

The Digital Silk Road and China's Technology Influence in Southeast Asia

By Dai Mochinaga, *Senior Researcher, Keio Research Institute at SFC*

Introduction

China's growing influence in Southeast Asia, in part due to its Belt and Road Initiative (BRI), has raised anxiety in other countries, including those in Southeast Asia and major external powers like the United States, Japan, Australia, and India. Democratic leaders regard the initiative as a long-term threat and have pointed out that Chinese technologies are potentially high-risk, citing concerns over national security, intellectual property theft, and privacy risks. The Digital Silk Road (DSR) both links countries closer to China via information and communication technologies (ICT) and grants China a role in Southeast Asian countries' technological development. Some aspects of the DSR have the potential to export digital authoritarianism and spread surveillance technologies. Yet despite these concerns, some Southeast Asian countries have widely accepted Chinese technologies, taking some of these risks in part because of China's cost-effective technology exports, assistance, and other efforts to woo Southeast Asian states.

Despite a drop in outbound investment in 2020, in part due to the COVID-19 pandemic, and the need for refinancing of many BRI loans, Beijing appears ready to increase outbound investment in 2021. As part of this investment push, China clearly desires to expand its influence over Southeast Asia's technological development through the DSR. The DSR is also part of China's strategy to turn its technology firms, in areas like artificial intelligence, fifth-generation (5G) telecommunications, and smart cities projects, into globally competitive players, and convince other parts of the world to adopt Chinese technology norms and standards.

This paper contains five sections. The first part examines China's strategy to connect its overseas investments with its five-year economic plans and the concept of dual circulation.¹ Second, the paper outlines China's growing technological presence in Southeast Asia and explains that, whatever the source, significant investment in new technology and in cyberspace infrastructure are necessary for the region's economic development. The third part assesses Chinese efforts to influence regional technology standards and how China's tactics have evolved over time. Fourth, the paper discusses China's challenges in expanding its influence over Southeast Asian norms and standards in cyberspace governance and other areas. The fifth part concludes the paper and identifies future areas of research.

1. Dual circulation is the interaction of China's domestic and overseas investments, technology developments, exports, profits and influences on other states.

DSR and Dual Circulation

In November 2020, the Chinese Communist Party (CCP) Central Committee published proposals for the formulation of the Fourteenth Five-Year Plan (2021–2025) for National Economic and Social Development and the Long-Range Objectives Through the Year 2035.² These proposals illustrate China's ambition to internationalize its development system that consolidates national economic and technological capability under central control. They identify the science and technology revolution already taking place within China as the driving force of economic and technological self-reliance for China, and as forces that will help China become a leading global power.

As part of its Fourteenth Five-Year Plan, China seeks to enhance its technological independence from leading democratic powers, especially in ICT, in part because Beijing fears being cut off from foreign technology. Chinese President Xi Jinping has pointed out that “the fact that core technology is controlled by others is our greatest hidden danger,” and he has repeatedly discussed the importance of ICT.³ It is clear that Xi and the CCP regard ICT as essential in dealing with domestic affairs and ensuring national security and global influence. The BRI and DSR support internationalizing the domestically developed digital ecosystem consisting of technology, infrastructure, platform, and legislation.

The proposals illustrated that the idea of “dual circulation” will be a key element of China's development, and it will begin to earn the country a return on its investment. Dual circulation consists of domestic and international economic circulation. From a technological standpoint, the BRI's major projects have contributed to boosting and exporting domestically developed Chinese technologies overseas. While BRI countries receive infrastructure that connects people, goods, and money with technologies for their economic development, Chinese industries circulate Beijing's investment to bolster their innovation, especially since Beijing's foreign aid usually obligates procuring goods or services from Chinese companies. These projects also have enhanced economic and technological interdependency between China and BRI countries.

The Chinese government's concept of a dual circulation economic strategy aims to boost the innovation of domestic Chinese technology firms and make them more competitive globally. The first stage of the concept is the domestic circulation of investment, development, and implementation of technologies with government support. For its domestic market, the Chinese government has supported research and development of new technologies such as mobile communication, e-commerce, and smart cities. This support has helped Chinese firms rise up the value chain and has prepared them for global competition. While the Chinese private sector developed technologies, Beijing helped firms by creating licensing and regulatory approvals that make it difficult for foreign products to enter the Chinese market.

