

Collaborative Public-Private Governance for the Authorized Operation of Public Data

Jiaqi Huang

Dongbei University of Finance and Economics, Dalian, Liaoning, 2025, China

ABSTRACT

This article explores the governance of authorized public data operations, identifying key challenges including limited multi-stakeholder engagement, imbalanced allocation of governance resources, and the instability of governance structures. These challenges stem from a weak foundation of stakeholder power, insufficient self-regulatory capacity, and an alienation of meta-governance mechanisms. Based on new governance theory, this article proposes a governance framework for public-private partnerships that focuses on deepening open governance structures, strengthening interactive governance norms, and implementing checks and balances in the allocation of power and responsibilities. Its goal is to achieve a dynamic balance between ensuring data security and creating value.

KEYWORDS

Public data; Authorized operation; Collaborative governance

1 Introduction

Due to its enormous economic value and inherent connection to the development of the data factor market, the authorized operation of public data has always been a key focus of national data governance. Given its dual characteristics of enormous enabling potential and high risks, building an effective governance framework that ensures both legal and compliant development and innovation is a pressing challenge facing the modernization of China's data governance system. Historically, regulatory models have evolved from an initial, relatively laissez-faire approach to public data openness, to the recent introduction of authorized operation management regulations and pilot programs involving market-based entities, and finally to the suspension of pilot programs in some regions due to data security concerns. The shift from relaxed access to strict regulation has increasingly highlighted the shortcomings of the governance mechanism for authorized operation of public data. Guided by the national "streamlining administration, delegating power, and improving regulation" reform policy, and guided by the principle of stimulating the vitality of market entities and enabling the market to play a decisive role in resource allocation, government departments are actively promoting the participation of social entities, primarily market players, in the authorized operation of public data. In theory, a pattern of collaborative governance between the government and market players is beginning to emerge. However, due to insufficient data governance capacity building by market entities, this nominal cooperation has largely remained at a symbolic level. Given this asymmetric governance capacity, the governance of authorized public data operations remains primarily based on unilateral and stringent government oversight, perpetuating the limitations of traditional administrative control and failing to truly achieve shared development, shared governance, and shared benefits for authorized public data operations.

Against this backdrop, the "new governance" paradigm, which emerged in the 1990s, provides a theoretical framework for addressing the governance dilemmas facing public data authorization and operation, premised on collaboration rather than mere cooperation^[1]. In addition to advocating a shift in the government's role from controller to coordinator, promoter, and guide, this paradigm emphasizes the strategic use of soft law tools based on cooperation and incentives rather than confrontation and coercion to strengthen the self-regulatory capacity of market entities and industry organizations. Ultimately, under a meta-governance mechanism centered on public power and playing a coordinating role, the new governance theory promotes collaborative cooperation among government departments, market entities, and industry organizations, thereby building a dynamic, efficient, and orderly governance system for public data authorization and operation. Based on an analysis of the current imbalance in collaborative governance in the field of public data authorization and operation, this article explores the theoretical roots of the difficulties in implementing collaborative governance in public data authorization and operation^[2]. It then applies the collaborative governance model constructed by the new governance theory to improve the public-private interaction governance mechanism in this field, thereby promoting a comprehensive transformation of the governance framework for public data authorization and operation^[3].

2 Imbalanced allocation of governance resources and its causes

The governance model for public data authorization and operation in China is undergoing a transition from a unipolar structure to a pluralistic framework, with increasing participation from both the public and private sectors. The ultimate goal is to establish a governance system that coordinates interests and integrates order within a collaborative governance paradigm. However, in practice, this governance arrangement suffers from the nominal nature of multi-stakeholder participation and the fragility of the collaborative governance structure^[4]. This vulnerability is exacerbated by insufficient stakeholder engagement, uneven allocation of governance resources, and unstable institutional design. These shortcomings collectively constrain the governance framework's ability to achieve a dynamic balance between public data protection and utilization. Fundamentally, the analysis should focus beyond the institutional framework for public data authorization and operation to encompass the coordinated advancement of collaborative governance mechanisms.

Drawing on the "network-center" approach of contemporary governance theory^[5], effective regulation of public data licensing and operation should integrate three types of governance actors: industry organizations within the public data licensing and operation sector as social forces, operating enterprises as market forces, and administrative regulatory agencies as the dominant public force. This framework emphasizes the power interdependence between public and private governance actors, the self-regulatory capacity of private law governance actors, and meta-governance arrangements dominated by public power. These elements together constitute the primary analytical entry point for examining the imbalances in cooperative governance of public data licensing and operation in China. Owing to space constraints, this article focuses exclusively on exploring the gap in the self-regulatory capabilities of private entities from the perspective of imbalanced allocation of governance resources, and puts forward targeted countermeasures accordingly.

