



CENTRE FOR AIR POWER STUDIES

In Focus

New Delhi

CAPS InFocus: 28/2023

10 May 2023

Countering China in the Indian Ocean Region Digitalization Game via India's Digital Public Infrastructure

Aishwarya Acharya

Research Intern, Centre for Air Power Studies

Keywords: Digital Public Infrastructure, Digital Silk Road, Indian Ocean Region, India-China Competition



Source: <https://theprint.in/world/indias-powerful-digital-stack-explained/1230550/>



Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of the Centre for Air Power Studies [CAPS]

This work is licensed under Creative Commons Attribution – Non-Commercial – No Derivatives 4.0 International License.

India's Digital Public Infrastructure (DPI) has become a testimony to its growing prowess in the digital realm. DPI is an umbrella term used for all the interoperable digital blocks ranging from Aadhaar, to the Unified Payments Interface (UPI) and other forms of data structures that cross-cut across various sectors, including health, education, financial services, etc.

The state is not just a facilitator of the platform to build this infrastructure but also a stakeholder, with its own not-for-profit companies joining hands with the private sector.¹ The use of an Application Programming Interface (API) ensures the privacy of the code, and all the mechanisms developed with its help require permissions to share personal data from the user, ensuring process transparency and thus fostering trust. The discussions at the latest Global Technology Summit 2022 highlighted how 'India Stack' is envisioned as a sub-component of the Global Digital Ecosystem instead of being looked at with any oligopolistic ambitions.²

India can further its position among the countries in the Indian Ocean Region (IOR) by promoting its DPI model. Via this model, it can counter China, set norms for responsible digitalisation, and kick-start the discourse of cyber-securitisation in the IOR. This urgency to gear up the cyber securitisation discourse in the Indian Ocean majorly stems from China's actions in the digital realm.

Indian Ocean and China's Digital Silk Road- Why India Needs to Take a Lead

Credit goes to China's Digital Silk Road (DSR) initiative, introduced by Xi Jinping in 2015. The DSR is an ambitious Chinese project that offers to build the digital infrastructures of participating countries, leading to the modernisation of their industries and transportation meanwhile enhancing connectivity.

While it promises digital development to the participating countries, it provides huge markets for China to sell its security and communication equipment. With HMN Tech becoming the fastest undersea cables laying firm³ and Huawei becoming a 5G vendor for many countries in Africa and West Asia, China, under the shelter of DSR, is effectively increasing its digital footprint. Many developing countries are also becoming party to China's e-commerce ecosystem. Further, the surveillance technologies promised under this package are encouraging the authoritarian structures in such countries.⁴

China's top development aid agency hosted the China Indian Ocean Region Forum in November 2022, signalling a China that intends to penetrate functional matters in a region to which

it isn't even a natural geographical party. The enthusiastic participation of many IOR countries in this forum has been worrisome.⁵ This has had twofold implications for these countries: firstly, it has created an overdependence on China for sustaining their modernisation program, paving the way for China's 'debt trap diplomacy,' due to which countries unwillingly become a part of China's conception of the authoritarian world order. Secondly, cheaper costs and China's own ways of surveilling its citizens and maintaining opaqueness under the name of 'data sovereignty' attract these developing countries that find this model of operation better as it makes them less accountable to their citizens, thus, they are willingly becoming party to its idea of digital authoritarianism.

Digital Silk Road versus Digital Public Infrastructure

India's DPI uniquely creates a balance between the capitalistic model of majorly private-sector-led innovation (for example, Big Tech in the US) and the authoritarian model of going digital, where every entity in the private sector is implicitly connected and answerable to the country's central government, as in China. While western technology is apprehensive about trade in intellectual property monopolising such emerging technologies, India, in the form of DPI, aspires to create a true form of an open digital ecosystem by showing its readiness to share its technology with developing countries.

While China looks at its digital initiative as a commodity to extract profit from, India's way of looking at this process of global digitalisation is as a 'public good not-for-profit' motive. China directly sells these technologies to countries that do not have the skills to reverse engineer these products or even maintain and repair them. This makes these countries highly dependent on China for every single step of innovation. India, on the other hand, will try to enable these countries to customise, learn, and adapt according to their own experiences. While China's state-led approach discourages independent private sector participation, these developing countries would benefit from multiple stakeholder approaches, as in India, which encourages inclusive innovation.

Digital Indian Ocean via Digital Public Infrastructure

India is taking steps to improve the hardware component of digital technologies. It has just recently entered the race to build and maintain undersea data transfer cables.⁶ Schemes such as 'Make in India' bolster start-up culture, and a manufacturing boost is provided via the Production Linked Incentive schemes. But all these projects with long-term vision won't materialise in the immediate future, handing a lot of spare time over to China. The Indian discourse of making India a silicon chip

manufacturing hub at par with China is optimistic but hardly realisable anytime soon. Looking at these practical constraints, if India has to counter China's DSR initiative in the IOR, it needs to focus on its strengths, which lie in the software domain.