2. “中共中央关于制定国民经济和社会发展第十四个五年规划和二〇三五年远景目标的建议,” [The Proposal of the Central Committee of the Communist Party of China on the Formulation of the Fourteenth Five-Year Plan for National Economic and Social Development and the Visionary Goals for 2035], Xinhuanet, November 3, 2020, http://www.xinhuanet.com/politics/2020-11/03/c_1126693293.htm.

3. “习近平在网信工作座谈会上的讲话全文发表,” [Xi Jinping's Full Speech at the Symposium on Internet Information], Xinhuanet, April 19, 2016, http://www.xinhuanet.com/politics/2016-04/25/c_1118731175.htm.

The second stage of dual circulation involves Beijing pushing Chinese firms to internationalize these technologies and incentivizing other countries to welcome Chinese investment and technologies. Standardization is critical in this internationalization; it causes other countries to become dependent on Chinese firms and technologies. Chinese industries have set standard for technologies in international organizations with Beijing's support. This assistance is critical for industries to compete with the dominant players that have set global technology standards for decades.

BRI and DSR support the internationalization of Chinese technologies via intergovernmental negotiations. BRI projects are exports of a system that consists of domestically tested technologies that meet performance and cost requirements and often are less expensive to recipient states than competing technologies from Japan, South Korea, European states, or the United States.

Moreover, BRI projects are compatible with authoritarianism wherein a government intends to use centralized power to control its citizens with technologies. China's state-led capitalism is easy to align with authoritarian states in establishing projects dominated by authoritarian elites. Additionally, some Chinese technologies provide solutions for Southeast Asian states that seek to achieve national security, economic development, and authoritarian regime stability. For instance, the Association of Southeast Asian Nations (ASEAN) and China established an initiative for innovation-driven development in smart cities in 2019.⁴ A year later, Myanmar introduced Huawei's surveillance cameras that have facial recognition capabilities to its capital, Naypyitaw.⁵

The third stage of dual circulation consists of actually exercising influence over BRI countries, and delivering strategic and economic returns for China. For example, a patent fee from other countries' telecom operators and manufacturers benefits Chinese industries and Chinese firms. They receive royalties or license fees of standard essential patents (SEPs) that must be used to comply with technical standards. Another opportunity is in operation and maintenance. Communication infrastructure requires operation and maintenance, and it is difficult for countries to remove technologies once they become embedded in power grids, telecommunications networks, and other essential components of society. Indeed, for countries increasingly dependent on Chinese technologies, Chinese businesses gain an advantage in getting operations and maintenance contracts, since they are more familiar with operating and maintaining these domestically produced technologies.

For example, Laos's infrastructure is highly dependent on Chinese technology. Huawei has supported the construction of the country's telecommunication infrastructure, and which is integrated with highways and railways. Huawei provided ICT platforms and management systems for the smart highway as a part of China-Laos Expressway, which will be integrated with 5G mobile communication infrastructure.⁶ China is also building a railway running from the China-Laos border gate to Vientiane. This Kunming-Vientiane link will eventually connect with a railway line to Bangkok, and southward along the Malay

4. "ASEAN-China Leaders' Statement on Smart City Cooperation Initiative," Association of Southeast Asian Nations, November 3, 2019, <http://asean.org/storage/2019/11/Final-ASEAN-China-Leaders-Statement-on-Smart-City-Cooperation-Initiative-2.pdf>.

5. Nyan Hlaing Lin and MinMin, "Hundreds of Huawei CCTV Cameras With Facial Recognition Go Live in Naypyitaw," *Myanmar Now*, December 15, 2020, <http://www.myanmar-now.org/en/news/hundreds-of-huawei-cctv-cameras-with-facial-recognition-go-live-in-naypyitaw>.

6. "华为助力打造老挝首条智慧高速公路," [Huawei Supported to Build Laos's First Smart Highway], Huawei, December 20, 2020, <http://e.huawei.com/cn/news/ebg/2020/first-expressway-laos>.

peninsula through to Singapore.⁷ Although the contracts given to Chinese firms to operate and maintain the railway will be small, Laos will be locked in to Chinese technologies for decades.

