Introduction: Digital technologies and international trade regulation

MIRA BURRI AND THOMAS COTTIER

We shuffle along, taking small steps in the wrong direction, guided by large political contributions, lobbyists, and well-financed legal arguments stretching laws written for a different time, policy arguments fashioned for a different economy. The stakes are too high, however, for us to take our cues from those who are well adapted to be winners in the economic system of the previous century. The patterns of press culture became settled for five hundred years within fifty years of Gutenberg’s invention; radio had settled on the broadcast model within twenty-five years of Marconi’s invention. Most of the major decisions that put the twentieth century broadcast culture in place were made in the span of six years between 1920 and 1926. The time to wake up and shape the pattern of freedom and justice in the new century is now.¹

Digital technologies have had and continue to have profound effects on multiple facets of societal life and to influence its dynamic evolution. The changes range from the trivial to the momentous, from online shopping, through the emergence of new global value chains and transactions, to the very ways we work and write, create, distribute and access information—bringing distant geographical points within instantaneous reach, groups of millions of people organised within hours and encyclopaedias and virtual libraries produced on a collaborative basis. These modifications are by no means quantitative only—pertaining, for instance, to the number of Internet users or to the contribution of online trade to gross domestic product (GDP) and economic growth—but also have a qualitative character and a significant impact on many separate areas of society as well as on the whole of it. Indeed, digital information and communication technologies have brought about the ‘fourth revolution in the means of production of knowledge, following the three prior revolutions of language, writing, and

This advance is rapid and idiosyncratic as ‘the development and diffusion of computers and the Internet occur simultaneously with a new economic revolution, based on transition from an industrial to an informational economy’.

The changes brought about by digital technologies unsurprisingly have triggered regulatory responses at all levels of governance that affect, to varying degrees, the existing regimes for telecommunications, audiovisual media services, copyright, cultural policy and human rights protection. National policies were the first to be redesigned, but because of the inherent ‘globalness’ of the digital environment, local regulatory actions have worldwide spillover, and many of the solutions need to be situated at the international level. In this sense, it should be underscored that whereas it is evident that digital technologies have had an impact on the economy as well as on social and cultural practices, they have at least equally strongly affected the law. Legal institutions face various challenges, related, among other things, to design, enforcement and linkage to social norms. Many of the existing patterns no longer provide appropriate answers. Digital technology undermines, for instance, traditional perceptions of copyright and exclusivity. It renders classical distinctions between goods and services obsolete, as these are now commonly integrated, and calls for a coherent regulatory response. At the same time, as digital technologies are increasingly mobilised within nation-states and regions as key drivers of innovation and growth, the danger of regulatory activism and of often burdensome and imbalanced regulation is also clear and present.

International economic law (IEL) has so far not reacted in a forward-looking manner to the digital revolution. If we look at the rules and commitments under the auspices of the World Trade Organization (WTO) as one of the mainstays of IEL, no real advance whatsoever has been made since the Uruguay Round (1986–1994), and very little can be expected even in a successful post-Doha scenario. In contrast to the fruitless multilateral efforts, much has happened in bilateral and regional venues – not only in terms of liberalising trade but also in overcoming analogue–digital disparities and creation of new rules. Even here, however, the developments

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have only been incremental, catching up with technological advances in discrete fields – where business interests were pressing – and allowing little room for groundbreaking experiments in legal engineering. We are still at the beginning in finding and defining an appropriate transnational and international regulatory framework governing digital technologies, the associated opportunities and risks.

Yet, the law of the WTO, despite the lack of deliberate response presently, and possibly in the short to medium term, possesses intrinsic flexibility and resilience, both in the substance and in the procedural mechanisms, that could still appropriately accommodate the changes brought about by burgeoning digital trade. As many voices reiterated during the World Trade Forum 2010, the WTO is much more than the (admittedly stalling) Doha round of negotiations. Powerful principles, such as the most-favoured-nation (MFN) obligation, functioning under the General Agreement on Tariffs and Trade (GATT), the General Agreement on Trade in Services (GATS) and the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS), could potentially address technological developments better than new made-to-measure regulatory acts (often adopted as a reaction to strong vested interests, especially in the intellectual property domain). The GATT combined with the Information Technology Agreement (ITA), which represents about 97 per cent of world trade in information technology (IT) products and secures complete elimination of duties, provide for a comprehensive framework for trade with digital products and one of the deepest modes of liberalisation.


offers an equally broad palette of tools for protecting intellectual property of pertinence to IT, specifically addressing computer programs and granting them protection as literary works under the Berne Convention (Article 10:1 TRIPS). Under the GATS, which appears to be the most pertinent set of rules in trade 2.0 cases, despite the ‘cultural exception’ debates during the Uruguay Round, no services sector is excluded a priori. There also exist horizontally applicable provisions, such as those regarding transparency (Article III GATS) or domestic regulation (Article VI GATS), that may have the (as yet unlocked) potential to deal with many of the digital-trade concerns.