As a fundamental link throughout the data value chain (from data source departments on the supply side to developers and end users on the demand side), public data authorization and operation platforms not only aggregate diverse data sharing and matching information but also integrate the interests of multiple stakeholders. As the operating entity, the platform serves as an intermediary between data source departments and developers and users. It not only plays the role of a regulated operator but also assumes multiple institutional roles, including platform order manager and ecosystem builder. A review of the relevant provisions on the selection of data operators in the 41 public data authorization and operation management regulations issued by various provinces and cities in China reveals a common trend: operators must possess data and technical resources commensurate with their multiple responsibilities. Whether an operator meets these entry requirements can be assessed from both a regional and industry perspective. At the regional level, its ability to promote cross-regional cooperation and promote national data sharing primarily depends on the breadth and quality of its data resources. From an industry perspective, expanding application scenarios, optimizing products and services, and ultimately realizing value require strong technical capabilities. However, in practice, only a few leading companies possess both the necessary data and technical resources. For reasons of data security and public interest, local governments often choose to establish or reorganize local data groups to assume responsibility for local public data licensing operations. These groups often enjoy preferential access to high-quality public data resources and receive infrastructure investment support, accelerating the development of their technological capabilities. For example, with authorization from the Chengdu Municipal Government, multiple existing licensing entities were consolidated and reorganized to form Chengdu Data Group Co., Ltd., which centralizes licensing operations. This allocation of governance resources has resulted in a significant "head effect," concentrating resources in a few dominant entities, limiting the participation of small and medium-sized enterprises, and weakening the overall market vitality of public data licensing. In practice, the risk of data monopoly is emerging. After gaining control of data resources, some provincial and municipal big data groups have engaged in "regional data protection" and even rejected legitimate cross-regional data sharing requests. This practice seriously hinders the aggregation, sharing, and monetization of data resources, undermining the fundamental logic of building public data platforms and big data groups. Furthermore, insufficient market competition can lead to innovation inertia among these dominant entities, hindering the development of technological capabilities. In the long run, operating entities may become mere executors of government policy directives, thereby undermining the effectiveness of collaborative governance.

From an internal perspective on governance capacity building, the limited autonomy of social governance and the imbalances in market governance can be traced back to the structural deficiencies in the self-regulatory capacity of operating institutions and data providers, making it difficult for them to form a healthy interactive relationship with the dominant government governance system. Self-regulation, as a collective governance paradigm, manifests itself as a governance process in which a specific community or organization imposes normative constraints on its members through collective action. Within this framework, operating institutions and data providers jointly constitute the implementing entities of self-regulation, and the effectiveness of their governance directly depends on the level of their self-governance capacity building.

For data suppliers, self-regulatory mechanisms based on endogenous autonomy offer unique adaptability advantages

at the organizational governance level, compared to government-led external regulatory models. Data suppliers, leveraging their professional knowledge, technical expertise, and market acumen, possess significant information advantages in standard setting and rule interpretation. However, experience shows that most data suppliers in China remain passively compliant and nominally self-regulated, failing to achieve true organizational autonomy. Structural deficiencies in self-regulatory capacity primarily manifest in their persistent reliance on administratively structured, dependent operational structures and a lack of industry-wide social networks—the essential "interpersonal infrastructure" of the industry. This, in turn, limits the ability of self-regulatory mechanisms to deter and constrain the behavior of other market participants through information flows and reputational constraints. Similarly, with the exception of a few leading enterprises with advantageous governance, most small and medium-sized data suppliers lack technical support and resource-sharing mechanisms, resulting in a serious lack of self-regulatory capacity. In their pursuit of self-development, these participants have largely neglected self-regulation, resulting in a collective vacuum of compliance regulations. Operating entities also face significant challenges in achieving effective self-regulation. Due to the large size of organizations, complex membership structures, and uneven development across provinces and cities, operating entities struggle to establish close partnerships and shared interests, which in turn weakens their ability to supervise and discipline members. In some regions, local governments impose strict data security requirements and high entry barriers on authorized operations. Consequently, many authorized operating companies focus primarily on obtaining and retaining access, paying little attention to the impact of potential sanctions on their survival and development. This situation further constrains the self-regulatory capacity of most public data authorized operating organizations. Weak market governance has become a widespread reality in the public data authorized operation sector.

3 Implement checks and balances in the allocation of rights and responsibilities for co-governance

Throughout the development of administrative law theory, the value tension between government interventionism and market liberalism has consistently shaped public governance practices. Contemporary governance systems are undergoing a fundamental shift from the traditional dichotomy between "administrative-led regulation" and "laissez-faire market governance" to a paradigm of PPP^[6]. This shift stems from a deeper understanding of bounded rationality, which argues that no single governing actor can independently manage the complex relationships and dynamics inherent in public governance^[7]. New governance theory, premised on bounded rationality, challenges the traditional theory of administrative privilege. By introducing concepts such as "administrative assistance" and "private administration," New governance theory breaks down the rigid boundaries between public and private actors in governance^[8]. Grounded in the principles of cooperative administration and deliberative democracy, New governance theory reconstructs the distribution of rights and obligations between public and private actors. Its institutional design emphasizes decentralization, PPPs, and the flexible application of legal norms^[9]. This theory views collaborative governance as a multi-stakeholder, problem-solving process involving knowledge sharing and norm-building, providing a novel analytical framework for addressing complex governance challenges. In the field of authorized public data operations, problems such as unbalanced power dependency and insufficient self-regulatory capacity hinder the transition from "on-site collaboration" to "co-governance." A new governance theory, centered on decentralized empowerment, multi-level PPPs, and regulatory flexibility, provides a viable path to alleviate these frictions and enhance the effectiveness of collaborative governance in authorized public data operations.

