

China's Tech Giants: Baidu, Alibaba, Tencent

Hong Shen

WHO ARE THE BATS?

With the rise of a group of powerful internet companies – especially the BATs – the Chinese internet has become the centre of global attention.

Who are the BATs? This seemingly simple question turns out to be surprisingly difficult to answer. Referring to Baidu, Alibaba, and Tencent, the BATs are the three most powerful companies providing web applications in China. Originated in search (Baidu), e-commerce (Alibaba), social media and mobile gaming (Tencent), all three tech conglomerates started their businesses in the late 1990s or early 2000s. Twenty years later, they each occupy a dominant position and enjoy a near monopoly in their respective areas. With market values of \$484 billion (Alibaba), \$447 billion (Tencent) and \$89 billion (Baidu) as at the middle of 2018, they have entered the club of the world's most valuable tech companies, sharing the same stage with American tech giants like Apple, Amazon, Alphabet, and Facebook.¹

The BATs are more than just search, e-commerce or social media companies, however. Over the past two decades, they have each developed an extremely complicated digital empire, extending their tentacles into almost every aspect of China's political economy. Take Alibaba as an example. Although in its 2014 initial public offering (IPO) prospectus, the company described itself as "the largest online and mobile commerce company in the world",² e-commerce, however, appears to be only the "tip of the iceberg" of its now eclectic empire. Alibaba's massive corporate system constitutes not only its core in commerce (both online and offline), but also the supporting layer of logistics, payment and finance, cloud computing

¹ Jeff Desjardins, "Tech's 20 Largest Companies are Based in Two Countries," 9 July 2018, *Business Insider*, <https://www.businessinsider.com/techs-20-largest-companies-are-based-in-2-countries-2018-7>.

² Alibaba Group, SEC Form F-1/A, 100.

and consumer services, and the outermost layer that extends from media and entertainment to healthcare and even automobile manufacturing. Its multifunctional mobile payment app Alipay (now part of Ant Financial, an Alibaba-affiliated financial company), commands 600 million users.³ In a similar vein, Tencent has also developed its mega app, WeChat, combining functions from messaging and social networking to mobile payment, wealth management and even public services – including paying public utility fees or applying for travel visas. In March 2018, it hit 1 billion monthly active users.⁴ Baidu, on the other hand, has accelerated its growth in the emerging field of Artificial Intelligence, including developing voice assistants and driverless cars.⁵ In sum, by the end of 2018, all three internet companies have not only consolidated their core businesses in search, e-commerce and social networking, but have also evolved into multifaceted tech platforms.

THE FORCES BEHIND THE RISE OF THE BATS

How have the BATs constructed such massive digital empires in the past two decades? What are the factors behind their success? There are three potential forces.

First, the three Chinese web conglomerates are rooted in the world's largest online market, which has been – at least partially – shielded by the so-called “Great Firewall”. In 2017, China was home to 772 million internet users – more than Europe's total population.⁶ Every day, those 772 million netizens will search the web using Baidu, send messages through WeChat and buy things on Taobao (Alibaba's e-commerce site) – instead of performing similar tasks on Google, Facebook or Amazon. The “Great Firewall” of China, despite its infamous political aspect, has also functioned as an economic shield for the state to reserve its domestic market for home-grown players. Moreover, this enormous home market has become increasingly lucrative as well, in tandem with China's growing economic power. In

³ Zen Soo and Alice Shen, “Google steps up global fight for digital wallet as China dominates mobile payment,” 21 February 2018, *South China Morning Post*, <https://www.scmp.com/tech/innovation/article/2134123/google-steps-global-fight-digital-wallet-china-dominates-mobile>.

⁴ Nicole Jao, 5 March 2018, Technode, <https://technode.com/2018/03/05/wechat-1-billion-users>.

⁵ Bernard Marr, “How Chinese Internet Giant Baidu Uses Artificial Intelligence and Machine Learning,” 6 July 2018, *Forbes*, https://www.forbes.com/sites/bernardmarr/2018/07/06/how-chinese-internet-giant-baidu-uses-artificial-intelligence-and-machine-learning/#366cbc002d55_

⁶ China Internet Network Information Center (CNNIC), “2017 Statistical Report on Internet Development in China,” 2018, <https://cnnic.com.cn/IDR/ReportDownloads/201807/P020180711391069195909.pdf>.

