

POLICY BRIEF

China's Digital Silk Road and its influence in the Indo-Pacific

1. Introduction

China's Digital Silk Road (DSR) is aggressively expanding in the Indo-Pacific region. This policy brief analyses the DSR from the viewpoint of the Chinese Communist Party (CCP)'s engagement in implementing technology and its value. In addition, it explores the strategic aim of the People's Republic of China (PRC) in the cyber domain, the impact of the DSR in the Indo-Pacific region and the reaction of Japan.

The DSR is part of the Belt and Road Initiative and it is Beijing's strategy to internationalise its technology. It leverages technologies to implement Beijing's principles in the cyber domain. Expansion of the DSR increases the dependence of countries on China's economy and technology. It locks in the infrastructure of recipient states and aligns them with China's authoritarian values by using technology to stabilise their political regimes. Beijing's strategic approach is vague and its purpose, roles and effects of the Chinese government and the private sector are unclear. This policy brief examines the DSR and uses the PRC's policy and cases in the region as examples.

This policy brief explores the following questions. What is the strategic aim of the PRC in the cyber domain? How does the DSR contribute to achieving this aim? To what extent does the DSR affect the Indo-Pacific region? How is Japan reacting?

A concept that is key to understanding Beijing's strategic aim is dual circulation. The CCP introduced this concept in 2020 to coordinate China's domestic and overseas investments, technological developments, exports and profits. Beijing regards dual circulation as key to strengthening its influence on the international economy and politics.



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The DSR promotes the engagement of Chinese companies overseas. From a technological standpoint, major BRI projects have contributed to boosting and exporting overseas domestically developed technologies such as telecommunication infrastructure and smart cities. In addition, Chinese state-led overseas investments in building and operating information and telecommunication infrastructure make BRI countries dependent on the Chinese economy and technology.

Some countries have no option but to choose Chinese technology because other telecommunication equipment providers have difficulty competing with their Chinese competitors' aggressive financing packages. This high dependency has started to bring returns, such as in the form of licence fees for standardised technologies and infrastructure operation contracts. For example, the U.S. government has stated that all the players in the Philippines telecommunication market are price sensitive and are biased towards purchasing Chinese equipment.¹

Moreover, China leverages technology to implement Beijing's aim in the cyber domain. This is to make the most of technology to strengthen centralised national power. While there are concerns about its implementation in society, such as censorship of data, some states regard it as an attractive option because of China's economic growth under an authoritarian political regime.

States in the Indo-Pacific focus on their economic prosperity, their national security and the stability of their political regimes. Beijing can offer solutions for these needs with information and communication technologies and it exerts its influence to make joint proposals to legitimise its value and influence the existing world order.

However, Beijing's influence has not been fully rewarded. For example, the idea of sovereignty in cyberspace has few supporters. Therefore, this policy brief proposes that Japan and its allies should lead rulemaking in cyberspace based on the vision of a free and open Indo-Pacific.

2. Dual circulation and Beijing's strategic aim in the cyber domain

China has an ambition to internationalise its development system and consolidate its national economic and technological capabilities under central control. The CCP has published a document entitled 'Proposals for the formulation of the Fourteenth Five-Year Plan (2021-2025) for National Economic and Social Development and Long-Range Objectives for 2035.'² This plan promotes international cooperation to achieve mutual benefits and build its regulatory framework to respond to economic and trade friction.

Dual circulation underpins China's fundamental theory of economic and social stability by coordinating domestic and international developments. The CCP announced the concept of dual circulation in May 2020. Its aim is to boost innovation by Chinese technology companies and make them more competitive globally. It also strengthens Beijing's influence on beneficiary states through their dependence on China's technologies and economy.