Moreover, Beijing might eventually encourage BRI countries, increasingly dependent on Chinese investment and technologies, to side with China on issues of major diplomatic importance. China has proposed new norms on global cyberspace governance and data security; it may eventually push countries dependent on BRI and the DSR to join Beijing's norms on cyberspace governance and data security.

Growing Technological Presence in Southeast Asia

China is gaining ground in its technological presence in Southeast Asia. The region's geopolitical importance and potential for robust economic growth have motivated China to engage in the region as one of the first opportunities for BRI and DSR.

Digital Infrastructure

Southeast Asia is a key region for China's digital infrastructure because of its geography. The DSR connects BRI countries by supporting fiber-optic terrestrial and submarine cable networks, and Beijing has emphasized building these cables to South Asia, Southeast Asia, and the Pacific, often then connecting on to Africa. Chinese-built telecommunications infrastructure in Southeast Asia aims to extend submarine cables connecting the region with landing points on China's coastline that then connect to cables in the country's western region. China Unicom has built a submarine cable project that is now the shortest cable route between Asia and Europe. This route, Asia-Africa-Europe 1 (AAE-1), is a new 25,000-kilometer submarine cable running from Hong Kong to France, and also connects China with Southeast Asia, South Asia, parts of Africa, the Middle East, and Europe.⁸

Furthermore, Beijing is building terrestrial and submarine cables to expand fiber-optic links between China and many parts of Eurasia. In some cases, Beijing is creating redundant connections that make China's networks to other countries resilient. These redundant connections provide alternative options to Chinese service providers when cables have communication failures.

Southeast Asia is not only geographically important to China. It also has high economic growth rates and is a significant potential market for Chinese firms in ICT and digital services. In terms of economic potential, the digitally enabled services trade in the Southeast Asian market almost doubled between 2011 to 2019.⁹ Chinese messaging apps, e-commerce platforms, and payment firms are all expanding rapidly in Southeast Asia, and also investing heavily in local Southeast Asian firms. Chinese investors including Alibaba, JD.com, and Didi Chuxing all have made major investments in Southeast Asian firms such as e-commerce platform companies Lazada and Tiki and the ride-hailing company Grab.

7. "Four Companies to Provide ICT Services for China-Laos Railway," Xinhuanet, January 11, 2017, http://www.xinhuanet.com/english/2017-01/11/c_135971222.htm.

8. "ABOUT AAE-1", AAE-1, <http://www.aaeone.com/aaeportal/>.

9. United Nations Conference on Trade and Development, International trade in digitally-deliverable services, value, shares and growth, annual, <http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=158358>.

Despite significant investment in Southeast Asia, the region's digital infrastructure remains relatively underdeveloped, particularly in lower income countries such as Cambodia, Laos, and Myanmar. Governments in the region prioritize their development and are interested in China's globally standardized and low-cost infrastructure; many Southeast Asian states do not have comprehensive privacy, cybersecurity, or data protection laws and policies, and thus are not particularly concerned that Chinese investment could compromise local data privacy and security.

The Chinese approach to cyberspace governance, furthermore, is attractive to some Southeast Asian states with authoritarian governments. China has managed to maintain high growth rates and develop powerful high-tech firms while also tightly controlling its internet and managing flows of information into the country. Some Southeast Asian countries see China's approach to cyberspace as a model for their own efforts to control domestic internets. For example, the Vietnamese government introduced a cybersecurity law in January 2019 that requested domestic and foreign companies provide their customer data to Hanoi, a cybersecurity law similar in many respects to Chinese laws.¹⁰

The Spread of Fintech and the Internationalization of the Chinese Yuan

China also is expanding its technological presence in the region's financial sector. The DSR provides countries with internet connectivity and logistics that are the foundations of digital payment and other financial services. The financial services industry is a process industry requiring high-performing, reliable, and low-latency computing networks. Chinese industries have invested in computing technologies and tried to become fintech leaders.

