

Focus
February 2021

**BAT and the BRI: A dive into China's
Digital Economy**

Laraib Farhat

BAT and the BRI: A dive into China's Digital Economy

Laraib Farhat*

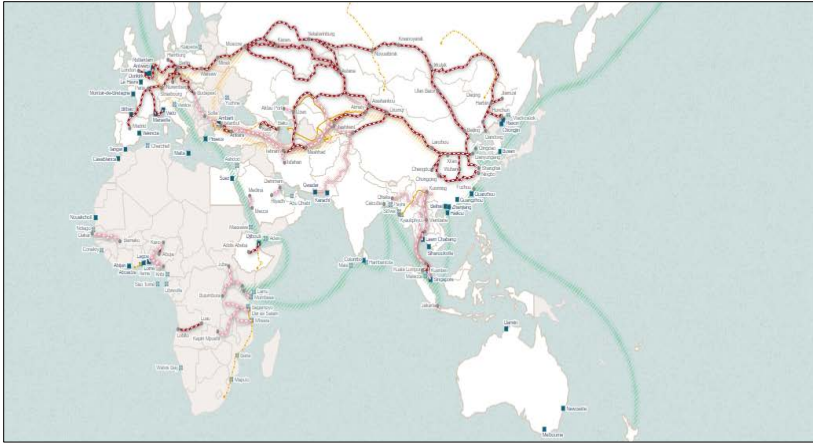
Introduction

As the world adopts a fast pace of digitalisation, some tech giants have appeared as the world's digital backbone. Today's world is dependent more on the internet economy than ever before. For instance, currently Facebook, Amazon, Apple, Netflix, and Google that are abbreviated as FAANGS are dominating the world's digital industry.¹ These American tech companies have managed to establish a foothold in the world and every country has adopted ways to use their respective services as a part of their daily lives, ranging from entertainment to online retails. However, China, the economic giant itself has rather taken a road of its own, i.e., the road of BAT—known as Baidu, Alibaba, and Tencent. BAT facilitates China's tech ambitions.² These three brands influence the Chinese digital market and their leaders Robin Li (Baidu), Jack Ma (Alibaba), and Ma Huateng (Tencent) are considered as innovators that changed the living standards of the Chinese people.³ China's tech revolution journey began in 2016, when Lee Sedol, who is widely considered as the greatest Go player of the past decade lost to Google DeepMind's AlphaGo.⁴ This prompted

* Laraib Farhat is Assistant Research Officer at the Institute of Regional Studies, Islamabad

an instant reconsideration among China to develop its Artificial Intelligence (AI) strategy, as a part of its National development plan to enhance China's digital footprint. In the 19th Party Congress in 2017, China reoriented its focus on becoming a Science and Technology Superpower.⁵ However, to translate this goal into reality, AI was made an integral part of this groundbreaking development. While producing digital capital, this tech trio has managed to successfully revolutionise China's entertainment industry, e-commerce, and e-finance.

Similarly, China's goals are not just bound by the digital transformation but are rather followed by a more integrated approach. Its developmental projects transcend not just borders but continents. One such project, i.e., the distinguished Belt and Road initiative (BRI), announced by President Xi Jinping in 2013,⁶ aimed at improving regional cooperation and connectivity on a trans-continental scale, i.e., from Asia to Africa and Europe. The initiative is a renewal of the Silk Road Economic Belt, facilitated with the advancement of new and improved infrastructure.⁷ BRI's unique selling product is its inclusiveness which is directed at an open arrangement, allowing all countries to benefit from development projects. While currently an official list of countries participating in the BRI does not exist, around 71 economies are found to be geographically located along BRI transport corridors.⁸ BRI transportation projects have the potential to significantly improve trade, foreign investment, and living conditions in participating countries—but only if China and other corridor economies implement policy reforms that increase transparency, facilitate trade, enhance fiscal sustainability, and minimise the environmental, socioeconomic, and corruption risks.



*Map I: BRI Projects⁹

BRI's digital angle:

BRI is the most researched topic of discussion and investigation. Undoubtedly, the far-reaching impacts of BRI and prospects of economic growth attached to demand extensive attention. However, in the process, the digital integrant of BRI, i.e., the Digital Silk Road (DSR) is often overlooked. DSR is considered to be the third pillar of BRI¹⁰, the first and second being the road and the sea. It was in June 2016 when President Xi Jinping announced his vision is to make China a leading player globally in the field of science and technology.¹¹ Thus, China's State Council in 2016, published its 13th Five Year Plan which had a separate segment for how to enhance connectivity links (i.e., Internet, and telecommunications across the BRI countries.¹² Since then, the Digital Silk Road has taken up a fast pace in developing a strong foothold and changing the landscape of China's digital economy.

