Articles

DIGITAL TRADE IN WTO-LAW — TAKING STOCK AND LOOKING AHEAD

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ABSTRACT

Figures in digital trade show a substantial growth over the last years, but WTO law does not provide for an adequate legal framework encompassing digital trade rules. The Information Technology Agreement might not encompass all new goods since the relevant Appendices have not been amended for 14 years and the digital services are only partially covered in the Specific GATS Commitments of WTO Members due to the fact that the so-called positive list approach requires active national commitments with respect to newly developed services. The most recent court practice (US-Gambling, China-AVHE), however, contains some promising signs of accepting e-commerce as service covered by the GATS. Legal scholars are now invited to formulate new digital trade rules facilitating the cross-border delivery of electronic goods and services as well as to develop concepts to overcome anticipated digital trade barriers (such as lack of access to technology, of interconnectivity and compatibility). Finally, the present digital divide must be overcome and turned into a digital opportunity for all.

KEYWORDS: *GATT v. GATS, E-Commerce, Future Digital Trade Rules, Information Technology Agreement, Preferential Trade Agreements*

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I. INTRODUCTION[1]

The economic importance of digital trade is increasing, notwithstanding the collapse of the Internet bubble at the beginning of this decade and the general market problems for business following the financial crisis of 2008. Figures in digital trade show an impressive growth, particularly in East Asian countries, and it is not to be expected that this situation will be changing in the coming years.[2]

WTO-law does not define the term "digital trade". Usually, a digital product or service is described as electronically transmitted "value" (e.g. by way of the Internet);[3] the digital products or services (software, movies, music, games, etc.) are traded for their contents, irrespective of what form is used for the transport of the contents.[4] In a specific Work Programme on Electronic Commerce of the WTO reference is made to digital trade without outlining a clear notion of the term.[5] In this article, an extensive notion of digital trade, encompassing e-commerce, will be used; in particular, digital trade can have the form of products or services electronic delivery.

II. LEGAL STOCKTAKING

A. WTO Framework

The treatment of digital trade can raise the difficult question of whether a specific delivery is to be qualified as trade in goods (governed by the General Agreement on Tariffs and Trade, GATT) or as trade in services (governed by the General Agreement on Trade in Services, GATS).[6] The problem with the classification of a "digital delivery" mainly occurs due to

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[1] This article is based on the presentation which the author has given at the Asian Center for WTO & International Health Law and Policy of the National Taiwan University on 4 December 2009.

[2] *See generally* U.N. Conf. on Trade & Dev. [UNCTAD], *Information Economy Report 2009: Trends and Outlook in Turbulent Times, Geneva*, UNCTAD/IER/2009, U.N. Sales No. E.09.II.D.18 (2009).

[3] *See generally* U.N. Info. & Comm. Tech. Task Force [hereinafter UN ICT TF], *WTO, E-commerce and Information Technologies: From the Uruguay Round through the Doha Development Agenda: A Report for the UN ICT Task Force* (2005) (prepared by Sacha Wunsch-Vincent) , *available at* http://www.iie.com/publications/papers/wunsch1104.pdf (last visited Mar. 16, 2010); *see also* the detailed description of the unresolved questions of classification in SACHA WUNSCH-VINCENT, THE WTO, THE INTERNET AND TRADE IN DIGITAL PRODUCTS: EC-US PERSPECTIVES 48-51, 52-62 (2006).

[4] ROLF H. WEBER, *Information Technology Markets – Asia's Opportunity to Revitalise the WTO*, 37 H. K. L.J. 185, 209 (2007).

[5] General Council, *Adopted by the General Council on 25 September 1998: Work Programme on Electronic Commerce*, at 1, WT/L/274 (Sept. 30, 1998).

[6] *See* MICHAEL J. TREBILCOCK & ROBERT L. HOWSE, THE REGULATION OF INTERNATIONAL TRADE, 26 (2005).

the fact that neither the GATT classification system (Harmonized System) nor the GATS classification system (Service Sectoral Classification List, W/120) contains clear guidelines:[7]

1. To the extent that a digital delivery does not have physical attributes, no classification is available in the Harmonized System; only carrier media[8] on which a digital product is recorded are listed and can fall within the scope of the GATT or the Information Technology Agreement, respectively.
2. As far as digital trade has the character of a service, the W/120 List[9] does not provide for a specific classification allowing clear application of the GATS provisions.

The question of classification of digital trade to the GATT or the GATS is of not only academic nature but utmost practical importance since the level of liberalization under the two agreements substantially differs.[10] Unlike the GATT, the GATS does not guarantee free market access.[11] Moreover, the right to market access for services and service suppliers depends on the extent of commitment in the Schedules for each WTO Member. In the Schedules, Members specify the services sectors and modes of supply that are subject to liberalization; i.e., the Schedules define the rights to market access and to national treatment for foreign services and services suppliers.[12] Therefore, the GATS implements the so-called "positive list"-approach, liberalization only takes place to the extent of specific acceptance of assumed obligations.

B. GATT and Information Technology Agreement

The GATT does not address digital products directly; even as far as information technology [hereinafter IT] products are concerned, the scope of the GATT was not entirely clear after the Uruguay Round.

1. Origins and Contents of the ITA. — Since IT products became more and more important after the successful implementation of the WTO Agreements, WTO Members have negotiated a special agreement on IT products in 1995-1996. During the Singapore Ministerial Conference of December 1996, the Declaration on Trade in Information Technology was

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[7] *See* UN ICT TF, *supra* note 3 at 134; Wunsch-Vincent, *supra* note 3 at 48-51, 52-62.

[8] Thereby, the physical substance, not the inherent contents of the good becomes the point of attraction.

[9] *See* Secretariat, *Note by the Secretariat: Services Sectoral Classification List*, MTN.GNS/W/120 (July 10, 1991).

[10] For further details, *see* Weber, *supra* note 4, at 189-90.

[11] Trebilcock & Howse, *supra* note 6, at 358.