In terms of evolution of norms and the presence of an embedded mechanism of adaptation, the WTO possesses the unrivalled advantage of a sophisticated, effective and efficient dispute settlement, often dubbed the ‘jewel in the crown’ of the WTO architecture. We find strong evidence in the WTO jurisprudence for both the adeptness of the dispute settlement system and for the relevance of e-commerce in trade conflicts. Indeed, all key GATS cases so far (Mexico – Telecoms, US – Gambling and China – Publications and Audiovisual Products) have had a substantial Internet-related element and have impacted on the law of the WTO, clarifying its norms and advancing it further. While certainly less intensely discussed, non-judicial governance at the WTO should not be underestimated.


12 See also, most recently, China – Certain Measures Affecting Electronic Payment Services – Request for Consultations by the United States, S/L/375, WT/DS413/1, 20 September 2010.
Unfolding in many committees, working parties and review bodies, this ‘hidden’ governance performs important functions in issue framing, information dissemination, networking, norm elaboration and interpretation and regulatory learning, the effects of which are greater than conventionally perceived.\(^\text{13}\) This has been exemplified in the present context by the WTO Work Programme on Electronic Commerce,\(^\text{14}\) which, despite yielding few tangible results,\(^\text{15}\) has shown the multidirectional impact of digital technologies for international trade law and has informed the debates on likely regulatory responses.

Finally, and more fundamentally, the basic quest for equal conditions of competition, shared and committed to by the (currently) 153 WTO Members, remains the core for building a common multilevel governance framework,\(^\text{16}\) also in the digital age. Treating foreign products and services no less favourably than domestic ones, as well as protecting property, enshrines fundamental values that can help to structure deliberations and legal developments in a period of ‘messy’ governance, which cyberspace only accentuates. In addition these principles, while well established under the WTO, are not static but open to modification: ‘[T]heir particular contours are subject to a constant flow of case law, balancing equal conditions with other policy goals that may call for protection’.\(^\text{17}\)

Painting this bright picture of the WTO’s ‘adaptive governance’\(^\text{18}\) traits and its inherent potential to address new developments, including far-reaching digitally induced transformations, does not, however, fully reflect the reality of trade governance in the digital age. There are many sources of


\(^{17}\) Ibid., 667.

worry and scepticism. Some relate to the ways WTO rules, in particular the GATS provisions, were designed, allowing WTO Members to tailor their commitments. Others relate to old (pre-Internet) and increasingly unconnected to practical reality classifications of goods, services and sectors on which these commitments were made. Many of the contentious issues, which often block e-commerce negotiations, stem from more fundamental policy and cultural divergences in approach. The ‘trade versus culture’ dilemma is the pre-eminent example in this context. While the WTO dispute settlement system partially clarifies and updates the rules, judicial transplants cannot replace political consensus on the substance, in particular in a complex and highly technical domain such as digital trade. As the Doha negotiations continue to make hardly any progress, the multilateral venue of legal rulemaking is seriously undermined and forum shopping is triggered – bilaterally, regionally or through new plurilateral initiatives within clubs of countries, unattached to any international organisation, such as the recent Anti-Counterfeiting Trade Agreement (ACTA). As state action and intervention by non-state actors proliferate in cyberspace, more fundamental and complex questions arise. They transcend market access and liberalisation. On the one hand, we are confronted with a type of messy governance that maps onto a highly diverse and fragmented world of legal relations.


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situates more of the issues in different ‘trade and…’ pairs, which renders solution-finding processes hard and protracted, especially as the views of dominant and non-dominant actors on governing global information networks are often contradictory. On the other hand, digital trade strictu sensu and the broader challenge of digital technologies transforming society’s information and communication environment ‘further enhance the need for shared regulations, cooperation, and interaction of domestic and international law’.

Recourse to principles alone will not do and also runs the risk of placing too heavy a burden on adjudication. Instead, the challenge commands, for instance, cooperation in standardisation and interoperability processes, but also calls for a stronger commitment to safeguarding international public goods and to building the appropriate architecture for governing information and communication. The stakes are enormously high, even in seemingly technical decision making, as essential rights and values, such as freedom of expression, fairness and equality of opportunity and justice, are affected.

Summing up, it appears that existing principles offer foundation and guidance, but many of the key questions relating to the regulation of digital technologies are as yet unanswered. As digital technologies become pervasive, the urgency of these answers is amplified. The present book offers a response to precisely this challenge.

This volume seeks to address the existing gaps and to provide new and innovative solutions to the burning regulatory questions triggered by the advent and widespread of digital technologies. As befits this ambitious objective, the book contains a collection of contributions by scholars skilled in different disciplines and by stakeholders and representatives of international and non-governmental organisations active in the pertinent regulatory fields. They were asked to reflect on the ‘big switch’ from analogue to digital and to engage in building interdisciplinary bridges. Equally

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27 Cottier, supra note 16, 648.
29 ‘Trade governance’, however, is not meant in the sense of governing the WTO – a topic that was discussed by the previous World Trade Forum. See T. Cottier and M. Elsig (eds.), Governing the World Trade Organization: Past, Present and Beyond Doha (Cambridge: Cambridge University Press, 2011).
critical for the value of the book is its careful selection of topics, which aim both to provide a broader picture of the interaction between digital technologies and trade regulation, linking previously disconnected discourses of international trade law, intellectual property and cyberlaw, and to look at discrete problems in different domains of global trade regulation, allowing for in-depth, issue-specific analysis.