The streamlined materialisation of this DPI enthusiasm can have twofold implications:

1. India can make use of its image as a responsible state in the region to export its accountable and altruistic version of technology vis-à-vis China, which tends to sell its 'no-strings attached' version of the technology. Various Indian Ocean countries like South Africa, Mauritius, Kenya, etc. bought surveillance equipment from China under the name of 'COVID Management.' Even though research shows that the use of Chinese surveillance equipment in these countries has not yet taken on an authoritarian flavour, the fact that such countries were attracted more by the Chinese model of 'safe cities' (which promote surveillance under the name of keeping a watch over citizens for their own safety) instead of India's model of combating the COVID crisis by creating platforms that made consultations, hospital bed bookings, and the whole vaccination process digital highlights the missed opportunity.⁷
2. India's IT exports, which account for a major surplus in India's balance of payment sheet, mostly stem from the exports of software services and business solutions on a private entrepreneurial level. Exporting such services under the model of DPI, an exemplification of optimum management, will further increase India's stakeholder image at the highest levels of governance.

Conclusion

India's geographical proximity to the Indian Ocean countries gives India a greater advantage over China. But if China succeeds in promoting its version of digitalisation and cyber-security, it will be difficult for India to retain its strategic advantage in the IOR.⁸

The IMF hailed India's DPI in its recently published report 'Stacking up the Benefits: Lessons from India's Digital Journey' and described it as a suitable roadmap for developing countries.⁹ Leveraging this popularised umbrella concept, India should develop its own brand, DPI, and promote a responsible way of digitalisation and cyber-securitisation in the Indian Ocean. India has already started making UPI international and has signed MoUs with over 13 countries on the use of UPI as a payment mechanism.¹⁰ India can provide guidance to several countries that have shown interest

in implementing identification systems like Aadhaar.¹¹ UPI lite, UPI 123, the Open Network for Digital Commerce (ONDC), and Account Aggregators, if implemented, can prove to be game changers for India.

India already has the image of being a country that takes the lead 'in' the region in the digital realm. It now needs to be the country that takes the lead 'for' the region in the digital realm.

Notes:

¹ Kirti Mittal et al., 'Creating 'Good' Digital Public Infrastructure', *ORF*, October 26, 2022, <https://www.orfonline.org/expert-speak/creating-good-digital-public-infrastructure/>. Accessed on April 12, 2023.

² "Global Technology Summit 2022 Action Points", *Carnegie India*, March 7, 2023, <https://carnegieindia.org/2023/03/07/global-technology-summit-2022-action-points-pub-89171#Sahu>. Accessed April 12, 2023.

³ Joe Brock, "U.S. and China wage war beneath the waves- over internet cables", *Reuters*, March 23, 2023, <https://www.reuters.com/investigates/special-report/us-china-tech-cables/>. Accessed on April 11, 2023.

⁴ Jonathan E. Hillman, "Techno-Authoritarianism: Platform for Repression in China and Abroad", *Centre for Strategic and International Studies*, November 17, 2021, <https://www.csis.org/analysis/techno-authoritarianism-platform-repression-china-and-abroad>, Accessed on April 10, 2023.

⁵ Ananth Krishnan, "China's Moves in the Indian Ocean", *The Hindu*, December 5, 2022, <https://www.thehindu.com/news/international/explained-chinas-moves-in-the-indian-ocean/article66224005.ece>. Accessed on April 15, 2023.

⁶ "Undersea Cable System: Why India needs to become a bigger player in the domain", *NewsOnAir*, December 11, 2022, <https://newsonair.com/2022/12/11/undersea-cable-system-why-india-needs-to-become-a-bigger-player-in-the-domain/>. Accessed on April 12, 2023.

⁷ Aidan Power-Riggs, "Covid-19 is Proving a Boon for Digital Authoritarianism", *Centre for Strategic and International Studies*, August 17, 2020, <https://www.csis.org/blogs/new-perspectives-asia/covid-19-proving-boon-digital-authoritarianism/>. Accessed on April 14, 2023.

⁸ Jagannath P. Panda, "What Beijing's Expanding Digital Silk Road Means to India?", *MP-IDSA*, August 24, 2021, <https://idsa.in/system/files/issuebrief/ib-dsr-means-to-india-jppanda-240821.pdf>. Accessed on April 12, 2023.

⁹ International Monetary Fund, "Stacking up the benefits: Lessons from India's Digital Journey", *IMF*, March 23, 2023, <https://www.imf.org/-/media/Files/Publications/WP/2023/English/wpia2023078-print-pdf.ashx>. Accessed on April 10, 2023.

¹⁰ India Briefing, “India’s UPI Interface to Become Accessible to More Users”, *India Briefing*, February 21, 2023, <https://www.india-briefing.com/news/global-acceptance-of-indias-digital-payment-systems-europe-latest-to-join-26183.html/#:~:text=Indian%20digital%20payment%20systems%20are,UPI%20interface%20for%20digital%20payments>. Accessed on April 14, 2023.

¹¹ Dia Rekhi, “Philippines, Morocco implemented Aadhaar-like system; more countries could follow suit, says official”, *Economic Times*, March 22, 2023, <https://economictimes.indiatimes.com/tech/technology/philippines-morocco-implemented-aadhaar-like-system-more-countries-could-follow-suit-says-official/articleshow/98914940.cms?from=mdr>. Accessed on April 17, 2023.

