

# Analysis on the dilemma of ineffective data flow governance under the WTO framework and its solution: from the perspective of evolutionary interpretation

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## Abstract:

The rapid development of the digital economy has made cross-border data flows an important issue in global trade. As the most important international economic organization in today's era, the data flow governance system under the WTO framework faces many difficulties such as missing rules and lack of consensus. The core cause of the current governance dilemma lies in the improper application and absence of treaty interpretation. On the one hand, the traditional interpretation path cannot cover the unique attributes of data flow, which makes the existing rules lag behind in issues such as data attributes, service models and service classification. On the other hand, the generalized use of public moral exception clauses shows the interpretation defects of existing interpretation methods in concepts such as "public morals". Evolutionary interpretation provides an innovative path to alleviate the above dilemma. By rediscovering the connotation of the text and the purpose of the contract, evolutionary interpretation explores the potential of GATS norms on the basis of the existing WTO framework, and provides important theoretical support for the WTO's in-depth participation in data flows.

**Keywords:** WTO, GATS, data flow, evolutionary interpretation

## 1. Introduction

As the core production factor of the digital economy, data has become a key driving force in reshaping the global trade pattern. Cross-border data flows not only support the global operation of emerging In-

ternet industries but also become a source of power for the significant growth of the global economy by improving supply chain efficiency, reducing transaction costs and giving birth to new business models. According to estimates by the OECD and the WTO,

complete data fragmentation could reduce global GDP by 4.5%, while the establishment of an open and secure international data system could increase GDP by 1.7%. [1]Against this background, the WTO, as the core international economic organization of the multilateral trading system, has failed to effectively respond to the rule needs of the digital age. The current WTO framework faces the dual dilemma of an imperfect rules system and a lack of consensus thereby is unable to effectively participate in the regulation of cross-border data flows. On the one hand, the original intention of the design of the WTO's current legal framework does not cover data flows as a new trade element. Before applying the General Agreement on Tariffs and Trade (GATT) and the General Agreement on Trade in Services (GATS), it is necessary to clarify the attributes and classification of data flows through legal interpretation. [2]On the other hand, the value differences among WTO member states have led to a lack of normative interpretation and construction mechanisms. Based on strategic interests, countries have interpreted the W/120 service sector classification table and the "public morality" exception clause differently, resulting in a long-term deadlock in the consensus on the interpretation of the clauses and WTO multilateral negotiations. At present, the academic community's research on solutions to the failure of WTO governance focuses on the WTO's rule-making and institutional reform, but due to the gap in interests among countries, the institutional reform plan lacks feasibility. The use of evolutionary interpretation methods to explore the potential of the current WTO rules is more practical and can effectively bridge the gap between the existing normative system and digital trade practices. By applying the theory of evolutionary interpretation, it can not only provide an effective solution to the current governance dilemma, but also build a normative consensus for subsequent institutional innovation.

## **2. The lag and ambiguity crisis of WTO rules in the absence of evolutionary interpretation**

The fundamental reason why the current WTO norms fail to govern data flows lies in the lag of rules and the generalization of public morality exception clauses. This dilemma

arises from the incoordination between technological development and institutional construction, and also shows the lack of effective practice at the level of treaty interpretation methodology. The lag of rules is partly due to the failure of treaty interpretation subjects to use evolutionary interpretation methods to explore the normative potential of the text, while the generalization of public morality generalization clauses is due to the ambiguity of the extension of the concept of "public morality" and the lack of interpretation methods. In summary, the resolution of the failure dilemma requires a new treaty interpretation to achieve normative rediscovery.

### **2.1 Suppression of textual potential in the absence of interpretation methods**

#### **2.1.1 Data attribute**

The current WTO framework is based on the binary division of trade into goods and services, and regulates them through GATT and GATS respectively. For trade in the traditional sense of "goods" transmitted in electronic form, countries have different qualitative views. In this case, data, as a transaction subject, has the dual characteristics of "goods" and "services", which makes the existing either-or classification method fall into a logical dilemma. [3] The current attribute dispute reflects the defects of the traditional binary interpretation method, and a new interpretation path is urgently needed.