[12] For more information on the universal and the sectoral approaches, *see* Henry Gao, *Evaluating Alternative Approaches to GATS Negotiations: Sectoral, Formulae and Other Alternatives*, *in* GATS AND THE REGULATION OF INTERNATIONAL TRADE IN SERVICES 183-208 (Marion Panizzon et al. eds., 2008).

signed by 14 signatories representing 29 WTO Members and separate customs territories.[13] The objective of the Declaration includes the expansion of world trade in information technology products.[14] The embedded Information Technology Agreement [hereinafter ITA], established as a plurilateral agreement,[15] is quite short and mainly provides a mechanism which allows the WTO Members to amend their existing tariff schedules under the GATT by "binding" customs duties on selected IT products and by eliminating other duties and charges in this field over a period of four years (until January 2000); developing countries had an extension staging for some products until 2005.[16]

The ITA acknowledges the key role of trade in IT products for the development of information industries and for the dynamic expansion of the world economy.[17] The objectives of the ITA are achievement of maximum freedom of world trade in IT products and encouragement of continued technological development in the IT industry on a world-wide scale. In particular, the following obligations are to be observed:[18] (i) Each participant's trade regime should evolve in a manner that enhances market opportunities for IT products; (ii) each participant should bind and eliminate customs duties and other duties or charges of any kind within the scope of Article II:I(b) of the GATT in respect of all IT products classified.

The main parts of the ITA are Appendices A and B, which list the products covered, including semiconductors, semiconductor manufacturing and testing equipment, computers, flat panel displays, computer network equipment, computer software, telecommunication products and scientific instruments. But the fact that the respective lists of Appendices A and B are not identical to the GATT Harmonized System leads to problems in evaluating the applicable rules.[19]

The ITA has now been signed by 43 signatories, representing 70 countries or customs territories and more than 97% of world trade in IT products.[20] Furthermore, the Annex to the ITA (para. 3) contains an important "development" clause providing for an obligation of the

[13] World Trade Organization [hereinafter WTO], Ministerial Declaration on Trade in Information Technology Products, WT/MIN(96)/16 (Dec.13, 1996).
[14] For further references, *see* Weber, *supra* note 4, at 192.
[15] Plurilateral agreement means that WTO Members do not have an obligation to ratify the Information Technology Agreement [hereinafter ITA], however, countries that become members of the ITA are oblige to comply with the ITA commitments. This cause is a potential "free-rider" problem which is not so substantial under the ITA due to the large coverage of market share.
[16] *See also* UN ICT TF, *supra* note 3, at 134.
[17] *See* Ministerial Declaration on Trade in Information Technology Products, *supra* note 13, pmbl.
[18] *See* Weber, *supra* note 4, at 192.
[19] *See* Shin-yi Peng, Taxing Innovation? – The Evolving Coverage of the Information Technology Agreement, *presented at* The 2009 ILST Conference on Innovation, Competition and Regulation 5 (Dec. 3, 2009).
[20] *Id.* at 3.

participants to meet periodically (under the auspices of the Council on Trade in Goods) (i) "to review the product coverage [. . .] with a view [. . .] to incorporate additional products" and (ii) "to consult on non-tariff-barriers to trade in information technology products".

2. Ongoing Problems. — After the implementation of the ITA, the Members took their continuous obligations seriously and established the Committee of Participants on the Expansion of Trade in Information Technology Products [hereinafter ITA Committee]. Four issues are mainly dealt with by the ITA Committee and are needed to be addressed in a more detailed manner hereinafter so as to allow for a better understanding of the complexity of the regulation of digital goods and services.[21]

(a) Increasing ITA Participation. — Despite the fact that the number of ITA participants has substantially increased since its implementation, two specific aspects should not be overlooked: (i) The market coverage of IT transactions executed by ITA participants expanded from 90% to 97%. With this trend, we can infer that the numerous new members only contributed a minor market share since the original ratification of the ITA. (ii) Only less than half of the WTO Members have ratified the ITA; in particular, important Asian and Latin American countries have so far not become participants of the ITA.[22]

The reluctance of many developing countries to join the ITA reflects their concerns about (i) the low value of trade in IT products which does not show any quantifiable advantage on lower duties, (ii) the negative impact caused by the import of IT products (loss of tariff revenue) and (iii) the unlikelihood of a developed country being able to use tariffs to protect its own emerging IT industry from more developed exporters located in other countries.[23] Obviously, counterarguments are available: tariffs always create artificial trade barriers and increase prices; these consequences are usually not in the interest of developing countries since technological backwardness in the IT field can have far-reaching negative consequences (i.e. the problem of the digital divide). In addition, by way of product fragmentation, developing countries have the chance to profit from the production of intermediary IT products or the assembly of final products.[24]

(b) Expanding ITA Coverage. — The ITA is structured on the basis of the principle that the listed products enjoy benefits of the GATT disciplines and are not (or only to a limited extent) subject to customs tariffs. Consequently, products not included in the lists (as contained in the Appendices to the ITA) at the time of conclusion and particularly new

[21] This chapter mainly follows the more extensive discussion in Weber, *supra* note 4, at 193-98.
[22] *See generally* Rorden Wilkinson & James Scott, *Developing Country Participation in the GATT: A Reassessment*, 7 WORLD TRADE REV. 473, 473-510 (2008).
[23] Weber, *supra* note 4, at 193-94.
[24] UN ICT TF, *supra* note 3, at 36-37.

products can only benefit from the commitments assumed by the participants of the ITA if the respective lists are occasionally amended. This fact is particularly addressed in the preamble of the ITA; however, so far the efforts of the ITA Committee did not result in an agreement about which additional IT products should be added to the existing lists.[25]

In the meantime, the scope of the covered products has become a topic of an ongoing litigation in the context of the WTO dispute resolution mechanism:[26] Since the EU has introduced taxes on certain IT products, namely flat panel computer monitors with digital video interface [hereinafter DVI] as well as specific multifunction printers, which have been developed during the last few years, Taiwan, Japan, and the United States started legal action by arguing that the new products are similar to products covered in the lists.[27]