Dual circulation has three stages, which involve interaction between domestic and overseas circulation. The first stage is the domestic circulation of investment, development and implementation of technologies with government support. For its domestic market, the Chinese government has supported the research and development of new technologies such as mobile communication, e-commerce and smart cities. This support has helped Chinese firms move up the value chain and has prepared them for global competition. While the Chinese private sector develops technologies, Beijing helps firms by introducing a regulatory framework, licences and approval processes that make it difficult for foreign products to enter the Chinese market. Despite international criticism of this distortion of trade conditions, China insists that its subsidies comply with WTO rules.³

The second stage of dual circulation concerns the overseas market. Beijing promotes internationalisation of its technologies and incentivises other coun-

¹ U.S. International Trade Administration, "Philippines Telecommunications Market," 8 May 2020, https://development.trade.gov/market-intelligence/philippines-telecommunications-market

² Chinese State Council of the People's Republic of China, "CPC Central Committee's development proposals set long-range goals through 2035," 3 November 2020. http://english.www.gov.cn/policies/latestreleases/202011/03/ content_WS5fa159efc6d0f7257693edc1.html

³ Chinese State Council Information Office, "SCIO briefing on WTO's eighth trade policy review of China," October 2021. http://english.scio.gov.cn/pressroom/node_8026794.htm

tries to welcome Chinese investment and technology.

Standardisation is critical in this internationalisation. It makes other countries become dependent on Chinese firms and technologies. Chinese industries set standards for technologies in international organisations with Beijing's support. This assistance has helped Chinese industries compete with the dominant players that have for decades set global technology standards.

The third stage consists in exercising influence over BRI countries and delivering strategic and economic returns for China. For example, a patent fee paid by telecom operators and manufacturers in other countries benefits Chinese industries and firms. They receive royalties or license fees for standard essential patents (SEPs), which force foreign firms to comply with Chinese technical standards. In fact, Huawei, a Chinese telecom equipment producer, holds more than 110,000 patents. It also has made the most applications to protect its inventions internationally under the Patent Cooperation Treaty.⁴ As a result, between 2019 and 2021 Huawei earned over a billion USD from patent licensing.⁵

Another opportunity in the third stage concerns operation and maintenance. Communication infrastructure requires operation and maintenance, and it is difficult for countries to remove technologies once they have been embedded in their power grids, telecommunication networks and other essential components of society. Chinese Ministry of Commerce data on foreign economic cooperation indicate that ICT is one of the biggest areas of cooperation. In fact, since 2004 Huawei has been in the top or second position for sales of foreign projects that Chinese companies implement overseas.⁶ Indeed, for countries increasingly dependent on Chinese technologies, Chinese businesses have an advantage in getting operations and maintenance contracts since they are more familiar with operating and maintaining these domestically produced technologies.

Moreover, Chinese influence has affected beneficiary states' policies. For example, the Philippine government approved a Chinese state-owned telecommunication company entering its market with a five billion USD investment.7 8 While the Philippines has regulated full ownership of critical infrastructure, including telecommunications, the government decided to accept Chinese investment to address the growing demand for better connectivity. Chinese state-owned China Telecom and the Philippine Udenna Corporation established the Mindanao Islamic Telephone Company, Inc., which is now known as Dito Telecommunity Corporation (DITO). DITO became the first foreign company providing network services and the third major telecommunications provider in the Philippines, challenging the duopoly of PLDT and Globe Telecom.

3. Power Projection through the Digital Silk Road

3.1 Influence on technology and economies

The DSR has effectively influenced states in the Indo-Pacific with Chinese technologies and economics. While Western states are wary of Chinese products stealing intellectual property and threatening national security, states in the Indo-Pacific region accept them. These states are pursuing economic growth, national security and political stability at a low cost, and ICT supports them. ICT promotes global economic integration and business efficiency and expands trading areas that were previously constrained by borders, logistics and resources. China can offer its technologies, platforms

⁴ Huawei, "Huawei Announces New Inventions That Will Revolutionize AI, 5G, and User Experience," 8 June 2022. https://www.huawei.com/en/news/2022/6/ipr-2022

⁵ Huawei, "Huawei Releases White Paper on Innovation and Intellectual Property 2020," 16 March 2020. https://www.huawei.com/en/news/2021/3/huawei-releases-whitepaper-innovation-intellectual-property-2020.

