

China's Efforts to Strengthen Data Competitiveness and Implications for Korea



Jihyun Jung

Ph.D., Research Fellow, Head of China Region and Strategy Team
Korea Institute for International Economic Policy

With the rapid development of digital technologies such as big data and AI, data is becoming a key resource and weapon in the digital era. However, unlike other economic goods, the ecosystem of data has not yet been properly established. The concepts and components of the data economy, relationships between data economic actors, distribution and transaction order, and related systems still remain in the early stages of development and have not been established on an international level. Competition between the U.S. and China over data hegemony is intensifying at a time when global norms on how to operate data, a key resource in the future economy, are being discussed and determined.

China first began promoting big data development as a national strategy in 2012, and is developing the data economy by fostering data-related technologies and industries, converging data to economy and society, building data markets, developing standards, and establishing related laws/systems. With China's active support for high-tech industries and technologies such as AI, IoT, cloud computing, and 5G, hardware comp-

anies such as Huawei stand out in the global storage and server markets, and software such as Huawei Cloud and Ali Cloud have grown rapidly based on the domestic market. Services that use big data in various fields such as finance, government work, the Internet, and health care have grown rapidly. In addition, China is building a data market that will allow data to generate economic benefits through distribution and transaction, with the government-led data transaction platform playing a central role. More than 17 data trading platforms are in operation, from the world's first Guiyang Data Exchange, established in 2014, to the recent Beijing International Data Exchange (2021). Through these trading platforms, China is fostering the data market by accumulating various experiences in the area of data collection, storage, analysis, transaction, and distribution, and has recently promoted policies to enhance cooperation and innovation among these data trading platforms. In addition, China has established and operates separate administrations to manage and supervise data transactions in about 20 provinces, in the form of municipal Big Data Management Bureaus.

China is actively promoting data standardization to enhance data transactions and the value of data resources. While preparing national and industrial standards related to big data domestically, it is also promoting the development of standards that take into account the characteristics of the big data industry by region. In addition, China is actively participating in the development of international standards for data, leading to the development of six international standards in the field of big data, of which four have been announced. As such, China is actively participating in discussions of international standards for data, based on various domestic standardization experiences, while continuing efforts to converge domestic standards with international standards.

In addition, China has enacted legislation in the area of data, including the Network Security Law, the Data Security Law, and the Personal Information Protection Law, to establish norms as the basis of the data economy. However, these laws clearly reflect China's authoritarian stance on data governance and data localization. They stipulate the state's dominance over data access, restrictions/prohibition of offshore movement of data in China, and corresponding measures against foreign discrimination that targets China. It can be seen that China is simultaneously promoting the marketization and strategic resources of data.

In response to China's data economy development, the United States economically regulated China's data hardware and software companies (Huawei, TikTok, etc.), strengthening domestic laws such as data movement restrictions to China and clean network initiatives. In addition, while criticizing China's system, authoritarian data governance, and national credibility, it is pushing for decoupling with China by strengthening solidarity with allies based on common

security threats. In response, China is promoting data-related technology/industry competitiveness, revitalizing pilot projects related to data distribution/transaction and standard development, and expanding digital infrastructure cooperation, e-commerce and digital yuan utilization, focusing on countries connected with the One Belt and One Road initiative. In addition, it actively participates in international standards and international agreements (e.g., application for DEPA membership) related to data, and is striving to establish itself early in the international order in the data field, promoting domestic data economy innovation.

Table 1. Differences in perceptions of data resources between the U.S. and China

	United States	China
Perception of data	Economic goods, Strategic resources	Strategic resources, Economic goods
Data distribution method	Data broker (private sector)	Data Exchange (government-led)
Government regulations on data	Minimize (Operating in the market)	Possible (Based on the Constitution, data can be accessed by state needs)
Personal information protection from whom	State, companies (The state's access to personal information is more restricted)	Companies (An organization and individual is obligated to cooperate upon request from the State)
Turn into strategic resources	Social transaction costs such as complex procedures and restrictions on the scope of collection are high, limiting the use of data as strategic resources.	It is possible to quickly convert data into strategic resources without incurring social transaction costs.
Cross-border data movement policy	Data Free Flow with Trust (DFFT)	Data localization (No movement without government permission)

Source: by author

As the economic and security characteristics of data resources are strengthened due to the development of digital technology, conflicts between the U.S. and China in data technology, industry, platform, standards, and norms are intensifying. In addition, a prolonged conflict or competition between the U.S. and China looks to be inevitable because complete decoupling with China, which generates around 30% of the world's data, is difficult to realize in the data sector. Korea fundamentally lacks data resources due to its population constraints, and needs to come up with mid- to long-term countermeasures such as improving its data competitiveness and strengthening international cooperation, while meeting Korea's real interests

in the era of data conflicts between the U.S. and China. In addition, it is necessary to actively participate in establishing an international order in the field of data economy, such as the development of international standards, focusing on Korea's superiority. It will also be necessary to closely examine how data localization policies in China, a data powerhouse, will impact Korean companies and industries. **KIEP**