ROUNDTABLE ESSAY

Chinese Industrial Policy and the Digital Silk Road: The Case of Alibaba in Malaysia

Barry Naughton



BARRY NAUGHTON *is the Sokwanlok Chair of Chinese International Affairs in the School of Global Policy and Strategy at the University of California–San Diego. He can be reached at <bnaughton@ucsd.edu>.*

KEYWORDS: CHINA; MALAYSIA; INDUSTRIAL POLICY; ARTIFICIAL INTELLIGENCE; SMART CITIES

© The National Bureau of Asian Research, Seattle, Washington

EXECUTIVE SUMMARY

This essay demonstrates how China's domestic industrial policies provide important indirect support for the Digital Silk Road, as shown by Alibaba's activities in Malaysia.

MAIN ARGUMENT

In recent years, China's domestic industrial policies have expanded dramatically. Three trends are especially important in shaping the impact of domestic policies on the Digital Silk Road. First, recent industrial policies have increasingly focused on technologies centered around artificial intelligence, 5G telecommunications, and smart networks. Second, while policies are still state-led, they rely on close partnerships with private firms such as Alibaba, Baidu, and Tencent. Third, a new wave of regional policies aims to create urban clusters that will be more efficient and less congested than regions dominated by single large cities. Each of these trends can be witnessed in the activities of Alibaba in Malaysia. Already a pioneer of smart city development in China, Alibaba has begun implementing its City Brain program in Kuala Lumpur, Malaysia, complementary to its e-commerce and logistics initiatives in Southeast Asia. While Malaysia is a front runner in these activities, similar dynamics are at work throughout the region. There are powerful complementarities created by dynamic private Chinese businesses, the large Chinese market, and the availability of finance for China-supported infrastructure programs.

POLICY IMPLICATIONS

- The U.S. and other nations committed to open standards need to recognize that a few Chinese companies, like Alibaba, have already made substantial inroads into Southeast Asia and are purveying an attractive business model.
- The U.S. and Japan need to improve the quality of their game in Southeast Asia. It cannot be presumed that a backlash will develop against Chinese government-dominated initiatives or corruption. On the contrary, attractive, concrete, low-cost alternatives must be offered to the countries, businesses, and people of Southeast Asia.
- The ultimate shape of smart infrastructure is not yet known, and the potential for heightened transparency and more responsive systems is large. Many countries, and specifically those in Southeast Asia, have an interest in open systems that increase their options and do not tie them to a single business partner. The U.S. needs to develop a comprehensive program to strengthen the open global system and provide these countries with secure access to it.

The Belt and Road Initiative (BRI) is, at its core, a program of Chinese state-sponsored infrastructure construction designed to tie China and its neighbors more closely together. As this roundtable stresses, digital infrastructure has become a crucial part of BRI. At the same time, the relationship between the Digital Silk Road (DSR) and China's ambitious domestic industrial policy initiatives has become increasingly close.

As is well known, since 2006, China has steadily expanded a program of domestic industrial policies, crossing an important threshold in 2010 with the formulation of the Strategic Emerging Industries program. Perhaps less appreciated, in the last couple of years-since the DSR was introduced-China's industrial policy initiatives have continued to grow in important ways and have developed three features that are directly relevant to BRI and DSR activities. The first feature, and by far the most important, is the increased focus on the revolutionary new technologies surrounding artificial intelligence (AI). Endorsed at the highest level of government in the 2016 Innovation-Driven Development Strategy, this focus on AI means that China is committed to a new wave of technological change that has substantial disruptive potential. The second feature has been a shift toward reliance on private companies with greater expertise in AI than their publicly owned counterparts. Though Chinese government support is greater than ever before, the state has increasingly focused on financial and technological instruments that might be compatible with private-sector initiatives. The third feature is the heightened focus on rebuilding Chinese cities supported by digital technology. This includes both a macro aspect of creating massive new urban regions and a micro aspect of supporting smart city projects that can serve as test beds for new AI technologies.

Each of these three shifts in strategic orientation is relevant to the DSR and is best recognized by introducing and defining a key term: "smart infrastructure." Smart infrastructure integrates ubiquitous sensors, communications networks, and AI-processing of information in real time.¹ From the onset, the builders of any major public construction project today must consider the extent to which it will be built smart—that is, incorporating

¹ The Cambridge Centre for Smart Infrastructure and Construction offers a good explanation of smart infrastructure: "In a world where infrastructure is truly smart, sensing technologies are embedded in infrastructure and the equipment it interacts with. These sensors are connected to a communication backbone which allows real-time data acquisition and analysis. The information gathered is analysed, interpreted and delivered as reliable, robust and meaningful information to infrastructure providers, who can then make better informed decisions about the structural health and maintenance of their assets." Cambridge Centre for Smart Infrastructure and Construction, "Smart Infrastructure: Getting More from Strategic Assets" ~ https://www-smartinfrastructure. eng.cam.ac.uk/whatwedo/what-is-smart-infrastructure.

sensors, including cameras, and communications channels into literal concrete solutions. This package of technologies envisions a future in which physical and digital infrastructure are increasingly integrated. "Smart cities" combine this new infrastructure with a range of social management functions, starting with more efficient transportation. Given this, the new strategic orientation of China's domestic industrial policy initiatives and the objectives of its external BRI and DSR infrastructure have already become inseparable.