The Digital Silk Road is comprised of myriad tech projects, ranging from advancing 5G networks, laying fiber optic cable, constructing data centers, satellite navigation, quantum

computing, smart cities, artificial intelligence, e-payments, and a lot more in the countries where the projects of DSR are underway.¹³ In a nutshell, DSR is delivering the next-generation technology in the form of hard and soft infrastructure that can expedite China's trade effectiveness with the rest of the world. Nevertheless, through this strategically-crafted project, China aims to restructure the digital global order.¹⁴ Through the use of the aforementioned high-end technology, China is seemingly on its way to building an information highway with itself at the centre of all the incoming and outflowing data. The integration of the digitalisation aspect in BRI's infrastructure has worked as a Victorian formula for China, providing it with a competitive edge in the market—be it in trade, technology, or Industry 4.0.¹⁵

While connectivity areas like that in Asia and Africa will be most beneficial regarding the implementation of the DSR, this enhancement in digital connectedness will also bring along security and privacy implications.¹⁶ This means that whilst it is expected that the expansion of the DSR will disrupt internet sovereignty by replacing it with the Chinese model of internet which is facilitated by censorship,¹⁷ the steps to strengthen the notion of 'Internet sovereignty' which permits governments to restrict what individuals may read and post on the internet, are alarming. Attempts by various national governments to direct multinational corporations obtaining their people's data to store such sensitive and private information on servers situated within their national boundaries are also troublesome. Governments are likewise attempting to get unrestricted access to such data under the guise of 'national security.' IT businesses and civil society organisations are opposing such measures because there are serious fears that governments may misuse such data. It is ironic

that, while criticising governments, IT businesses have been reckless in their handling of such data.¹⁸ Thus, it is realistic to keep the data within the current vicinity as it is at present.

Howsoever, besides security implications, the digital connectivity brought by the DSR has by large elevated the living standards of the Chinese people. The installation of digital information networks and communication technology beholding the internet, cloud computing, big data, internet of things, and fintech has facilitated a transformation in social interaction and is driving productivity, innovation, and the digital economy. Hence, China's BAT has enabled a digital revolution which is evolved through the hardware (Lenovo, Huawei, ZTE) to software (AI, robotics, e-payments), creating an ecosystem of the platform economy¹⁹ in China and is competing in the global arena with the US's platforms (FAANGS).²⁰

The Mighty Alliance: BAT and BRI

A deeper insight into BAT and the BRI reveals their independent role as separate bodies, serving China's foreign policy priorities. However, there is a sharp link between the two that connects them and creates a remarkable difference. BAT alone appears as a part of China's digital economic booster but when integrated into the setup of BRI, it changes the functional dynamics of the grand infrastructure. Chinese financial technology firms that use technology to facilitate innovation in financial services have been fast in fulfilling this unmet demand in several BRI countries, most notably in Southeast Asia and Africa. Although Chinese private enterprises are driving the outward growth of Chinese digital economy, they frequently utilise the BRI or DSR label to win domestic political backing for their foreign

commercial expansion and to use the market access granted by BRI projects.²¹

In 2017, the Belt and Road Forum took place in Beijing that highlighted two breakthroughs of the BRI—first, the silk road economic belt that runs through Central Asia to Europe, and second, the maritime silk road of the 21st century, that runs through Southeast Asia, Africa, and Europe.²² Howsoever, the most significant area of BRI, i.e., the DSR is often overlooked and that apparently, is the real game-changer. The underlying reason for this significance is ‘connectivity’ component which is enabling a tech-friendly ecosystem in Asian, African, and European continents. The inculcation of digital services that is, telecommunications, the Internet of Things (IoT), smart cities and e-commerce in the BRI, is rooted in the White Paper on BRI, laid out by China in 2015. The Paper explicitly called out for the construction of cross-border optical cables, communication networks, and international connectivity links to build up an ‘Information Silk Road’, that would facilitate and expand information exchange and cooperation.²³ A few months later, Lu Wei, the Director of Cyberspace Administration of China visited Brussels along with several senior executives of Chinese ICT giants namely, China Mobile, China Unicorn, China Telecom, Alibaba, Tencent, Alibaba, Baidu, ZTE, Huawei, and Xiaomi at the EU-China Digital Cooperation Routable, for the promotion of Digital and Cyber Silk Road.²⁴ It further explored some modern areas of cooperation while keeping the digital sector as a key to such developments. Some particular areas among those were 5G, cloud computing, big data, e-commerce, digital investment, high-tech startups, smart cities, and smart energies.²⁵ However, this concept of BRI is an expansion of China’s Going Global 2.0

