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A regional and historical approach to platform capitalism: The cases of Alibaba and Tencent

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Abstract

This article situates China's efforts to toughen the regulation of its tech companies since the late 2010s in the global context of Big Techs rein-in and the specific trajectory of economic development in China. Focusing on the three-phase development of Alibaba and Tencent since the late 1990s, we propose a regional and historical approach to study platform capitalism concerning how platform companies, through interacting and negotiating with shifting institutional conditions, have developed novel business models, organizational structures, and technological innovations. Not a static domination, the state power co-shapes platform capitalism through constant institutional improvisation and innovation and interacting with private players. This geographically and historically conscious approach to platform capitalism not only contributes to a more nuanced understanding of the specificities and historicity of platform capitalism in China, but also helps to deprovincialize platform studies and extend its analytical relevance beyond the Euro-American focus or the disciplinary boundaries.

Keywords

Alibaba, antitrust, geopolitics, platform, infrastructure, regional and historical approach, Tencent

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Introduction

Since the late 2010s, despite geopolitical tensions, governments in the United States and China find themselves in a separate yet common crusade against the power of tech giants. From Trump to the Biden administration, the U.S. demonstrated a tough bipartisan stance against Big Tech. Across the Pacific, the Chinese government flexed its regulatory muscle to halt Ant Group's[1] much-anticipated mega-IPO in November 2020, followed by a 'campaign-style' (Zheng and Huang, 2018) antitrust investigation into big tech companies like Alibaba, Tencent, Didi Chuxing, ByteDance, and Meituan.

Not coincidentally, the U.S. and China share concerns over monopolies in the tech industry. However, mainstream Western media portrayed ongoing renegotiations between the state and platform businesses in China as an Orwellian 'crackdown', which reveals a long-standing Western tendency to treat the Chinese state and market as distinct and antithetical. This contrasts sharply with the Chinese public's generally supportive attitudes toward state interventions, which is consistent with prevailing perceptions of the state's role in the economy where 'the market is not autonomous' and 'must live within the boundaries set by the state in order to survive'. (Zheng and Huang, 2018: 32).

Zheng and Huang's conceptualization of distinctive Chinese state-market relations is echoed by many scholars of China studies and comparative political economies (Hong, 2017; Huang, 2019). However, despite recent calls to 'de-westernize' platform studies (Davis and Xiao, 2021), few studies on platforms look beyond economic rationale and consider the evolution of state-market relations to be important analytics.

This article aims to chart the dynamic and distinctive configuration and evolution of platform capitalism in China, using Alibaba and Tencent as cases. We argue, through interacting and negotiating within shifting institutional conditions and straddling economic, technological, and political realms, private tech companies develop novel business models, organizational structures, and technological innovations to expand their power. This sets in motion an evolving state-market relation in China. Beyond unilateral or static domination, state power deploys, interacts with, and shapes various market levels in constant search for an unstable equilibrium between state and market (Zheng and Huang, 2018). These dynamics entail a reframing of platform capitalism in relation to the evolution of the platforms and their geographical articulations at multiple levels. We adopt a regional and historical approach to delineate the chronological path and geographical configurations of digital platforms. The two perspectives are complementary in our approach. We examine the contributing factors to the chronological transformation of the platform companies against a historical analysis of the platform's evolutions. In so doing, we also treat the geographical region as a dynamic space wherein the platforms encounter and interact with local, subnational, national, and transnational forces ranging from local and national governments, domestic and transnational capital, to regional cultural circulation. We contend that a regional and historical approach sheds new light on the specificities and historicity of platform capitalism in China. It also helps deprovincialize platform studies and extends analytical relevance beyond Euro-America and the disciplinary boundaries of media and/or management studies.

Our research questions are: (1) how can we comprehend super apps in relation to the rising power of megacorps and the growth of China's platform economy? (2) How has China's experience and experiment with governing megacorps shaped its changing political and economic system and informed global debates on anti-monopoly and platform governance? We first present our regional and historical framework, bringing platform studies and China studies literature into the conversation. In the three-phase evolution of Alibaba and Tencent from the late 1990s to today, we show how this framework informs a more integrated and nuanced analysis of shifting platform technologies and business models in relation to the locally situated evolution of state-market relations in a global context.

Platform capitalism in regional and historical terms

Questions of how platform companies achieve and concentrate economic power, thereby restructuring cultural, economic, political, and regulatory structure, have generated considerable intellectual interests across disciplines. Following a tradition to challenge the hegemonic knowledge production based on Euro-American experience in media studies and internet studies (Thussu, 2009), the appeal to 'de-westernize' the research agenda in the platform studies once again draws scholars' attention to the geographically specific approach (Davis and Xiao, 2021). Indeed, the global expansion of digital platforms is uneven, marked by heightened cultural imperialism and American dominance (Jin, 2019).

Many scholars have explicitly stressed the geographical vector in media studies and platform studies. Steinberg and Li (2017), for instance, argue that in practice, the digital operation of every platform is anchored in geographical terms which crosscut, intersect, and transcend the national boundaries. The social and cultural practices facilitated by the digital platforms take place in 'an amalgam' of subnational and transnational registers (Steinberg and Li, 2019: 175). While acknowledging the similarity between American platforms and Chinese platforms, Davis and Xiao (2021) point to the specificity of Chinese platforms and argue that 'to identify locally specific historical, cultural, and technical characteristics' is crucial to understand a 'regional media history' (p. 105). In a special issue on 'platformization of Chinese society', de Kloet et al. (2019) call for scholarly attention to the 'instability and contingency' that contribute to 'time- and place- specific processes of platformization' in China (p. 254).

