

# The Classification of Digital Products in Digital Trade Rules Under the WTO

Yun Liu<sup>1</sup>

<sup>1</sup> School of Law, Wuhan University, China

Correspondence: Yun Liu, School of Law, Wuhan University, China.

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## Abstract

The negotiation of WTO digital trade rules has been restarted as states have accelerated the promotion of digital trade legislation in recent years. The classification of digital products as “services” or “goods” will affect how GATT and GATS rules are applied. The existing digital trade rules and WTO rules do not clearly define digital trade product classification. Digital products have both the characteristics of “goods” and “services,” and special consideration should be given to the special characteristics and the impact on member states, particularly on the application of tariff exemption and non-discriminatory treatment, in order to take a more flexible approach to dealing with WTO digital trade negotiations.

**Keywords:** digital trade, WTO, GATT, GATS

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## 1. Introduction

Digital product means a computer programme, text, video, image, sound recording or other product that is digitally encoded, produced for commercial sale or distribution, and that can be transmitted electronically. From the definition of the digital product, it is difficult to determine whether it is a good or a service. Scholars have also been heatedly debating the WTO's proper treatment of digital products on this issue. This article attempts to analyze the classification of digital products and to shed light on the implications of the classification. Section II of this paper explains the background to the development of digital trade rules and outlines the implications of the categorization of digital goods. Section III discusses the reasons for classifying digital products as goods and the applicable rules, while Section IV discusses the

reasons for classifying digital products as services and the applicable rules. Section V discusses the two most notable issues that would arise from the classification of digital products, namely duty-free issues and non-discriminatory treatment.

## 2. The Development of Digital Trade Rules

Depending on the level of development of different countries and their needs for digital trade regulation, the international community has developed American-style rules, exemplified by the Trans-Pacific Partnership Agreement (TPP) and The United States-Mexico-Canada Agreement (USMCA), European-style rules, led by the EU, and Asian rules, exemplified by the Digital Economy Partnership Agreement (DEPA), to regulate intellectual property rights, cross-data flows, and the protection of personal

privacy and information.

The WTO digital trade issues have been formally launched since the adoption of Declaration on global electronic commerce in 1988, which would establish a comprehensive work programme in next meeting. However, it took a long time to make forward, and it was not until March 2019 that discussion of the rules was initiated after many discussions. In December 2021, the three-year-long WTO digital trade negotiations made substantial progress in paperless transactions, electronic signatures and authentication, and are on track to reach agreement on most of these issues by the end of 2022. Current plurilateral negotiations on digital trade remain slow on acute issues such as the free flow of data across borders and the non-discriminatory treatment of digital products, and the joint statement indicates that negotiations will intensify in 2022 on these high-standard provisions.

In view of the fact that most members' proposals in the plurilateral negotiations did not strictly distinguish between the concepts of "e-commerce" and "digital trade", but rather covered both cross-border sales of goods and cross-border transmission of digitized content and services, this paper does not strictly distinguish between the scope of "e-commerce" and that of "digital trade".

The connotation and extension of digital trade has not yet formed an accepted consensus, the United States International Trade Commission in *Digital Trade in the U.S. and Global Economies*, Part 2 defines digital trade as U.S. domestic commerce and international trade in which the Internet and Internet-based technologies play a particularly significant role in ordering, producing, or delivering products and services. Digital trade is divided into digital content, social media, search engines, other digital products and services.

When compared to traditional trade in goods and services, digital trade is distinct and appears to possess the qualities of both. It can be classified as traditional trade in goods when information technology is used to transform digital to products and as trade in services when it offers digitalized products.

In the WTO, the digital trade rules still apply to the general principles of GATS and GATT, and there is a clear difference between them. Varying forms of trade receive varying preferential

treatment, thus it is crucial to distinguish between the various forms of digital trade.

### 3. The "Goods" Nature of Digital Products

In digital trade, digital products belong to the "goods" while electronic products are converted into actual "tangible" products for trading, such as electronic data presented as a "physical" to trade through 3D printing technology, as well as the transmission of electronic data to CD-ROMs. For example, electronic data appears as a "physical" object to be exchanged using 3D printing technology, or electronic data is copied to optical disks, magnetic tapes, and other carriers to for dissemination.

Digitally-Delivered Content Products (DDCPs) are products created by traditional core copyright industries (e.g., the film and television industries) but digitally encoded and electronically transmitted and delivered over the Internet, and are therefore independent of their physical carriers, including films, videos and images; songs and music; software; video games; and computer entertainment games.