This essay examines the activities of two key factors as a microcosm of how such activities are unfolding: Alibaba's application of AI to smart cities, and the company's expansion of the smart city program to Malaysia. Alibaba is arguably the best-positioned company to take advantage of the shift in China's industrial policy, given its enormous technological capacity, smart business strategy, and AI capabilities far ahead of the Chinese government. One particular strand of Alibaba's business is a smart city pilot project in the company's home city of Hangzhou. City Brain, as the project is known, is a small part of Alibaba's business portfolio—of which e-commerce is the dominant strand—but it promises a significant impact and aptly demonstrates the corporation's centrality in China's broader push for high-tech growth.

All of these strands converge in Alibaba's ambitious entry into Malaysia. Important as an integral part of the emerging digital common market as well as a regional logistics hub, Malaysia is an enthusiastic cooperator with Alibaba on digital initiatives. The company launched its first foreign version of the City Brain smart city program in Kuala Lumpur. Alibaba's initiatives are well on the way to creating a digital ecology that will broadly upgrade Malaysia and, not incidentally, tie it closer to China economically. Indeed, the appeal of Alibaba's multiple initiatives is an important explanation for the rapid resumption of friendly relations between Malaysia and China after Mahathir Mohamad's stunning election victory in 2018, especially given that corruption and suspicion of Chinese involvement in the Malaysian economy were significant election themes. Overall, the events in Malaysia exemplify the different policy strands coming together in the DSR component of BRI.

The remainder of this essay is organized as follows:

- ∼ pp. 27–32 examine China's domestic industrial policy and how emerging technologies and AI have become a major facet of it.
- pp. 32–38 address China's digital foray into Southeast Asia, focusing on Alibaba as the main player in Southeast Asia among Chinese technology companies and its implementation of City Brain in Kuala Lumpur as well as examining Malaysia's interests in cooperating with Chinese firms on digital development.

∼ pp. 38–39 conclude with a discussion of implications both for Malaysia-China cooperation and for states concerned about the possible expanding divide between Chinese and largely Western standards in the digital economy.

CHINA'S DOMESTIC INDUSTRIAL POLICY

China began a significant mobilization of resources for industrial policy only a little over a decade ago, starting with the 2006 Medium and Long-Term Plan for Science and Technology.² Since that time, the efforts and government resources going into high-tech industrial policy have steadily increased. Along with a consistent increase in intensity, industrial policy has assumed a clearer strategic focus with three important features, all of which are directly relevant to the DSR.

Focusing on AI-Related Industries and Technologies

China's industrial policy has increasingly focused on technologies related to AI. The country's initial wave of industrial policy was broadly scattered over a range of new strategic and emerging industries in which China might conceivably develop a comparative advantage, given that emerging industries, by definition, do not face strongly entrenched incumbent companies in developed countries. While broad efforts have continued, since 2016 the emphasis has increasingly been on AI-related industries and technologies.³ As phrased in the master document of industrial policy, the National Innovation-Driven Development Strategy:

> A new round of global technological revolution, sectoral change and military change is accelerating, and scientific exploration is unfolding at every scale from the microscopic to the cosmological. A group of revolutionary new technologies that are intelligent, green and ubiquitous are reshaping the global competitive landscape and changing the relative strength of nations.⁴

² Chen Ling and Barry Naughton, "An Institutionalized Policy-making Mechanism: China's Return to Techno-industrial Policy," *Research Policy* 45, no. 10 (2016): 2138–52.

³ Many commentators have linked China's increased focus on AI to the March 2016 victory of Google's AlphaGo over Korean Go master Lee Sedol, which provoked something of a "Sputnik moment" among the Chinese public and for Chinese policymakers. See, for example, Kai-Fu Lee, *AI Superpowers: China, Silicon Valley, and the New World Order* (New York: Houghton Mifflin Harcourt, 2018).

⁴ Central Committee of the Communist Party and State Council of China, "Guojia chuangxin qudong fazhan zhanlue gangyao" [Outline of the National Innovation-Driven Development Strategy], Xinhua, May 29, 2016 ~ http://www.xinhuanet.com/politics/2016-05/19/c_1118898033.htm.