In other studies, the geographical vector is implicitly underlying the analytical framework. Examining American companies, multiple scholars attribute the growth-before-profit model and the concentration of power to preceding institutional factors, including financialization and the prevailing pro-consumer rationale in American antitrust law (Khan, 2018; Srnicek, 2016). Comparing the institutional conditions in the U.S. and E.U., Rahman and Thelen (2019) argue that the political coalition between investors and consumers and the investment environment make the U.S. particularly conducive to the rise of platform capitalism. Similarly, Jia and Kenney (2022) suggest the importance of preexisting infrastructure and legal environments in shaping the business models of platform companies.

In short, a regional approach informs the configuration, convergence, and conflicts of social, economic, and cultural forces at different spatial levels that shape and are shaped by the platform power. The platform company's encounters and negotiations with institutions and regulatory systems on the ground constitute a dynamic process with diverse regional, national, or local articulations (Steinberg, 2019; Steinberg and Li, 2017). Furthermore, the institutions and regulatory systems are not static, nor are the platform companies. This invites an approach to address both the geographical registers (see e.g. Athique, 2019; Steinberg, 2019) and the *evolving* characteristic of institutional and regulatory systems over history. This is pertaining to the contemporary Chinese context, where the meteoric rise of big tech platforms in the past two decades have outpaced changes in regulatory institutions in a relatively permissive environment. However, regulatory power could be targeted and wielded more responsively by the party-state than in the U.S. or E.U. to curb platform capitalism. The ongoing state-market contestations and negotiations in China is an important analytic block rather than a light contextual factor.

In China studies, Yongnian Zheng and Yanjie Huang provide a more concrete account of the spatiotemporal specificities of the Chinese economy in relation to other models of capitalism. They contrast the dominant Western model of 'state in market' to the Chinese model of 'market in state' (MIS) in which 'state (political) principles are dominant over market (economic) principles'. (Zheng and Huang, 2018: 23). Nonetheless, state power is not absolute and unchanging, but fragmented and contingent. Specifically, the state periodically cycles back and forth between laissez-faire and interventionist stances toward the market – which is also contingent on a firm's stage of development. It also divides the market into three hierarchical spaces – grassroots, middle ground, and national – and adopts different strategies when interacting with participants at each level (Zheng and Huang, 2018: 19–24). Ministries motivated by different agendas tend to fragment the state power and make the regulations less enforceable than they appear on the policy documents. Bureaucratic politics leading to fragmented state power have been observed in the anti-trust laws (Zhang, 2021a) and online video regulations (Li, 2019). In short, specificities of state-market relations in contemporary China are manifested as a dynamic and unfolding process.

Following Zheng and Huang, other scholars of the Chinese economy develop different concepts to illustrate the cyclical movements between centralization and decentralization of state power. Notions such as 'directed improvisation' (Ang, 2016) and 'centralized minimalist' (Huang, 2019) were developed by different scholars to explain the co-existence and co-evolution of a centralized state power and the highly adaptive and spatially dispersed local powers in China. Scholarship in China Studies reveals a pragmatic, dynamic yet fragmented model of China's economy in which the state strategically deploys the market and adapts its shifting currents to strengthen its power, though such power is neither absolute nor unitary.

As for China's digital economy, state's roles are well documented in investing in and incentivizing informatization of the economy (Dai, 2002) and shielding domestic tech companies from foreign platforms through protectionist policies (Jia, 2021; Li, 2019). However, the question of how the rise of digital platforms is shaped by and shapes, or challenges, China's prevailing logic of market-in-state is under-addressed.

A regional and historical approach allows us to consider the mobilizations of organizational resources, technological devices, and political strategies by tech companies to navigate and negotiate the specific political-economic institutions and regulatory frameworks to be an changing process which in turn sets in motion changes to the institutional conditions. The regional and historical approach permits an exploration into the dynamic trajectory of platform capitalism in practice in China and the evolution of tech firms and their interactions with ongoing shifts in domestic and transnational political economic conditions. We describe the transformation of the platforms as evolution not to suggest a linear progression toward a predetermined direction that is schemed by the platform companies. Rather, we emphasize both institutional historical path dependency and the complex and contingent interaction between platforms and the external changing global and local dynamics. In our analysis of global platform capitalism, we highlight, on the one hand, the role of the nation-state and subnational dynamics (e.g. regional path dependencies and local governments) in shaping the configuration of the platforms and their transformation trajectories, and on the other hand, the transnational linkages and shared global conjunctural opportunities and challenges. The central goal is to deprovincialize platform studies that tend to treat American and Silicon Valley experiences as universal and other regional experiences as merely case studies of ‘universal theories’, but to do so without essentializing or rendering exceptional another national economy.

Using Alibaba and Tencent (AT) as case studies, we characterize the dynamic and shifting relations between the platform companies and economic and regulatory institutions in three stages, namely, the tactical positioning of AT on the periphery of state capitalism between the late 1990s to the late 2000s, their financialized and datafied ecosystem building in the 2010s, and the state’s rein-in of their power since the late 2010s. Division of the stages is for analytical purposes. Each stage represents a distinctive set of power relations and negotiations among existing institutional conditions and constraints, incumbent and emerging market players, and the platform companies.

Tactical positioning on the periphery of state capitalism (late-1990s to late 2000s)

In AT’s first decade, both positioned themselves as internationally connected, private pioneers in an emerging but highly strategic sector of Internet industry. Their development was characterized by their tactical navigations amongst various domestic and foreign forces, which impacted on their chosen business models and technologies.