#### **2.1.2 Supply mode**

GATS does not give a clear definition of the concept of service, but divides service trade into four modes, based on the physical location and movement of service providers and consumers. However, the virtualization characteristics of digital services make the traditional service classification method face an interpretation crisis. In general, in electronic transmission, neither the seller nor the buyer physically crosses the border, which conforms to the situation of mode 1. However, when consumers actively transfer data to overseas servers to obtain services, consumers' data actually cross the border, and their behavior may be interpreted as "consumer movement", which conforms to the characteristics of mode 2. [4] Since countries have made different commitments to mode 1 and mode 2, it is necessary to construct an interpretation framework that

adapts to the characteristics of digital services through evolutionary interpretation and seek the best solution that meets the interests of all countries.

### 2.1.3 Classification system

GATS classifies services through the Services Sectorial Classification List (hereinafter referred to as W/120), and countries also make corresponding commitments based on the W/120 classification list. However, this classification system has two limitations: First, W/120 was designed based on the service formats of the early 1990s and failed to foresee the disruptive development of digital technology. In addition, as a static catalog, the W/120 classification table adopts a closed enumeration method and cannot include emerging services in the W/120 system. Second, the W/120 classification table requires that each service category is mutually exclusive, and the same service cannot belong to two categories at the same time. However, the comprehensive characteristics of digital services make it possible for a single service to span multiple departments. Such mixed-form services cannot be accurately classified under the current classification system and interpretation mechanism. [5] Only through the evolutionary interpretation method can the normative vitality of W/120 be maintained while clarifying the nature of the above service forms.

## 2.2 Dilemma of concept ambiguity under lack of interpretation method

According to the provisions of the GATS Agreement, each member shall grant market access and national treatment to service providers of other countries within the scope of its commitments to promote trade liberalization. However, Article 14 of the GATS also sets out a public morals exception clause, which allows members to implement trade restrictions under specific conditions. Due to the ambiguity of the treaty text and the imperfection of the interpretation mechanism, this clause has shown a tendency to be generalized in practice, and the phenomenon of some members evading treaty obligations by expanding the interpretation has become increasingly prominent.[6]

In recent years, many controversial cases have highlighted the risk of generalization of the clause. Countries have cited the public morals clause on the grounds of “prevent-

ing minors from indulging in gambling”, “seal welfare”, “making up for the difference in digital levels”, etc. These cases reflect that WTO members have continuously expanded the extension of the concept of public morals, exposing the lack of interpretation of the concept of public morals by the WTO.

The WTO Appellate Body has formed the following core positions in its adjudicative practice: First, recognize the dynamic and regional nature of the concept of public morals. Recognize that the connotation of the term public morals will change with time and space. Second, countries can assert the content of public morals based on their actual national conditions. Third, adopt a lower standard of evidence for the existence of public morals. The existence of public morality may be recognized merely by the abstract or advocacy clauses in legislative documents.

Although the WTO’s position reflects respect for the sovereignty of member states, it leads to multiple problems: First, the openness of the definition of concepts has alienated the public morality exception clause into a tool for evading obligations. The WTO recognizes the diversity of public morality, but has not attempted to further explore its connotation, resulting in any measures related to the public interest being justified through moral rhetoric. Second, the ambiguity of the standard of evidence weakens the predictability of the application of the clause. On the one hand, the WTO panel did not make a clear distinct requirement between the scope of evidence, and on the other hand, it adopted a lower standard for the requirements of evidence, allowing countries to widely collect information such as text and pictures, and advocate the establishment of public morality only based on principled and advocacy content. Third, the avoidance of substantive review has led to the hollowing out of the review mechanism. The WTO avoids exploring the specific connotation of public morality, but in the necessity test, it needs to judge whether the restrictive measures and public morality goals are necessary. Without clarifying the basic concepts, subsequent tests often become a formal recognition of the subjective statements of members, which undermines the authority of the WTO judicial body.