strategy²⁶ followed by Chinese telecom companies pursuing the same strategy to accommodate their network access needs.²⁷

Baidu

Robin Li founded Baidu in 2000 as an internet search engine that was Chinese analogue to Google and controlled around 80% of the market share in China.²⁸ Being the fourth most popular website, Baidu has grown into a market cap of \$48.38 billion.²⁹ Google and Baidu operate in a similar ecosystem of web services, however, Google expands its services for the global market whereas Baidu is just focused on the local Chinese market, i.e., catering for only the Chinese people.³⁰ With China's vision of becoming tech-robust, Baidu heavily invested in Artificial Intelligence (AI) and established the Institute of Deep Learning in 2013, followed by investments in four other internal AI labs. The Labs succeeded in launching two other businesses, i.e., The Baidu Cloud and Baidu Brain. Baidu cloud in its best capacity brings forth an infrastructure to produce, analyse and tag data whereas, Baidu Brain serves as an algorithm platform.³¹ Seemingly, all of it combines to strengthen the Chinese information flow system at large.

Baidu services have been proving beneficial for the BRI as well, especially its AI translation, BRI Baidu Smart Map, Baidu Cloud, and cultural heritage program. All of the aforementioned operate in the premises of BRI interestingly. For instance, Baidu has adopted AI in its translation which intends to eliminate the language barriers in the execution of BRI.³² Similarly, Baidu's map in general covers 209 countries but with the integration of AI, it is now an AI-based smart map that can work closely with the BRI's smart map to give scientific and technological help to countries

and regions along the 'belt and road' to promote the development of smart tourism.³³ The cooperation between Baidu and BRI to strengthen the economic sector has expanded in the cultural area as well. Baidu launched its Cultural Heritage Program in the year 2018 and with the adoption of AI, it aims to reinvent Internet+ and Knowledge+ platforms.³⁴ While the government and CPC support the preservation of cultural heritage as development and state-building tools, Baidu uses its full potential in AI technology to breathe life into history by transforming all knowledge from museums to vivid digital interactions, facilitating China's tech-dreams.

Alibaba

Founded in 1999 by Jack Ma, Alibaba is one of the greatest e-commerce platforms. Alibaba initially began with the B2B marketplace for China, to facilitate small and big businesses that were exporting Chinese products globally. However, it became profitable just 3 years after its launch.³⁵ Alibaba is sometimes referred to as China's Amazon but both of them differ to a great extent in their business model. Nonetheless, Alibaba itself is made up of myriad initiatives, i.e., core commerce, cloud computing, mobile payments, Ali cloud, digital media, and entertainment. Alibaba in general is e-commerce dominating China's retail market, where it operates as a middle man between the buyer and the seller. However, it operates through two online portals, i.e., the *Taobao* for consumer to consumer commerce and the *Tmall* for business to consumer sales.³⁶ As of 2020, the market cap of Alibaba stands at \$648.31 Billion.³⁷

As Alibaba expands, its e-commerce services are aligned with the BRI to a large extent along with the growing logistic

services, i.e., Ali Express.com. The countries from BRI resultantly doubled the sales in 2018 where 57% of orders were coming from the BRI countries. Initially, it took 70 days for packages to deliver to other countries from China but after its successful implementation, the delivery time has been minimised to 10 days.³⁸ The opportunities for Alibaba group opened up through the BRI are highly notable as it adds around 60% of the world's population to its seller list along with global economic output accounting for 30%.³⁹ Thus, with the alliance that is created by Alibaba and BRI, the global expansion of domestic giants has been legitimised and further backed by strong political support.