From a comparative and common sense perspective, China is early in this effort and has emerged as a clear pathbreaker. That is, the government is devoting substantial resources into new technologies at a time when the actual, low-cost, and robust solutions they will produce are not yet apparent. For example, it is uncertain what the ultimate 5G telecommunications and autonomous vehicle solutions will look like. Most developed countries are postponing large-scale investment, but China is already pouring resources into these technologies—a remarkable gamble by a middle-income country that is, with some important exceptions, not on the scientific frontier in most of these areas. There has been no hesitation: the broad commitment in 2016 was followed by the promulgation of an AI strategy, the "Three-Year Action Plan to Promote the Development of New-Generation Artificial Intelligence Industry (2018–2020)" in 2017, and a steady drumbeat of new measures ever since. China has gone all in on these new technologies.

Working with Private Companies

While China's initial industrial policy in 2006 centered on direct government investment in so-called mega-projects, subsequent waves have increasingly involved both state-owned and private companies. This tendency has become even more pronounced with the shift toward AI. Chinese policymakers have been willing to opportunistically support successful national champions without much concern about whether the companies are state-owned enterprises or have grown out of China's entrepreneurial private start-up environment.

This is most obvious with China's BAT firms: Baidu, Alibaba, and Tencent. As these companies have emerged as the dominant internet firms in China, an industrial policy based on cooperating with and enabling them as national champions has gradually taken shape. Indeed, the government's 2015 Internet Plus plan was said to have been initially suggested by Ma Huateng, CEO of Tencent. Since that convenient milestone, there is abundant evidence that the Chinese government has closely embraced these dynamic private firms. The BAT firms possess technical expertise that government agencies do not, and it appears to be relatively easy for the government to exert influence over the three firms, which in turn can exert control over the entire internet field. The tripartite combination of party control of information, industrial-policy protectionism, and dynamic and competitive enterprises means that Chinese cyberspace is almost entirely separate from the global, U.S.-dominated internet. All of the largest social media platforms used worldwide are blocked

by the Chinese firewall, and their alternatives are owned and operated by Chinese companies.⁵ This creates the basis for a commonality of interests and interdependence between the Chinese government and the BAT companies. This dual-internet world is unavoidably implicated in the understanding of the DSR.

As it empowers domestic internet firms, the Chinese government has increasingly provided financing, test beds, and opportunities for companies—especially the national high-tech champions—to facilitate developing and commercializing new technologies.⁶ This is evident in the development of AI platforms that are open but specialized. In November 2017 the Ministry of Science and Technology designated four companies to run AI platforms: the three BAT companies plus iFlytek. A fifth company, SenseTime, was added in September 2018, followed by ten more in August 2019.⁷ Endorsement of a platform amounts to recognition of a company's expertise in a specialized area and both grants the company a privilege and imposes a burden on it. By recognizing the company's special status, the platform designates a degree of official state support and approbation. At the same time, the company has to maintain the platform and, to a certain extent, share its technology and expertise with other firms, including potential competitors.

For this essay's purposes, Alibaba is by far the most important of these companies. Its designated open AI platform is City Brain, which has direct relevance to the infrastructure issues discussed below in relation to the DSR. At the same time, Alibaba has significant ownership stakes in three of the other companies designated as platform managers (which makes it a principal in four of the fifteen platforms). Like the other two BAT firms, Alibaba started without Chinese government financing. But in 2012, official capital

⁵ Despite being blocked, Google and YouTube are ranked as the eleventh and thirteenth most popular sites in China, according to Alexa.com (as of March 29, 2019).

⁶ The financing and financialization of China's industrial policies is a huge topic outside the scope of this essay. For an introduction, see Barry Naughton, "The Financialisation of the State Sector in China," in *China's Economic Modernisation and Structural Changes: Essays in Honour of John Wong*, ed. Yongnian Zheng and Sarah Y. Tong (Singapore: World Scientific, 2019), 167–85.

⁷ Ministry of Science and Technology of the People's Republic of China (PRC), "Guojia xinyidai rengong zhineng kaifang chuangxin pingtai jianshe gongzuo zhiyin" [Guidance on Construction of National New Generation Open Artificial Intelligence Platforms], August 1, 2019 ~ http:// www.most.gov.cn/mostinfo/xinxifenlei/fgzc/gfxwj/gfxwj2019/201908/t20190801_148109.htm; "10 jia guojia xinyidai rengong zhineng kaifang chuangxin pingtai zai Shanghai qidong" [10 More National New Generation AI Open Innovation Platforms Launched in Shanghai], Xinhua, August 29, 2019 ~ http://www.xinhuaet.com/2019-08/29/c_1124937965.htm; and "Dierpi guojia xinyidai rengong zhineng kaifang chuangxin pingtai gongbu" [Second Batch of National New Generation AI Open Innovation Platforms Announced], *Guangming Daily*, August 29, 2019 ~ http://news.gmw.cn/2019-08/29/content_33118881.htm.