2018, Alibaba's 24-hour shopping festival – “Single's Day” (similar to “Black Friday” in the US) – achieved a sales record of \$30.8 billion, easily surpassing the sales volume of any single US shopping holiday.⁷ The booming Chinese economy, the state's protective internet policies, and the growing purchasing power of the Chinese “rising middle class” – a large number of the favoured social strata – have jointly provided a fertile home ground for the rise of the BATs.

Second, apart from a big and lucrative home market, the BATs have also benefited from the strong policy support from the Chinese government, especially its persistent focus on the development of communication and information technologies (ICTs) during the past three decades. Indeed, from Premier Zhou Enlai's “four modernisations” in the 1970s to President Jiang Zemin's “None of the four modernisations would be possible without informatisation” in the 1990s, the development of a modern information industry – under the influence of the then flashy international branding of the internet as the “information superhighway” – was regarded by the top leadership as a critical opportunity to reclaim China's historical position and to “catch up with the West”.⁸ Moreover, if in the 1980s and 1990s, ICT manufacturing was considered as a “pillar industry” that spearheaded China's Foreign Direct Investment (FDI)-driven, export-oriented, and labour-intensive development, entering into the 2000s, network connectivity and online applications started to gain prominence and have been accorded a new role in propelling China's post-2008 restructuring toward an innovation and consumption-based economy, i.e., both moving up the global production value chain and transitioning to a more domestic-oriented economy.⁹ The “Internet Plus” policy in 2015, which aims to further integrate digital technologies with traditional economic sectors, and the newly released “Next Generation Artificial Intelligence Development Plan” in 2017 are only the two most recent examples of a long-standing policy focus. China's internet industry in general, and the BATs in particular, have been the direct beneficiaries of this persistent government support.

⁷ Arjun Kharpal, “Alibaba sets new Singles Day record with more than \$30.8 billion in sales in 24 hours,” *CNBC*, 11 November 2018, <https://www.cnbc.com/2018/11/11/alibaba-singles-day-2018-record-sales-on-largest-shopping-event-day.html>.

⁸ Yuezhi Zhao, “After Mobile Phones, What? Re-Embedding the Social in China's ‘Digital Revolution,’” *International Journal of Communication* 1, no. 1 (2007): 92–120.

⁹ Yu Hong, *Networking China: The Digital Transformation of the Chinese Economy* (Urbana, IL: University of Illinois Press, 2017).

The third force, and the one that has been relatively overlooked in the existing discussion, is the role of transnational capital. As I have discussed elsewhere,¹⁰ although Beijing controls its domestic internet through various regulatory measures, it has exhibited an unusually high degree of tolerance toward foreign capital *as portfolio investment*, which literally jump-started its web economy in the late 1990s. Indeed, the BATs were all founded in the late 1990s and early 2000s with investment from transnational venture firms: Tencent in 1998 with \$2.2 million from Hong Kong's PCCW and Boston-based IDG, Alibaba in 1999 with \$5 million from a Goldman Sachs-led foreign investment team, and Baidu in 2000 with \$1.2 million from Silicon Valley-based venture capital firms Integrity Partners and Peninsula Capital. Along with their significant capital contribution, foreign investors have taken controlling stakes – as well as corporate board membership – in the three “Chinese” tech kings. In 2013, South African company Naspers controlled 34% of Tencent, US investment firm DFJ Venture Capital controlled 25.8% of Baidu and Softbank of Japan owned 31.9% of Alibaba.¹¹ Instead of a symbol of the rising “Chinese” tech power, therefore, the BATs are actually much more complicated products constructed collectively by state policies and transnational capital.

THE BATS GO GLOBAL

Having secured a dominant position in their respected areas in the Chinese market, the BATs have also started to increasingly set their sights on the international market and are actively engaged in a global shopping spree. For example, Alibaba, following a record \$25 billion IPO in 2014, recently spent \$1 billion for a controlling stake in Lazada, the biggest e-commerce firm in Southeast Asia.¹² Baidu, similarly, confirmed its 2014 investment in Uber, the US-based taxi sharing company, with some estimating the figure to be around \$600 million.¹³ In mid-2016, Tencent led

¹⁰ Hong Shen, *Across the Great (Fire)Wall: China and the Global Internet* (PhD dissertation, University of Illinois at Urbana-Champaign, 2017).