Obviously, the Appendices to the ITA could only cover product which had been known in 1996. The key topic of the dispute concerns thus the question that whether certain products would not be covered simply because they incorporate technologies or features that did not exist when the ITA was concluded, thereby, in effect, taxing innovation.[28] The Information Technology Industry Council [hereinafter ITIC] also expressed its concerns and pointed out that the EU would undermine the value of the ITA.[29]

The dispute can finally be nailed down to an aspect of interpretation of the ITA. If a grammatical and historical interpretation prevails, it is evident that new IT products not listed in the Appendices to the ITA do not fall into its scope of application and national taxes can be levied on such products. However, if information technology is seen as a developing target eliminating historical differences between devices and network platforms, as well as blurring the lines between physical networks and the service providers[30] the discretion in interpretation should be used in an attempt to realize technological conversions. Obviously, the development of information technologies during the last decade has strained the existing

[25] For a general overview from research scholars of a less developed country, *see* Sachin Chaturvedi & S. K. Mohanty, *The WTO and Trade in Electronically Delivered Software Emerging Challenges and Policy Options – An Indian Perspective*, 42(5) J. WORLD TRADE 927, 927 (2008).
[26] *See* Peng, *supra* note 19, at 10-18.
[27] *See* Reshad Forbes & Christos Sakellariou, *The WTO to Settle Dispute over EU Tariffs for IT Products – The ITA Case*, 15(1) INT'L TRADE L. & REG. 14, 14-22 (2009); for background of the dispute, *see* Peng, *supra* note 19, at 5-10.
[28] *See* Ambassador Susan C. Schwab, USTR Remarks on EU, ITA, WTO Case, *available at* http://www.ustr.gov/sites/default/files/uploads/speeches/2008/asset_upload_file683_14917.pdf (last visited Mar. 16, 2010).
[29] Information Technology Industry Council, http://www.itic.org (last visited Mar. 16, 2010).
[30] Peng, *supra* note 19, at 18.

legal and regulatory regime.[31] At any rate, the ongoing litigation regarding the ITA provides an opportunity to revisit the issue of tariff classification, and to offer a creative space for treaty interpretation considering the digital convergence trend.[32]

(c) Eliminating Non-Tariff Measures. — The ITA requests its participants to consult on non-tariff measures [hereinafter NTMs] to trade in IT products. As experience has shown in many other instances of trade liberalization, sovereign states are tempted to "replace" disallowed customs duties and charges with non-monetary trade barriers which can have significant negative impacts on cross-border traffic.[33] Notwithstanding the fact that empirical estimates of the effects of NTMs are difficult to quantify, available studies suggest that their overall impact on trade is substantial.[34] Particularly in the IT field, many NTMs are possible (for example non-portability of conformity assessment data, differing national regulations implementing global standards, unique testing and certification standards, administratively difficult and/or not transparent customs regulations, and country of origin rules or import licensing requirements).[35]

The ITA Committee began its work on NTMs and was able in November 2000 to launch a one-year Work Programme on Non-Tariff Measures (NTM Work Programme), covering three phases with different tasks (stocktaking phase, assessment phase, submission of proposal).[36] During the assessment phase, however, the motivation of the negotiating parties diminished and no specific results have been achieved.[37] This regrettable development is only partly compensated by the fact that the Asia Pacific Economic Corporation (APEC) Forum has standards-related committees working out guidelines that should eliminate or at least mitigate the potential NTMs; the Association of South East Asian Nations (ASEAN) is particularly active in this respect with the building of Free Trade Areas (FTA) among East Asian counties, which aim at lowering of intra-regional tariffs as well as eliminating NTMs.[38]

(d) Resolving Classification Divergences. — The ITA envisages realizing the objective of "achieving [. . .] a common classification of

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[31] Shin-yi Peng, *Trade in Telecommunications Services: Doha and Beyond*, 41(2) J. WORLD TRADE 293, 297-301 (2007).
[32] Peng, *supra* note 19, at 20.
[33] Weber, *supra* note 4, at 195.
[34] *See* Pierre Sauvé, *The Trade Policy Implications of the New Economy*, *available at* http://www.cid.harvard.edu/cidtrade/Papers/Sauve/sauvetpimp.pdf (last visited Mar. 16, 2010).
[35] For further details, *see* Committee of Participants on the Expansion of Trade in Information Technology Products [hereinafter ITA Committee], *Compilation of the Submissions by the Secretariat: Revision: The Non-Tariff Measures Work Programme*, G/IT/SPEC/Q2/11/Rev.1 (Apr. 14, 2003).
[36] *Id*.
[37] *See* UN ICT TF, *supra* note 3, at 40-41.
[38] With further references, *see* Weber, *supra* note 4, at 196.

these products within the existing HS Nomenclature".[39] The Secretariat of the WTO produced a study of the classification of ITA products in October 1997 which indicated the wide range of divergences, in particular also the deviations from the Harmonized System.[40] Subsequently, some progress has been achieved in the harmonization process, but the full implementation of the envisaged harmonization is still outstanding.[41]

Digital products have been of major concern since a delivery is possible by means of physical data carrier or by electronic transfer. If a disk is used, the regulatory framework of the ITA is applicable to the extent that this carrier medium is listed in Appendices A or B; in case of an electronic transmission, the GATS rule would apply.[42] This result is obviously not satisfactory; however, notwithstanding some submissions filed by ITA participants, substantial progress has not yet been achieved.

