

### Cross-border Data Governance in the Guangdong-Hong Kong-Macao Greater Bay Area: From a Literature Review

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Abstract. Aiming to build a world-class Bay area, the Guangdong-Hong Kong-Macao Greater Bay Area has rich data resources due to its population and economic size. However, Guangdong, Hong Kong and Macao belong to different jurisdictions, and the data flow between the three places involves differences in legal supervision, which has triggered a series of new thoughts, and requires in-depth research at the academic level to guide the practice of data rule of law. Cross-border governance of data is itself a complex topic that requires more systematic analysis. After reviewing the existing research on cross-border data governance, it is found that there are still deficiencies in the research on cross-border data governance in the Greater Bay Area, so the practical issues that need to be strengthened in the future include but are not limited to: the distribution of data power between the central and local governments, the distribution of data benefits among Guangdong, Hong Kong and Macao, and the convergence of cross-border data rules between Guangdong, Hong Kong and Macao.

**Keywords:** Guangdong-Hong Kong-Macao Greater Bay Area; Cross-border data governance; Rule convergence.

#### 1 Introduce

Data elements have a revolutionary impact on production activities, lifestyles and governance models on a global scale, and have become the focus of national and regional attention. The Guangdong-Hong Kong-Macao Greater Bay Area, which aims to build a world-class bay area, has rich data resources due to its population and economic size. However, Guangdong, Hong Kong and Macao belong to different jurisdictions, and the data flow between the three places involves differences in legal supervision, which has triggered a series of new thoughts, and requires in-depth research at the academic level to guide the practice of data rule of law. Cross-border governance of data is itself a complex topic that requires systematic analysis with more research. Through a review of domestic and foreign research on cross-border data governance, this paper preliminarily finds out the main concerns of cross-border data governance in the Guangdong-Hong Kong-Macao Greater Bay Area, and proposes the improvement

direction of future research on the basis of summarizing the shortcomings of existing research.

## 2 Research Status of Cross-border Data Governance in the Guangdong-Hong Kong-Macao Greater Bay Area

### 2.1 Research Status: Chinese Perspective

In terms of cross-border data flow, the Greater Bay Area of "one country, two systems and three jurisdictions" provides a rare test platform for cross-border data flow in China, and can just become a "pathfinder" for cross-border data governance in China, which has become a basic consensus in the academic community. [1] However, in practice, there are not many studies on the topic of "cross-border data governance in the Greater Bay Area". Existing studies on cross-border data flow focus more on international cross-border data flow rules and China's response strategies, which are concerned with the interests of the state, economy and individuals. [2] At present, a number of research results on data flow governance in the European Union, the United States, ASEAN, Japan, South Korea and other regions have emerged in the academic world. Affected by the geopolitical game, the data rights protection mode of the European Union and the data free flow mode of the United States have inevitably become the focus of attention. [3]In spite of this, some scholars still put forward the idea of cross-border data flow in the Greater Bay Area in their limited research results. Some scholars focused on the personal data (privacy) protection rules and cross-border personal data transfer rules in Hong Kong and Macao. [4] Taking Hengqin Deep Union Area as the research object, some scholars put forward the countermeasures of the cross-border regulation of personal information in Hengqin Deep Union Area from four aspects: hierarchical list, self-discipline mechanism, judicial linkage and specialized organization. [5] Some scholars, taking the issue of mutual recognition of health codes in Guangdong, Hong Kong and Macao as a starting point, put forward a number of legal ideas on the cross-border of personal data in the Greater Bay Area; On the basis of data classification and classification, [6] some scholars analyzed the typical cross-border scenarios of different data in the Greater Bay Area and proposed possible modes of orderly flow of personal data, public data, business data, credit data, police data, etc.<sup>[7]</sup>

### 2.2 Research Status: Perspectives from Outside China

Research on the theme of the Greater Bay Area is mainly conducted by Chinese scholars, with little participation from foreign scholars. However, data governance has become the current trend and trend of the development of global public administration, and the data relationship associated with network technology has begun to shape a new social order on a global scale. Some scholars have bluntly stated that data relations have created a form of neocolonialism, [8] and that rapid digital commodification is having an impact on the democracy and dignity of vulnerable people around the world. [9] Are the data adjusted by traditional sovereignty theory? Scholars who support data exception

believe that data challenges the concept of territorial sovereignty, and the nature of data is incompatible with the territorial concept of existing jurisdiction, [10] while scholars who oppose data exception believe that it is not urgent to prevent states from exercising extraterritorial rights over data, and at this stage, global Internet companies should be pushed to comply with local restrictive regulations. [11]Regardless of the academic theory of data sovereignty, with the increasing data security issues and the explosive growth of cross-border data, countries around the world are beginning to review their cross-border data governance strategies. Since the international community has not yet agreed on unified rules for cross-border data governance, countries have introduced relevant data governance policies. [12]While it may seem counterintuitive to seek territorial control over data in a borderless digital society, many new privacy regulations directly or indirectly require it. In response to this trend of data localization, the vast majority of scholars are opposed, they believe that data localization is becoming a harmful form of non-tariff barriers, seriously damaging the growth of trade in a digitally-driven world, [13] and of course, there are scholars who understand this. It is believed that some countries support data localization in order to reduce their comparative disadvantages in data hosting and signals intelligence in the context of political checks and balances of great powers.[14]