The General Agreement on Tariffs and Trade (GATT) rules apply when they are regarded as "trade in goods". If such electronic products are considered as goods, they will inevitably face the problem of taxation, but when they exist as goods, their actual value is difficult to estimate. For the reason that it is impossible to estimate the actual value of the goods by the value of the "carrier", and the actual "product" is the electronic information stored in them. The actual "product" is the electronic information stored in it.

There has been controversy over the classification of digital products and some WTO members had been discussed the classification of digital products in the context of the GATT. First of all, the GATT has never said that it applies only to physical products. Even non-physical products can apply the rules in GATT. Secondly, content is the basis for classification, not form. As long as the content of an electronically delivered product can be recognized as a good, it can be regulated by GATT. Thirdly, a line can be drawn clearly between "mass distribution" and "more personalized distributions" of electronic data. The former would be governed by GATT rules and the latter by GATS rules.

On the issue of the characterization and application of rules to electronically transmitted

digital products, there is a great divergence between the United States and the European Union. The domestic legislation and justice of the United States denied that the digital transaction of information products is subject to the definition of “goods” in Uniform Commercial Code. However, when turn into the WTO e-commerce negotiations, the United States insisted on the application of the GATT, which particularly for the trade in goods. The purpose of the United States’ double standard is to seek the maximum degree of trade liberalization, and to strive for a larger world market for the country’s digital industry. In contrast, the EU believes that GATT applies only to imports of digital products with physical carriers, and that any digital products delivered electronically are services for which GATS rules apply.

The characteristics of digital products in digital trade cannot be met by the classifications of “goods” and “services” under the WTO system, and the GATT has a higher degree of trade liberalization. Digital goods will be eligible for the same national treatment and general most-favored-nation treatment as conventional physical goods which are included in the GATT. On the other hand, national treatment and market access under GATS regulation are contingent only upon the particular obligations made by each member countries. It appears that categorizing digital items as “goods” or “services” is inappropriate given their nature, and that both classifications are either too stringent or too lax for digital trade.

The digital product’s physical characteristics cannot be identified, and it is impossible to tell if it is a license, the product itself, or an asset of a business. For this reason, it is better to establish a new category for digitally traded products. According to a particular delegation, “the issue of classification should not in any way diminish the nature and conditions for the development of digital trade products.”

#### **4. The “Services” Nature of Digital Products**

Digital trade is a method of trade in which a state’s domestic service providers supply “intangible” services to the customers of another country through the provision of services in electronic form, through Internet data. Digital products, like telecommunications and audiovisual services, are “services” in nature and are governed by the General Agreement on

Trade in Services (GATS).

GATS categorizes trade in services into four modes in Article 1.1, including Cross-border Supply, Consumption Abroad, Commercial Presence and Movement of Natural Persons. According to the description of the four modes in GATS, the first mode of Cross-border Supply refers to the supply of a service from the territory of one Member into the territory of any other Member, and this mode is also a common form of digital trade, where a service supplier engaging in digital trade can complete a digital product within its territory and transmit it directly to a service consumer in the territory of the other country by electronic means.

The second mode of Consumption Abroad refers to the supply of a service in the territory of one Member to the service consumer of any other Member. In other words, the consumer of the service moves to the supplier’s territory to get the service. Consumption Abroad is described as consumption outside the territory of the member making the commitment, in which the consumer does not physically “move” to the territory of the other country to receive the service, but rather receives the product in the other country, which involves the “movement” of the consumer’s property, or its location outside the country, and is covered by mode II.

As indicated in the Electronic commerce and the role of the WTO, digital trade appears to be of particular significance for the expansion of modes I and II. According to the data in that report, digital trade in general can be attributed to mode II.

Based on the existing level of WTO members’ market access commitments, most members have decided not to impose limitations in mode II, making full commitments on market access and national treatment under mode II while preserving restrictions in mode I. In other words, classifying digital services as mode II requires many WTO members to refrain from imposing any market access limitations on digital services.

In the United States—Measures Affecting the Cross-Border Supply of Gambling and Betting Services (DS285), the panel’s apply for GATS Article 16 was limited to Mode I in the market-access commitment, and it was made clear that the dispute concerned cross-border suppliers under GATS. The Appellate Body agree with the panel and assessed only the U.S. commitments in Mode I of the GATS.