Unlike the first generation of Post-Mao IT entrepreneurs in China, who ran their businesses under state auspices, new entrepreneurs like Alibaba’s Jack Ma and Tencent’s Pony Ma, are more independent from the state and better connected overseas (Zhang, 2020). The liberalizing market environment after Deng’s symbolic ‘Southern Tour’ in 1992 moved China toward financial deregulation, enabling Chinese businesses to access foreign venture capital and stock markets (Zhang, 2016). Tacitly adopting an attitude of ‘development first, regulation later’ (xian fazhan, hou guanli), the central government allowed Internet industry to thrive in a ‘space of exception’ where private entrepreneurs and foreign capital are tolerated, if not encouraged to supplement domestic capital and state-owned enterprises (SOE) (Fang, 2016; Li, 2019).

Equally important to the relative autonomy of AT from state control are the state's dual roles as regulator of *and* participant in (as state-owned enterprise) the market economy. The dominant power of the SOEs, the superiority of foreign technologies, and the role played by foreign VC in mitigating domestic capital shortage, forced burgeoning Internet companies to work with and around these obstacles. These opportunities and constraints spawned AT's commercial, technological, and regulatory innovations.

'Fall in love with the government, don't marry them—respect them'. Jack Ma's remark in London in 2015 became widely quoted to illustrate Alibaba's positioning in relation to the Chinese government (Leng, 2014). He learnt this lesson the hard way. Before founding Alibaba in Hangzhou in 1999, Jack Ma invested in his first e-commerce startup, China Pages. Business languished until he scored a deal with Zhejiang's provincial government to build its website in 1995. Propelled by China's 'e-government' initiative, various levels of government stampeded to establish their digital presence (Dai, 2002). China Pages partnered with Hangzhou Dife Communications – a local unit of SOE Zhejiang Telecom and a product of state efforts to liberalize China's telecommunication infrastructure – but its relationship with Dife took several dramatic turns (Clark, 2016: 79–80). In a series of maneuvers, SOE, with governmental backing, grabbed a controlling share of China Pages and squeezed Jack Ma out of his pioneering venture (Clark, 2016: 80–81). However, after Alibaba relocated from Shanghai and California to Hangzhou in the wake of the 2000 Dot-Com bubble, the Hangzhou municipal government adopted pro-e-commerce policies and helped Alibaba secure cheap land to build its enormous campus, which reduced personnel and other operational costs in those crucial years (Hong and Xu, 2019; Leng, 2014).

Support from global venture capital was also indispensable. As illustrated by Taobao's battle with eBay and its deal with Yahoo, foreign VC provided resources for Chinese companies to adapt foreign technologies to local needs while experimenting with localized business models. In contrast to eBay's 'universal strategy', Taobao leveraged early investors' capital from Goldman Sachs, Softbank, and Yahoo to maintain a no-fee rule. This allowed Taobao to rapidly expand its 'two-sided market', attracting small sellers and young customers who sought low-cost alternatives in Taobao's marketplace (Zhang, 2020). This strategy was aided by Taobao's 'consumer-driven innovation' featuring the instant messaging plug-in Aliwangwang and the escrow service app Alipay. The former helped Taobao recruit small platform-based entrepreneurs and, lacking an established national credit system, the latter provided a payment solution. Both took advantage of local resources and answered local consumer needs (Clark, 2016). After merging with Yahoo China's technology team, Taobao's adaptation of Yahoo's search ranking technologies gave it an edge over competitors.

Tencent's early development involved bureaucratic and economic reforms in China's telecom sectors. Since the mid-1990s, bureaucratic reforms in the telecom sector, especially founding of the state-owned China Telecom, broke the monopoly of China's Ministry of Post and Telecommunications over telecom carrier service by allowing domestic competition (Harwit, 1998). Opening space for domestic competition, and the influx of global venture capital, spurred growth in fledging private sectors by establishing partnerships or collaborating with SOE enterprises.

When Tencent appeared in 1998, internet penetration was minimal. Institutional support to 'informatize' the economy (Dai, 2002) boosted adoption of internet and wireless communication in China. Accompanying the rapid democratization of internet use, the demographics of China's internet population, once dominated by wealthier users, shifted to high school graduates and those with less education (79%), and monthly incomes of 5000 RMB (approx. $772) or less (93%) in 2011 (China Internet Network Information Center [CNNIC], 2011). These internet users make China a 'working class network society' (Qiu, 2009). Their social needs and limited economic power generated a market demand that Tencent tapped into with the first Chinese super app, QQ.

Although many accused Tencent of copycatting ICQ, one of the first standalone instant messaging tools, Tencent made several micro-innovations to QQ, to accommodate a working-class network society. These localized and added functionalities of QQ set it apart from ICQ and helped it beat other Chinese competitors to become a multi-functional super app. For example, QQ introduced cloud-based storage: users can log into their account and use applications whenever and wherever they access the internet (Wu, 2016). This is extremely convenient for those without a personal computer, who use 'nomadic' facilities (e.g. internet cafes) to access their internet accounts (see also Negro et al., 2020). Another important innovation is the application size: initially 220 KB as opposed to ICQ's 5 MB (Wu, 2016). Its small size requires little bandwidth for downloading and works on dial-up internet, the main way Chinese users accessed the internet until 2005 (CNNIC, 2006). From 2000 to 2016, further technological tweaks helped enhance QQ's sociality. More than an IM tool, it becomes a multi-functional media system oriented toward value-added services (VAS), such as paid membership for premium services and sales of virtual commodities (Figure 1).