⁶ Chinese Ministry of Commerce, "China's top 100 enterprises for foreign contracting business in 2020," February 2021. http://fec.mofcom.gov.cn/article/tjsj/ydjm/gccb/202102/20210203040669.shtml

⁷ Philippines Presidential Communications Operations Office, "President Duterte to Mislatel consortium: Break the telco industry duopoly," 8 July 2019. https://pcoo.gov.ph/news_releases/president-duterte-to-mislatel-consortium-break-the-telco-industry-duopoly/

⁸ Embassy of the People's Republic of China in the Republic of the Philippines, "Ambassador Huang Xilian: China-Philippines Pragmatic Cooperation Helps the Philippines' Economic Recovery," 16 October 2020. https://www. fmprc.gov.cn/ce/ceph/eng/sgdt/t1824584.htm; Chinese Ministry of Foreign Affairs (in Chinese). https://www.fmprc. gov.cn/web/gjhdq_676201/gj_676203/yz_676205/1206_676452/1206x2_676472/202010/t20201016_7978133. shtml

and experience of implementation to countries to meet their needs, such as a digital economy for economic growth, modernisation of their militaries for security and regulation of the use of cyberspace for political stability.

The support associated with the DSR is an attractive option for states pursuing economic growth driven by digital technology. The DSR provides communication infrastructure, online platforms and logistics combined with the road, railway and other infrastructure offered by the Belt and Road initiative (BRI). Chinese companies have offered online platforms for payment, social media and e-commerce as mobile communication networks are available in the region and have become major market shareholders. Moreover, Beijing and Chinese companies offer competitive financing packages such as lower interest rates, less strict conditions and faster decisions on loans than other international financing institutions such as the World Bank and the Asian Development Bank.

Telecommunication infrastructure has become an essential part of daily life in the region. Cell phone networks are necessary for social media and e-commerce, which are the driving force of the digital economy. Chinese companies are expanding their market shares in the region. For example, Alipay operator Ant Group, a financial affiliate of Alibaba Group Holding, has been rolling out its mobile payment system overseas.⁹

3.2 Beijing's power projection through the DSR

Dependence on the Chinese economy and technology will affect the balance of economic security in the Indo-Pacific. States in the region have shifted their policy priorities in order to capture more economic opportunities from China. Beijing's implementation of technology in its society has not only strengthened the CCP's ability to govern the nation but has also achieved high economic growth.

China's state-led capitalism is easy to align with authoritarian states to establish projects dominated by authoritarian elites. Some authoritarian regimes such as Cambodia, Myanmar and Laos possibly regard the Chinese system as an ideal option that has achieved high economic growth while holding its political situation stable. Indeed, Myanmar has introduced Huawei surveillance cameras that have facial recognition capabilities in its capital, Naypyitaw.¹⁰ The system has hundreds of cameras and uses artificial intelligence to recognise objects in the capital and find anyone with a criminal history.

Simultaneously, for Beijing, becoming a role model for the region will create a buffer zone in which authoritarian regimes in its neighbourhood legitimise the use of ICT to secure their political power against Japan, the United States, Australia, India and other countries. Consequently, the DSR builds *de facto* standards for implementing technology in the region with public acceptance. Furthermore, it helps Beijing's diplomatic influence on the international community by showing that technology implementation policies in the region go in the same direction as Beijing.

However, there might be missing logic in the model. Research by the Japan International Cooperation Agency on fibre optic cable industries sheds light on the Chinese government's subsidies of its domestic industries. The report states that Yangtze Optical Fibre and Cable, the biggest player in the Chinese fibre optic market, has a possible cash-flow deficit in sales and investment.¹¹ This implies that the model relies on China's unreasonable subsidies of the private sector.