C. General Agreement on Trade in Services

1. Scope and Content of GATS. — The GATS applies to "measures [. . .] affecting trade in services". Article I:3(b)(A) of the GATS defines "services" as "any service in any sector except supplied in the exercise of governmental authority". The term "any service" is very vague and the W/120 List encompasses a large number of manifold services.[43] The problem of the application of the GATS, however, consists less in the definition of the term "service" than in the "positive list" approach liberalizing only those services which are clearly mentioned in the W/120 List.[44]

"Trade in services" under the GATS encompasses the four well-known "modes" by which services can be supplied:[45]

(a) Mode 1, cross border supply. — The service provider is domiciled in its own country and delivers the services to a customer domiciled in another WTO Member country, making the commitment to liberalize the trade in the respective service.

(b) Mode 2, consumption abroad. — The service is used by a customer in the country of origin of the service supplier, but the customer using the service comes from a different country.

(c) Mode 3, presence of natural persons. — The service provider is present within the territory of the WTO Member country making the

[39] *See also* UN ICT TF, *supra* note 3, at 42.
[40] ITA Committee, *Note by the Secretariat: Revision: Overview of Divergences of Classification of Attachment B Items*, G/IT/2/Add.1/Rev.1 (July 29, 1999).
[41] UN ICT TF, *supra* note 3, at 43.
[42] *See* Weber, *supra* note 4, at 197.
[43] For an overview, *see* Secretariat, *supra* note 9.
[44] *Id.* at II.1.
[45] *See* Trebilcock & Howse, *supra* note 6, at 359-60; *see also* Weber, *supra* note 4, at 199.

commitment to liberalize the trade in the respective service and the service is delivered to a customer within the territory of the WTO Member country, making the commitment with the supplier present being as a natural person.

The GATS includes, in contrast to the GATT, two non-identical sets of rules, namely the "general obligations" and the "specific commitments":[46]

(a) The two most important general obligations are the Most-Favored-Nation (MFN) obligation (Article II of the GATS) and the transparency obligation (Article III of the GATS); these rules are similar to the rules under the GATT.

(b) Part III of the GATS deals with the following three types of specific commitments: (i) Market access (Article XVI); (ii) national treatment (Article XVII); and (iii) additional commitments (Article XVIII), for example regulatory commitments.

2. Specific Commitments. — As already mentioned, specific commitments do not have to be compulsorily assumed by the WTO Members; they may voluntarily enter into commitments in respect of specific services sectors and sub-sectors through the respective notification to the WTO. This "positive list" approach has a lower liberalization effect than the "negative list" approach applied under the GATT, since the WTO Members have to take positive action to accept the commitment by a respective notification to the WTO Secretariat and new services are not automatically covered by the GATS.[47]

This situation has not substantially changed since 1994. In particular, the discussions at the Ministerial Conferences, for instance on the Development Agenda of Doha, did not add substantive liberalization measures to the previously agreed commitments.[48]

The W/120 List is therefore quite outdated in a number of sectors and also results in a lack of clarity as to the covered services. A final draft of a third revision of the Central Product Classification [hereinafter CPC] having been published in 2007 contains many upgrades as regards IT-related services and would be available for adoption, but so far the changes have not been replicated in the WTO legal framework.[49] This fact leads to an unreliable segmentation of covered and not covered (digital) services; furthermore, the question of classifying digital services as Mode 1 or Mode 2 services remained unanswered.[50]

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[46] *See* Trebilcock & Howse, *supra* note 6, at 379-80; *see also* Weber, *supra* note 4, at 199-200.
[47] *See* Weber, *supra* note 4, at 200.
[48] Wunsch-Vincent, *supra* note 3, at 84-85; *see also* Aaditya Mattoo & Sacha Wunsch-Vincent, *Pre-Empting Protectionism in Services: The GATS and Outsourcing*, 7(4) J. INT'L ECON. L. 765, 765-800 (2004).
[49] Sacha Wunsch-Vincent, *Trade Rules for the Digital Age*, *in* GATS AND THE REGULATION OF INTERNATIONAL TRADE IN SERVICES, *supra* note 12, 497, 502-03.
[50] To this aspect see infra Part III. B.

D. Potential Extension through Related Services Categories

1. Computer-related Services. — Computer-related services are a sub-section of the general "Business Services" according to the W/120 List. This sub-section is further divided into five sub-sub-sections, namely (i) consultancy services related to the installation of computer hardware (841), (ii) software implementation services (842, with further five sub-categories), (iii) data processing services (843, with further four sub-categories), (iv) database services (844), and (v) other services (845 and 849).[51]

In the nineties of the last century, a number of submissions related to the classification of computer services and their further liberalization have been filed, however, not much progress, apart from the GATS Council's "Information Exchange Programme", has been achieved.[52] According to the WTO Secretariat, the percentage of full Mode 1 and Mode 2 commitments is relatively high (over 60%) in more than 60 notified schedules.[53] The commitments related to Mode 3 and Mode 4 are lower, however, some countries, such as India, have become more active with submissions since sending specialists abroad is considered economically beneficial to less developed countries.[54]

The discussions on the computer-related services often centred on the problem that digital services are not covered in the existing classifications schemes. Furthermore, a certain overlap of computer and telecommunications services cannot be overlooked, in particular in view of the ongoing convergence.[55] For example, the European Communities proposed to develop a "functional" approach, differentiating between so-called "enabling" services (such as webhosting and application hosting), content and core services.[56] A very interesting submission was made by

[51] For further details, *see* UN ICT TF, *supra* note 3, at 103-04; *see also* Weber, *supra* note 4, at 203.
[52] UN ICT TF, *supra* note 3, at 103.
[53] Council for Trade and Services, *Background Note by the Secretariat: Computer and Related Services*, at ¶ 34 and Table 5, S/C/W/45 (July 14, 1998).
[54] *Id.* ¶¶ 34-35.
[55] Convergence means that different terminal equipments, different services and different net infrastructures become exchangeable, giving the consumer a choice of media products without regard to the "delivery channels"; *see* European Commission, *Towards an Information Society Approach: Green Paper on the Convergence of the Telecommunications, Media and Information Technology Sectors, and the Implications for Regulation*, COM (97) 623 (Dec. 7, 1997); *see also* Milton L. Mueller, *Convergence: A Reality Check*, *in* THE WTO AND GLOBAL CONVERGENCE IN TELECOMMUNICATIONS AND AUDIO-VISUAL SERVICES 311 (Damien Geradin & David Luff eds., 2004).
[56] Council for Trade in Services, Committee on Specific Commitments, *Coverage of CPC 84 – Computer and Related Services: Communication from the European Communities and their Member States*, TN/S/W/6, S/CSS/W/34 (Oct. 24, 2002).