## 3. Evolutionary interpretation as a

## **solution to the dilemma of data flow governance**

Evolutionary interpretation is an important interpretation method in the field of international law. The concept was first clearly put forward by the International Court of Justice in its advisory opinion on the Namibia case in 1971. The core connotation of evolutionary interpretation is to interpret the terms and texts of treaties that are not suitable for contemporary situations due to factors such as the evolution of the legal system, changes in the political landscape, and technological innovation in a contemporary context without changing the nature and purpose of the treaty. This interpretation method gives the treaty the characteristics of keeping pace with the times, and maintains its normative effect and practical value by extending the connotation of the treaty.

### **3.1 The legitimacy and standards of applying evolutionary interpretation**

At present, the evolutionary interpretation method has been widely adopted in international judicial practice. The International Court of Justice pointed out in the Namibia case that international instruments must be interpreted and applied within the “framework of the entire legal system prevailing at the time of interpretation.” The European Court of Human Rights also clarified that the European Convention on Human Rights is a “living instrument” and its interpretation should reflect the reality of contemporary society. The WTO dispute settlement body also uses evolutionary interpretation methods. In the US Shrimp case, the WTO Appellate Body held that the scope of the term “exhaustible natural resources” has been continuously developing with the evolution of the discovery and understanding of “nature” and “exhaustible”. In the China-Publications and Audiovisual Products case, the panel held that China’s commitment to “sound recording distribution services” is evolutionary and applies not only to tangible products and services, but also to intangible products and services.

From the perspective of legal interpretation methodology, evolutionary interpretation is essentially an integration and innovative application of the interpretation rules of Article 31 of the Vienna Convention on the Law of Trea-

ties. Evolutionary interpretation also needs to abide by the principle of textual interpretation priority and take the ordinary meaning of the text as the starting point. Evolutionary interpretation also needs to use purpose interpretation to explore the connotation of the purpose of the contract in different eras. Evolutionary interpretation can also combine subsequent practice to continuously update the interpretation conclusion.

It should be emphasized that the legitimacy of evolutionary interpretation is rooted in the “rediscovery” of the original logic and meaning of the text, rather than the “recreation” of the contracting agreement. Its function is to reveal the ought-to-meaning of the term in the contemporary legal system, rather than to create a completely new relationship of rights and obligations. Therefore, the application of evolutionary interpretation must strictly follow three restrictions: first, the object of interpretation should be limited to abstract terms or open clauses. If the contracting parties have clearly defined the scope through specific expressions, their connotations shall not be expanded through evolutionary interpretation; second, the interpretation conclusion shall not exceed the semantic boundaries of the treaty text and violate the purpose of the treaty, and avoid substantively modifying the treaty obligations based on the subjective judgment of the adjudicator; third, the interpretation process must abide by the principle of good faith and take into account the common interests of the contracting parties and the overall coordination of international rule of law. [7] Through the above three restrictions, the arbitrariness and subjective drawbacks of evolutionary interpretation can be effectively avoided.

### **3.2 Evolutionary interpretation method to ease the dispute over data attributes**

With the changes of the times, GATT and GATS, which were established in the last century, have shown limitations to varying degrees in adapting to the needs of the digital age. There are major differences among countries on the legal characterization of trade forms derived from the digitization of traditional goods.

By using evolutionary interpretation, a powerful explanation can be made for the characterization of data

attributes. No matter how the extension changes, the most essential difference between services and goods is whether they have physical attributes. The core value of digital products lies in information rather than storage medium. Even if they are transmitted through physical carriers such as CDs, the essence of their transactions is still the cross-border provision of intangible services. This attribute is highly consistent with the intangible elements of services. From the analysis of the GATT normative system, the GATT classification standard is based on the “Commodity Description and Coding System” formulated by the World Customs Organization. It classifies goods according to physical attributes, and data without physical attributes is obviously difficult to include.