Besides technological innovations, other contributing factors include regional influence from Japanese companies and Tencent's strategic partnership and collaboration with SOEs in the early 2000s in state-backed initiatives to promote wireless service. In 1999, Japanese telecom conglomerate NTT DoCoMo launched i-mode, an internet-based platform connecting mobile phones with information service providers. i-mode anticipated the intermediary digital platform explosion of the next two decades (Steinberg, 2019). Its regional influence inspired Tencent's vision of QQ and the business strategy of China Mobile, a SOE that launched a program called Monternet (*Yidong Mengwang*), arguably, the Chinese version of i-mode (see Wu, 2016). Several private companies, including Tencent and others, were invited to provide mobile value-added services (VAS) via Monternet, such as WAP, ringback music, and IM. A great success, Monternet fostered a mobile society in China, which benefited Tencent greatly. The early success also gave rise to Tencent's business model oriented toward VAS instead of data-driven advertising. VAS consistently accounted for more than 90% of Tencent's revenue from 2001 to 2012 (Tang, 2019).

Yet, QQ's success put Tencent's dependence and collaboration with the SOE China Mobile to test. Huge revenues from mobile VAS encouraged China Mobile to get into the market, making the cell phone carrier a direct competitor of Tencent and other VAS providers. Subsequent terms of their strategic collaboration became unfavorable for Tencent in 2004. After futile negotiations with China Mobile, Tencent decided to develop a standalone application which runs on mobile phones regardless of carriers. This is Mobile

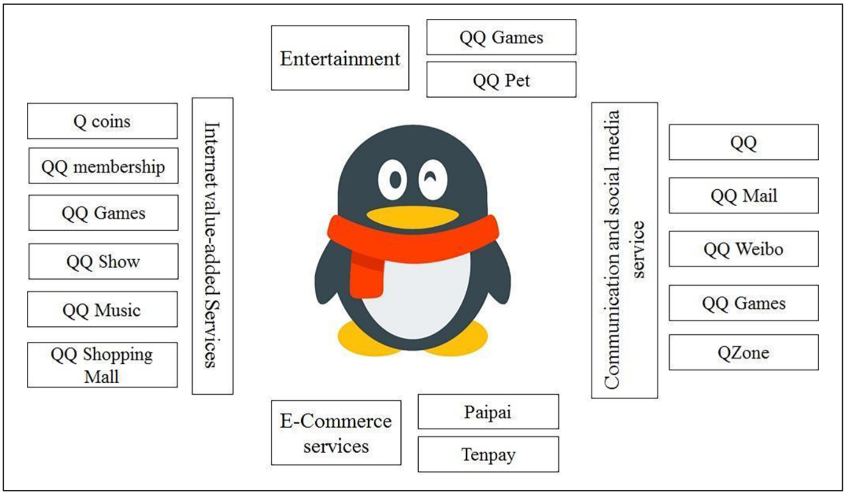

Figure 1. QQ mediated ecosystem for selected value-added service (2016).

QQ, a precursor to WeChat in a sense (Wu, 2016). In 2011, before the launch of WeChat, QQ had more than 374 million unique monthly visitors in China, reaching 72.9% of Chinese internet users.[2] As some point out (Chen et al., 2018), QQ's dominance laid the foundation for the company's next super app and infrastructural platform, WeChat, in terms of organizational path-dependence and technological functionalities.

Alibaba and Tencent differ in their operating market sectors, business growth strategies, and technological innovations. However, the early experiences of the two companies epitomize a broad trend in China's integration into global capitalism via information sectors (Hong, 2017). In response to previously non-existent institutional conditions – namely, access to venture capital and SOEs dominance in domestic markets, privately owned tech companies adapt their business measures and technological products to the sociopolitical conditions of Chinese society, tactically navigating corporate tensions with monopolistic SOEs. Along the way, the emergence of super apps is both the outcome and a tool moving them from the periphery to the center of 'the state-led, market-oriented and technologically driven' digital capitalism (Zhao, 2007: 93).

Financialized and datafied ecosystem building (2010s)

After the 2008 financial meltdown, the second development stage of AT continued to be shaped by existing and new deregulations in the financial sector and the socio-technological state of society. Further liberating the financial sector, China opened the Nasdaq-style ChiNext Board in Shenzhen in 2009 and the Science and Technology Innovation Board (STAR Market) in Shanghai Exchange Market in 2018 (Zhang, 2016). VC investments climbed from 12% of the global VC market in China in 2009 to 20% in 2017, with the percentage of domestic (vs. foreign) capital increasing from 42% to 81% during the same period. Thanks to the global surge of liquidities, financialization and capitalization of Alibaba and Tencent in this period expanded like that of other multinational corporations (Jia and Winseck, 2018).

Meanwhile, new opportunities emerged as telecom infrastructure matured. China has a rapidly expanded mobile internet population like other developing countries, for whom mobile connections are often their first taste of the internet, which paved the way for a mobile internet economy with few incumbent SOEs.

Private tech companies like Alibaba and Tencent have a head start derived from their technological capacity, user base, and deep pockets thanks to their respective overseas IPOs and financialization and capitalization instruments at their disposal. As Li (2019) pointed out, pragmatic calculations under the economic growth imperative could impede the willingness and capacity of the central regulatory body. In the relatively permissive regulatory environment of the 2010s, Alibaba and Tencent expanded their platform ecosystem and infrastructural presence in China and beyond through distinct mechanisms of financialization and datafication. No longer marginal, they became central to the new engine of growth in the Chinese economy and the structure of state governance (Jia, 2021). Never before did domestic private companies in China become so dominant in certain economic sectors and simultaneously so entwined in global financial and technological networks. The balance of power shifted toward Big Tech, forcing policy makers and regulators to recognize their common interest in the booming internet economy and coordinate with Big Tech in development and governance. Nonetheless, this expedient alliance was precarious, rife with tensions and contestations. Big Tech's growing influence over data security, public speech, employment relations, entrepreneurship, and finance posed unforeseen risks and challenges to regulators.