3.3 China's Challenges in Mitigating Strategic Weakness

There are still gaps between Chinese and Western industries. The DSR contributes to expanding the value of Beijing's technology implementation overseas. To increase its value, China mandates achieving further economic development and leading in cutting-edge technologies. However, China's domestic policies are difficult to apply in other countries since the existing world order based on democratic values does not accept centralised power to preserve the political status quo and control citizens with technology. Therefore,

⁹ Kentaro Iwamoto, "China's Ant eyes Southeast Asia e-payment dominance with IPO," 40 September 2020. https:// asia.nikkei.com/Business/Business-Spotlight/China-s-Ant-eyes-Southeast-Asia-e-payment-dominance-with-IPO

¹⁰ Nyan Hlaing Lin and MinMin, "Hundreds of Huawei CCTV Cameras With Facial Recognition Go Live in Naypyitaw," Myanmar Now, 15 December 2020. http://www.myanmar-now.org/en/news/hundreds-of-huawei-cctv-cameraswith-facial-recognition-go-live-in-naypyitaw.

¹¹ Japan International Cooperation Agency, "Study on China's global infrastructure development," October 2019. https://openjicareport.jica.go.jp/pdf/12345633.pdf

China has sought to increase the legitimacy of its policy regarding technology implementation and has gradually expanded the community of shared values through the DSR.

Furthermore, Beijing has set the objective to overcome the technological gap by being independent of Western technologies. The CCP believes that if Chinese industries take the lead in technology development and eliminate the constraints of Western core technologies, China can achieve further economic development and national security. However, Beijing recognises that lowering its dependence is difficult. For instance, the China Banking and Insurance Regulatory Commission's 2018 working paper stated that China faced a lack of core technologies, such as semiconductors, operating systems and transaction databases.¹² The U.S. and other states have kept their superior positions regarding these technologies.

Beijing's strategic documents and statements by high-ranking officials reflect its ambition to fill the gap. The Fourteenth Five-Year Plan shows China seeking to enhance its technological independence from leading democratic powers, especially in ICT. President Xi 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.¹³ Zhuang Rongwen, director of the office of the central cyberspace affairs commission has detailed a timeline.¹⁴ He says that the country aims to resolve its core technology constraints by around 2025 and build a modern socialist country with information technology by around 2050.

China also believes that its efforts to govern cyberspace should be recognised as legitimate and should lead to remaking the global order regarding the Internet. For example, at the 2nd World Internet Conference in 2015, Xi noted that the internet has expanded into a new realm of state governance and called for global internet governance rules to be formulated.¹⁵ This statement was based on the CCP's view that the internet should be governed by the state. In addition, Xi stressed the idea of sovereignty in cyberspace and the legitimacy of its network management policies. He also emphasised the right of individual countries to choose how to govern cyberspace. This shows Beijing's aim to expand its cyberspace governance system overseas.

3.4 Expanding Beijing's value with technology

Chinese industries are developing smart cities overseas based on their experience in China. The Chinese government has promoted strengthening the management of society with smart cities, and sees the integration of devices, platforms, data and policies as key to expanding its value. While some states are concerned about privacy issues, Beijing expands the value of using technology to monitor and control its citizens. For example, Alibaba has provided a 'city brain,' which is its smart city solution to streamline traffic, detect accidents and improve transport efficiency. Alibaba has shown the success of the system in detecting vehicle fires, automatically issuing fire alerts and notifying the fire station with surveillance cameras installed in the city of Hangzhou.

Some countries are doubtful about importing Chinese technology and authoritarian surveillance systems. For example, in Serbia in Eastern Europe, the Belgrade city government has installed a number of Chinese surveillance cameras to read people's movements, faces and car licence plates. However, the EU Parliament has raised concerns about the project.¹⁶ This is because of the possibility

¹² China Banking and Insurance Regulatory Commission, "Research on network risk management and supervision in China's banking industry," October 2018. http://www.cbirc.gov.cn/chinese/files/2018/F4A250B6C7FF428AB-044F07C4CB4636D.pdf; China Banking Regulatory Commission, National Development and Reform Commission, Chinese Ministry of Science and Technology, Chinese Ministry of Industry and Information Technology, 3 September 2014. http://fgcx.bjcourt.gov.cn:4601/law?fn=chl401s258.txt&truetag=1156&titles=&contents=&dbt=chl.

