ISSN Print: 2707-1499 Online: 2707-1502
Advance in Law − 2025, 7(4)

https://doi.org/10.35534/al.0704028

The "Data Resource Holding Right" and the Resolution of the Property Rights Dilemma: A Case Study on the Factorization of Online Consumer Review Data

Shuying Wu Jiang Ren*

School of Law, Wenzhou University Law School, Wenzhou, China

Abstract: In the e-commerce era, unlocking the immense economic value inherent in online consumer review data requires its factorization. The primary dilemma in this process is that the existing ownership paradigm fails to provide an effective institutional framework for data circulation, an issue that the introduction of the "data resource holding right" can resolve. The resource nature of this data is rooted in the online shopping model, while its asset nature stems from its tradability; the convergence of these two attributes makes its factorization inevitable. The effective construction of this novel right requires several precise delineations: its legal object must be strictly limited to the intermediate form of "data resources," which have undergone de-identification and structured processing; its subject, following the principle of contribution, should be allocated to the platform as the core value creator; and its powers must be defined as a specific bundle of rights—comprising Holding, Use, Licensing, and Deletion—that is distinct from the downstream rights of data processing and product management. Furthermore, by establishing a "data access right" to counterbalance the holding right and supplementing it with a fair benefit-sharing mechanism, this framework aims to achieve the governance goals of "common use" and "shared revenue," ultimately providing a clear and robust institutional foundation for the healthy development of the market for data factors.

Key words: Data Resource Holding Right; Determination of Data Rights; Separation of Data Property Rights; Online Consumer Review

1 Introduction

Digital consumption, a new model of consumption engendered by the digital economy, is emerging as a key engine driving global economic development. It has transformed the scope of traditional goods, consumption scenarios, and modes of consumption. As digital consumption flourishes, it generates vast quantities of online consumer review data, which holds immense economic potential. However, the process of unlocking this value faces a fundamental legal

About author: Shuying Wu, Master of Laws (LL.M.) Candidate, School of Law, Wenzhou University. Jiang Ren, Ph.D. in Law, Associate Professor, School of Law, Wenzhou University (corresponding author).

Article Citation: Wu, S., & Ren, J. (2025). The "Data Resource Holding Right" and the Resolution of the Property Rights Dilemma: A Case Study on the Factorization of Online Consumer Review Data. *Advance in Law, 7*(4), 312-320.

challenge: traditional property theory struggles to effectively define the attribution of rights for this type of data, which is co-created by multiple parties and possesses dual resource and asset attributes, creating a significant institutional obstacle.

In response to this "rights determination dilemma,"this study aims to introduce and construct the theoretical framework of the "data resource holding right." This paper will analyze the necessity of the factorization of online consumer review data and its dual attributes, and argue for this novel rights concept as a viable pathway to resolving the dilemma. Finally, it will propose a clear rights structure and a normative expression for the rights' object, subject, and core powers, aiming to contribute to the development of the global digital economy and the digital consumption industry.

2 Online Consumer Review Data as an Economic Factor: Conceptualization and Institutional Requirements

Within the e-commerce ecosystem, the online consumer review system has transcended its traditional function as a user feedback tool, evolving into a value-driving engine in the digital economy. The vast quantities of review data generated by consumers have prompted large-scale investment in data mining by both platforms and merchants, due to the data's positive network externalities and its higher degree of trustworthiness compared to commercial advertising. (Abdallah & Jumaa, 2022) The resulting data governance challenges, such as the practice of offering "cash for good reviews," while posing a regulatory challenge, also paradoxically underscore the immense economic value of this data. This indicates that raw reviews, after undergoing technical transformation and standardized recreation, have become a new type of digital factor of production, characterized by scarcity, reusability, and significant potential for value appreciation.

Unlocking the economic potential of online consumer review data depends on its successful transformation from a raw form into a tradable factor of production. Currently, the key bottleneck in this process is not technical but institutional: the traditional property rights paradigm, which is based on tangible goods and emphasizes exclusive ownership, is fundamentally incompatible with the intrinsic non-rivalrous and co-created nature of data (Jones & Tonetti, 2020).

Innovative institutional solutions are being explored on a global scale. An innovative institutional design proposed in China, which aims to partition data rights and establish a foundational "data resource holding right," is emerging as a globally relevant solution. This framework seeks to treat raw data with prudence while promoting the market-based circulation and value creation of processed data resources.