Taiwan:[57] In order to overcome the broad coverage of CPC 84, the computer services should be classified at the two digit versus three digit level; furthermore, a distinction along the "value chain" between services at four stages (namely the pre-implementation stage, the implementation stage, the operation stage, and the maintenance stage) has been proposed. A final decision on these proposals is still outstanding.[58]

2. Telecommunications Services. — Telecommunications services are contained in the W/120 List, namely as sub-sectors of the communication services, and subdivided into 14 categories.[59] The W/120 List does not distinguish between basic and value-added telecommunications services: since, however, during the Uruguay Round some so-called sensitive services have been identified as "basic telecommunications services", further negotiations had to take place on these services after the implementation of the WTO Agreements which have been successfully concluded with a Reference Paper on Basic Telecommunications.[60] This form of agreeing on specific commitments assumed by the WTO Members is an interesting legal instrument as it contains enforceable multilateral trade rules, which established standards to safeguard competition.[61]

The regulatory developments in the sector of telecommunications services are not directly linked to digital trade, however, certain interdependencies cannot be overlooked: even if telecommunication mainly concerns infrastructure, with the increasing convergence of communications services the linkages will become more influential; therefore, developments in the telecommunications sector will also be of importance for digital trade in general.[62]

3. *Business Process Outsourcing Services*. — The services rendered in connection with the business process outsourcing [hereinafter BPO] gained major importance in real life over the last decade.[63] BPO services do

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[57] Council for Trade in Services, Committee on Specific Commitments, *Computer and Related Services: Communication from the Separate Customs Territory of Taiwan, Penghu, Kinmen and Mats*, TN/S/W/10, S/CSC/W/37 (Jan. 8, 2003).

[58] *See also*, UN ICT TF, *supra* note 3, at 107-08.

[59] For a general overview, *see* Peng, *supra* note 31, at 298-300.

[60] Weber, *supra* note 4, at 205-06 with further references.

[61] *See also*, UN ICT TF, *supra* note 3, at 88; for general observations, *see* Kelly Cameron, *Telecommunications and Audio-Visual Services in the Context of the WTO: Today and Tomorrow*, *in* THE WTO AND GLOBAL CONVERGENCE IN TELECOMMUNICATIONS AND AUDIO-VISUAL SERVICES, *supra* note 55, 21; *see also* David Luff, *Current International Trade Rules Relevant to Telecommunications Services*, *in* THE WTO AND GLOBAL CONVERGENCE IN TELECOMMUNICATIONS AND AUDIO-VISUAL SERVICES, *supra* note 55, 34; *see also* Damien Geradin & Michel Kerf, *Levelling the Playing Field: Is the WTO adequately Equipped to Prevent Anti-competitive Practives in Telecommunications?*, *in* THE WTO AND GLOBAL CONVERGENCE IN TELECOMMUNICATIONS AND AUDIO-VISUAL SERVICES, *supra* note 55, 130.

[62] To the services convergence, *see* Peng, *supra* note 31, at 298-300.

[63] For a more extensive overview, *see* UN ICT TF, *supra* note 3, at 115-18; *see also* Weber, *supra* note 4, at 206-08.

not only concern one category of service that could possibly be subject to a specific commitment. Moreover, BPO services addressing issues of "processing" can cover a variety of schedule services, mainly in the section on "business services", but also in other categories.[64] Nevertheless, difficulties and disconnections seem to be unavoidable:[65] (i) W/120 classifications may be broader than BPO services; (ii) W/120 classification may be narrower than BPO services; (iii) a W/120 classification corresponding to BPO services may be completely missing making it almost impossible to reasonably specify a commitment.

Since BPO services mainly concern "procedural" aspects, much influence on the liberalization of digital trade cannot be expected.

4. Like Services. — A key notion of WTO law is the "likeness" criterion. "Likeness" is constituted when the compared products or services stand in a competitive relation to each other. According to methods of market demarcation this situation is given if the products or the services in question are related to each other as substitutes.[66] In the meantime, the Appellate Body is basing the analysis of "likeness" on four categories of "characteristics" that the products or services involved might share:[67] "(i) The physical properties of the product; (ii) the extent to which the products are capable of serving the same or similar end-uses; (iii) the extent to which consumers perceive and treat the products as alternative means of performing particular functions in order to satisfy a particular want or demand; (iv) the international classification of the products for tariff purposes".

In the context of electronically delivered goods and services, some voices are addressing the "likeness" concept. The Council for Trade in Services expressed the need for more work on the concepts of technological neutrality and the likeness of electronic versus non-electronically supplied services.[68] However, much legal clarity has not yet been achieved;[69] nevertheless, this issue merits to be looked at in further detail.[70]

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[64] Weber, *supra* note 4, at 207.
[65] *See also* ICT Task Force, *supra* note 3, at 119.
[66] Trebilcock & Howse, *supra* note 6.
[67] Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, ¶¶ 133-48, WT/DS135/AB/R (Mar. 12, 2001).
[68] Council for Trade in Services, *Interim Report to the General Council: Work Programme on E-Commerce*, S/C/8 (Mar. 31 1999).
[69] *See* Wunsch-Vincent, *supra* note 49, at 503-04; Shin-yi Peng, *Liberalization of Trade in Television Services: The Negotiation Dilemma and Challenges for the Future*, 43(4) J. WORLD TRADE 657, 675 (2009).
[70] *See infra* Parts III. B. 1-2.