The core challenge of insufficient self-regulation in authorized public data operations lies in the difficulty for data providers and operators to develop endogenous governance capabilities compatible with government oversight due to entrenched administrative dependency, weak interdepartmental linkages, and uneven resource allocation. Furthermore, the significant capacity gap between leading enterprises and small and medium-sized enterprises, the fragmented scale of operating organizations leading to weak constraints, and government barriers to entry limiting the scope for self-regulation have resulted in self-regulation becoming a mere formality, making it difficult to support multi-level government-private partnerships. Addressing this challenge requires structural reform, mechanism design, and resource-coordinated empowerment of institutions to build a governance ecosystem characterized by community autonomy^[10], balanced capabilities, and compatible incentives, making self-regulation an effective component of government-private partnerships.

First, a community-based autonomous network should be established to overcome administrative dependence. At the data provider level, an industry-wide autonomous platform independent of administrative agencies should be built to enhance the legitimacy of endogenous governance. National data associations can play a leading role by establishing industry committees, formulating industry self-governance charters, and clarifying autonomous powers. Core rules, such as data classification standards and compliance review procedures, should be formulated through democratic voting at member assemblies, avoiding simply copying government policies. A dual reputation and revenue-sharing mechanism should be established, directly linking violations to membership status and project bidding eligibility. For example, a three-year industry ban could be imposed for confirmed data misuse. Blockchain technology could be used to create an

immutable record of violations and facilitate cross-regional disciplinary coordination. At the operational level, a governance structure combining a "regional alliance and national joint conference" could be established, drawing on the Wuxi model of connected vehicles. Regional alliances would oversee the daily operations of local members and foster interaction among them through monthly compliance salons and peer reviews. The national joint conference would coordinate unified self-regulatory and disciplinary standards. For example, organizations that fail to remediate data security vulnerabilities within the specified deadline could be suspended from participating in nationally authorized projects. This hierarchical coordination not only ensures the independence of autonomy, but also solves the problem of weak supervision caused by institutional fragmentation.

Second, implement a capability balance strategy to bridge the market gap. In order to bridge the capability gap between leading enterprises and smaller data providers, an empowerment sharing mechanism should be established. Leading enterprises can open up technical tools and compliance templates. For example, Alibaba and Tencent can share data desensitization algorithms and privacy computing frameworks to reduce the compliance costs of smaller operators. Industry associations can set up a "compliance incubation fund" to subsidize small and medium-sized suppliers to establish internal compliance systems and organize one-on-one compliance coaching by experts. The model of Jiaxing, Zhejiang has shortened the time for small and medium-sized enterprises to establish a compliance system from 18 months to 6 months, and increased the self-discipline coverage rate to 85%. Operating institutions can implement a "tiered empowerment" plan: conduct "compliance introductory training" for new entrants, focusing on data security baselines and operational standards; and conduct "advanced compliance certification" for mature institutions to assess their algorithm auditing and emergency response capabilities. The certification results can be linked to government authorization priorities to create positive incentives for capacity building.

4 Conclusion

In summary, as a core mechanism for unlocking the value of data elements and supporting the growth of the digital economy, the governance model for authorized public data operations must maintain a dynamic balance between security and innovation. In practice, this model suffers from insufficient multi-stakeholder engagement, uneven allocation of governance resources, and overreliance on unilateral government regulation. These challenges stem from the structural conflict between the traditional administrative-led governance paradigm and the operational requirements of a market-based framework. This conflict is exacerbated by insufficient interdependence among governance entities, insufficient self-regulation, and the distorted use of meta-governance mechanisms. The potential value of public data is not fully realized, and data security risks are difficult to effectively manage. PPPs, as advocated by new governance theory, offer a systematic approach to addressing these challenges. By establishing a checks and balances mechanism for the allocation of shared governance rights and responsibilities, and through community-based self-governance, capacity-balancing initiatives, and incentive-compatible mechanisms, we can foster the endogenous governance capabilities of market entities and truly achieve a shift from administrative dominance to PPP. Going forward, the governance of authorized public data operations must further embody the principle of PPP, improve the allocation of rights and responsibilities within a clear legal framework, strengthen the development of regulatory systems, and optimize cooperation mechanisms. These reforms will fully unleash the vitality of market-based innovation while safeguarding the sovereignty and security of public data. Ultimately, they will establish an efficient, orderly, fair, and mutually beneficial governance ecosystem, providing solid institutional support for the high-quality development of the data factor market.

About the Author

Jiaqi Huang, Gender: Ms. Education: Master's Degree Candidate, Major or Research Direction: Economic Law, Digital Law.

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