However, this novel right is still in the nascent stages of theoretical construction and legislative transformation. This study, therefore, focuses on this gap. It aims to apply the abstract framework of the "data resource holding right" to online consumer review data, constructing a clear rights structure and a pathway for its realization. The objective is to break through the core institutional bottlenecks hindering the factorization process for this specific type of data.

3 The logical starting point: the resources and assets of online consumption evaluation data

The effective delineation of data rights presupposes the precise identification of their legal object. The emerging data property rights framework does not encompass all data; rather, it strictly limits the object of the “data resource holding right” to a specific category of “data resources” that are capable of market-based allocation.

Such objects must possess core characteristics, including being tradable, having measurable value, and being technically processable, while simultaneously excluding sensitive data that implicates national security or other significant aspects of the public interest. This is essentially a screening mechanism that requires the data to possess dual attributes: resource attributes (the potential for development) and asset attributes (economic value). Therefore, whether online consumer review data can be granted the “data resource holding right” and integrated into the digital economy as a factor of production hinges on demonstrating the legitimacy of its claim to fulfill these dual attributes.

3.1 The Online Shopping Model as the Source of the Resource Nature of Online Consumer Review Data

The “resource nature” of online consumer review data stems from its core function within the digital marketplace: building a trust mechanism through user-generated content (UGC) to compensate for the inherent flaws arising from information asymmetry in e-commerce. The core of its resource value derives not from the infinite volume of data, but from the relative scarcity of high-quality reviews that hold genuine decision-making value. When platforms use incentive mechanisms, such as points and rewards, to guide the generation of high-quality content, they are essentially performing an initial screening and value cultivation process for this digital resource.

Simultaneously, online consumer review data exhibits features of multi-dimensional value-coupling. For consumers, the review system mitigates the risks of information asymmetry, creating a repository for collective decision-making. For merchants, analyzing reviews allows them to capture market demand, refine marketing strategies, and achieve iterative service improvements. (Bi, Liu, Fan, & Cambria, 2019) For governments and regulatory bodies, this data serves as a vital tool for monitoring the market ecosystem and assessing the effectiveness of public policies. This composite function, possessing both commercial value and the attributes of a quasi-public good, elevates the data beyond mere transaction records. It establishes the data’s status as a high-value, irreplaceable new type of digital resource, thereby fulfilling the substantive requirement of “resource nature” in the delineation of data property rights.

3.2 The Asset Nature of Online Consumer Review Data Derived from Data Circulation

The “asset nature” of online consumer review data is not an inherent attribute but is rather activated and realized through the process of circulation. Unlike tangible goods, the intrinsic properties of data, such as its non-consumptive and non-rivalrous nature, dictate that its value is not diminished in circulation. On the contrary, its value appreciates through the effects of scale and diverse reuse.

With the maturation of technical support systems for data collection, cleaning, encryption, and security protection, large-scale and secure circulation has become feasible. It is precisely this process that facilitates the transformation of data from a static “resource” form into a dynamic “asset” whose utility can be optimized through market-based allocation. This transformation is, in essence, the process of materializing the latent, multi-dimensional value of data into measurable economic value. This, in turn, lays a solid economic and jurisprudential foundation for its formal upgrade within the legal paradigm to a tradable factor of production, and for its integration into the digital economy ecosystem.

3.3 The Convergence of Resource and Asset Natures Necessitates Data Factorization

The convergence of the "resource nature" and "asset nature" of online consumer review data establishes the normative necessity for its factorization. Within the digital economy ecosystem, raw review data, as a collection of dispersed factual records, lacks inherent "creativity" or "knowledge" and does not in itself directly constitute productivity. Much like land, data must be developed to realize its value; that is, it must complete the qualitative transformation from a potential "resource" to a tradable "asset" (Goodrum, 2019).

This factorization process involves the deep integration of data with other factors of production, such as algorithms and computing power, transforming it from a disordered collection of information into a structured factor that can participate in production, distribution, and exchange. Raw data that has not undergone this systematic transformation can neither participate directly in economic distribution nor realize its potential through market transactions, due to its lack of value density and legal empowerment.

Therefore, factorization is not an option but an inevitable trend in the development of the digital economy. Only through this transformation can online consumer review data achieve its metamorphosis from a static informational record into a core strategic resource that drives industrial innovation.

4 The Factorization of Online Consumer Review Data: Practical Dimensions and Strategic Pathways

The emerging "structural partitioning" framework for data property rights aims to respond to the fundamental incompatibility between the traditional ownership paradigm and the unique characteristics of data. Its core principle is to "de-emphasize ownership while emphasizing usage rights." By deconstructing absolute rights of dominion, it shifts the focus toward promoting orderly and transparent data circulation and sharing, thereby providing an innovative institutional framework for data factorization.