### 2.3 Lack of Existing Research on Cross-border Data Governance

In general, research on the governance of cross-border data flows in the Greater Bay Area is still in its infancy, and the mechanism for balancing interests among national data security, digital economy development and personal privacy protection has not yet been established. It is also necessary to explore diversified governance models to cope with the complexity and uncertainty of the future data flow landscape. In particular, in terms of cross-border data governance in the Guangdong-Hong Kong-Macao Greater Bay Area, most Chinese scholars only select specific objects such as personal data, credit data and health data in the Greater Bay Area on the basis of data classification to study cross-border data flow, regardless of whether such data division is cross-cutting and unreasonable. The existing studies really lack a macro and comprehensive perspective to describe the overall picture of government data governance in the Greater Bay Area. Under the premise that the framework of cross-border data flow in Guangdong, Hong Kong and Macao has not yet been formed, the cross-border government data governance in the Greater Bay Area is still full of imagination.

### 3 Future Outlook

Cross-border data governance in the Guangdong-Hong Kong-Macao Greater Bay Area involves all aspects of economic and social development, including law, technology, trade and politics, and is a challenging task. In the future, more scholars need to devote greater attention to cross-border data governance in the Guangdong-Hong Kong-Macao Greater Bay Area.

### 3.1 Pay More Attention to Data Decentralization Between the Central and Local Governments

Vertically, the central government has left blank data legislation. The nine cities in Guangdong are in urgent need of legislation because of their innovation in data utilization. Under the current constitutional framework, it is urgent to rationally allocate data power between the central and local governments through central legislation or legislative authorization, so as to achieve positive interaction between the central and local governments. In contrast, Hong Kong and Macao enjoy a high degree of autonomy and have great autonomy in the formulation of data policies and legislation. However, under the theory of overall central governance and data sovereignty, Hong Kong and Macao should improve the cross-border data flow mechanism while adhering to the overall national security concept.

### 3.2 Pay More Attention to the Distribution of Data Benefits Between the Guangdong-Hong Kong-Macao Greater Bay Area

From a horizontal perspective, on the one hand, the collaboration within the Greater Bay Area presents an "asymmetric relationship", and the data governance concepts of Guangdong, Hong Kong and Macao are not the same, which greatly increases the difficulty of cross-departmental, cross-level and cross-regional collaborative data governance among governments. One of the feasible ways to solve this problem is to give government data the characteristics of national sovereignty and introduce government data opening and sharing agreements. Break the "data chimneys" between governments in the Greater Bay Area. On the other hand, government data governance presents a variety of application scenarios, which is the upgrading of governance means by the government through technology empowerment, and its core is still the exercise of public power, which should be incorporated into the legal control system.

### 3.3 Pay More Attention to the Convergence of Rules Within the Guangdong-Hong Kong-Macao Greater Bay Area

From the aspects of governance subject, organizational structure, and specific path, explore the rule of law path of data governance of the Greater Bay Area government to prevent the "slippery slope" of digital governance. In terms of governance subjects, governance is different from governance in that its subjects are not limited to the government. As data producers, enterprises and the public should participate in government data governance. In terms of organizational structure, the Greater Bay Area Government Data Officer system will be established under the leadership of the central Government to coordinate data norms and disputes among Guangdong, Hong Kong and Macao. In terms of the specific path, the complexity, technicality and regionality of government data governance in the Greater Bay Area determine that it has a great space demand for soft law. The integration of rule of law and the unification of rules are not predictable, but it is possible to explore the gradual connection of data rules, and

gradually formulate cross-border data flow rules in various fields on the principle of "easy first, difficult later" and "high, not low".

# 3.4 Pay More Attention to the Convergence of Cross-border Data Rules Between the Guangdong-Hong Kong-Macao Greater Bay Area and the International Community

With the goal of building a world-class Bay Area, the government data governance of the Greater Bay Area requires not only domestic rule of law, but also international rule of law. This study will comprehensively review the data legislation and network security strategies of the EU, the United States, the Asia-Pacific region and other regions, and deeply study the existing international data governance models. To analyze global data governance trends and engage in dialogue with international data governance systems, adhere to the coordinated promotion of domestic rule of law and foreign-related rule of law, and prevent the Greater Bay Area from being marginalized by the international community due to excessive "internalization" of the data governance rules system.

#### 4 Conclusion

Both the "data sovereignty theory" based on the traditional sovereignty category and the "data freedom theory" based on Internet cosmopolitanism have their own limitations and cannot provide an adaptive institutional reference for China, let alone be copied into government data governance practices in the Greater Bay Area. The global cross-border data flow order is in a period of accelerated adjustment and transformation, and China is not only facing greater pressure, but also has the opportunity to foster a new governance pattern as an emerging power. As a special hub area of "one country, two systems", the Greater Bay Area's data governance structure should be constructed with a global mindset, and on the basis of absorbing and learning from international experience, explore a new governance order of internal and external linkage.

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