¹³ Xi Jinping's Full Speech at the Symposium on Internet Information, Xinhuanet, 19 April 2016. http://www.xin-huanet.com/politics/2016-04/25/c_1118731175.htm.

¹⁴ Chinese State Council Information Office, "Briefing on the Outline of National IT Development Strategy," 27 July 2016. http://www.gov.cn/xinwen/2016-07/27/content_5095331.htm

¹⁵ Chinese Ministry of Foreign Affairs, "Remarks by H.E. Xi Jinping, President of the People's Republic of China at the Opening Ceremony of the Second World Internet Conference," 16 December 2015. https://www.fmprc.gov.cn/ mfa_eng/wjdt_665385/zyjh_665391/201512/t20151224_678467.html

¹⁶ European Parliament, "Safe City project in Serbia – China penetrating into Europe," 2 October 2019. https://www.europarl.europa.eu/doceo/document/E-9-2019-003068_EN.html

of transferring data to Beijing's intelligence service, if state authorities ask requires Chinese industries to do so based on the Chinese National Security Act.

The Chinese approach to cyberspace governance is attractive to authoritarian regimes in the Indo-Pacific region. China has managed to maintain high growth rates and develop powerful high-tech firms while tightly controlling its internet and managing the flow of information. Beijing has promoted this approach as a model for maintaining and stabilising public security.

Furthermore, China has exported its internet censorship systems together with the related technology and policies. The Belarus government has monitored internet content such as social media and messaging apps using the Russian-developed System of Operative Investigative Measures (SORM). Huawei has also provided a Belarusian telecom company with an internet traffic monitoring system since 2015.17 Regarding policy development, the Belarusian government drafted its cybersecurity law in 2019 with the help of Chinese partners. The Belarus government and Huawei have collaborated since they agreed to cooperate on developing ICT policies in 2018.¹⁸ Therefore, the DSR provides a solid foundation for exporting Huawei's technology to support Belarusian policies.

There are several projects that adopt technologies from Chinese companies, and they are expanding in other areas. In Africa, Zimbabwe has restricted access to some social media since 2019. Moreover, its government is considering a law regulating the use of social media modelled on China's regulations. In addition, Huawei and ZTE are reportedly building facilities in the country similar to those in China to monitor the internet. The Zimbabwean government has also contracted with Cloudwalk, which is based in China's Guangdong province, to build a system using AI-based facial recognition technology as a security measure.¹⁹

4. The influence of the DSR and the reaction of Japan

Japan promotes Free and Open Indo-Pacific (FOIP) and seeks to create principles of freedom and openness in the region between the Indian Ocean and the Pacific.²⁰ The U.S. and other partners in the region share the concept of FOIP and implement in their strategies its principles such as rule-based order and expanding a free and fair economic order.²¹ The Japanese government does not place FOIP as a concept to compete with China, but it gives states in the region an alternative to the DSR. For example, the Japanese government has focused on Vietnam, which decided to build its 5G network without using Huawei equipment. The Vietnamese carriers selected Ericsson, Nokia and Samsung to build the country's 5G infrastructure. Following the announcement, Japan strengthened its ties with Vietnam and in December 2019 held a bilateral policy dialogue focusing on cybersecurity and 5G. Moreover, Sanae Takaichi, the Minister of Internal Affairs and Communication, and Vietnamese Prime Minister Nguyen Xuan Phuc agreed that the two countries should cooperate on 5G security.