Between the 2000s and 2010s, AT consolidated their monopoly by constructing super apps, while expanding their significance via datafication and financialization. Foremost in AT's sprawling ecosystems are WeChat and the Taobao-Alipay nexus. Both play vital roles in bridging online and offline life. Alipay was established in 2004 as an escrow payment app for Taobao. Since then, Alipay's user base exploded with the expansion of Taobao's market share. By collaborating with major state-owned banks, Alipay became the leading third-party payment system beyond Taobao and e-commerce, consolidating its role in China's emerging cashless society. The cross-platform synergy between Taobao and Alipay amassed a trove of user data: demographics, bank accounts, and purchase records fed its data-driven transformation (Wang and Doan, 2019).

A turning point came in June 2013 when Alipay launched its investment app, Yu'ebao. The timing coincided with the Xi-Li government's embrace of financialization, mass innovation and entrepreneurship, especially its endorsement of 'inclusive finance'. New space opened up for private fintech companies to enter the state-monopolized financial stronghold as industry disruptors and innovators. Faced with accelerated competition from fintech businesses across the country, especially from WeChat Pay and JD Digits, Jack Ma jumped to consolidate Alipay and Yu'ebao into Ant Group Services in 2014, expanding its services to include credit debt (Huabei and Jiebei) and insurance (Haoyibao). After 2015, the newly-branded Ant also branched out via a slew of venture capital investments and acquisition deals domestically and abroad. Before its attempted IPO in December 2020, the Ant Group had constructed, through datafication and financial expansion, a three-pronged digital ecosystem spanning financial payment and technology, daily life services, and innovative technology services (see Figure 2).

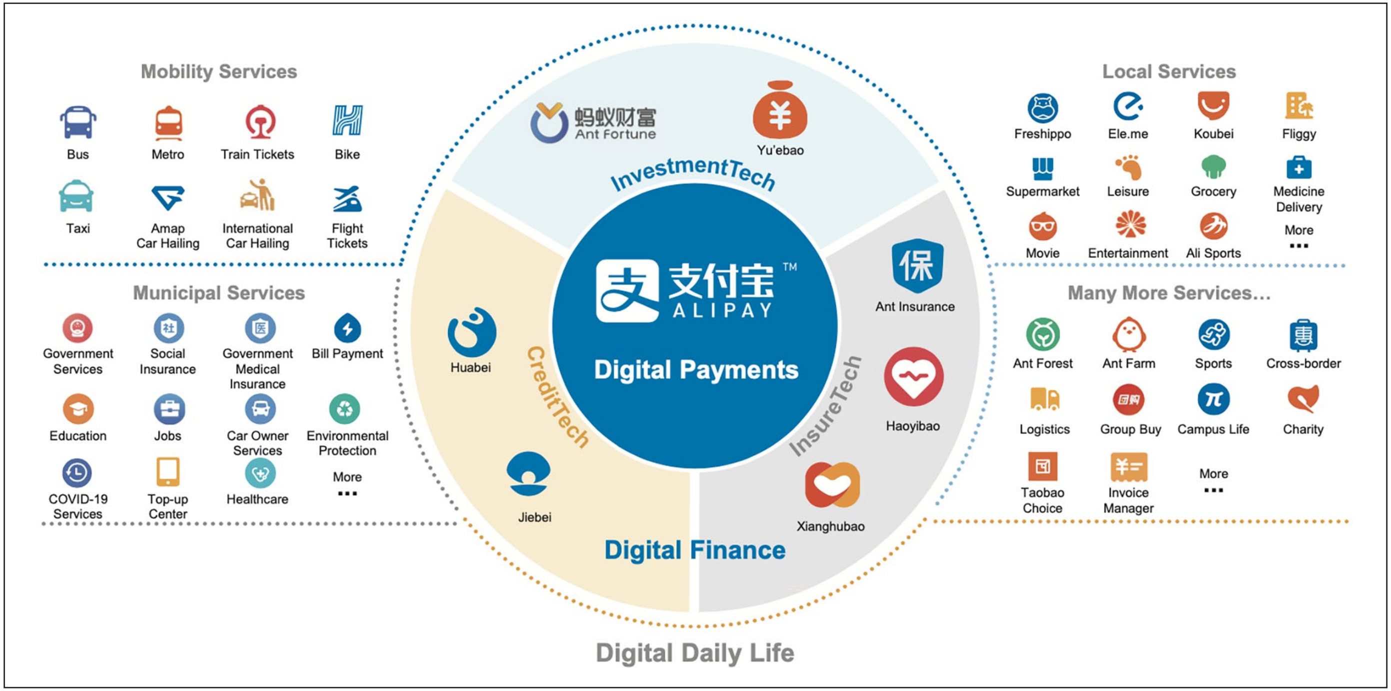

Figure 2. The Alipay Super app Ecosystem (Source: Ant Group IPO Prospectus, p. 182).