E. E-Commerce-related Services in Particular

Since e-commerce-related services were not known during the negotiations of the Uruguay Round or at least not practically relevant, these services are not directly covered by the WTO legal framework. Nevertheless, the untapped potential of e-commerce for the wealth of society is obvious.[71] As mentioned, the term "e-commerce" (or digital trade) is to be understood in a quite broad sense, to include all business activities executed by electronic means.[72]

The WTO has been aware of the importance of e-commerce for quite some time. In May 1998 the WTO Members issued the Declaration on E-Commerce on the Geneva Ministerial Conference[73] and (based on a Background Note of the WTO Secretariat)[74] the General Council adopted a Work Programme on Electronic Commerce on 25 September 1998.[75]

At the beginning, the negotiations seemed to make some progress. However, over time the enthusiasm disappeared due to the collapse of the Internet hype and the general problems in the WTO negotiations. Even if e-commerce remains a standing item on the Agenda of the Committee on Trade and Development and the Delegates of the WTO Members have the opportunity the share their experiences regarding e-commerce it cannot be overlooked that due to the complexities of the regulatory topics a comprehensive approach for a (desirable) e-commerce framework will most likely not be realized in short time.

III. LESSONS FROM ONGOING DISCUSSIONS

Notwithstanding the fact that practically no progress was achieved during the last ten years in respect of a liberalization of digital trade, some movements can be seen on the level of preferential trade agreements and of dispute resolution procedures.

A. Preferential Trade Agreements

[71] *See* Weber, *supra* note 4, at 208 with further references.
[72] *See* Alliance for Global Bus., *A Discussion Paper by the Alliance for Global Business on Trade-Related Aspects of Electronic Commerce in Response to the WTO's E-Commerce Work Programme*, 3, *available at* http://www.giic.org/agb/agb_wtoapril1999.pdf (last visited Mar. 5, 2010).
[73] WTO, The Geneva Ministerial Declaration on Global Electronic Commerce, WT/MIN(98)DEC/2 (May 25, 1998).
[74] General Council, *WTO Agreements and Electronic Commerce*, WT/GC/W/90 (July 14, 1998).
[75] General Council, *supra* note 5; for further details, *see* Chaturvedi & Mahanty, *supra* note 25, at 935-51.

During the last ten years the number of successfully negotiated preferential trade agreements [hereinafter PTAs] has substantially increased, particularly in the Asian region.[76] These PTAs increasingly include chapters on digital products or electronically traded services, respectively.[77] Worth mentioning in this respect is the ambitious "Digital Trade Agenda" (DTA) of the United States,[78] which seeks to deepen US trade integration through the conclusion of bilateral trade agreements.[79]

Most of the PTAs concerning the East Asian region contain rules on the following items:[80] (i) Introduction of the concept of digital products/services or of electronic delivery and transmission; (ii) recognition of the applicability of trade rules to electronic supply services; (iii) recognition of the applicability of trade rules to electronic demand of services; (iv) non-discriminatory treatment obligation for digital products; (v) MFN treatment obligation for digital products.

Furthermore, the chapters in the PTAs which envisage securing free cross-border digital trade in services also often depart from the general scheme of the GATS in so far as:[81] (i) Frequently PTAs apply the negative list approach in scheduling service trade commitments, which is more liberal than the positive list approach, since the top-down regime avoids the application of narrow and outdated classification regimes; (ii) most PTAs drop the local presence requirements as to the establishment of an enterprise or representative office; (iii) the PTAs often substantially limit MFN exemptions.

In East Asia the liberalization also concerns the audiovisual sector; the purpose consists in obtaining certain guarantees in this sector and commitments are made in respect of movie-related services.[82] In particular, the Closer Economic Partnership Agreement, entered into by China on the one hand with Hong Kong and Macau on the other hand, contains improvements in all sub-sectors of audiovisual services, for example related to the raise of foreign equity participations, the distribution

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[76] For example US–Sing., Austl.-Sing., India-Sing., Korea-Sing., N.Z.-Sing., Thail.-Austl., Thail.-N.Z.; *see* Wunsch-Vincent, *supra* note 49, at 508-09. To the Closer Economic Partnership Agreement, entered into by China with Hong Kong and Macao, *see infra* note 83.

[77] *See* Weber, *supra* note 4, at 210; *see also* Wunsch-Vincent, *supra* note 49, at 14-15.

[78] Sacha Wusch-Vincent, *The Digital Trade Agenda of the U.S.: Parallel Tracks of Bilateral, Regional and Multilateral Liberalization*, 58(1) AUSSENWIRTSCHAFT 7, 7-8 (2003).

[79] For a general overview, *see* Carsten Fink & Martín Molinuevo, *East Asian Preferential Trade Agreements in Services: Liberalization Content and WTO Rules*, 7(4) WORLD TRADE REV. 641, (2008); Rizwanul Islam & Shawkat Alam, *Preferential Trade Agreements and the Scope of GATT Article XXIV, GATS Article V and the Enabling Clause: An Appraisal of GATT/WTO Jurisprudence*, 56(1) NETH. INT'L L. REV. 1, (2009); Martin Roy et al., *Services Liberalization in the new Generation of Preferential Trade Agreements (PTAs): How much further than GATS?*, 6(2) WORLD TRADE REV. 155, (2007).

[80] *See* Weber, *supra* note 4, at 210; *see also* Wunsch-Vincent, *supra* note 49, at 511-12.

[81] *See* Weber, *supra* note 4, at 210-11; *see also* Wunsch-Vincent, *supra* note 49, at 514-15.

[82] Peng, *supra* note 69, at 670; Weber, *supra* note 4, at 211.

regulations, and the rules of origin.[83] Correspondingly, the number of restrictions as far as content quotas are concerned diminish over time.[84]

From a legal point of view PTAs are only a second-best solution,[85] which, however, can be valuable as long as the multilateral negotiations do not proceed. Moreover, the respective provisions in PTAs may be used as "model" for deepening digital trade commitments on the WTO level and could also signal a certain potential for progress in the Doha negotiations.[86]

B. Dispute Resolution Proceedings

The number of dispute resolution cases under the GATS is very small. However, after the Mexico Telecom case (2004),[87] two other proceedings are worth to be looked at in further detail, namely the US-Gambling case (2005) and the China Audiovisual Home Entertainment Products case (2009).

