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人类命运共同体研究院



From Roads to Data: **How China's Connectivity Strategy Is Changing**



By Mr. Khalid Taimur Akram, Executive Director,
Pakistan Research Center for a Community with
Shared Future (PRCCSF), Islamabad

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There was a time when the connectivity was defined by physical infrastructure like roads, ports, railways, and bridges. With the passage of time, human race realized that a road can carry a truck, a railway can carry a container, but what about video calls, business transactions, or a piece of data that is required in a region that is a thousand kilometers away? To resolve this problem, experts redefined the term connectivity and the concept of digital connectivity was introduced. 5G, optic fibers, AI, and other such digital services represent a new face of connectivity.



When China introduced the Belt and Road Initiative (BRI) in 2013, its primary goal was to boost development and build an extensive web of infrastructure aimed at improving connectivity among the participating countries. China managed to accomplish these objectives. It built roads, railways, and ports. Pakistan's Gwadar Port, Hambantota Port in Sri Lanka, the China–Laos Railway in Laos, Indonesia's Jakarta–Bandung High-Speed Railway and Mombasa–Nairobi Standard Gauge Railway established in Kenya are among the most prominent examples of infrastructure projects associated with China's BRI. All these projects have not only made the transportation faster but also helping countries trade and connect with one another more easily.

Today, however, China's idea of connectivity has expanded beyond traditional infrastructure. The importance of highways, railways, and ports cannot be denied but China timely recognized the growing significance of digital connectivity and started investing in 5G, AI, fiber-optic cables, satellites, cloud computing, smart cities, e-commerce, and a wide range of other digital services. These developments introduced a new dimension of the BRI, known as the Digital Silk Road. Simply put, China is moving from connecting places mainly through physical infrastructure to connecting economies through both physical and digital infrastructure.



From Physical Roads to Digital Highways

The first phase of the Belt and Road Initiative focused heavily on what can be called “hard connectivity.” Railways, highways, ports and energy infrastructure created the physical foundation for trade.

China’s 2023 white paper on the BRI highlighted projects such as the China-Laos Railway, Jakarta-Bandung High-Speed Railway, Hungary-Serbia Railway and Piraeus Port, while also pointing to the China-Europe Railway Express as a new Eurasian land transport route.

These projects remain important. But the global economy is changing. A modern supply chain does not depend only on ships and trains. It also depends on data. A company needs digital payments to sell products online, cloud systems to manage information, telecommunications networks to communicate with customers, and reliable data connections to coordinate production and logistics.

China’s strategy is therefore expanding from **“roads and ports”** to **“roads, ports and networks.”**

At the Third Belt and Road Forum in 2023, China and participating countries explicitly supported the development of a Digital Silk Road involving communications, internet infrastructure and satellite navigation. They also highlighted cooperation in areas including artificial intelligence, blockchain, finance, shipping, commerce, agriculture, education and healthcare.

This represents a significant change in the meaning of connectivity.

The Digital Silk Road

The Digital Silk Road is not simply about exporting technology. At its broader level, it is about helping countries develop the infrastructure and skills needed to participate in the digital economy.

China has promoted cooperation in areas such as telecommunications, smart cities, e-commerce, digital education, telemedicine and digital transformation. According to

China's State Council Information Office, China had signed memorandums of understanding related to Digital Silk Road cooperation with 20 countries by 2023. Cooperation had also expanded with ASEAN and Arab countries.

This approach is particularly important for developing countries. Many countries in Asia, Africa and the Middle East have young populations and growing demand for internet access, digital payments and online services. Building modern telecommunications infrastructure can allow these countries to skip some older stages of technological development.

For example, a country that previously had limited physical banking infrastructure can use mobile payments and digital financial services to reach people in smaller towns and rural areas.

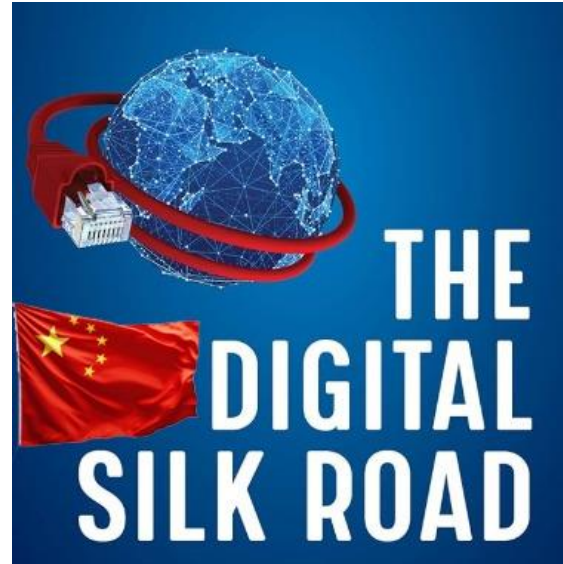
Farmers can gain access to online markets. Students can use digital education platforms. Hospitals can benefit from telemedicine. Small businesses can sell products beyond their local markets.

In this sense, digital connectivity can become an important tool for development.

China-Africa Cooperation Shows the New Direction

Africa provides a useful example of how China's connectivity strategy is expanding.

China and African countries have increasingly discussed cooperation in telecommunications, 5G, submarine cables, e-commerce and cybersecurity. A 2025–2026 China-Africa action plan on cyberspace cooperation calls for stronger cooperation in communication infrastructure, including submarine cable projects, and encourages Chinese





telecommunications companies to work with African operators on 5G deployment and applications.

The same plan also promotes “Silk Road E-Commerce” cooperation. It proposes activities to help African products reach Chinese consumers through online platforms, including initiatives involving African stores and products.