was invested when a consortium led by the China Investment Corporation raised \$7.1 billion to buy back half of the 40% share of Alibaba owned by Yahoo. The government has been pulling Alibaba closer ever since. As Xu Shijun, head of the government affairs department at Alibaba Cloud's Smart Digital Division, puts it, "Alibaba has proposed a deep partnership [with the government], not only in business but also in funding. We're advancing from the past model which was about constructing a single project to today's model of multidimensional participation in planning, design, construction, service, and operation."⁸ Firms that were once proudly independent, innovative, and entrepreneurial start-ups have accepted a partnership and thus a type of indirect agency with the Chinese state. In return, official Chinese policy now supports rapid consolidation of internet-related sectors with the implication that this leads to the early creation of monopolies in certain sectors, to the obvious benefit of companies such as Baidu, Alibaba, and Tencent.

Launching Smart City Initiatives in China

China has launched major redevelopment initiatives within each of the three primary urban areas that define the Chinese economy. The Xi Jinping administration developed increasing reservations about the unbounded growth of Beijing and the associated pollution and congestion, and threw its weight behind the new city of Xiong'an. This city is envisaged as part of the greater Beijing-Tianjin-Hebei (Jingjinji) region, a crucial part of a less centralized but more integrated megalopolis. This urban planning conception has now been spread nationwide. In Guangdong, the Greater Bay Area seeks to link Hong Kong, Shenzhen, Dongguan, Guangzhou, and Macao into a single tightly integrated region. These programs have a number of key features in common: they seek to connect multiple medium-large cities instead of allowing a single, huge, core city to develop; they require

⁸ Chen Jing, "Zhihui chengshi zhu baixing guoshang 'shuzi shenghu'" [Smart Cities Help the People to Live "Digital Life"], *Jingji Ribao*, August 30, 2019 ~ http://www.gov.cn/xinwen/2019-08/30/content_5425766.htm. This close embrace became a little tighter in September 2019, when the city of Hangzhou placed "government affairs representatives" in one hundred of Hangzhou's biggest private firms, including Alibaba. See "Hangzhou huiying 'ganbu jinzhu qiye': Bucanyu qiye richang jingying guanli" [Hangzhou Responds to "Cadres Entering Enterprises": Not Participating in Daily Business Management], *Diyi Caijing*, September 23, 2019 ~ https://finance.sina.com.cn/china/dfj/2019-09-23/doc-iicezueu7795272.shtml.

excellent and intelligent infrastructure to succeed; and they have strong government support.⁹

In the same manner as China's general technology policies, the urban redevelopment plans have gained traction, increasing government commitment, and have gradually turned toward AI-driven smart city plans. This means that urban construction projects are increasingly seen as potential test beds for a range of AI technologies. This is evident in the new model city of Xiong'an, for example, although the city suffers from an identity crisis as a result of being burdened with too many different functions and expectations.¹⁰ The most can be learned, therefore, from the City Brain project in Hangzhou. While nominally part of the Lower Yangtze Delta region, Hangzhou is relatively advanced and developing quickly under the predominant influence of Alibaba's project.¹¹

City Brain began in Hangzhou with an intelligent transportation system that has gradually incorporated other adaptive, responsive technologies. It is a cloud-based system that collects data from government and other sources, including implemented devices and sensors, videos, social media, and traffic. The City Brain system begins with data aggregation, moves to data convergence, and from there encourages intelligent deployment. Alibaba Cloud has created four platforms to gather and analyze data collected by cameras and GPS technology in the most useful way, depending on the type of aggregate information. It then converges the data to understand patterns and inconsistencies and suggests solutions using police, medical, and road resources. City Brain already claims several positive outcomes for Hangzhou. For example, Hangzhou used to be the fifth most congested Chinese city, but after using AI data to coordinate traffic and road signals in real time, that ranking has now fallen to 57th.¹² Firefighters are said to be more responsive

⁹ In fact, there are four regional megalopolis plans: Beijing-Tianjin-Hebei, the Yangtze Economic Belt, the Lower Yangtze Delta, and the Greater Bay Area. Each of these is plagued with jurisdictional rivalries and coordination difficulties. The international experience with building planned cities is generally quite poor, so caution is advised in evaluating these initiatives or attempting to undertake any realistic cost-benefit analysis.

¹⁰ Xiong'an is variously expected to be "a concentration point for the non-national capital functions displaced from Beijing," a comfortable green residential city, an innovation-driven development hub, a national model for harmonious development, and a pioneer of open development. Hebei Provincial Government, "Hebai Xiong'an xinqu guihua gangyao" [Hebei Xiong'an New District Planning Outline], available at Xinhua, April 21, 2018 ~ http://www.xinhuanet.com/2018-04/21/c_1122720132.htm.