¹¹ “Baidu/Tencent/Alibaba/Renren de zhenzheng dalaoban shishui?” 百度/腾讯/阿里巴巴/人人网的真正大老板是谁? [Who're the real big bosses behind Baidu/Tencent/Alibaba/Renren], http://big5.gmw.cn/g2b/IT.gmw.cn/2013-11/05/content_9394755.htm.

¹² Newley Purnell and Alyssa Abkowitz, “Alibaba Thinks Outside the China Box,” *The Wall Street Journal*, 12 August 2016, http://www.wsj.com/articles/alibaba-thinks-outside-the-china-box-1470995037?cxnavSource=cx_picks&cx_tag=contextual&cx_artPos=5#cxrecs_s.

¹³ Lulu Yilun Chen, “Baidu Said to Buy Stake in Uber, Boosting App in China,” *Bloomberg*, 11 December 2014, <http://www.bloomberg.com/news/articles/2014-12-12/baidu-said-to-buy-stake-in-uber-boosting-app-in-china>.

an investment group to purchasing 84% percent of Finnish mobile games maker Supercell for \$8.6 billion.¹⁴

What is the aim behind these massive global investments?

First, the BATs have certainly used them as a way to fortify their core strengths. For example, over the years, Tencent has invested in various game makers in the international market, such as Riot Games, Epic games, Activision, CJ games, Glu Mobile and Supercell, to support its primary growth engine – the online gaming market. Alibaba, similarly, has poured large amounts of capital into different e-commerce sites, payment companies, and logistics platforms to support the development of its main business of e-commerce, building partnerships with American online shopping service Shoprunner, Indian online payment system Paytm, and Singapore Post.

Second, shopping globally can also help these Chinese tech giants to further diversify their business structures. For instance, apart from various deals with mobile game makers, Tencent has also participated in the social media (with Spotify and SnapChat), ride-sharing (with Ola and Go-Jek), e-commerce (with Flipkart) and electronic vehicle (with Tesla) markets. Alibaba, on the other hand, has accomplished large deals in social media (with TangoMe and SnapChat) and online gaming (with Kabam), increasingly encroaching on Tencent's home turf.

Finally, outward capital projection has played an important role for the BATs with respect to finding profitable outlets to reinvest the money capital they have accumulated over the years. It is reported that in 2013, Alibaba held \$7 billion in cash reserves while Tencent had \$5 billion.¹⁵ This large amount of money capital needs to be reinvested in order to generate new profits. Probably for this reason, the BATs have also started to partner with transnational venture capital firms to explore lucrative emerging markets outside of China. In April 2010, for example, Tencent injected \$300 million into Digital Sky Technologies, a Russian investment firm that is well known for its investments in Facebook, to build a "long-term strategic partnership".¹⁶ In January 2015, Tencent and another Chinese social media

¹⁴ Lulu Yilun Chen, Pavel Alpeyev and Yuji Nakamura, "Tencent Leads \$8.6 Billion Deal for Clash of Clans Studio," *Bloomberg*, 22 June 2016, <http://washpost.bloomberg.com/Story?docId=1376-0949KV6KLVR701-44DR9M9STL12JECOAD2GQOLPSP>.

¹⁵ Alistair Barr, "Just How Much Cash Does Alibaba Have," 6 May 2014, *The Wall Street Journal*, <http://blogs.wsj.com/digits/2014/05/06/just-how-much-cash-does-alibaba-have/>; Evelyn M. Rusli and Paul Mozur, "China Buys Its Way into Silicon Valley," 4 November 2013, *The Wall Street Journal*, <http://www.wsj.com/articles/SB10001424052702303843104579171963801529056>.

¹⁶ Tim Bradshaw and Kathrin Hille, "Tencent to invest \$300m in DST," *Financial Times*, 12 April 2010, <https://next.ft.com/content/5364d9c2-464d-11df-9713-00144feab49a>.

company, Renren, invested \$100 million in Singulariteam, an Israeli venture capital firm. This \$100 million, according to Singulariteam, would be used to fund local start-ups.¹⁷ In other words, instead of merely receiving global venture capital investments, China-based internet companies, represented by the BATs, have now started to form collaborative relationships with transnational financial capital to project money *outward*.