Tencent's attempt to incorporate financial transactions into its platforms can be traced to 2005 with a payment tool called Tenpay to facilitate the real money transactions for the virtual currency used in the QQ system. In response to Alipay's rise, Tencent introduced money transfer functionality on WeChat during the Chinese New Year of 2014 in a digital recreation of the cultural tradition of sending wishful money in red packets. Later that year, WeChat Wallet (later WeChat Pay) was launched to facilitate peer-to-peer money transfer and online-to-offline business transactions. The latter was expanded in 2017 by adding mini-programs that allowed developers to operate their applications on the WeChat platform. WeChat inherited many QQ functionalities, but Public Accounts functionalities (for content dissemination), WeChat Pay, and the mini-programs distinguished WeChat from QQ by making former a multi-sided market and infrastructural platform for content and transactions (Chen et al., 2018; Plantin and de Seta, 2019).

Scholars identify datafication as the definitive character of platformization and platform capitalism (Srnicek, 2016; van Dijck et al., 2018). Indeed, as in Helmond's (2015) analysis of Facebook, social sign-in and API tools enable WeChat to extend data collection throughout the web. Data generated from WeChat users boosts revenue from online advertising for Tencent, which has grown steadily since 2012 (Tang, 2019: 39). However, besides raising profits and centralizing technological controls through datafication, Tencent deploys WeChat to control data traffic to compete against its rivals: integrating start-ups it invests in with WeChat enhances their competitiveness. This makes the company's datafication complementary to its investment strategy. For example, after investing in Didi (China's leading ride-hailing platform), Tencent integrated Didi into WeChat Pay, listing it as a third-party app on the WeChat interface in January 2014. It helped popularize the use of Didi and WeChat Pay simultaneously. Didi's registered users reportedly doubled in a month, from 20 million to 40 million, with around 700,000 rides booked via WeChat (Jing, 2014). Favorable data routing and integration with WeChat also happened in Tencent's strategic partnership with JD.com, an e-commerce competitor of Alibaba (Tang, 2019). Tencent's strategic data traffic control to benefit its investees and business allies is possible because of a regulatory vacuum: there is no injunction against unfair competition in the platform economy (Jia and Kenney, 2022), nor is prioritizing data traffic prohibited until 2021.

Consequently, the roles of WeChat and Tencent's datafication must be comprehended via their financialization mechanisms. Throughout the 2010s, WeChat and Alipay's evolution as super apps reflects AT's data-driven and financialized expansion as mega-corps. It's not coincidental that both Alibaba and Tencent formally established in-house strategic investment units in 2008. Since then, investments by both companies have increased (Figures 3 and 4). Although Tencent's investment deals exceeded those of Alibaba (602 vs 230 as of July 2021), Alibaba made more acquisitions (34 vs 21) and is more likely to take over those companies. Tencent's 'traffic + capital' strategy (Wu, 2016) suggests that the WeChat-centered platform ecosystem and the Tencent-coordinated business consortium (Jia and Kenney, 2022) are indispensable and mutually reinforce Tencent's expansion playbook.

Different from Tencent's rather distributed/decentered expansion into a mega-corp, Alibaba's investments are centralized, coordinated, and strategic, treating investees as chess pieces in its larger commercial 'game' to acquire their traffic, users, and/or

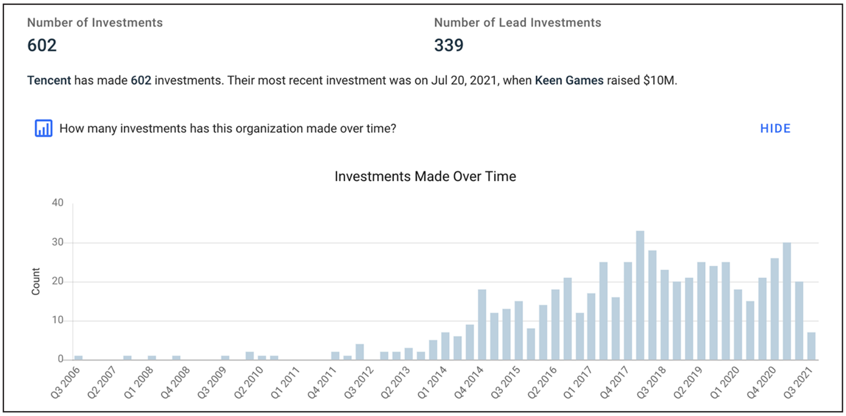

Figure 3. Tencent's Investment Volume Profile (Source: Crunchbase).

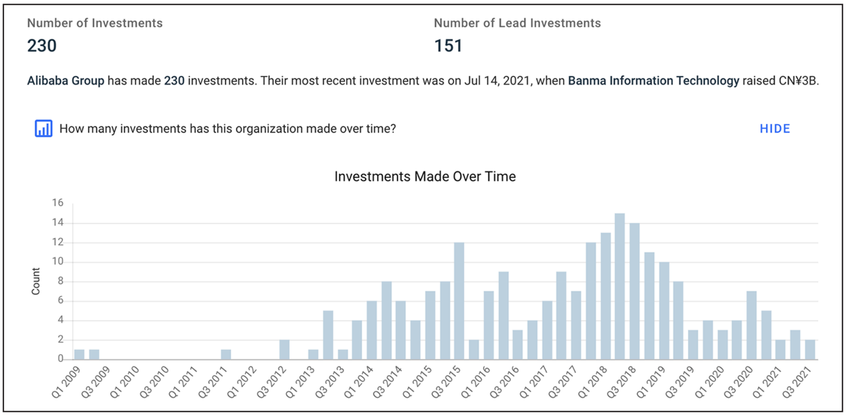

Figure 4. Alibaba's Investment Volume Profile (Source: Crunchbase).

technology (Guan and Fanggong, 2019). Since Alibaba's implemented its middle-end strategy in 2015 – a platform to centralize, manage, and package its collected data, Jack Ma has repeatedly emphasized that Alibaba is not about e-commerce, but about big data (Ding, 2018).