Tencent

Founded in 1998, Tencent is China's largest tech giant. It is based in China's province of Shenzhen but it has expanded itself across Asia with offices in Tokyo, Seoul, Amsterdam, Palo Alto, and California. With the mission of promoting sustainability and innovation, Tencent is helping industries shape their future digitally through its products.⁴⁰ It is not restricted to one domain, rather functions in myriad technology-related zones including, video games, social media, entertainment, streaming and cloud services, and advertising. Their popular offerings include, QQ (instant messaging platform), Tencent Games and Tencent Pictures, fintech offerings, Weixin Pay, and Credit Card Repayment.⁴¹ However, as Baidu and Alibaba have their substitutes, Tencent has always been at the top of the pyramid with no competitor, i.e., operating with a competitive edge.

Tencent has positively projected itself in the state's eyes and has devoted its resources to BRI. It has picked up the pace for the digitisation of the cultural heritage to align with the state's

main melody strategy. It has joined hands with the Imperial Palace and the Mo Kao Grotto at Dunhuang to digitise archives of cultural heritage and to further impart its knowledge.⁴² Together they launched the strategic cooperation agreement for launching the Digital Silk Road Plan to cooperate in six spheres including, games, animation, tourism, music, cloud, and AR/VR technology. On the non-tech side, it aims to further promote, protect and revitalise the traditional culture of Dunhuang.⁴³ Digital art can help the BRI in fostering cultural interaction and exchanges between the people of participating countries. It will help BRI expand and project itself beyond inter-governmental level.⁴⁴

BAT, BRI and China's Digital Economy:

The digital economy in broader terms is defined as the transformation of the traditional economy into a technology-friendly economy. It covers e-commerce, fintech, driverless cars, digital banking, blockchain, Artificial Intelligence, and Robotics.⁴⁵ BAT being a household for all the above things has seemingly appeared to be a champion in proliferating China's Digital Economy. In the past two decades, China's tech giants, i.e., BAT have built a complicated digital empire, extending their reach to almost every aspect of China's political economy.⁴⁶ They have helped China in rebuilding itself and experiencing the rejuvenation of 'China Dream.'⁴⁷ Thus, through its functions and integration into BRI and DSR, BAT is helping China in becoming a digitally strong economic country. For instance, after securing a dominant position in their respective sectors in the Chinese market, BAT began to increasingly focus on the international market and actively engaged in a global shopping spree. Following a record \$25 billion IPO in 2014, Alibaba recently spent

\$1 billion for a controlling stake in Lazada, Southeast Asia's largest e-commerce firm.⁴⁸ Similarly, Baidu confirmed its 2014 investment in Uber, a taxi-sharing company based in the United States, with some estimating the figure to be around \$600 million.⁴⁹ However, all of these raise the question of how China was able to secure this monopoly. Information Technology and Information Foundation (ITIF) noted:

“China made arguably the most important digital strategy decision in the history of the IT industry. It decided it would not let the giant US dot-coms—especially Google, Facebook, and Amazon—just set up shops and dominate the Chinese market the way they were doing in so many other nations. Instead, it significantly limited the role of or banned U.S. firms, creating time for its firms—especially Baidu, Alibaba, and Tencent (often called BAT)—to build similar services, or at least initially copies of U.S. services.”⁵⁰

As a result, China's digital economy has become massive, with an estimated \$1.5 trillion in online retail transactions in 2019, or 25% of total retail transactions in the country—more than twice the volume and proportion of e-commerce in the US. This is far more remarkable considering that Chinese number of internet users is still low at only 60 per cent and 99 per cent of its online users have mobile data (with 70 per cent that use mobile banking).⁵¹ Therefore, in recent years, China's digital economy has grown rapidly. While the economy's average digitalisation remains lower than in advanced economies, digitalisation is already high in certain regions and sectors, particularly e-commerce and fintech, as well as coastal regions.⁵² This transformation has increased productivity growth while having varying effects on employment across sectors. In the future,

digitalisation will radically transform the Chinese economy by increasing efficiency, softening, but not reversing, the downward trend in potential growth as the economy matures further. The government should play a critical role in maximising the potential of digitalisation while mitigating potential consequences such as growing labour disruption, privacy violations, evolving oligopolies, and investment risk.