¹¹ Rachel Finerman, "Surveillance in Smart Cities: An Examination of Privacy and Surveillance as They Relate to Smart City Development in London, New York, and Hangzhou" (honors thesis, International Studies Program, University of California–San Diego, March 18, 2019), 35–44, 56–63.

¹² Michelle Toh and Leonie Erasmus, "Alibaba's 'City Brain' Is Slashing Congestion in Its Hometown," CNN, January 15, 2019 ~ https://www.cnn.com/2019/01/15/tech/alibaba-city-brain-hangzhou/ index.html.

to emergencies. Hangzhou is now a candidate to be considered the world's first smart city.¹³

Unsurprisingly, given the technological ambition of Chinese planners, proposals are now being rolled out to replicate smart city test projects across China. An August 2019 document from the Ministry of Science and Technology called for the establishment of around twenty urban test beds by 2023. The cities chosen as test beds are supposed to be those with the best intellectual, economic, and innovative resources (while also conforming to all national regional policies, such as the four plans listed in footnote 9). The goal is to spread the experience of Hangzhou to a second tier of relatively well-equipped cities, including a few at the county level.¹⁴ Thus, within China, ambitious technological and urban objectives are now coming together in a combined regional and industrial policy designed to build smart cities. The key player in this fusion is Alibaba. Every one of these aspects is transferable to BRI and the DSR.

THE BELT AND ROAD AND CREATING A DIGITAL COMMON MARKET: THE EXPERIENCE OF MALAYSIA

Despite the name, BRI is not much about belts or roads connecting East Asia with Europe and Africa in a manner similar to the ancient Silk Road. The primary configuration of BRI is a hub-and-spoke system that links the large Chinese economy with its smaller neighbors through five or six primary spokes of trade and infrastructure. Of these, the most important by far is the spoke linking China with Southeast Asia. By reducing trade costs, these investments have essentially the same effect as a trade pact or customs union, drawing neighboring economies closer and fostering economic integration. The digital component of this trade pact can be termed a "digital common market," in which neighboring countries are integrated through a common set of digital information standards. Such a system would leverage China's status both as the world's largest online community by number of participants (740 million) and the soon-to-be largest e-commerce market by value.

¹³ Timothy Revell, "China's Super-Smart City Tracks Your Every Move," New Scientist 236, no. 3149 (2017): 7; and "ET City Brain," Alibaba Cloud, 2019 ~ https://www.alibabacloud.com/et/city.

¹⁴ Ministry of Science and Technology (PRC), "Guojia xinyidai rengong zhineng chuangxin fazhan zhiyanqu jianshe gongzuo zhiyin" [Guidance on National Construction of a New Generation of AI Development Test Bed Regions], *Guokefagui*, no. 298, August 29, 2019 ~ http://www.most.gov.cn/ mostinfo/xinxifenlei/fgzc/gfxwj/gfxwj2019/201909/t20190905_148663.htm.

The DSR will give businesses in neighboring countries electronic access to China's vast market.

Since the early 2000s, Chinese policymakers have been sensitive to the role of standards setting, both in creating a competitive advantage for companies and in fostering integration across markets.¹⁵ Huawei is an extremely active contributor to world standards-setting bodies in telecommunications, with many positive effects, but also with a nationalist push that has sometimes evoked protest. These experiences have emboldened policymakers to support an explicit agenda to develop and spread technical standards in the DSR that would support and link 5G telecommunications with smart city development plans.¹⁶ In this initiative, China explicitly promotes the adoption of Chinese standards for customs procedures, internet connections, and financial transactions as well as railroads and highways. These standards are, of course, complementary to the physical infrastructure envisaged in BRI, including, for example, investment in fiber-optic cables as a basic component of the initiative. However, before this was a national government initiative, it was a smart business strategy, and the pioneer of that strategy was Alibaba and its expansion into Malaysia.

Alibaba in Malaysia

Alibaba has long expressed interest in expanding into Southeast Asia. In April 2016, it purchased a controlling stake in Lazada, a company established in Singapore by primarily European venture capitalists in an effort to replicate Amazon's business model in Southeast Asia. Alibaba has since steadily increased its ownership stake, and Lazada is now its subsidiary as well as the largest e-commerce operator in the region. During this time, Alibaba was also expanding its logistics operations in China through the creation of Cainiao Smart Logistics Network Limited. Originally created in May 2013, Cainiao's business model is web-based, capital-light logistics provision involving cooperation with multiple partners for warehousing, shipping,

¹⁵ Greg Linden, "China Standard Time: A Study in Strategic Industrial Policy," *Business and Politics* 6, no. 3 (2004): 1–26. Ironically, China's sensitivity to standards setting seems to have begun with the desire of policymakers to escape royalty payments they considered unreasonably high, which led to organized support for alternative technologies.