Despite growing outward capital projection, there is still a long way for the BATs to go to conquer the international market. In 2017, the overseas revenues of Alibaba, Tencent, and Baidu only accounted for 11%, 5%, and 1% of their annual revenues, respectively. In contrast, in the same year, overseas revenue was 53% for Google, 56% for Facebook, and 32% for Amazon.¹⁸ Indeed, the BATs have not become “global” internet giants yet – at least for now.

THE NEW JOURNEY

In March 2015, reporting to the National People’s Congress, Chinese Premier Li Keqiang announced that China had adopted an “Internet Plus” strategy, which aims to link the internet, especially next-generation network technologies such as Big Data and Internet of Things, with almost all the sectors of the Chinese political economy.¹⁹ A few months later, on 5 July, China’s State Council, the top decision-making body of the government, formally promulgated the “Internet Plus Action Plan,” calling for further deepening of the integration of network technologies with 11 targeted sectors, including entrepreneurship and innovation, manufacturing, agriculture, energy, finance, public services, logistics, e-commerce, transportation, green ecology and Artificial Intelligence.²⁰ With various state agencies and local governments issuing their own versions and interpretations of this central strategy, “Internet Plus” has officially become a hallmark policy under the Xi Jinping-Li Keqiang administration.

¹⁷ Ingrid Lunden, “Israel VC Singulariteam Raises 2nd Fund, \$102M Backed by Tencent, Renren Founders,” *TechCrunch*, 28 January 2015, <https://techcrunch.com/2015/01/28/singulariteam-vc-fund>.

¹⁸ Rebacca Fannin, “China’s BAT Won’t Battle the FANGs in the US Anytime Soon,” 21 May 2018, *Forbes*, <https://www.forbes.com/sites/rebeccafannin/2018/05/21/dont-count-on-chinas-baidu-alibaba-tencent-to-go-mainstream-in-the-u-s/#191319745f28>.

¹⁹ Xinhua News Agency, “Internet Plus Set to Push China’s Economy to Higher Level,” 15 March 2015, *Xinhua Net*, http://news.xinhuanet.com/english/2015-03/15/c_134067831.htm.

²⁰ State Council, “Guiding Opinions on Actively Promoting the ‘Internet Plus’ Action Plan,” http://www.gov.cn/zhengce/content/2015-07/04/content_10002.htm.

“Internet Plus” has also taken the BATs onto a new journey as it has officially opened up many previously highly regulated sectors in China for internet capital to permeate, from healthcare to education, from banking to public services. Indeed, riding the tide of the “Internet Plus,” there have been many “first times” in the three tech giants’ business adventures. In the area of banking and finance, Alipay and WeChat Pay were among the first non-banking payment providers that received a license from China’s central bank. In 2014, Alibaba’s affiliate bank, Zhejiang Internet Commerce Bank, was one of the two privately owned commercial banks – another one belongs to Tencent – to be allowed to operate in the highly regulated state-owned banking industry.²¹ A number of local governments have also reached agreements with Alibaba and Tencent to develop smart cities initiatives, linking public services such as hospital appointments or payment of utility bills with Alipay and WeChat Wallet, the two companies’ payment platforms.²² Probably most significantly, tech giants have also started to cultivate strong collaborative relationship with China’s state-owned behemoths: In 2016, Alibaba teamed up with China’s largest automaker, the state-owned SAIC Motor Corporation, to jointly develop driverless cars. The same year, it also announced its plan to help the state-owned oil giant Sinopec on big data analytics and information security, officially stepping into the highly sensitive energy sector.²³ Through all these new initiatives, the BATs have extended their tentacles into various aspects of China’s political economy.

This trend is expected to continue with China’s new push toward 5G mobile networks, the Internet of Things, and probably most prominently, Artificial Intelligence (AI). In 2017, the BATs were collectively recruited by the state as the first members of China’s AI “national team,” with Baidu’s focus on driverless cars, Alibaba’s focus on smart cities, and Tencent’s focus on computer vision and medical AI.²⁴ How this new journey will unfold, however, remains to be seen.

²¹ Gabriel Wildau, “Alibaba affiliate Wins approval for Bank License,” *Financial Times*, 29 September 2014, <http://www.ft.com/cms/s/0/605c26bc-47d3-11e4-ac9f-00144feab7de.html#axzz4KvOySat4>.