Conclusion

Supposedly, China is betting on the digital economy on all fronts to sustain its stable growth. However, this growth is facilitated by its online tech giants – BAT and their contribution to the flagship project, BRI. On the economic front, BRI's is firmly rooted in e-commerce and mobile payment services. Whereas, Baidu and Tencent are contributing to the digitisation of traditional culture – revitalising Chinese culture. The amalgamation of BAT and BRI with the integration of the DSR has elevated the development prospects for China and is helping it recreate its glorious days from the Tang Dynasty.⁵³ Given BAT's advanced technology and the power of platform capitalism, its contribution to the BRI is critical. Meanwhile, BAT's intention to participate in the BRI can be perceived as primarily strategic, where such compliance appears to be motivated by national patriotism, but it is primarily motivated by public relations, brand development, and expanding international and domestic business opportunities. On the other hand, the government is well aware of the incredible strength that these tech titans possess and their ability to utilise supreme power over China's digital economy.

However, as facets of investment and state control, the BAT and the BRI are interdependent, with the state relying on BAT to build the digital infrastructure and the BAT relying on the government to continue operating as lightly regulated national monopolies. Without a doubt, the future of commerce and trade involves the transformation into the digital realm. During and after the COVID-19 pandemic, the world recognised the importance of the digital space and the benefits that can be realised through full implementation and regulatory frameworks. The BRI, through the DSR and integration of BAT technology, serves as an excellent opportunity for the spread of a regional digital economy. Lastly, this digital economy is by all means rooted in the transformation of each BRI country's economy and their interconnectivity through online and offline trade, investments, and the transmission of data, internet connectivity, and other resources.

Notes and References

- ¹ Pamela Parker, "Who are the Chinese Tech Giants," *BBC News*, 15 May 2019, <https://www.bbc.com/news/av/business-48271943>.
- ² Jorrit Sandbrink, "China's AI giants," *Start it up*, 3 July 2020, <https://medium.com/swlh/chinas-ai-giants-181cfc24c94>.
- ³ Susan Leong, "Prophets of Mass Innovation," *Prophets of Mass Innovation: The Gospel according to BAT 5*, no.1 (2018), <https://doi.org/10.3998/mij.15031809.0005.105>.
- ⁴ Steven Borowiec, "AlphaGo seals 4-1 victory over Go Grandmaster Lee Sedol," *The Guardian*, 15 March 2016, <https://www.theguardian.com/technology/2016/mar/15/google-alphago-seals-4-1-victory-over-grandmaster-lee-sedol>.
- ⁵ Jeffery Ding, "Deciphering China's AI Dream," *Center for governance of AI, Future of Humanity Institute*, 2018.
- ⁶ Cristina Constantinescu and Michele Ruta, "How old is the Belt and Road Initiative," *MTI practice and Notes*, 6 (2018), <https://documents.worldbank.org/en/publication/documentreports/documentdetail/984921545241288569/how-old-is-the-belt-and-road-initiative-long-term-patterns-of-chinese-exports-to-bri-economies>.
- ⁷ Cristina Constantinescu and Michele Ruta, "How old is the Belt and Road Initiative."
- ⁸ "Belt and Road Initiative," *The World Bank Group*, (2018) <https://www.worldbank.org/en/topic/regional-integration/brief/belt-and-road-initiative>.
- ⁹ "Mapping the Belt and Road Initiative," *MERICs*, 7 June 2018, <https://meric.org/en/tracker/mapping-belt-and-road-initiative-where-we-stand>.
- ¹⁰ Deepakshi Rawat, "Navigating the Digital Silk Road," *The Economic Times*, 24 September 2018,

<https://economictimes.indiatimes.com/blogs/et-commentary/navigating-the-digital-silk-route/>