The Report of the Appellate Body in DS285 has alleviated some of the uncertainty regarding the application of the GATS service mode. However, since the United States commitment to gambling and gaming services under both mode I and II is “without limitation”, and neither the Panel nor the Appellate Body has been asked to comment on the distinction between mode I and II, this important issue has not yet been fully resolved.

The categorization of digital trade into whatever mode would influence the question of member-state specific commitments. The limitations imposed by member states on mode II are less stringent than those imposed on mode I. If it is classified as mode II, the limitations on digital trade will be significantly reduced, reducing the threshold for market access and aligning with the views of member states led by the United States, where digital trade is fast increasing. However, directly recognizing mode II without negotiation is equivalent to changing the content of the specific commitments of member states, which is inconsistent with member states’ reasonable expectations and would likely contradict the views of some member states. And it will not be able to circumvent the behavior of other member countries that are “free-riding” in the negotiation.

When it came to making specific commitments, the majority of member states primarily considered the advantages and state of development at that moment, while ignoring the relatively new and frequently misunderstood technological innovation aspect of digital trade. As a result, it might be necessary to evaluate how digital trade and current GATS specific commitments relate to one another. This evaluation should pay special attention to recently developed and potentially future-emerging service classifications.

## **5. Impact of Product Categorization in Digital Trade**

### *5.1 Tax Exemptions for Electronically Transmitted and Digital Products*

Tariff collection may be significantly affected by the adaptable nature of digital trade and its ease of dissemination. The determination of whether a digital product is a “service” or a “good” will affect issues such as customs valuation, origin and import licensing in determining tariffs. When a digital product is recognized as a “service”, it is exempt from tariffs when it is

transmitted, but it is subject to tariffs when it is disseminated as a “good”.

The issue of tariffs has also been the major disputes, and WTO members have reached a consensus in “temporarily exempt electronic transmissions from tariffs” in the Global Declaration on Digital Trade. According to the proposals submitted by the member states, most of the states agree to temporarily exempt electronic transmissions from tariffs, and even have a tendency to extend the tariff exemption.

Comparing to The U.S. expect a permanent tariff exemption, the EU is in a different position from the US. Since the emergence of digital trade, the EU and the US have collaborated on this subject. The EU and the US worked hand in hand during the rise of digital trade, and both sides jointly promoted the development of digital trade rules and reached agreement on duty-free. However, there is currently a gap in the development levels of the two countries, the EU prefers to limit duty-free and hopes to establish a legal provision prohibiting the imposition of tariffs on electronic transmissions.

In view of the trend of trade development, digital trade will replace the secondary and tertiary sectors to become the mainstream, if the permanent exemption of tariffs will pose a threat to the state revenue. Moreover, there are many types of electronic transmissions, and if all of them are exempted from customs duties, the protection of digital products (e.g., audiovisual works, e-books, etc.) will also be affected.

### *5.2 Non-Discriminatory Treatment*

Non-discriminatory treatment, as a fundamental principle of international trade organizations, is provided for in both GATT and GATS, but their scope is different. Whether a digital product is a service or a good will affect whether it apply to non-discriminatory treatment.

The national treatment under GATT, where the object is the goods, does not include the supplier of the goods. While the non-discriminatory treatment under GATS is broader and is based on the specific commitments made by the member states in different sectors. That is to say, if the digital trade is not within the scope of the member’s schedule of commitments, the digital products do not apply to the non-discriminatory treatment. In addition, the non-discriminatory treatment in GATS not only involves the services, but also includes the service suppliers. If digital products are recognized as services, then

computer and related services, value-added telecommunication services, audiovisual services, etc. may be regarded as digital products according to the WTO Service Sectoral Classification List. If digital products are recognized as goods, then all types of digital products can apply to non-discriminatory treatment. In comparison, recognizing digital products as goods would broaden the scope of market access, but at the same time ignoring the commitments of member states and thus getting stuck in the dilemma of directly expanding the scope of member states' commitments without negotiation.

Another issue affecting the application of non-discriminatory treatment is the determination of "like products", a term used in the GATT and GATS non-discrimination treatment, which is the key to determining whether a member state has violated non-discrimination. This is also the key to determine whether the member states have violated the non-discriminatory treatment. The Dispute Settlement Body (DSB) has been summarized how to deal with the "like product" by according to the "accordion theory" and the "Border Tax Adjustments" for case-by-case judgment after a long period of dispute settlement.