From the three applicable restrictions of evolutionary interpretation, the two agreements adopt an open definition method for “services” and “goods”, which provides a prerequisite for using evolutionary interpretation methods to solve related problems. However, the specific list of goods established by GATT based on HS codes is based on physical properties. Evolutionary interpretation can only be used legally under the framework of GATS. From the perspective of text content, data as an intangible information carrier has the same essential attributes as services. Classifying data as services and incorporating it into the scope of GATS regulation is in line with the semantic scope of the treaty text. From the perspective of treaty purpose interpretation and good faith interpretation, the preamble of GATS clearly emphasizes the legislative purpose of “facilitating developing countries to participate more in trade in services and expand service exports.” If we only focus on the contracting purpose of trade liberalization and include digital products in GATT regulation, developing countries will be forced to accept market opening obligations that are completely equal to those of developed countries, and their local digital industries will be difficult to develop. [8] The GATS agreement, through the institutional design of combining positive lists with specific commitments, not only guarantees the necessary free cross-border flow of data, but also guarantees the policy autonomy of developing countries in formulating policies that are in line with national interests.

### 3.3 Evolutionary interpretation to ease the dispute over service models

The Council for Trade in Services pointed out in the WTO e-commerce work plan that digital trade may cover all service supply models. However, in the context of digital trade, the functions of Mode 3 and Mode 4 are similar and there is no clear meaning to distinct. The current focus of disputes among WTO members is whether service delivery in the form of data transmission should be classified as Mode 1 or Mode 2. Through electronic transmission technology, consumers can obtain services from foreign service providers on foreign websites or servers, resulting in fundamental differences in the identification of mode attribution.

Since GATS has a relatively open definition of service modes and only describes the manifestations of different services, there is a large space for evolutionary interpretation.

Through the evolutionary interpretation of the semantics of the GATS text, it should be concluded that digital service delivery constitutes Mode 1. The act of providing digital services to consumers in other countries seems to meet the GATS definitions of Mode 1 and Mode 2 at the same time, but Mode 2 takes “consumer mobility” as the core element, which should be interpreted restrictively under the conditions of emerging technologies. Even if consumers obtain services by accessing servers, their physical location has not changed, which does not meet the implicit spatial demand of “overseas consumption” in Mode 2. The cross-border transmission behavior implemented by service providers through digital technology is more in line with the essential characteristics of Mode 1 “providing services from one member’s territory to any other member’s territory”.

Including digital trade in Mode 2 also meets the principle of good faith. Most WTO members have made full opening commitments under Mode 2, mainly based on the difficulty and low frequency of managing cross-border consumption of citizens. If digital services are classified as Mode 2, members will be forced to expand market access obligations without negotiation and consultation, and all countries will be forced to accept a higher level of trade liberalization, which will lead to substantive unfair

treatment between countries with different digital levels.

### 3.4 Evolutionary interpretation to ease disputes over classification systems

Against the backdrop of the rapid development of digital technology, the contradiction between the static nature of the W/120 classification table and contemporary digital technology has become increasingly prominent. When using the evolutionary interpretation method to resolve disputes over the classification of services in the W/120 classification table, it is necessary to adopt differentiated interpretation paths based on the degree of fit between the service form and the existing classification system. There are mainly three situations:

First, digital services are similar to traditional services. In such cases, the “technology neutrality principle” can be used to interpret treaty terms, and it is presumed that the contracting parties have foreseen the possibility of technological development when making commitments and have made implicit commitments to changes in the future delivery methods of services.

Second, digital services integrate multiple traditional service categories. If emerging services integrate multiple W/120 classifications, it is necessary to review the commitment levels of all relevant traditional service categories and adopt “minimum obligation standards”. For example, streaming platforms provide both telecommunications services and audio-visual services. If a country has no restrictions on telecommunications services and has imposed partial restrictions on audio-visual services, it should be considered that the country has only imposed partial restrictions on streaming platform services.