- 11 Ajey Lele and Kritika Roy, "Analysing China's Digital and Space Belt and Road initiative," *Institute for Defense studies and Analysis*, No. 55, (KW Publishers, 2019), *china-digital-bri-op55.pdf.
- 12 Ajey Lele and Kritika Roy, "Analysing China's Digital and Space Belt and Road initiative."
- 13 Leigh Wedell, "China is giving ancient silk road trade routes a digital makeover," *Hinrich Foundation*, 23 July 2020, <https://www.hinrichfoundation.com/research/article/tech/china-digital-silk-road-trade/>.
- 14 Ashley Dutta, "Introduction to China's Digital Silk Road," *Roundtable in Asia Policy* 15, no.1 (2020), <https://www.nbr.org/publication/introduction-to-chinas-digital-silk-road-economic-and-technological-implications/>.
- 15 Bernard Marr, "What is Industrial Revolution 4.0, here's a super easy explanation for anyone," *Forbes*, 4 September 2018, <https://www.forbes.com/sites/bernardmarr/2018/09/02/what-is-industry-4-0-heres-a-super-easy-explanation-for-anyone/?sh=31376ef99788>.
- 16 Deepakshi Rawat, "Navigating the Digital Silk Road."
- 17 Dennis Normile, "Science suffers as China's internet censors plug holes in great firewall," *Science Insider*, 30 August 2017, <https://www.science.org/content/article/science-suffers-china-s-internet-censors-plug-holes-great-firewall>.
- 18 Ibid.
- 19 Platform economy is the transition that the companies in the world are making by offering products to mainly offering platform. This sort of economy is fast, flexible and is facilitated by digitization of technologies and capabilities, <https://www.plm.automation.siemens.com/global/en/our-story/glossary/platform-economy/56900>.

- ²⁰ Michael Keane and Haiqing Yu, "A Digital Empire in the making: China's outbound digital platforms," *International Journal of Communication* 13, (2019), <https://ijoc.org/index.php/ijoc/article/view/10995>.
- ²¹ Paul Triolo and Kevin Allison, "The Digital Silk Road: Expanding China's Digital Footprint," *Eurasia Group*, (2020), <https://www.eurasiagroup.net/live-post/digital-silk-road-expanding-china-digital-footprint>.
- ²² Anton Bendarzsevszkij, Péter Klemensits, Eszter Polyák, Alexandra Zoltai, "The Belt and Road Forum in Beijing in 2017," *PAGEO Geopolitical Institute*, 4 April 2018, <http://www.geopolitika.hu/en/2018/04/04/the-belt-and-road-forum-in-beijing-in-2017/>.
- ²³ "Full Text: Action plan on the Belt and Road Initiative," *The State Council of the People's Republic of China, Archives*, 30 March 2015, http://english.www.gov.cn/archive/publications/2015/03/30/content_281475080041500.htm.
- ²⁴ Liu Jia and Gao Shuang, "China, EU to promote Digital Silk Road," *China Daily*, 7 July 2015, https://www.chinadaily.com.cn/world/2015-07/07/content_21202745.htm.
- ²⁵ Liu Jia and Gao Shuang, "China, EU to promote Digital Silk Road."
- ²⁶ "China Going global: between ambition and capacity," *China Policy*, (2017), <https://policycn.com/wp-content/uploads/2017/05/2017-Chinas-going-global-strategy.pdf>.
- ²⁷ Racheal Brown, "Beijing Silk road goes digital," *Council on Foreign Relations*, 6 June 2017, <https://www.cfr.org/blog/beijings-silk-road-goes-digital>.
- ²⁸ Charlie Campbell, "Baidu's Robin Li is helping China win the 21st Century," *Yahoo news*, 18 January 2018, <https://time.com/5107485/baidus-robin-li-helping-china-win-21st-century/>.

- ²⁹ "Market capitalization of Baidu," *Baidu*, <https://companiesmarketcap.com/baidu/marketcap/>.
- ³⁰ Shobhit Seth, "Baidu vs. Google: What's the difference," *Investopedia*, 18 June 2021, [https://www.investopedia.com/articles/investing/051215/baidu-vs-google-how-are-they-different.asp#:~:text=Google%3A%20An%20Overview,As%20Google%20\(GOOGLE&text=Baidu%20remains%20focused%20on%20the,services%20somewhat%20similar%20to%20Google.](https://www.investopedia.com/articles/investing/051215/baidu-vs-google-how-are-they-different.asp#:~:text=Google%3A%20An%20Overview,As%20Google%20(GOOGLE&text=Baidu%20remains%20focused%20on%20the,services%20somewhat%20similar%20to%20Google.)
- ³¹ Kai Jia, Martin Kenney, Juri Mattila, and Timo Seppälä, "The Application of Artificial Intelligence at Chinese Digital Platform Giants: Baidu, Alibaba and Tencent," *Berkeley Roundtable on the international economy*, (BRIE Working Paper, 2018-2).
- ³² Sophie He, "Bridging the language gap," *China Daily*, 27 November 2018, <https://www.chinadailyhk.com/articles/106/139/123/1543302648234.html>.
- ³³ Feng insomnia, "Baidu map has been fully upgraded and released the belt and road smart tourism map," *iNews*, 21 December 2017, https://ses.library.usyd.edu.au/bitstream/handle/2123/24147/The_rise_of_BAT_and_its_facilitation_of_BRI-accepted%20version.pdf?sequence=1&isAllowed=y.
- ³⁴ Chen Haifeng, "Baidu's cultural heritage guardian program landed more than 10 museums during the year," *China News*, 26 January 2018, <https://www.chinanews.com.cn/cul/2018/01-26/8434183.shtml>.
- ³⁵ Chris Dune, "Amazon vs. Alibaba – who is winning," *Repricer express*, <https://www.repricerexpress.com/amazon-vs-alibaba-winning/>.
- ³⁶ "What is the difference between Taobao and Tmall," *Parcel up*, <https://parcelup.com/blog/what-is-the-difference-between-taobao-and-tmall>.