²² Xinhua News Agency, “Tencent, Alibaba in race to snap up smart city deals with local gov’t,” *China Daily*, 16 April 2015, http://www.chinadaily.com.cn/bizchina/tech/2015-04/16/content_20450793.htm.

²³ Brian Spegele and Alyssa Abkowitz, “China’s Tech Leaders Try Teaching Dinosaurs to Dance,” *The Wall Street Journal*, 24 April 2016, <http://www.wsj.com/articles/chinas-tech-leaders-try-teaching-dinosaurs-to-dance-1461526201>.

²⁴ Meng Jing and Sarah Dai, “China recruits Baidu, Alibaba and Tencent to AI ‘national team’,” *South China Morning Post*, 25 September 2018, <https://www.scmp.com/tech/china-tech/article/2120913/china-recruits-baidu-alibaba-and-tencent-ai-national-team>.

AFTER THE BATS, WHAT? THE NEW UNICORNS

Despite their dominant status in the Chinese market, the BATs are by no means without competitors. The next generation of digital unicorns – i.e., tech start-ups with more than \$100 billion valuation – are already approaching. Thanks to the aforementioned supportive government policies, China now reportedly has 164 tech unicorns, worth more than \$600 billion, according to the 2017 *China Unicorn Enterprise Development Report* published by the Ministry of Industry and Information Technology.²⁵

Among these newly emerged tech companies on the list, the TMDs – news and information content provider Toutiao, online food delivery-to-ticketing services giant Meituan-Dianping, and ride-hailing platform Didi-Chuxing – are arguably the three most powerful ones in the web applications sector.²⁶ Toutiao is currently valued at more than \$20 billion, after its most recent fund raising in August 2018. Based on using machine learning algorithms to create highly personalised news feeds, it has quickly become one of the most popular news and social media apps in China, increasingly encroaching on Tencent's and Baidu's territories. Meituan-Dianping, the Chinese food delivery unicorn, went public in Hong Kong in September, raising \$4.2 billion in a single deal. Aggressively expanding its businesses from group buying to food delivery to ride-hailing, it is currently directly confronting Eleme, the Alibaba-backed online food ordering platform. Finally, Didi-Chuxing, after defeating and acquiring Uber China in 2016, has effectively become a monopoly in China's growing ride-hailing market. Backed by funding and market entries from both Alibaba and Tencent, it offers a wide range of transportation options for 550 million users in China, ranging from taxi to bike sharing, and is currently competing with Meituan-Dianping in the food delivery sector as well.²⁷

The rise of this full-range of Chinese tech companies on the global stage has raised serious questions not only for the Chinese, but also for the international internet. For a long time, popular media stories have shaped the conventional wisdom about China's relationship with the global internet. For many, China is only interested in building a national "intranet" that is sealed by the "Great Firewall," or

²⁵ Xie Yu and Maggie Zhang, "At the heart of China's techno-nationalism is a hit list of 200 unicorns," *South China Morning Post*, 31 March 2018, <https://www.scmp.com/business/companies/article/2139684/heart-chinas-techno-nationalism-hit-list-200-unicorns>.

²⁶ Other top units of Internet capital on the list include Ant Financial (Alibaba-affiliated financial arm, with a valuation of \$75 billion) and Xiaomi (consumer electronics company, with a valuation of \$46 billion).

²⁷ "About Didi," <https://www.didiglobal.com/about-didi/about-us>.

a “giant cage” that is unplugged from the international network.²⁸ This conventional wisdom, however, has become more and more inadequate – and even misleading – in the face of the growing cyber expansion of China-based entities. Has the Chinese internet started to move across the “Great Firewall”? Will the future structure of the global internet be significantly shaped by China-based business actors – not only the BATs but also the TMDs, and many other unicorns to come? If so, for whom and to what ends?

Hong Shen is a Systems Scientist at the Human-Computer Interaction Institute at Carnegie Mellon University. She received her PhD in media and communications from the University of Illinois at Urbana-Champaign in 2017. Her research focuses on internet industry and policy (with an emphasis on China) as well as the social and policy implications of emerging technologies.

²⁸ Gady Epstein, “China’s Internet: A Giant Cage,” *The Economist*, 6 April 2013, <http://www.economist.com/news/special-report/21574628-internet-was-expected-help-democratise-china-instead-it-has-enabled>.