative of poverty alleviation and economic revitalization in the rural area of Guizhou, Housing and Development Cloud (住建云) aggregates data of housing and land development projects with the aim of streamlining the approval process for developers, and Culture and Tourism Cloud (文旅云) supports the mini-application on smart phone that allow tourists to make all the travel bookings on a single platform. After the introductory talk and a guided tour of the GCBD exhibition hall, I was led to a meeting room where senior managers of GCBD who were said to be best positioned to answer the questions I had sent in advance were already waiting for me. But the discussion only started after I was shown yet another video that recounts the success stories of GCBD and calls in lofty terms for "co-creating the future above the clouds" (云端之上 共创未来).

Such a grand plan for building marvelous clouds cannot be devoid of cracks and discontents, which immediately become visible as one shifts the vantage point from top-down to bottom-up.

When I told my friend Mu Yi about the visit to GCBD, he put on a wry smile, "they are very good at orchestrating this kind of visit you know, to tell people a good story that glosses over so many problems." Mu is the co-founder of a small company in Guiyang that specializes in network security. His discontent toward GCBD comes from the conflict of business interest.

> "For companies like ours, a big portion of our business is 2G.[4] We provide IT solutions to government agencies. When the overall economic climate gets tough and not many private firms

> are upgrading their information systems, we rely even more on the government facing side of our businesses. Plus, we never have to worry about getting paid after we finish a project for the government. But ever since GCBD was set up, they start monopolizing government informatization projects at all levels. Not that they have the capacity to carry out those projects, mind you. They effectively act as contractor that decides who gets to do what and under what kind of terms and conditions. Previously I could bid directly for a government project, but now we need to beg GCBD for a small slice of the pie, under very unfavourable conditions! GCBD has a grand narrative, for sure, they have strong backing at the highest level. But they are crushing small companies like us. Seriously, I think if you ask around, you will see we are not the only one." (Mu Yi, 30 August 2023)

In contrast to Mu Yi, another informant Hu Zhi is an insider of GCBD, but his view of the company is surprisingly no less critical. Hu came back to his hometown 6 years ago, after graduating from a university in Beijing, partly because he thought at that time that GCBD had great potentials. But now after working in the company for a little over 5 years, he felt stuck and was disgruntled about the business model that GCBD represents.

> "I am not optimistic about the prospect of GCBD, because it is not a company with strong technological capacity. I felt like my own competence barely progressed in the last few years, because I don't really get the opportunity to hone those technical skills at work! Ironically, we still have to work overtime a lot. There are lots of meetings during the day, then I spend the evening preparing PowerPoint slides for the next meeting. There is little technical substance in what we do. Every time I go on a business trip and meet those people from Alibaba or Huawei, I always feel embarrassed, because we don't do R&D as they do."

When I probed further, Hu's explanation corroborates with Mu's complaint.

> "Why it's like that? Because all the provincial informatization projects are entrusted to GCBD as the general contractor. Managers at GCBD don't need to look for new clients, or to win over clients with better service. It's enough if they just maintain the current relationships. They have got enough meat in their bowl, all they need to do is to make that meat a little more tasty. I am telling you, at GCBD, a manager can be mean to the client, our service can be substandard, but so what? We still get those contracts because there are directives from above. Because GCBD is supposed to be the flagship enterprise for Guizhou's data industry development." (Hu Zhi, 25 August 2023)

While Hu is still contemplating his next move, I happened to meet someone who left the "cushy but boring" job at GCBD 2 years ago to start her own business during the same research trip. Yan Qing has a degree in Information Studies from one of China's top universities and is a native of Guiyang. My conversation with Yan started with her asking me about the visit to GCBD, as she was curious which ones of her former colleagues I met with and what my impressions of them were. She knew half of the senior managers that were present at the roundtable with me and did not seem to think highly of any of them, "they are more like bureaucrats than entrepreneurs! They don't really understand technology." When I asked what made her say that, Yan described to me what a typical working day at GCBD used to be like and how rarely she felt challenged at her job.