¹⁶ "Woguo jiang tuidong 5G, zhihui chengshi deng guojiao zai 'yidaiyilu' yanxian guojia yingyong shishi" [Our Country Will Promote the Use of Our National Standards in 5G, Smart Cities, Etc. in the Countries along the "Belt and Road"], Xinhua, December 22, 2017 ~ http://www.xinhuanet. com/2017-12/22/c_1122155113.htm.

and delivery.¹⁷ During 2016, Cainiao expanded into Southeast Asia, in part to provide support for Lazada in an environment where delivery and logistics are significant obstacles to business development. Lazada and Cainiao serve as the two flanks of Alibaba's thrust into Malaysia in particular and Southeast Asia in general.

For a number of years, Jack Ma, as CEO of Alibaba, promoted an initiative called the Electronic World Trade Platform, or eWTP. The highminded purpose of the eWTP was to give small and medium-sized enterprises (SMEs) everywhere the opportunity to participate in global value chains and sell to big, new markets in China and abroad. In some respects, the eWTP can be viewed as a forerunner of the DSR. Ma himself characterized it as "a non-state-enterprise exploration of the Belt and Road strategy, that can be understood as business participating in and advancing the Belt and Road."18 In Malaysia, Alibaba found a willing partner. Malaysia has long aspired to leverage its central location to become a logistics hub for Southeast Asia. More than twenty years ago, in 1996 during his first tenure as prime minister, Mahathir Mohamad established the Multimedia Super Corridor (now known as MSC Malaysia) south of Kuala Lumpur to attract foreign multinationals and foster local IT companies. While the corridor achieved only middling success due to poor timing, Malaysia has aspired to transform into a digital powerhouse ever since. At the same time, the reality was that SMEs were prominent in the Malaysian economy-accounting for an estimated 40% of GDP-but that only 5% of the 900,000 SMEs were online. Malaysian SMEs, therefore, stood to gain from the eWTP. By the end of 2017, then prime minister Mohammad Najib had signed a strategic cooperation agreement with Alibaba. He met three times with Ma and visited Hangzhou to deliver a certification that Alibaba would qualify for tax exemptions.¹⁹ Thus, Malaysia became the site of the first eWTP.

Malaysia already had government agencies that were well-positioned to interface with Alibaba and the Chinese government. The Malaysia Digital Economy Corporation (MDEC), the successor to the government agency set up to run the Multimedia Super Corridor, launched a Digital Free Trade

¹⁷ Cynthia Luo, "One Platform to Rule Them All: The Brains behind Cainiao Network (PI)," eCommerceIQ, December 7, 2016 ~ https://ecommerceiq.asia/cainiao-logistics-southeast-asia.

¹⁸ Chen Wenwen, "eWTP shouci luodi weihe shi Malaixiya? Ma Yun: Women yipai jihe" [Why Is the First eWTP in Malaysia? Jack Ma Says We Immediately Agreed on Everything], *Zhejiang News*, March 24, 2017 ~ http://zjnews.zjol.com.cn/zjnews/zjxw/201703/t20170324_3359248.shtml.

¹⁹ "Malai yu Zhongguo shixian eWTP hulianhutong xinceng Aliyun shuju zhongxin" [Malaysia and China Have Linked Their eWTPs, Creating a New AliCloud Data Center], Sina Technology, May 12, 2017 ~ https://tech.sina.com.cn/i/2017-05-12/doc-ifyfeivp5632628.shtml.

Zone (DFTZ) in July 2017. The DFTZ has three main functions: serving as an international logistics hub, providing auxiliary services such as training and finance, and providing online service platforms, including electronic customs clearing and commercial inspections.²⁰ These government service platforms are designed to integrate with Alibaba's Yidatong, an online customs clearance platform, and Cainiao's logistics platform. Malaysia Airports—the state-owned airport holding company—after negotiations with Alibaba, took responsibility for the construction of the physical infrastructure, while Alibaba's holdings handled the digital infrastructure, a division of responsibility consistent with Cainiao's capital-light approach.²¹ In practice, many of the services of the DFTZ are provided by Cainiao and Lazada.

From eWTP to City Brain

The DFTZ at the Kuala Lumpur International Airport already had some aspects of a smart city project, particularly when combined with the cloud-based capabilities of the eWTP, given that it was offering smart logistics services. It was, therefore, not much of a stretch when the MDEC announced the launch of Alibaba's City Brain in Kuala Lumpur in January 2018. The first implementation was the installation of smart traffic lights at 281 intersections, designed to reduce congestion, detect accidents, and facilitate priority access for emergency vehicles.²² Since then, the project has taken root and gradually expanded, although there is little up-to-date information on its progress.