- ³⁷ "Market Capitalization of Alibaba," *Alibaba*, <https://companiesmarketcap.com/alibaba/marketcap/>.
- ³⁸ "BRI boosts development of online shopping," *CGTN Global Business*, 23 April 2019, <https://news.cgtn.com/news/3d3d774d78456a4d34457a6333566d54/index.html>.
- ³⁹ "BRI boosts development of online shopping," *CGTN Global Business*.
- ⁴⁰ "About Us," *Tencent*, <https://www.tencent.com/en-us/about.html#about-con-1>.
- ⁴¹ "Business – consumers," *Tencent*, <https://www.tencent.com/en-us/business.html>.
- ⁴² Chunmeizi Su and Terry Flew, "The rise of Baidu, Alibaba and Tencent (BAT) and their role in China's Belt and Road Initiative (BRI)," *Global Media and Communication*, (SAGE, 2020), *Global Media and Communication: SAGE Journals* (sagepub.com).
- ⁴³ Liu Xingliang, "Tencent joined hands with dunhuang to open the digital silk road," *Weixin*, 5 January 2018, 腾讯携手敦煌 · 开启数字丝绸之路 (qq.com).
- ⁴⁴ *Dan Wei and Ângelo Rafael, "Digital art and Belt and Road initiative: opportunities, challenges and perspectives," International Economic Law and the Covid-19 Sanitary Crises 18, no.2 (2021), https://doi.org/10.5102/rdi.v17i3.7238.*
- ⁴⁵ Brian Armstrong, "The digital Economy is becoming ordinary best we understand it," *The Conversation*, 24 January 2020, <https://theconversation.com/the-digital-economy-is-becoming-ordinary-best-we-understand-it-130398>.
- ⁴⁶ Hong Shen, "China's tech giants: Baidu, Alibaba, Tencent," *Regional Program Political Dialogues Asia*, (2019), <https://www.kas.de/en/web/politikdialog-asien/single-title/-/content/chinas-tech-giganten-baidu-alibaba-tencent>.

- ⁴⁷ Chunmeizi Su and Terry Flew, "The rise of Baidu, Alibaba and Tencent (BAT) and their role in China's Belt and Road Initiative (BRI)."
- ⁴⁸ Newley Purnell and Alyssa Abkowitz, "Alibaba Thinks Outside the China Box," *The Wall Street Journal*, 12 August 2016.
- ⁴⁹ Lulu Yilun Chen, "Baidu Said to Buy Stake in Uber, Boosting App in China," *Bloomberg*, 11 December 2014, <https://www.bloomberg.com/news/articles/2014-12-12/baidu-said-to-buy-stake-in-uber-boosting-app-in-china>.
- ⁵⁰ David Moschella and Robert D. Atkinson, "Competing with China: A Strategic Framework," *ITIF*, 31 August 2020, <https://itif.org/publications/2020/08/31/competing-china-strategic-framework>.
- ⁵¹ Lambert Bu et al., "China digital consumer trends 2019," *McKinsey Digital*, 26 September 2019, <https://www.mckinsey.com/featured-insights/china/china-digital-consumer-trends-in-2019>.
- ⁵² Longmei Zhang and Sally Chen, "China's Digital Economy: Opportunities and Risks," *IMF Working Paper* No. 19/16, (2019), <https://www.imf.org/en/Publications/WP/Issues/2019/01/17/Chinas-Digital-Economy-Opportunities-and-Risks-46459>.
- ⁵³ Ibid.