This is significant because connectivity is no longer only about bringing Chinese goods to foreign markets. It can also create channels through which products from partner countries reach Chinese consumers.

Such two-way connectivity can support trade and create opportunities for small businesses.

E-Commerce Is Becoming a New Trade Route

In the past, international trade required warehouses, ships, trucks and physical shops. These remain necessary, but e-commerce has created another layer of international trade.

China has become one of the world’s largest digital commerce markets, and it is using this experience to promote cooperation with BRI partners.

China’s government has announced plans to expand “Silk Road E-commerce” cooperation and establish pilot zones for international digital trade. The country’s 2025 policy priorities also included strengthening e-commerce cooperation with BRI countries and expanding cooperation in emerging areas such as the digital economy and artificial intelligence.

This creates a new form of connectivity. A small producer in another country does not necessarily need a large international company to reach Chinese consumers. With the right digital platforms, logistics networks and payment systems, smaller enterprises can potentially become part of international trade.

The benefit can work in the opposite direction as well. Chinese companies can use digital platforms to reach customers in other developing markets.

Smart Cities and Digital Public Services

Another important part of China's connectivity strategy is cooperation on smart cities.

Chinese cities have developed extensive experience with digital public services, mobile payments, intelligent transportation and other forms of urban technology. China has increasingly shared this experience with partner countries.

China's official account of Digital Silk Road cooperation notes expanding smart-city cooperation with ASEAN countries, including cooperation involving Shenzhen and Singapore. It also points to cooperation in areas such as telemedicine, digital education, mobile payments and industrial digital transformation.



The purpose is not simply to install technology. Properly used, digital systems can make public services faster and more accessible.

For developing cities facing rapid population growth, digital transport management can help reduce congestion. Digital government platforms can reduce paperwork. Smart energy systems can improve efficiency. Digital healthcare can help connect patients with medical professionals.

These applications show why digital connectivity is becoming just as important as physical connectivity.

Connectivity Also Means Rules and Standards

There is another major change in China's approach: connectivity is increasingly about rules and standards, not only infrastructure.

China has described this as "soft connectivity." Its 2023 BRI white paper noted cooperation on standards, trade agreements and other institutional arrangements. It stated that China



had signed 21 free trade agreements with 28 countries and regions and 107 standardization cooperation agreements with organizations in 65 countries.

This matters because infrastructure works best when countries can use compatible systems.

A railway needs compatible procedures at borders. A digital payment system needs standards for transactions. International e-commerce needs customs procedures and electronic documentation. Data-based trade requires agreements about how information can be exchanged securely.

Therefore, the future of connectivity will depend not only on concrete and steel, but also on regulations, standards and cooperation.

Green Connectivity Is Also Growing

China's connectivity strategy is also becoming more focused on sustainable development.

At the Third Belt and Road Forum, participating countries supported cooperation on green infrastructure, green transportation, biodiversity protection, pollution control and green finance. China also announced measures to strengthen high-quality Belt and Road cooperation.

This is important because infrastructure development in the coming decades must consider environmental concerns.

Electric railways, renewable energy, digital energy management and smart logistics can potentially make transportation and economic activity more efficient. Digital technologies can also help companies monitor energy consumption and reduce waste.

For China, combining connectivity with green development provides an opportunity to support economic growth while responding to global environmental challenges.

China's Approach Is Becoming More "High Quality"

Another important change is the move from simply building large projects to emphasizing what China describes as high-quality Belt and Road cooperation.



China has increasingly highlighted smaller projects that produce practical benefits for local communities alongside major infrastructure. At the 2023 Belt and Road Forum, President Xi Jinping announced support for both major projects and “small yet smart” livelihood programs. China also announced additional financing arrangements and plans for 1,000 small-scale livelihood assistance projects.

Recent Chinese policy documents similarly emphasize telecommunications, smart cities, artificial intelligence, big data, cloud computing and e-commerce while also supporting smaller projects designed to produce direct benefits for local communities.

This suggests that China’s connectivity strategy is becoming more balanced. Large railways and ports remain necessary, but they are increasingly being combined with technology, training and local development.

A More Connected Future

China’s connectivity strategy is therefore undergoing a major transformation.

The first stage was largely about building physical links. The next stage is about combining those links with digital networks, data, technology and institutions.

A railway can move goods from one country to another. A fiber-optic network can move information in milliseconds. A port can connect businesses physically. An e-commerce platform can connect buyers and sellers digitally. A modern logistics system can combine all of these elements.

This is why China’s current approach should not be understood simply as a continuation of its earlier infrastructure strategy. It is an effort to create a broader connectivity system in which transportation, telecommunications, trade, technology and digital services support one another.

The China-Europe Railway Express, China-Laos Railway and Jakarta-Bandung High-Speed Railway demonstrate the continuing importance of physical connectivity. At the



same time, Digital Silk Road cooperation, 5G development, e-commerce, smart cities and digital services demonstrate the new direction.

For developing countries, this approach offers the possibility of gaining access not only to infrastructure but also to technology, markets and knowledge. For China, it creates new opportunities for international cooperation and for its companies to participate in global development.

The central idea is simple: the roads of the future will not only carry people and goods; they will also carry information, services and opportunities.

China's connectivity strategy is changing because the global economy itself is changing. The Belt and Road Initiative Shaheed Benazir Bhutto Women University (SBBWU) is gradually moving from a story mainly about roads, railways and ports to a much broader story about physical connectivity, digital connectivity and shared economic development. If implemented with attention to local needs, sustainability and mutually agreed rules, this next stage could make connectivity an even more powerful tool for cooperation between China and countries across Asia, Africa, Europe, the Middle East and beyond.