Most important to the project has been the transplantation of Alibaba's entire range of cloud-based solutions to Malaysia. Ant Financial has established cooperation agreements with six Malaysian banks, and now Alipay is being actively promoted in the country. The interface between infrastructure and internet finance is already being modestly exploited through the implementation of cash-free taxis and automated toll payments.

²⁰ Shao Danlei, "Malaixiya juguozhili jian eWTPshuzi zhongqu, Jiang Cheng Ma Yun gouxian zhongyao jiedian" [Malaysia Exerts a National Effort to Create an eWTP Digital Hub, Becoming a Key Part of Jack Ma's vision], iWangshang, May 23, 2017 ~ http://www.iwshang.com/Post/Default/ Index/pid/251226.html.

²¹ Ouyang Lining, "Ali eWTP luodi Malaixiya, yi zhu liangqianduojia zhongxiaoqi canyu quanqiu maoyi" [Alibaba's eWTP Realized in Malaysia; Has Already Helped More than 2,000 SMEs Go Global], Paper, August 5, 2018 ~ https://www.thepaper.cn/newsDetail_forward_2318245.

²² Wan Deqian, "Minjianban Zhongguo fang'an de zhengti haiwai shuchu: Ali shozhan weihe xuan zai Malaixiya?" [The Wholesale Export of the Civilian Version of China's Program: Why Was Alibaba's First Stop in Malaysia?], 36Kr, July 17, 2018 ~ https://36Kr.com/p/5143561; and "Aliyun tuichu 'Malaixiya Chengshi Danao,' shouge haiwai zhihui chengshi luodi Jilengpo" ["Malaysia City Brain," the First Overseas Smart City Project Taking Root in Kuala Lumpur], Alibaba News, January 29, 2018 ~ https://www.alibabanews.com/aliyuntuichumalaixiyachengshidanao-shougehaiwaizhihui chengshi indu jilengpo".

The entire suite of skills and tools that Alibaba has developed over almost twenty years is now being transferred to Malaysia, with the interconnections between web-based instruments and processes intact. Alibaba sees City Brain as an exportable product, and its development in Kuala Lumpur is just the first step.²³

Alibaba's actions in Kuala Lumpur thus present an interesting example of some of the DSR's facets. Alibaba represents a Chinese company succeeding in competition due to a mixture of superior, cost-competitive products and energetic government support. It also represents the spread of a China-based set of standards that incorporate cloud, AI, web-based commerce, logistics, and government services. Yet this spread of standards is primarily the result of a private company's initiative, albeit one that is strongly supported by the materials and policies of the Chinese government. This venture will no doubt evolve into a component of a smart infrastructure system that in the future will integrate Malaysia and China, perhaps with physical infrastructure directly financed by the Chinese state. These developments are not only part of the DSR but also part of the cement Silk Road.

Malaysia's Interests and the Future of Cooperation

During his 2018 campaign, Mahathir Mohamad led an opposition coalition to victory, largely due to public concerns of corruption in Najib Razak's government. It is inconceivable that Mahathir—who at 94 is the world's oldest-serving chief executive—could have returned to power without the one-two punch of massive scandals at 1Malaysia Development Berhad (1MDB) and the alleged cases of bribery by Chinese interests associated with the East Coast Rail Link. In fact, immediately upon election, Mahathir announced that the contracts for the East Coast Rail Link were suspended and would be renegotiated.

Despite this interruption, it is certain that Malaysia's participation in the DSR will continue. From the Malaysian standpoint, Alibaba's involvement in the eWTP and DFTZ is attractive. To be sure, there are worries that the trade facilitation associated with these initiatives (and with BRI in general) will open Malaysia's market to penetration by Chinese companies and may end up hurting domestic firms. But at the same time, Alibaba's platforms offer support for Malaysian SMEs, fostering their development both domestically

²³ Abigail Beall, "In China, Alibaba's Data-Hungry AI Is Controlling (and Watching) Cities," Wired, May 30, 2018 ~ https://www.wired.co.uk/article/alibaba-city-brain-artificial-intelligence-chinakuala-lumpur.

and internationally. Alibaba's e-trade platforms support many aspects of Malaysia's highly trade-dependent economy. In recent years, Malaysia has maintained moderate trade surpluses with China largely because of its structural position in global value chains that send IT components to China for assembly. This would be true even without the obvious appeal of the enormous Chinese market. Finally, the infrastructure that China provides is attractive in both quantity and quality, not just price. It is not a cut-rate deal; it is something substantive.