Some new questions come up with digital products, like whether goods which are delivered physically and those that are transferred electronically are like products. From a technological neutrality perspective, both ought to be like products. As recognized in the United States—Measures Affecting the Cross-Border Supply of Gambling and Betting Services (DS285) and China—Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products (DS363), market access commitments imply the right to supply services by all means, including in non-physical form, in particular electronically, unless otherwise provided in a Member's Commitments. The WTO Secretariat has pointed out in the relevant Explanatory Note that "like" depends, in principle, on the attributes of the product or the supplier itself, and not on the manner in which the product is delivered. In result, reference to the "accordion theory" will be maintained in order to ascertain the criterion of "similar" for "like products" based on the particular facts of each instance.

## 6. Conclusion

When compared to conventional trading in products and services, digital trade is distinct. Digital commerce items can be regarded as goods and subject to GATT regulation when they are independent of the carrier. Digital trade's content is more similar to services and aligns with the GATS's model of cross-border supply and consumption abroad. Given the distinction in the two categories of application, consumption abroad receives more favorable treatment and a higher level of openness than cross-border supply. Given this, particular consideration should be given to the digital products when deciding in case of changing the specific commitments of member states without negotiation.

Countries are now inclined to regard electronic communications as services and prolong the temporary exemption from tariffs on them, but they are nevertheless inclined to retain the right of imposing tariffs on information technology items. The GATS offers a wider range of non-discriminatory treatment, which is beneficial for advancing the growth of digital trade and trade liberalization. However, the digital product could not simply be resolved by defining it as a "good" or a "service", alternatively, it needs a new form which would be more suitable for promoting the creation of new regulations.

## References

- Farrokhnia Farrokh and Richards Cameron. (2016). E-Commerce Products Under the World Trade Organization Agreements Goods Services Both or Neither, *Journal of World Trade*, 50(5).
- GONG Bohua. (2011). Review of China's Active Participation in WTO Dispute Settlement Mechanism Practices in the Decade of WTO Accession. *Journal of Shanghai University of International Business and Economics*, 18(05), 9-18.  
DOI:10.16060/j.cnki.issn2095-8072.2011.05.003.
- GONG Bohua. (2016). On the construction of "eWTO" regulation of cross-border e-commerce/digital trade. *Journal of Shanghai University of International Business and Economics*, 23(06), 18-28.  
DOI:10.16060/j.cnki.issn2095-8072.2016.06.002.

- Ivan Sharafanov, BAI Shuqiang. (2018). Research on the Cooperation Mechanism of Digital Products Trade under the Perspective of WTO — Based on the Study of the Current Situation of the Development of Digital Trade and Barriers. *Journal of International Trade*, (02), 149-163. DOI:10.13510/j.cnki.jit.2018.02.018.
- LIU Jiaao. (2022). Research on the Legal Attributes of Digital Products under WTO Rules. *Journal of International Law*, (01), 98-118+157.
- PENG Delai, QUANG Huan, YANG Guohua. (2018). Review of “national security” in international trade--an examination based on the U.S. “232 investigation”. *International Economic and Trade Research*, 34(05), 91-104. DOI:10.13687/j.cnki.gjjmts.20180417.001.
- Rolf H. (2012). Weber and Mira Burri, Classification of Services in the Digital Economy, Staempfli and Springer.
- SHI Jingxia. (2020). WTO Plurilateral Negotiations on E-Commerce in the Context of Digital Economy: Recent Developments and Focus Issues. *Oriental Law*, (02), 170-184. DOI:10.19404/j.cnki.dffx.20200228.001.
- TAN Guanfu. (2021). Categorization of digital trade in the perspective of international trade law. *Journal of Graduate School of Chinese Academy of Social Sciences*, (05), 45-56.
- Willemyns, Ines. (2019). GATS Classification of Digital Services – Does ‘The Cloud’ Have a Silver Lining?. *Journal of World Trade* 53(1), 59-82.
- Work programme on electronic commerce-Submission by the United States, WT/GC/16, G/C/2, S/C/7, IP/C/16, WT/COMTD/17. (1999).
- WTO. (1998). Work Program on Electronic Commerce, WT/L/274.
- ZHANG Xuechun, ZENG Yuanyuan. (2022). The current situation of U.S. digital trade and the outlook of U.S.-China digital trade relations. *South China Finance*, (04), 3-13.
- ZHOU Nianli, LI Yuhao, LIU Dong. (2018). Exploring the Development Trend of Multilateral Digital Trade Regulation — Based on the Latest Proposals of Major WTO Members. *Asia-Pacific Economic Review*, (02), 6-54+150.
- DOI:10.16407/j.cnki.1000-6052.2018.02.006.