4.1 The Practical Dimension: The Traditional Ownership Paradigm as an Impediment to Factorization

The value realization of data as a factor of production follows a three-stage progressive path: from "Resourcification," to "Assetization," and finally to "Commodification." This framework reveals the core process of transforming raw data into economic efficacy and is particularly applicable to the valorization of online consumer review data.

The first stage, Resourcification, is the foundation for unlocking data's value. This process involves transforming vast, fragmented raw review data into structured knowledge resources—such as comprehensive user profiles and consumer trend analyses—through technical processing like cleaning, classification, and tagging. This lays the groundwork for subsequent commercial applications and analysis.

The second stage, Assetization, is centered on empowerment at the legal level and represents the primary bottleneck today. This stage faces two structural challenges. First is the dilemma of value assessment. The intangible and co-created nature of data makes traditional pricing models inapplicable, leading to a lack of uniform standards for valuation and measurement. Second is the ambiguity in the attribution of rights. Since consumer review data is generated jointly by consumers, merchants, and platforms, its rights attribution and benefit distribution exist in a legal vacuum, creating a risk of the "tragedy of the commons."

The third stage, Commodification, involves creating incremental value through market circulation, but its prerequisite is clear property rights delineation. The fundamental conflict here is that traditional legal systems are largely based on real rights over tangible property, the core of which is exclusive ownership built on the "one thing, one right" principle. However, the essential nature of data—its non-rivalrous nature—is in direct opposition to this logic. The value of tangible assets stems from exclusivity, whereas the value of data is generated through network effects and increasing marginal returns in sharing and circulation. Forcibly applying the exclusive ownership paradigm to non-rivalrous data would inevitably lead to Arrow's information paradox, ultimately inhibiting circulation and stifling the vitality of the digital economy. Therefore, constructing a data property rights system fit for the digital age must transcend the constraints of the traditional real rights framework.

4.2 The Chosen Pathway: The "Data Resource Holding Right" and Its Advantage in Activating Data Value

Traditional property theory, with ownership at its core, leverages the feature of exclusivity to achieve exclusive dominion over and maximize the efficiency of resources. However, this theory falls into an "exclusivity dilemma" when confronted with the non-rivalrous nature and reproducibility of data as a factor. The economic principle that data's value increases through sharing and circulation fundamentally conflicts with the exclusive logic of the "one thing, one right" principle of traditional ownership. To address this challenge, an innovative institutional design—the "data resource holding right"—has emerged, offering a new theoretical pathway for the legal construction of data rights.

The core of the "data resource holding right" lies in its abandonment of absolute exclusivity, constructing instead a novel rights structure based on the "de facto control" of "relative exclusivity." Its legal-theoretical basis can be drawn from the possession protection systems of civil law systems. When a state of holding is unlawfully disrupted, the holder needs only to prove the fact of their original possession to seek remedies such as demanding a halt to illegal access and the destruction of acquired data copies. This effectively balances the dual needs of static data security and dynamic circulation.

The "data resource holding right" possesses two core features that qualify it as an independent property right. First, its "relative exclusivity" can effectively defend against unlawful infringements without precluding other legitimate entities from the lawful "simultaneous holding" of the same data resource. Second, its "transferability" means the right holder can realize the economic value of the data through methods such as authorization and licensing. This makes it the logical starting point and basis of legitimacy for constructing the market for data factors and for the derivation of subsequent processing and usage rights and product management rights (Bourreau, Caillaud, & De-Nijs, 2017).

This legislative approach, centered on "holding," aligns with international trends in data legislation, particularly the concept of the "data holder" that has been widely adopted in the EU's recent data governance regulations. This shift is deeply rooted in the broader context of modern property theory's evolution from an "exclusivity model" to a "governance model." The governance model no longer views property as an absolute private right but emphasizes that the exercise of rights must be balanced with social norms and the public interest. The "data resource holding right" is an embodiment of this transformation. It provides a more flexible and inclusive theoretical framework for the allocation and protection of data rights. It holds a distinct institutional advantage for activating the economic value of data as a factor.

5 The construction and expression of the ownership of online consumption evaluation data resources

As an abstract legal concept, the "data resource holding right" has a legal constitution that is highly context-dependent, particularly in relation to the data's generation model. Given that online consumer review data originates from the synergistic contributions of multiple stakeholders—including consumers, merchants, and platforms—the definition of its holding right must transcend a uniform framework, moving instead toward a tailored configuration of powers. Therefore, delineating a specific rights framework that balances the contributions and interests of all parties—thereby achieving common use and shared benefits—is a critical prerequisite for promoting the sharing and reuse of this data, and for ultimately completing its factorization.