For all these reasons, Malaysia is sure to continue infrastructure cooperation with China. Having returned to power, Mahathir faces the same set of incentives as his predecessor. It was Mahathir who set up the Multimedia Super Corridor in 1996, and he has always been strongly committed to an active government role in economic development, especially in high-tech industries. Indeed, in August 2018, only three months after the election, Mahathir visited Hangzhou to reassure Alibaba of his desire for cooperation. This visit was followed in March 2019 by a delegation of 30 senior Malaysian officials.²⁴ Immediately following these visits, in April 2019, the suspension of the East Coast Rail Link was lifted and construction resumed. Modest changes were made in the project layout and the cost was substantially reduced, allowing both sides to maintain face. More recently, Mahathir declared while visiting New York that there is no alternative to cooperating with China on infrastructure investment.²⁵

China's initiatives will not be accepted in other Belt and Road countries with the same alacrity as in Malaysia; nor is Malaysia the first step in a grand plan to bind BRI countries to China economically. However, China's progress in Malaysia illuminates the potential synergies among elements of Beijing's approach, and these elements are already present throughout Southeast Asia. Chinese financing for infrastructure creates a need for coordination of standards for physical and digital infrastructure, and coordination can sometimes be efficiently achieved through harmonization. The actions of Chinese companies like Alibaba in developing digital infrastructure and a digital common market alert businesses in BRI countries to the opportunities in the large Chinese market (along with the competitive threat from

²⁴ "eWTP luodi liangnian, Malaixiya zhongxiao qiye gengdong zaiwangshang zuo quanqiu shengyi" [After Two Years of eWTP Implementation, Malaysia's SMEs Understand Global Web-Based Commerce Much Better], People's Daily Overseas Network, March 5, 2019 ~ https://baijiahao. baidu.com/s?id=1627154578879211675&wfr=spider&for=pc.

²⁵ Marrian Zhou, "Mahathir: 'We Have to Go to the Chinese' for Infrastructure," Nikkei Asian Review, September 27, 2019 ~ https://asia.nikkei.com/Politics/International-relations/ Mahathir-We-have-to-go-to-the-Chinese-for-infrastructure2.

Chinese firms) and encourage them to see Alibaba as a potential partner. China's strategy is, essentially, to provide government support for each of these general trends and allow them to play out at different speeds in different countries. In this sense, Malaysia is a pioneer, but all the forces present in Malaysia are at work throughout Southeast Asia.

CONCLUSION

The experience of Alibaba in Malaysia should serve to remind us that real, market-based technological and economic forces are behind the expansion of Chinese influence in Southeast Asia. On the one hand, China's economy is huge and still robustly growing, and so the appeal of a digital common market cannot be neglected; on the other hand, the technological aspects of current development in Southeast Asia echo features of what is happening in China. This is not accidental: China has emerged as a pioneer in applying AI and other new technologies to practical economic and business areas. The driver of this has been a handful of sophisticated private companies led by Alibaba.

To be sure, Alibaba and other Chinese private technology giants are being drawn closer than ever into the embrace of the Chinese party-state. These developments should be of profound concern to everyone inside and outside China, yet these troubling trends should not blind us to the fact that the activities discussed here fit easily into Alibaba's ordinary business practices. Alibaba's activities in Malaysia do not strain the company's resources. Indeed, they fit naturally into the business expansion of one of the world's most efficient and ambitious companies. Alibaba's City Brain seems to be off to a promising start. Although it is too early to truly evaluate the promises and pitfalls of smart cities, Alibaba seems to have captured some of the low-hanging fruit in Hangzhou. It is not surprising that Malaysia wishes to emulate the experience in Kuala Lumpur.

These forces, which join private-sector investment and innovation with government initiatives, imply that the magnitude of challenge from BRI more broadly is thus much greater than if the outcome were due exclusively to a top-down Chinese government policy. This means that countries supporting a more open and global digital economy based on liberal norms, rules, and standards, such as the United States and Japan, desperately need to improve the quality of their game in Southeast Asia. Simply railing against Chinese government–dominated initiatives and the DSR will not be an adequate strategy, nor will assuming that China's mistakes will lead to a backlash against Chinese investment. If the world does indeed fragment into two separate digital systems—two internets—and if current trends continue, then countries like Malaysia will be drawn closer to China's version rather than the hoped-for open global internet and digital economy.

However, this outcome is by no means foreordained. The ultimate shape of the new technologies implied by the current AI revolution remains uncertain. Southeast Asia deserves sustained attention from U.S. policymakers and businesses, and the United States needs to provide attractive alternatives to the Chinese model. The United States and countries with similar outlooks need to move strongly to ensure that states such as Malaysia have financing alternatives to China and transparency in their investment decisions. Rules on data location and privacy are important to these countries and will be an important influence on future development. The United States and its partners must prioritize developing common standards that can protect privacy while respecting national sovereignty. There is thus much that needs to be done, and with the situation rapidly evolving, the United States risks falling behind. \otimes