Ant Group, the Chinese e-commerce company Alibaba Group Holding's affiliate, has increasingly won the domestic competition and also expanded its mobile payment system in Southeast Asian countries, such as Indonesia, Myanmar, the Philippines, Singapore, and Thailand.¹¹ It has invested in local partners and supplied them with technology and fintech experience gained in the tough Chinese market. For instance, the credit-scoring capabilities of Ant Financial's Zhima Credit have been tested since 2015 within China, and have proven effective enough to be utilized in Southeast Asia as well.

However, the data collected in the credit-scoring system might contribute to the Chinese government's capacity for political control—both of its own citizens and potentially those of other countries. Chinese industries may have to provide their data on any customers, including foreign customers, if Beijing requests it. If the Chinese government desires to influence other countries, such as Southeast Asian states, having control of such personal data would be an ideal tool.

Moreover, China encourages its banks to use a renminbi payment system and be independent of the global financial transaction network. China's central bank introduced the Cross-Border Interbank Payment System (CIPS), a Chinese yuan-based clearing and settling system, in 2015.¹² It offered a yuan payment

10. "Ten Laws to Come Into Effect From January 1, 2019," Socialist Republic of Viet Nam Online Newspaper of the Government, December 27, 2018, <http://news.gov.vn/Home/Ten-laws-to-come-into-effect-from-January-1-2019/201812/35550.vgp>.

11. Kentaro Iwamoto, "China's Ant Eyes Southeast Asia e-Payment Dominance With IPO," *Nikkei Asia*, September 4, 2020, <http://asia.nikkei.com/Business/Business-Spotlight/China-s-Ant-eyes-Southeast-Asia-e-payment-dominance-with-IPO>.

12. "人民币国际化重要里程碑 人民币跨境支付系统（一期）成功上线运行," [An Important Milestone in RMB Internationalization RMB Cross-border Payment System (Phase I) Successfully Launched], State Council The People's

system to banks in 2015 and had spread to ninety-six countries and regions, including the United States and Japan, by June 2020.¹³

Beijing has pushed Chinese banks to use CIPS. Chief economist Guan Tao, former director of the International Payments Department of the State Administration of Foreign Exchange and Bank of China International, told Chinese banks that they should strengthen their relationship with overseas non-U.S. dollar-clearing bank correspondents and rationalize and familiarize themselves with non-U.S. dollar currency.¹⁴

The Chinese government has recognized that its dependence on the U.S. dollar and the SWIFT international financial network could be a risk, especially if the United States attempts to use SWIFT as a tool against Beijing. For example, the United States imposed sanctions on Iran, excluding it from the SWIFT network and isolating its economy. These events increased China's suspicion of dependency on the SWIFT network, and the alternative payment method is critical for China's economic security.

However, Beijing remains far behind the global standard of financial computing systems. The China Banking and Insurance Regulatory Commission's 2018 working paper pointed out that China faced a lack of core technologies, such as chips, operating systems, and transaction databases. The report shows their incomplete implementation of Beijing's 2014 guidance to reduce dependency on foreign technology and recommended replacing computers with domestically manufactured models in critical sectors.¹⁵

Influence Through Technology Standards

Standardization is a key to moving to the third stage of dual circulation. China has focused on establishing de facto standards at international fora and in international organizations, and later on convincing other countries to adopt those standards.

Increased Dependency on Chinese Technology and Economy

China is capitalizing on infrastructure development and digital platforms to establish de facto global standards in e-commerce and online payment. Telecommunications infrastructure connects the people and markets of BRI countries with Chinese companies offering online e-commerce platforms and payment systems. Simultaneously, mobile broadband communications provide internet access, and fiber-optic cables connect globally distributed data centers.

Republic of China, October 8, 2015, http://www.gov.cn/xinwen/2015-10/08/content_2943303.htm.

13. "CIPS 系统参与者公告 (第五十四期)," [CIPS System Participants Announcement (54th)], CIPS, June 30, 2020, http://www.cips.com.cn/cipsmobile/_2534/_2538/41894/index.html.

14. "若美国对中字银行实施金融制裁, 我们当如何应对?," [If the U.S. imposes financial sanctions on Chinese banks, how should we respond?], BOC International, July 28, 2020, http://pg.jrj.com.cn/acc/Res/CN_RES/MAC/2020/7/28/7d5689fd-3507-4f38-8560-41229e0f8253.pdf.