Over this time period, AT's scale and significance reversed its earlier marginal position vis-à-vis the state. No longer marginalized by the incumbent SOEs, they become deeply involved in advancing the economic, social, and political agendas set by the governments at different levels. Not only do local governments compete to collaborate with AT to boost local GDP and job creation, but also AT are encouraged to participate in the central government's domestic initiatives for poverty-reduction and revival of rural China (Qian, 2021; Zhang, 2021b) and geopolitical strategy such as Belt and Road Initiative (BRI) (Clark, 2016; Shen, 2018). However, AT's deep involvement in the local, national, and transnational economic agendas is accompanied by their political alignment. The nation state has instrumentalized the ubiquity of WeChat and Alipay in Chinese society to deliver public services and maintain social governance and control within and beyond national borders (Harwit, 2017; Knockel et al., 2020).

Yet, as the power and influence of Big Techs expand, symbiotic relations with the state become increasingly unstable and contested. AT's business goals converge with state developmental and techno-nationalist missions. However, their profit-maximizing nature, connections to foreign financial capital and data monopoly have thwarted the state's public responsibilities to protect labor and consumer rights and promote healthy market competition. In the eyes of the central government, mega-corps' power in the market and society poses financial and national security risks. These tensions broke out in the late 2010s and prompted government regulators to rein in the power of Big Tech and re-negotiate state-capital relations.

Reining-in Big Tech and renegotiating state-corporate relations (since late 2010s)

On November 3, 2020, the Shanghai Stock Exchange halted the company's record-breaking IPO scheduled for that week. This incident was a turning point, symbolizing the beginning of a new era of toughened regulation of the Chinese tech industry amid a major state-led policy shift aiming to reverse the previous decades of runaway neoliberalization. While public opinion on both sides of the Pacific expressed shock at the news, reactions diverged. A majority of the Chinese public supported the regulatory intervention, whereas Western media generally framed the move as a crackdown by an omnipotent party-state on private entrepreneurs. This oversimplification ignores ongoing re-negotiations of state-platform-consumer relations in China and misconstrues the domestic and international forces that make re-negotiation possible and feasible.

However, regulatory winds shifted long before Ant Group's stalled IPO. The first sign of shift in government attitude toward platform businesses came in 2015 when China's stock market crisis cooled the overheated platform economy. In January 2016, President Xi and his team of economic advisors launched 'supply-side reform', which redirected resources away from perceived frothy platform business toward strategic sectors like semiconductors. A primary goal is deleveraging the over-indebted Chinese economy to control financial and social risk (Orlik, 2020). Meanwhile, public dissatisfaction with Big Techs regarding exclusionary anti-competitive business practices, data-driven price discrimination, and exploitative labor conditions, have gained momentum amid proliferating media coverage (Zhang, 2021b). Combined, they facilitate reversal in previously celebratory domestic public attitudes toward Internet giants like AT.

Elsewhere, Chinese tech companies' internationalization, especially expansion into the US and other Western economies, has been bumpy. In 2016, the Committee on Foreign Investment in the United States (CIFUS) torpedoed Ant Financial's plan to acquire MoneyGram, a US money transfer company, on data security grounds (Roumeliotis, 2018). The situation worsened during the US-China trade war in 2018, and several Chinese companies fell victim to escalating geopolitical tension, including

Huawei, WeChat, and so on. The looming threat of US-China 'decoupling' in a 'New Cold War' has impelled China to exercise greater control over its tech giants, especially those backed by global capital and/or listed on foreign stock markets.

Two interlocking forces, one reviving from the history and the other contemporary, sets apart the current period from the previous two decades, which transcend dichotomous constructions of state versus market/private entrepreneurs.

The first force is the mixed ownership reform (MOR) which is intended to weaken boundaries between public and private in China. The idea of MOR dates back to 1993 when post-Mao China committed to reforming its underperforming SOEs. Compared to previous SOE reforms when the Chinese capital market and private sector were relatively weak, the new MOR encourages private capital's participation in restructuring SOE ownership structure to rejuvenate corporate management (Zheng, 2014). As national champions, private Big Techs like AT are crucial players in MOR. A high-profile case was AT's strategic investment, with additional private investors, in China's second-largest telecom operator, Hong Kong-listed China Unicom in 2017. This reduced China Unicom's holding from 62.7% to 36.7% (Clare and Zhu, 2017). BATJ (Baidu, Alibaba, Tencent, and JD) now hold four of eight seats on China Unicom's board (Feng et al., 2018). These alliances facilitated China Unicom's collaboration with Tencent and Alibaba in cloud infrastructure and 4G service.

Mixed ownership reform also involves the establishment of new mixed-ownership holding companies by state and private capital. The central government is motivated because of its concern over private fintech companies' control over consumer data and the possibility of financial risks. However, private firms had been reluctant to share their proprietary data with the new mixed ownership platforms. A breakthrough came in 2021 following the announcement of Alibaba's antitrust ruling. As of late October 2021, Ant has received regulatory approval to set up a personal credit-scoring firm with three state-backed companies in Zhejiang and one private non-state investor. The resultant joint-venture enterprise would loosen Ant's grip on its consumer data treasure trove while helping bring PBoC closer to its vision of building a national personal credit system that's both market-based and state-controlled.