1. US-Gambling. — In the case United States – Measures Affecting the Cross Border Supply of Gambling and Betting Services,[88] Antigua alleged that it would be unlawful for suppliers located outside the United States to supply online gambling and betting services to its customers over the Internet. The Panel report and the Appellate Body decision had to tackle three questions,[89] namely the existence of specific commitments of the United States,[90] the consistency of the US restrictions with Article XVI of the GATS on market access[91] and the necessity to protect public morals (Article XIV of the GATS).[92]

Without giving a detailed reasoning, the Panel as well as the Appellate Body have expressed the opinion that GATS rules are applicable to electronically traded services and thereby to digital trade. Consequently,

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[83] Trade and Industry Department, CEPA. http://www.tid.gov.hk/english/cepa/ (last visited Mar. 16, 2010).
[84] Peng, *supra* note 69, at 670.
[85] *See*, *e.g*., Wunsch-Vincent, *supra* note 49, at 520-22; *see also Doing Doha Down*, ECONOMIST, Sept. 3, 2009, at 13; *see also The Noodle Bowl*, ECONOMIST, Sept. 3, 2009, at 64.
[86] *See* Wunsch-Vincent, *supra* note 49, at 524-25.
[87] Panel Report, *Mexico – Measures Affecting Telecommunications Services*, WT/DS204/R (Apr. 2, 2004).
[88] Appellate Body Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WT/DS285/AB/R (Apr. 7, 2005); Panel Report, *United States – Measures Affecting the Cross Border Supply of Gambling and Betting Services*, WT/DS285/R (Nov. 19, 2004).
[89] *See also* Peng, *supra* note 31, at 311-13.
[90] The existence of specific commitments entered into by the US was assumed.
[91] The consistency of the US restrctions with article XVI of the GATS on market access was denied.
[92] The necessity test regarding the public moral was considered of having been failed.

the GATS rules, particularly the existing and revised commitments, fully apply to cross border Internet-based service transactions.[93]

As far as the aspect of the technological neutrality is concerned the Panel applied a relatively narrow view in respect of the intramodal technological neutrality of market access commitments.[94] In addition, the equal treatment of electronically and not-electronically services has not been explicitly confirmed, this important question remained unanswered.[95] As far as the application of Mode 1 (cross border supply) or Mode 2 (consumption abroad) is concerned, the Panel and Appellate Body rulings imply that the GATS Mode 1 commitments are applicable to cross-border electronic services delivery; the statement, however, is not fully clear meaning that it can hardly be said that the matter is finally settled.[96]

2. China Audiovisual Home Entertainment Products. — The Panel report on China audiovisual home entertainment products addresses the technological neutrality and the definition of "like services", without, however, expressing a clear opinion on the two issues.[97] Consequently, the possible lessons for the interpretation of digital trade are remote.[98] The Appellate Body report fully confirmed the Panel's findings without adding any substantive comments related to issue of digital trade.[99]

The reluctance to address issues of digital trade in these proceedings is probably also due to the situation that Mode 3 commitments were at the forefront and that topics of culture played an important role. [100] Consequently, the focus has mainly been directed to the "artificial dichotomy" between contents and goods (being rejected) and China's defence on "public morals" (Article XX GATT).

IV. DIGITAL TRADE RULES: LOOKING AHEAD

As already mentioned, digital products and electronically traded services play a significant role in the WTO legal framework and − at least in principle − the US Gambling case reinstated that digital services are covered by the GATS. Consequently, further actions can be built on this

[93] *See also* Sacha Wunsch-Vincent, *The Internet, Cross Border Trade in Services, and the GATS: Lessons from US-Gambling*, 5(3) WORLD TRADE REV. 319, 323-55 (2006).
[94] *Id.* at 329-30, 332.
[95] *Id.* at 330.
[96] *Id*. at 331.
[97] Panel Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, WT/DS363/R (Aug. 12, 2009).
[98] Peng, *supra* note 69, at 679.
[99] Appellate Body Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, WT/DS363/AB/R (Dec. 21 2009).
[100] Peng, *supra* note 69, at 678.

perception.[101] Nevertheless, the implementation of a specific digital trade agenda seems to be worthwhile.

A. Putting Things Together

Based on the given legal interpretation, the general acknowledgment that the existing GATT and GATS rules and obligations unambiguously apply to digital trade transactions must be secured. In addition, the existing and possible new specific GATS commitments are to be understood in a way that digital trade flows are covered by the respective free services trade commitments before trade barriers of a new sort arise.[102]

Putting things together also means to identify those digital products and electronically traded services which do not seem to be captured by the existing GATT and GATS commitments.[103] As soon as the facts become clear, further action can be defined.

B. Future Digital Trade Rules

The process of formulating new digital trade rules and of anticipating potential digital trade barriers is a medium-term exercise. In a world of digitisation and globalisation, such kind of future thinking is necessary in order to facilitate trade and enable less developed countries to participate in the global flows of goods and services.

1. Formulating Digital Trade Rules. — New digital trade rules should encompass two, partly overlapping goals:[104] (i) To the farthest extent possible rules should bolster certain policy objectives in the international context thereby facilitating digital trade and ensuring the trust of customers and of users at large (including measures relating to consumer and data protection). (ii) Furthermore, rules or provisions which aim at the elimination of new barriers to digital trade pursuing non-discrimination and market access are to be pushed and favoured.

In this connection a number of questions need to be addressed:[105]

(a) Are particular digital trade rules redundant as potentially they are already covered by a horizontal discipline (such as for example transparency)?