15. "中国银监会等部门关于应用安全可控信息技术加强银行业网络安全和信息化建设的指导意见," China Banking Regulatory Commission, National Development and Reform Commission, Chinese Ministry of Science and Technology, Chinese Ministry of Industry and Information Technology, September 3, 2014, <http://fgcx.bjcourt.gov.cn:4601/law?fn=chl401s258.txt&truetag=1156&titles=&contents=&dbt=chl>.

E-commerce, digital payment, and digital lending are relatively new systems and have fewer regulations than banks and other older financial institutions. Fewer regulations accelerate the adoption of Chinese technologies into countries' financial tech infrastructure, including in Southeast Asia.

The second stage of dual circulation, exporting the infrastructure and platforms, increases the region's dependency on China's economy and technology. Chinese businesses have become major players in e-commerce and online payments in Southeast Asia. For example, Alibaba took the first-mover advantage to make its service favored with a shortcut. It chose acquisitions and equity investment in the largest Southeast Asian online retailer instead of building its local services from scratch. Major telecommunications network operators in the region have adopted Chinese products to build new infrastructure, such as mobile communication infrastructure.

E-commerce and online payment through broadband internet access have become part of everyday life, making them difficult to abandon. Broadband internet is necessary for connecting customers and data centers and for maintaining quality service in the areas of reliability and customer experience. The fees for these services are calculated based on equipment, facilities, communication, and operation costs. Huawei offers 5G network equipment that is roughly 30 percent cheaper than that offered by Ericsson and Nokia. Therefore, countries gradually may be locked into DSR-supported platforms and infrastructure since the digital economy's economic benefits might decrease if they changed to other equipment.

The Chinese government has reported that the telecommunications sector is a major contributor to its industries' overseas projects. These projects include BRI projects; Huawei has been one of the top companies involved, contracting 12 billion USD in 2019.¹⁶ However, some countries opted not to adopt Chinese technologies. For example, a Vietnamese telecommunications carrier decided not to use Huawei's equipment, and Singapore telecoms operators selected Ericsson and Nokia to build the country's 5G infrastructure.¹⁷

Struggled Experience Tells How to Influence Others With Technology

The Chinese government has challenged democratic powers' technological dominance and tried to close the gap. In 2009, the Chinese government announced that the China Compulsory Certificate (CCC) system would require the disclosure of the blueprints and source codes of IT security products to be sold in China. Japan, the United States, and the EU objected to the new requirement because these items contain trade secrets at the core of technological advantage. Consequently, China implemented an alternate regulatory action in which the requirement only applies to government procurement. Therefore, China's strategy to increase other countries' dependency on its economy and technology is backed by its own experience.

China has been highly proactive in influencing global tech de jure standards. It aims to develop human resources with expertise and networks in the standardization process and collect information on cutting-edge technologies by leading discussions. China regularly sends participants to international standard

16. “中国对外承包工程发展报告,” [Annual Report on China International Project Contracting], Ministry of Commerce, 2020, <http://images.mofcom.gov.cn/fec/202012/20201201171840137.pdf>.

17. Kentaro Iwamoto, “Huawei 5G Dominance Threatened in Southeast Asia,” *Nikkei Asia*, July 20, 2020, <http://asia.nikkei.com/Spotlight/Huawei-crackdown/Huawei-5G-dominance-threatened-in-Southeast-Asia>.

organizations, such as the International Telecommunication Union (ITU) and the 3rd Generation Partnership Project (3GPP). Sending these participants has enhanced China's ability to develop domestic standards specialists. Leading standardization processes has placed China in a favorable position to obtain cutting-edge technical information. China aggressively secures leading positions at standardizing organizations, such as chairing technical committees. To get other countries' cutting-edge technologies, Chinese participants drafted an exhaustive standard as a new proposal, and a committee chair invited comments. Through this process, China could obtain technical information attached to other participants' comments that keeps their superior position in the global markets.

The Chinese ambition for 5G standardization started in 2013. The Ministry of Industry and Information Technology (MIIT), with the NDRC and the Ministry of Science and Technology (MOST), jointly founded a 5G promotion group. Government, telecommunications operators, and vendors cooperate to promote Chinese 5G standards to meet global standards. Furthermore, they are moving toward establishing China Standards 2035, which will complement Made in China 2025.¹⁸ The action plan for standards harmonization in the BRI also mentions collaboration with BRI countries on standardization. Its development shows that China has started the third stage of dual circulation in the telecommunications sector.