> "GCBD is in a comfortable position because of government policy and people working at GCBD gets comfortable very quickly too. The tasks assigned to me were easy enough, except sometimes I had to cook the data in order to validate directives from the top, even though nominally, those were passed to me as proposals and I was asked to collect evidence to evaluate them. So I thought to myself, what's the point? Well, maybe it has to do with the ethos of my alma mater. You must know that people who graduated from my university tend to have a reputation for being idealistic, maybe also a bit restless? I guess I wanted to make a difference. Everybody is now talking about Big Data this, Big Data that, but we haven't quite figured out what to do with Big Data, have we? And how can we figure things out if we don't try something new, something we haven't done before?" (Yan Qing, 2 September 2023)

Yan's impassioned answer reminded me of a different implication of the word "innovation" that I learned during my visit to GCBD. As Mr. Liu, the Deputy General Manager, walked me through the company's exhibition hall, it took me a while to understand what he meant by "information innovation" (信创), a phrase he referred to multiple times and was also listed on GCBD's website as one of the six major business areas. It turned out that the phrase initially came from a shortened reference to Information Technology Application Innovation Working Committee established in 2016, which was a non-government industry association with the aim of promoting and supporting the development of Chinese tech sector. With the escalating US–China tech war since 2018, as technology application and technology standards are increasingly tinted with national security concerns, information innovation became the coded language for the Sinicization of the ICT sector (国产化替代), which included using domestic products in information infrastructure, in both foundational and application software, and in network security maintenance. In other words, the emphasis of information innovation is not so much on innovation as how the Silicon Valley would understand it, but on localization, securitization, and sovereignty. I tentatively suggested that maybe the incompatibility Yan felt with GCBD had to do with different interpretations of innovation. She shrugged and laughed, "Probably! I know why they need to do information innovation. But it's the way they do it. It's just not interesting for me."

The disparity between the formal presentations I heard at GCBD and the discontent expressed by the likes of Mu, Hu, and Yan is telling. The two strands of narratives represent different facets of contemporary social imaginaries about big data and digital infrastructure. As a state owned enterprise,

GCBD enjoys policy support, state subsidies, and an advantageous position in consolidating resources. The official discourse about data-driven effective governance provides crucial justification for those favorable conditions. The securitization of technological development in the contemporary context of escalating geopolitical tensions further legitimizes state-orchestrated protectionism and politicization of technology adoption, as evidenced by the hidden connotations of information innovation (信创). In post-socialist China, however, liberal and neoliberal imaginaries have also been on the rise, if not equally powerful, which exalt market logic, entrepreneurship, individualism, and the spirit of innovation. These key ingredients of what Barbrook and Cameron (1996) encapsulated in the phrase "Californian Ideology" provide the entry point as well as the vocabulary for the likes of Mu, Hu, and Yan to articulate their critique of GCBD. Even as local officials strategically invoke its Maoist precedent, the articulation of the Digital Third Front is bound to be full of tensions and incongruities.

Conclusion

Extant research on platform capitalism tends to treat the state as an exogenous player that either takes a *laissez-faire* or an interventionist approach toward the development of platform companies. Academic discussion anchored around the notion of "platformisation" predicts that the capitalist logic of economies of scale and economies of scope will lead to monopolistic private control of communication infrastructure and the erosion of public service. The case of GCBD challenges both established views. The provincial government of Guizhou has played endogenous role in not only setting up the company and but also configuring its business model. After all, as Yuan & Zhang (Forthcoming) point out in the introduction to this special issue, the Digital China policy framework announced by the State Council in 2023 fits in with the long-term pursuit of a "Chinese model of modernization" while reflecting the state's evolving agenda of achieving comprehensive digital transformations across key industries.