Secondly, parallel with ongoing experiments in mixed ownership is state's efforts to institutionalize the regulation of Big Tech. Since the late 2010s, the central government has passed, in quick succession, new laws and amendments to existing laws designed to rein in the increasingly powerful digital sector. For instance, Cybersecurity Law went into effect in June 2017 to formalize state control over Internet content (Liu, 2021). Three months later, the Cyberspace administration of China fined BAT heavily for 'hosting fake news, pornography and other forms of banned content'. (Chin, 2017). State Administration for Market Regulation (SAMR), the new and centralized regulatory agency established in 2018, launched several antitrust probes into powerful tech giants like AT. New guidelines, policy directives, and regulatory penalties targeting the 'platform economy' have been announced since late 2020. These signal a strong political shift as the Chinese central government is determined to get Big Tech under control.

Data sovereignty has emerged as another major clash site. In 2018, the US Congress enacted the Clarifying Lawful Overseas Use of Data (CLOUD) Act and the EU approved its General Data Protection Regulation (GDPR), both of which exercise long-arm jurisdiction to enhance the defense of data sovereignty. Having witnessed how the US deployed its sophisticated legal regime to exert extraterritorial power over Chinese tech firms, China felt the need to formalize its own rules and strengthen its legal arsenal (Zhang, 2021b). In 2019, China issued draft versions of its Personal Information Protection Law (PIPL) and Data Security Law. Both were passed in June 2021, effective 3 months later (Kharpal, 2021).

From halting Ant Group's STAR IPO in the name of financial security to suspending Didi's app following its NYSE IPO for the sake of national data security, Chinese regulators have showed the political power and willingness to keep digital platform monopoly in check. While tensions between various ministerial regulators and discrepancy between policy ambition and their actual implementation are likely to persist (Li, 2019), these policy shifts mark a new era in state-platform relations. The Chinese state's ongoing experiments with MOR and efforts to institutionalize relationships with platform businesses should be read as a conscious projection of the Chinese way of governance in the global arena. This reassertion of state power, in line with the state-led nature of China's economy, should also be interpreted as China's counterforce against the excesses of neoliberal globalization, though the efficacy is too soon to conclude.

Conclusions

Focusing on the regional specificities and historical evolution of Chinese platform megacorps, we have seen how platform capitalism in China, within the logic of the state-led economy, have navigated from the periphery to the center of Chinese state capitalism, while subjected to the regulatory pendulum of the state (Zheng and Huang, 2018). The emergence of privately-owned tech monopolies as a new generation of 'middle ground agent' in-between SOEs and grassroots market participants disrupts established patterns in Chinese political economic system and demands its transformation (Zheng and Huang, 2018). The rising power of platform mega-corporations exposes long-standing structural problems in neoliberalism. It also poses unpresented, yet common challenges to global lawmakers and regulators who safeguard public interests and equitable development. The practice of platform capitalism in China under changing institutional conditions is highly significant for current global debates and regulatory experiments in restraining the monopolistic power of digital mega-corps.

With recent studies, our article challenges the uniformity of platform capitalism by embedding its emergence and evolution in specific institutional conditions (Rahman and Thelen, 2019) and geographical and historical contexts, which anticipate and shape the current configurations of digital platforms (Athique, 2019; Steinberg, 2019). Borrowing insights from China Studies on the characteristics and logic of political-economic institutions in China, our study of Alibaba and Tencent and their super apps enrich existing knowledge about the situated history and development of platform capitalism. Adopting a regional and historical approach, we highlighted how the development of the platforms has played out at the local, subnational, national, and transnational levels and the crucial, evolving role of the state in Chinese platform capitalism as it constantly juggles the political objectives of economic growth, employment, and national security. This defining characteristic of 'market in state' helps explain the regulatory swings from permissiveness in early years to nurture China's platform economy, to proactive curtailment of Big Tech power when needed. These state-dictated pendulum swings and precarious equilibrium are 'hardly conceivable in a typical free market economy' (Zheng and Huang, 2018: 298). Neither is it new in China, but continues from historical precedents in Chinese political economy in which the state had developed a cyclical movement of regulations between *shou* (tightening up) and *fang* (loosening up) (Zhang, 2022). However, institutions, regulatory systems, and market-state relations in China are more contested than monolithic and more unstable than static. The development and regulation of platform capitalism in China should be acknowledged in its own right, evincing the Chinese government's political will to renegotiate the country's position in and relation with transnationally financialized capitalism.

We ground platform technological applications and business strategies in the opportunities and constraints afforded by changing institutional conditions. Our meso-level organizational analysis of technological and operational actions taken by platform companies is informed by macro-level analysis of institutional transformations and the regulatory pendulum in China. Thus, we captured the shifting relations between privately-owned companies and the SOEs and between mega-corps enmeshed in the transnational capitalist network and evolving national regulatory regimes.

The regional and historical perspective can be applied elsewhere to draw scholarly attention to the historical continuity, rupture, and complexity of platform capitalism in other contexts. It should also help reveal the varied and similar strategies utilized by platform companies at a range of scales – locally, nationally, regionally, and transnationally. Scholars may situate the localized articulation and practices of platform capitalism in other locales to draw parallels and differences. This is particularly meaningful at the current conjuncture. Geopolitical tensions between China and the U.S. encourage an ideologically driven discourse about China's omnipotent authoritarianism and a binary opposition between the U.S. and China, which obscures common challenges and possible opportunities for transnational collaborations together and with other countries to regulate transnational capitalism in the platform economy.

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Notes

1. Ant is a fin-tech subsidiary of the e-commerce giant company Alibaba.
2. Author's calculation based on data released by iResearch (2012).

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