Challenge: Implementing China's Policy as a New World Order

China promotes its views on the cyber domain at international fora. Its approach is that the CCP sets the principles; then, government, academia, and industry support and implement them as their statements at international conferences and in businesses. Beijing observed how leading democratic countries established agendas in international organizations and shaped today's world order. In doing so, it determined that technology is the critical driver for China to expand its influence and take the lead in international discussions.

Expand Its Influence Beyond Borders

For example, China has carried out a campaign to define the concept of sovereignty in cyberspace based on its experience in internet censorship and domestic regulation. Zittrain and Edelman pointed out that China implemented a filter on the internet in 2002, which later came to be called the Great Firewall as its function evolved.¹⁹ In 2016, China's cybersecurity law stipulated the principles of cyberspace sovereignty, data protection, illegal content removal, and government intervention for public safety.²⁰ China believes that its idea of cyberspace governance has the potential to expand its influence. Moreover, its draft data security law has provisions on the extraterritorial application. It stipulates the liability of data processing activities outside China if it relates to its national security, public interests, or the legitimate rights and interests of its citizens.²¹ It might enable Beijing to control multinational corporations operating in China

18. "Standard Administration Committee Discussing China Standard 2035," Xinhuanet, January 10, 2018, http://www.xinhuanet.com/fortune/2018-01/10/c_129787658.htm.

19. Jonathan Zittrain and Benjamin Edelman, "Internet Filtering in China," *IEEE Internet Computing*, 7, 2 (March-April 2003), 70-77, March-April 2003, doi: 10.1109/MIC.2003.1189191.

20. "中华人民共和国网络安全法," [Cybersecurity Law of the People's Republic of China], National People's Congress of the People's Republic of China, November 7, 2016, <http://www.npc.gov.cn/npc/c30834/201611/270b43e8b35e4f7ea98502b6f0e26f8a.shtml>.

21. "中华人民共和国数据安全法(草案)(二次审议稿)," [Data Security Law of the People's Republic of China (Draft) (Second

and holding data centers overseas by enforcing the law.

While Beijing implemented the cyberspace governance system domestically, it also has tried to spread its ideas for cyberspace governance beyond its borders. In 2015, Xi Jinping proposed building a community with a shared future in cyberspace at the Second World Internet Conference (WIC) organized by the Cyberspace Administration of China (CAC), the government's central internet regulator. The proposal called for joining the community and participants' support for its ideas for cyberspace governance.²² The conference aimed to create global networks and involved academia in tracing how other countries shaped global norms. China tried to involve attendees—including foreign politicians, academia, and industries—in its idea.

At the Sixth WIC in 2019, the China Institutes of Contemporary International Relations (CICIR, a think tank affiliated with the Ministry of State Security), the Shanghai Academy of Social Sciences, and Wuhan University published "Network Sovereignty: Theory and Practice," which introduced the concept of sovereignty in cyberspace. The authors of the concept refined it and included institutions such as the CAC and other universities in 2020.

Moreover, Beijing aims to make its cyberspace governance system a regional de facto standard. The CAC pointed out that its cybersecurity law provides a solution to global cyberspace governance.²³ If other countries adopt its governance system, it can formulate collective action to shape the international discussion on states' behavior in cyberspace.

Taking Over the Data Governance

China is preparing to take over the ongoing discussion on rule-making for cyberspace. The global community started a discussion about cyberspace rules regarding privacy, data protection, intellectual property, and security along with the Group of Twenty (G20) Osaka Leaders' Declaration of 2019. Japan aims to lead the digital economy's rule-making and the Free and Open Indo-Pacific (FOIP) and the Data Free Flow with Trust (DFFT). The DFFT is Japan's concept of cross-border non-personal data flows proposed by Japanese Prime Minister Shinzo Abe at the Davos Forum in 2019.²⁴ During the G20 discussion, participants shared the importance of the DFFT.