(b) Should digital trade rules be created in a stand-alone chapter with specific application to digital trade? Or would an integration into the GATS

[101] *See also* Chaturvedi & Mohanty, *supra* note 25, at 931-51.
[102] Wunsch-Vincent, *supra* note 49, at 823.
[103] *Id.* at 523; *see also* Peng, *supra* note 31, at 298-314.
[104] Wunsch-Vincent, *supra* note 49, at 525.
[105] The mentioned questions follow, *see* Wunsch-Vincent, *supra* note 49, at 525-26.

as a specific digital trade discipline or even as part of an existing or newly created horizontal GATS discipline be more valuable?

(c) Are the existing trade rules sufficiently detailed and understandable to be meaningful and effective in a cross-cultural context with its various styles of regulatory approaches to the information society?

(d) Do enough WTO-external organizations and agreed international policy initiatives exist concerning the substantive principles to guarantee meaningfulness and to help trade partners to settle disputes?

(e) Should new digital trade rules be subject to the dispute settlement system of the WTO or are new forms of dispute settlement to be introduced?

Answers to these questions cannot be easily given. However, as the US-Gambling case has shown, the dispute settlement bodies are prepared to follow an open approach and are flexible to interpret "old" rules in "modern" contexts. The next test will be the described ITA-EU case.[106] Intensified research on these items is thus be worthwhile and has the potential to influence jurisprudence.

2. Anticipating Digital Trade Barriers. — Experiences over the last 15 years have shown that trade barriers can often be anticipated; therefore, preparatory actions should be taken which allow to counter potential digital trade barriers with relevant innovations based on new rule-making initiatives and on specific GATS commitments being able to avoid a "Balkanization" of digital trade via domestic regulation.[107]

In particular, the following barriers could come up at the horizon and need to be tackled in advance:[108]

(a) Lack of access to technology distribution channels and information networks sometimes lead to anticompetitive practices and unfair competition.

(b) Technical standards, interconnectivity, compatibility of protocols and hardware, and resulting interoperability problems can cause impediments to cross border digital trade.

(c) The support of pro-competitive telecom and network rules improve the background for free trade principles.

(d) Securing the contestability of digital markets and promoting innovation taking into account new online market structures and the influence of the so-called infomediaries such as search engine's, software providers and aggregators could strengthen the competitive environment.

(e) The new principles developed in the context of "Internet Governance"[109] and the pursuit of broadband policy goals could facilitate the implementation of free digital trade rules.

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[106] *See supra* Part II. B. 2. b.
[107] *See also* ROLF H. WEBER, REGULATORY MODELS FOR THE ONLINE WORLD, 190-95 (2002).
[108] Wunsch-Vincent, *supra* note 49, at 527-28.

(f) Issues in relation to online content regulation including Internet filtering and blocking as well as measures such as content or language quotas to preserve national identities need to be taken into account in an appropriate way.

The listed questions are very widespread and partly much interlinked with public policy topics. Nevertheless, the US-Gambling and the China-AVHE proceedings have shown that the dispute settlement bodies are able to tackle difficult "public morals" arguments. Consequently, legal research should not hesitate to touch and further develop these issues.

3. Digital Divide Issue in Particular. — A specific problem concerns the so-called digital divide.[110] The term originated as a catch-phrase in US national studies of inequalities in access to information and communication. However, there is no single general abstract definition of the digital divide; indeed the digital divide is a dynamic and multifaceted construct, which mainly depends on the factors and indices used to measure and analyse the inequalities in information and communication technologies [hereinafter ICT] areas.[111] The following basic elements must be kept in mind when trying to frame the concept:[112] (i) The digital divide is a dynamic concept, which evolves over time; (ii) there is no single divide, but rather multiple divides are to be differentiated; (iii) the main factor causing these divides is wealth.

At the international level, the Organization of Economic Co-operation and Development (OECD) has explained the digital divide as "gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard both to their opportunities to access ICT and to their use of the Internet for a wide variety of activities".[113] The digital divide could also be understood through the closely-linked mirror-inverted concept "digital opportunity".[114] In the context of the Internet governance debates, the notion has been elaborated that all stakeholders' commitment would have to exist in the attempt to turn the digital divide into a digital opportunity for all.[115]

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[109] *See* ROLF H. WEBER, SHAPING INTERNET GOVERNANCE: REGULATORY CHALLENGES, 33-36 (2009).

[110] For an overview, *see* ROLF H. WEBER & VALÉRIE MENOUD, THE INFORMATION SOCIETY AND THE DIGITAL DIVIDE – LEGAL STRATEGIES TO FINANCE GLOBAL ACCESS, 3 (2008); *see* ROHAN KARIYAWASAM, INTERNATIONAL ECONOMIC LAW AND THE DIGITAL DIVIDE – A NEW SILK ROAD, 108 (2007).

[111] WEBER & MENOUD, *supra* note 110, at 4.

[112] *Id.* at 5.

[113] Org. for Econ. Co-operation & Dev. [OECD], *Understanding the Digital Divide*, 107, *available at* http://www.oecd.org/dataoecd/38/57/1888451.pdf (last visited Mar. 16, 2010).

[114] WEBER & MENOUD, *supra* note 110, at 5-6.

[115] World Summit on the Info. Soc'y, *Geneva Declaration of Principle*s, WSIS-03/GENEVA/DOC/4-E, ¶ 10 (Dec. 12, 2003).

Notwithstanding the importance of bridging the digital divide, the main efforts can not be taken by the WTO; moreover, financing mechanisms are to be provided by other organizations, in particular the International Monetary Fund and the World Bank Group. In addition, the Official Development Aid (ODA) as defined in the Millennium Declaration comes into the spotlight;[116] the figures of support are by far not as high as at least morally agreed upon in the year 2000 and seem to be even lowered in the aftermath of the financial crisis. Additional efforts comply with the standards are needed.

[116] A detailed analysis of the financing mechanisms is given by Weber & Menoud, *supra* note 110, at 63-177.

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