Third, digital services that cannot be classified into traditional service categories. For services such as blockchain and artificial intelligence that do not have corresponding W/120 categories, forcibly incorporating them into the existing framework may violate the principle that “a treaty shall not be interpreted as an obligation that the contracting parties have not foreseen”. At this time, the boundaries of evolutionary interpretation should be recognized. The interpretation can only be expanded within the scope of the text itself and the scope of the implicit consent of the contracting parties, and cannot replace or increase the

consent of the contracting parties.

Through differentiated arrangements, evolutionary interpretation not only coordinates the static nature of the treaty text and the dynamic nature of technology, but also avoids expanding the scope of commitments against the will of the contracting parties. It is also in line with the goal of GATS to gradually achieve a higher level of liberalization.

### 3.5 Evolutionary interpretation to alleviate the generalization of public morals clauses

The frequent citation of public morals exception clauses in WTO disputes is due to the lack of definition of the concept connotation in the text and the low institutional constraint standards. Although the current WTO expert group recognizes the regionality and dynamism of the concept of public morals, it has failed to form effective constraints through conceptual interpretation and institutional restrictions, resulting in the generalization trend of public morals exception clauses. The evolutionary interpretation method can adapt to the evolution of moral concepts and regional differences in the era. It provides theoretical support for solving this dilemma while maintaining the stability of the multilateral trading system.

Based on the textual connotation of the Vienna Convention on the Law of Treaties and the characteristics of the evolutionary interpretation methodology, the WTO should establish a “text and good faith” two-level review mechanism for public morality. Textual review focuses on the normative identification of the concept of public morality. The connotation of public morality will change, but its identification standard always requires a certain group to widely agree on the concept. Therefore, a classification review mechanism can be established in the dispute settlement procedure according to the scope of the people who reach a consensus. For moral concepts generally recognized by the international community, their public moral attributes can be directly confirmed; for special public morality in a certain region, a higher standard of proof needs to be established and proved by the country advocating the public morality. Member countries should not only provide specific norms of legislative documents to prove social consensus, but also submit objective evidence such

as public opinion survey reports to prove that the public has reached a consensus on the moral concept. Good faith review includes the dual dimensions of necessity review and non-discrimination review. The necessity test needs to focus on the development of the evaluation criteria of “reasonable alternative measures”. Under the premise of the same level of public moral protection, if a measure is less restrictive to trade freedom than existing restrictive measures and does not excessively increase costs, the measure is an alternative measure. The complaining party can provide examples of reasonable alternative measures to prove that the restrictive measures of other countries do not meet the principle of necessity, thereby forming a clear judgment method. The legislation of each country should follow the principle of technological neutrality, ensure that domestic and foreign service providers are subject to equal restrictions or supervision, and prohibit disguised discrimination through differences in technical standards.

#### 4. Conclusion

The digital technology revolution has brought unprecedented challenges to trade rules. The current WTO governance system has been unable to cope with the complex needs of cross-border data flows and needs to rebuild governance effectiveness. In this context, this article believes that the evolutionary interpretation method provides a key path to bridge the gap between WTO rules and the development of digital trade. Evolutionary interpretation explores the inherent potential of the WTO framework by interpreting treaty terms without breaking the textual boundaries. Evolutionary interpretation not only ensures the stability of the current WTO framework, but also effectively responds to the substantive needs of data flows for rule interpretation. It is the best choice in the current situation. However, the function of evolutionary interpretation also has inherent boundaries. Its scope of interpretation is limited by the semantic scope and contracting purpose of the treaty text. Simply relying on the interpretation method cannot fundamentally fill the institutional gap. At the same time, although the evolutionary interpretation

method emphasizes the boundaries of text semantics, contracting purpose, and the principle of good faith, the interpretation process still requires the dispute settlement body to make objective judgments, and its dynamic nature may reduce the legal certainty to a certain extent. The coordination between the fragmented rules of various regional agreements and the overall WTO norms still needs to be achieved through institutional reform. Therefore, in addition to the evolutionary interpretation path, the WTO needs to actively absorb the practical experience of regional agreements, and establish a governance path of “evolutionary interpretation and institutional innovation” through e-commerce negotiations, and ultimately build an open, inclusive and secure global data governance system.

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