While China welcomed Japan's initiative for launching the Osaka Track, it established the proposal regarding rule-making for cyberspace governance. The Chinese Ministry of Foreign Affairs released Global Initiative on Data Security (GIDS) in September 2020.²⁵ It called for taking a balanced approach

Review Draft)], National People's Congress of the People's Republic of China, April 29, 2021, <http://www.npc.gov.cn/flcaw/flca/ff80818178f9100801791b3c96374eef/attachment.pdf>.

22. "Remarks by H.E. Xi Jinping President of the People's Republic of China At the Opening Ceremony of the Second World Internet Conference," Chinese Ministry of Foreign Affairs, December 16, 2015, http://www.fmprc.gov.cn/mfa_eng/wjdt_665385/zyjh_665391/t1327570.shtml.

23. "《网络安全法》实施两周年：让互联网在法治轨道上健康运行," [The Second Anniversary of the Implementation of the "Network Security Law": Let the Internet in the Rule of Law Track Healthy Operation], Cyberspace Administration of China, April 16, 2020, http://www.cac.gov.cn/2020-04/16/c_1588583174020809.htm.

24. "Speech by Prime Minister Abe at the World Economic Forum Annual Meeting," Japanese Ministry of Foreign Affairs, January 23, 2019, http://www.mofa.go.jp/ecm/ec/page4e_000973.html.

25. "Global Initiative on Data Security," Chinese Ministry of Foreign Affairs, September 8, 2020, http://www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1812951.shtml.

to technological progress, economic development, and the protection of national security and public interests. GIDS follows China's principles on data governance and sovereignty, which are different from FOIP and DFFT.

China aggressively encourages other countries to support GIDS to take over the data governance discussion. Chinese foreign minister Wang Yi has advocated for GIDS in bilateral meetings since its release. Myanmar and Cambodia quickly showed their support.²⁶ However, countries such as the Philippines and Pakistan, with which China invested in BRI and the DSR, welcomed but did not support the proposal.²⁷ Therefore, China's effort to lead collective action in cyberspace governance was not fully rewarded. China needs more time to exercise influence over BRI countries in the third stage of dual circulation.

Conclusion

This paper analyzed how the DSR has become a central component of China's technological internationalization. China's concept of dual circulation represents its ambition to both bolster its domestic technologies and make Chinese firms globally competitive. Standardized technologies are ideal tools to circulate overseas investment back to its domestic market because they are widely used and difficult to abandon. Technologies implemented in Southeast Asian countries support these Southeast Asian states' economic development while increasing dependency on Chinese technologies and on the Chinese economy more broadly.

The DSR's impact extends beyond building dependence on Chinese technology—it can promote China's norms and China's strategic influence as well. Beijing promotes its principles on cyberspace governance to international fora in tracing how Western countries shaped global norms. However, the circulation system is incomplete. Countries decided not to use Chinese products, and its ongoing diplomatic efforts are unsuccessful.

Future research will focus on sharing the benefits of technological developments created by Chinese firms and helping China work with other states to develop common norms for cyberspace. Japan, the United States, Australia, and India likely will increase their engagement in Southeast Asia as well, providing alternatives for Southeast Asian states to Chinese technology investments and Chinese norms.

26. "Wang Yi Holds Talks with Cambodian Deputy Prime Minister and Foreign Minister Prak Sokhonn," Chinese Ministry of Foreign Affairs, October 12, 2020, http://www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1823796.shtml; "王毅国务委员访问缅甸政治共识和具体成果," [Political Consensus and Concrete Results of State Councilor Wang Yi's Visit to Myanmar], Chinese Ministry of Foreign Affairs, January 12, 2021, <http://www.fmprc.gov.cn/web/wjbzhd/t1845823.shtml>.

27. "巴基斯坦欢迎中方提出《全球数据安全倡议》," [Pakistan Welcomes China's Global Initiative on Data Security], State Council The People's Republic of China, September 15, 2020, <http://www.fmprc.gov.cn/web/wjbzhd/t1845823.shtml>; "东盟高度重视中方提出的《全球数据安全倡议》," [ASEAN Found China's Global Initiative on Data Security Important], Chinese Ministry of Foreign Affairs, September 9, 2020, <http://www.fmprc.gov.cn/web/wjbzhd/t1813585.shtml>.