5.1 Defining the Object of the Right: The Three Evolutionary Forms of Data

The value realization in the market for data factors follows a three-stage value chain evolution: from raw data → data resources, → data products. Within this process, the legal delineation of property rights for each data form—and especially the determination of the object of the "data resource holding right"—is critical to ensuring the market's efficient and compliant operation. The core argument of this paper is that the object of this right must be strictly limited to the intermediate form in the value chain: "data resources."

First, the two ends of the value chain—"raw data" and "data products"—are both unsuitable as direct objects of this right. As a collection of unstructured information, the circulation of raw data faces prohibitively high transaction costs from the need to acquire vast numbers of individual authorizations, and it also presents significant legal and security risks due to incomplete anonymization. At the other end, "data products," as highly encapsulated terminal applications or services, typically have a rights configuration limited to scenario-specific usage rights. They lack the reusability and universality required of a foundational factor of production.

In contrast, "data resources" represent the ideal object for the right. A data resource is a standardized data set formed after raw data has undergone structured processing such as anonymization, classification, and aggregation. This intermediate form successfully strips away the privacy risks of raw data while retaining the universality and developability required of a production raw material. Limiting the object of the holding right to data resources positions them as the critical pivot of the data value chain. This approach both effectively blocks upstream legal risks and provides a stable, legitimate factor basis for diversified downstream development. Such an institutional design not only aligns with the technical logic of data processing but also fulfills the core objectives of a property rights system—namely, promoting optimal resource allocation and risk control.

5.2 Identifying the Subject of the Right: Consumer or Platform?

The core of the factorization of online consumer review data is the morphological leap from unstructured raw data to standardized data resources, a process driven by platform governance mechanisms. Through a threefold set of governance tools—technical control, institutional control, and value control—platforms recreate dispersed user-generated content into structured data sets with a uniform format and higher value density. This process transforms de facto data control into the legal "data resource holding right." The center of gravity for this rights allocation, following a principle of graduated adaptation based on "contribution, control, and benefit," naturally shifts from the generator of the raw data to the processor of the data resources, who is the core value creator.

While consumers are the source of the data, their contribution is limited to discrete, individual acts. In contrast, the platform, through systematic governance investments, achieves the qualitative transformation of data from "latent information" to "tradable factors," forming a new legal object distinct from the raw data. Therefore, allocating the holding right to a single subject—the platform—offers significant advantages in governance efficiency. First, granting the platform greater data control can incentivize its proactivity in data generation. Second, it enables a tiered licensing mechanism that balances data protection and circulation by achieving broad access to usage rights under the premise of centralized control. Third, it forms a clear chain of responsibility, reducing the compliance risks and coordination costs associated with a co-ownership model. However, to prevent the abuse of power, this single-holder model must be embedded within a dual check-and-balance mechanism. On the rights-operation level, a framework for the separation of powers between the "holding right" and the "right to request access" should be constructed to protect the access and informational rights of associated parties like consumers and merchants. On the benefit-distribution level, a dynamic, composite benefit-sharing model must be designed to ensure fairness in value distribution.

In conclusion, this property rights configuration model—which designates the platform as the core holder, supplemented by a dual check-and-balance of rights and benefits—effectively addresses the inherent requirements of data factor governance. It positions the holding right at the meso-level of the value chain, thereby avoiding the "tragedy of the anti-commons" caused by the excessive fragmentation of raw data rights, while also preventing the "tragedy of the commons" that arises from unclear property rights over data resources. Ultimately, it provides a robust institutional foundation for unlocking the value of data as a factor.

5.3 The Constitution of Powers: Holding, Use, Licensing, and Deletion

The core of the "data resource holding right" for online consumer review data can be deconstructed into a bundle of rights comprising four core powers: Holding, Use, Licensing, and Deletion. Its defining legal characteristic is the combination of de facto control and limited rights of disposition.

The primary power, "Holding," emphasizes a state of dynamic control over data resources, rather than the static attribution of ownership found in traditional property law. Second, the "Use" power is limited to the holder's internal data analysis and value extraction for its own purposes, which is fundamentally distinct from the "data processing and usage right" that includes the authority to create new data products. Third, the "Licensing" power is manifested in the holder's right to authorize third parties to access the data under specific conditions, serving as a key mechanism for realizing the value of data circulation. Finally, the "Deletion" power, meaning the right to destroy the data (Zech, 2017), grants the holder the unilateral power of disposition to terminate the data's availability and the control relationship, based on security or efficiency considerations.