Tokyo has carefully promoted a FOIP so that China does not see it as a threat. The Japanese government believes that if China agrees to the principles of FOIP both will share the benefits. For the time being, this approach had successfully prevented China from becoming anxious. When Chinese foreign minister Wang Yi was asked to comment on the strategy and whether he believes it aims to

¹⁷ Galina Petrovskaya, "The Belarusian segment of the Internet: under the hood of the state," 24 September 2015. Link to the article

¹⁸ Belarusian Ministry of Internal Affairs, "Ministry of Internal Affairs of Belarus and the Chinese company Huawei signed a memorandum of cooperation and intentions," Internet Archive, 18 October 2018. https://web.archive. org/web/20210509153133/https://naviny.online/new/20181018/1539850124-mvd-i-huawei-podpisali-memoran-dum-o-sotrudnichestve

¹⁹ Problem Masau, Zimbabwe: Chinese Tech Revolution Comes to Zimbabwe, 9 October 2019. https://allafrica. com/stories/201910090185.html

²⁰ Japanese Ministry of Foreign Affairs, "Free and Open Indo-Pacific," 3 March 2022. https://www.mofa.go.jp/policy/page25e_000278.html

²¹ The U.S. released its Indo-Pacific Strategy in February 2022. https://www.whitehouse.gov/wp-content/up-loads/2022/02/U.S.-Indo-Pacific-Strategy.pdf; Australia released its perspective on the Indo-Pacific in April 2019. https://www.dfat.gov.au/news/speeches/Pages/the-indo-pacific-australias-perspective; Indian prime minister Modi's talk at the Shangrila Dialogue in 2018, https://www.mea.gov.in/Speeches-Statements.htm?dtl/29943/Prime+Ministers+Keynote+Address+at+Shangri+La+Dialogue+June+01+2018

contain China or offset the BRI, he stated that a FOIP targeted no one.

At a meeting of the House of Councillors budget committee in 2019, Prime Minister Abe said that cooperation with China was possible when Beijing took on board the concept of FOIP.²² This approach to Beijing has met with some success. Wang has stated that he hopes that the Indo-Pacific strategy of Japan, the U.S., India and Australia would not be a measure to contain China.²³ Furthermore, Japan is looking at states in the region maintaining a distance from the BRI and trying to find ways to cooperate with them in the ICT sector as a part of the FOIP approach.

5. Conclusion

This policy brief has discussed the expansion of the DSR. This expansion increases the dependence of recipient countries on China's economy and technology. Beijing's dual circulation policy is how it achieves its strategic goal of coordinating China's domestic and overseas investments, technology development, exports and profits.

In the cyber domain, the DSR contributes to not only making a profit but also expanding the value of Beijing's technology implementation for societies.

It makes recipient states align with China's authoritarian values using technology to stabilise their political regimes. Conversely, it also meets the needs of authoritarian regimes in the region to pursue economic growth, national security and political stability at a low cost.

However, Beijing's influence has not been fully rewarded. It has tried to be independent of Western technologies and platforms for decades, but China still depends on them. Furthermore, some states have chosen to not use Chinese products. Their value regarding the implementation of technology in societies has few supporters.

The core of Japan's reaction to DSR is a FOIP. It has shaped Japan's response to the DSR. This vision aims to promote the principles of economy and security and it offers regional partners options, including alternatives to the BRI. For the time being, Tokyo's careful promotion of a FOIP had been successful so that China does not see it as a threat. Tokyo continues to find opportunities with states in the region to maintain a distance from the BRI and tries to find ways to cooperate with them in the ICT sector as a part of a FOIP.

²² Japanese National Diet Library, "No. 198 National Diet, Upper House Budget Committee No. 13 on 25 March 2019," 25 March 2019, https://kokkai.ndl.go.jp/txt/119815261X01320190325/270

²³ Chinese State Council, "Foreign Minister Wang Yi on China's foreign policy and foreign relations answering questions from Chinese and foreign journalists," 8 March 2018 http://www.gov.cn/xinwen/2018-03/08/content_5272411. htm

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