What GCBD represents, and more broadly, what underpins the politics and poetics of Guizhou's data-centered development strategy, is an effort of rearticulation between CPC's socialist promise of common prosperity and the capitalist route it is currently undertaking that has exacerbated inequality. GCBD's resonance with the Maoist Third Front not only lies in the comparability of contemporary geopolitical tensions with the Cold War era, it also directly benefited from the Third Front legacy in transportation network, in industrial infrastructure and in technology know-how. Furthermore, what have continued from the Mao era are the campaign style governance for delivering policy goals of strategic importance, and the sensitivity toward regional disparity as well as spatial considerations in devising development guidelines.

The rearticulation, predictably, is fraught with tensions and contradictions. More importantly, the information fantasies that reverberated throughout China's post-socialist era in the past decades have always had strong elements of techno-utopian imagination of personal freedom, a fundamentalist belief in the logic of free market, and increasingly in the most recent decade, an interpellation toward neoliberal entrepreneurial subjectivity. The discontents articulated by my informants toward GCBD thus need to be contextualized within competing narratives about what big data and cloud computing are for and how best to achieve those goals. For someone like Dirlik (1989), to reconcile these competing narratives requires "suppression of a fundamental contradiction between Chinese socialism and its global capitalist context, between particularity and universality in socialism, and ultimately, between Chinese socialism as a historical project and its metahistorical presupposition" (p.35). For scholars of more optimistic outlook, "struggles between the telos of capitalist modernity, on the one hand, and the co-existence of multiple modernities, on the other, were waged on different fronts, at different scales, both inside and outside the CPC, and inside and outside China" (Zhao & Hong, 2023, pp. 354–355). In this regard, as much as I acknowledge that cloud infrastructure in Guizhou is part of the broader process of state-building (Pan, 2022), I do not presuppose a default antithetical relationship between the state and the society during this process. And we are not yet facing a foregone conclusion on what the digital future holds for China, as we are still in the middle of the transformation.

The continuous efforts made by the CPC to rearticulate the relationship between the Maoist era and the Reform Era pose theoretical and epistemological conundrums to the scholars in China. For one thing, it is about how to theorize the dialectics of continuity and rupture in a capitalist economy presided over by a communist party. For another, the challenge lies in contextualizing empirical evidences from the contemporary era and choosing the analytical framework that can best make sense of them. Making an attempt to respond to both challenges, I choose to examine the strategic importance ascribed to the data industry through the lens of post-socialist imaginaries, which has two merits. First, it highlights the continued relevance of the socialist promise of common prosperity and state-led development, while recognizing the contradictions and conflicts in delivering such promises under largely capitalist arrangements of political economy. The open-endedness of "post-socialist," therefore, eschews any teleological predictions. Second, to investigate competing narratives and imaginaries is to move beyond the dichotomy of an authoritarian state versus a monolithic society by acknowledging multiple constituencies that may each have their own imaginaries about data infrastructure and cloud computing.

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Notes

1. https://www.gov.cn/zwgk/2012-01/16/content_2045519.htm. At the beginning of every year, the State Council of China issues a series of documents as guidance on the focus and priorities for economic development at the national level. Ever since the early 1980s, it has been a convention for the State Council to lay out a blueprint for the agricultural sector and rural development in the No. 1 Central Document of each year, which is widely regarded a testament to the crucial importance of agriculture and rural population in China's overall political economy. Likewise, the fact that Guizhou's development strategy was the sole focus of the Central Government's No. 2 Document in 2012 has significant policy implications.
2. On 12 August 2015, a series of explosions at the Port of Tianjin, Northern China, killed 173 people and injured hundreds of others. The explosions occurred at a container storage station in the Binhai New Area of Tianjin. Fires caused by the initial explosions continued to burn uncontrollably throughout the weekend, resulting in eight additional explosions on 15 August. Investigation later revealed that an overheated container of dry nitrocellulose was the cause of the initial explosion.
3. For example, since 2009, Guiyang, the provincial capital, has been hosting the Eco Forum Global, which aims to promote the sharing of knowledge and experience in the implementation of policies regarding green economic transformation and ecological security.
4. Government as clients.

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