The design of this bundle of rights aims to provide the market for data factors with a clear operational framework that balances both static protection and dynamic utilization.

5.4 Achieving "Common Use and Shared Revenue" Under the "Data Resource Holding Right"

To promote the healthy development of the market for data factors, emerging principles of data governance universally emphasize the core concept of “common use and shared revenue,” which aims to resolve the circulation obstacles caused by unclear property rights allocation. A key tenet is that even when a platform’s “data resource holding right” is legally established, this right must be non-exclusive and subject to strict legal checks and balances. This is necessary to correct the prevalent asymmetry between contribution and rights in the data ecosystem and to prevent platforms from leveraging their data control to form market monopolies.

To achieve the goal of “common use,” a “data access right” must be legally constructed to counterbalance the holding right. (Drexl, 2017) This dual “holding right-access right” framework requires that platforms, as holders, bear a statutory obligation to provide other contributing parties with standardized pathways for data access. Such a design has precedents in comparative law practices, such as the right to data portability in the EU’s General Data Protection Regulation (GDPR). It is a critical institutional design for ensuring data circulation and multi-party utilization.

Regarding liability allocation, a multi-dimensional framework for determination must be established with a clear order of priority: clear contractual agreements, an independent “technical attribution mechanism,” and finally, the platform’s assumption of “ultimate residual liability” as the data holder. This risk can be managed through market-based tools such as data security insurance. The realization of “shared revenue,” in turn, depends on establishing a fair distribution system that matches “contribution to benefit rights.” This system must quantify the contributions of each party through an evaluation model and adopt diversified and dynamic distribution models—such as financial profit-sharing or conversion into service-related benefits (e.g., traffic support)—potentially utilizing technologies like smart contracts to genuinely incentivize the continuous contributions of all participants.

6 Conclusion

This study aims to respond to a fundamental jurisprudential tension of the digital economy era: the traditional real rights paradigm, founded on exclusivity, has become an institutional obstacle to unlocking the economic potential of data as a factor, due to data’s non-rivalrous nature. The core argument of this paper is that the emerging legal framework of the “data resource holding right” is not merely a supplement to the existing property rights system. However, it represents a necessary paradigm shift away from the static attribution of ownership and toward a dynamic model of governance and control.

The primary theoretical contribution of this dissertation is to operationalize this abstract legal concept. By defining its legal object (processed data resources), its subject (the platform as the core value creator), and a specific set of powers counterbalanced by the right of data access, this study constructs a clear and viable property rights allocation model for online consumer review data. This process of precise delineation for a specific data type is not merely a theoretical clarification; it is a critical, practical step in transforming raw data into a legal asset that can be valued, recognized on balance sheets, and traded.

In conclusion, the framework for the “data resource holding right” delineated in this paper aims to provide a stable institutional bridge for the value leap of data from raw information to a core factor of production. Constructing a robust and equitable legal infrastructure for data as a factor is not just a technical legislative project; it is a fundamental prerequisite for securing the foundations of trust, the vitality of innovation, and distributive justice in the digital society of the future.

References

[1] Abdallah, G. M., & Jumaa, S. (2022). User-Generated Content and Firm Generated Content: A Comparative Empirical Study of the Consumer Buying Process. *UKH Journal of Social Sciences, 6*(1), 10–31.

[2] Bi, J. W., Liu, Y., Fan, Z. P., & Cambria, E. (2019). Modelling Customer Satisfaction From Online Reviews Using Ensemble Neural Network and Effect-Based Kano Model. *International Journal of Production Research, 57*(4), 1–21.

[3] Bourreau, M., Caillaud, B., & De-Nijs, R. (2017). Taxation of a Digital Monopoly Platform. *Journal of Public Economic Theory, 20*(1), 45–50.

[4] Drexl, J. (2017). Designing Competitive Markets for Industrial Data. *Journal of Intellectual Property, Information Technology and Electronic Commerce Law, 8*, 257.

[5] Goodrum, W. (2019). Data Is Not Oil. It Is Land. Elder Research. https://www.elderresearch.com/blog/value-of-data/.

[6] Jones, C. I., & Tonetti, C. (2020). Nonrivalry and the Economics of Data. *American Economic Review, 110*(9), 2819–2858.

[7] Zech, H. (2017, December 12). *Data as a Tradeable Commodity*. Cambridge University Press.