It should be made clear from the outset that the book’s main focus is on international trade regulation and its context, and in particular on the state of play and prospects for change in the law and policy of the WTO. While offering a survey of the international communication order, we do not attempt to cover all areas of IEL, including investment, global anti-trust, finance or natural resources, all of which are of pertinence to digital industries.

We take technologies as a factor exogenous to the system, and while taking into account the many enquiries of other disciplines that have problematised the Internet and its diverse multidirectional effects, the core focus of the book is on law. Also, while exploring the continuous interplay between law and technology and law’s adaptation, we do not put forward any grand theory of this interaction, but concentrate on the pertinent trade issues. We define ‘digital technologies’ loosely as all advances in networks, hardware, software, products and services, as well as communication processes triggered by digitisation, which are epitomised by the Internet above all.

The book is structured into five thematic blocks. Following this introductory chapter on digital technologies and international trade regulation, which puts the entire effort into context, the first part of the book paints with a broad brush the tectonic shifts in digital trade markets and

30 It is particularly true for Internet-related technologies that no linear relationship exists between single technologies, their market and societal deployment and their socioeconomic outcomes. The technologies interact among themselves and their deployment and ability to deliver impacts are determined by market forces, cultural factors and governance structures. See J. Cave et al., Trends in Connectivity Technologies and Their Socioeconomic Impacts, final report of the study; Policy Options for the Ubiquitous Internet Society, prepared for the European Commission (Cambridge: RAND Europe, 2009), iii.


regulation. Anupam Chander sketches the contours of trade, version 2.0, and how it transforms notions of local and global, and suggests new principles that need to be upheld when trading in the digital networked environment. Christian Tietje puts the current developments into a historical perspective and maps the landscape of global information law, where a mixture of classic subjects of international law interacts with newer international organisations and a host of non-state actors. He argues that despite the complex fragmented governance structure of information and communication, coherence is possible, as certain normative values in this regulatory area, such as freedom of expression, may already have been identified.

With the first part of the book having set the stage, the second part goes on to analyse the old and new buzzwords that have dominated the digital trade discourse, in an attempt to assess their real content and effects. David Luff looks at the ‘oldest’ of these catchphrases that have been said to demand regulatory change. He examines the now advanced process of convergence, which brings media, telecommunications and information technology services, companies and markets together. He asks how this process challenges the law of the WTO as created pre-convergence, and looks at the patches of case law trying to remedy the disparities and how these, in fact, affect doing trade. Pierre Larouche takes up a much newer term, ‘net neutrality’, which, despite lengthy discussions on both sides of the Atlantic, has yet to enter the global discourse. He disentangles the complex technological, economic and competition law issues inherent to the net neutrality debate and critically examines the approaches taken in the United States and in the European Union, and their potential repercussions down the road. Urs Gasser and John Palfrey introduce ‘interoperability’ as a keyword. They conceptualise this indispensable requirement for a seamless communication environment, arguing not only for interoperable pieces of software and hardware, but also for interoperability between laws and policies, and for interoperability as a default setting in regulatory design.

The third part of the book presents a more ‘conventional’ debate on the state of play in international trade and trade regulation. It starts with

By association to Web 2.0, which signifies a new, more advanced stage of development of the Internet. Proponents of the Web 2.0 concept, as coined by Tim O’Reilly, say that it differs from early Web development (labelled Web 1.0) in that it moves away from static Web sites, the use of search engines and surfing from one Web site to the next, towards a more dynamic and interactive World Wide Web. See T. O’Reilly, ‘What Is Web 2.0?: Design Patterns and Business Models for the Next Generation Software’, Communications and Strategies 65 (2007), 17–38; also OECD, Participative Web: User-created Content, DSTI/ICCP/IE(2006)7/FINAL, 12 April 2007.
the never-ending and ever more complicated conundrum of classifying information technology goods and services, drawing on the WTO Work Programme on Electronic Commerce and the WTO Members’ proposals tabled so far. In Chapter 7, Tuthill and Roy’s apt analysis of the situation provides a solid basis for examining the progress made in preferential trade agreements (PTAs). Wunsch-Vincent and Hold compile invaluable information on digital trade related provisions in PTAs, comparing these to the multilateral status quo and advancing proposals for coherent digital trade rules for the next decade. Connecting to the net neutrality debate, Rohan Kariyawasam suggests reforming the Reference Paper so that it could more appropriately address competition concerns on the various layers of the communications model while remaining technologically neutral. Henry Gao and Panagiotis Delimatis follow on by taking up some particularly topical and controversial issues related to the recent China – Audiovisual Products case. Gao discusses the hypothetical situation of a WTO case against China’s Internet filtering and contemplates fighting state censorship through trade, rather than human rights, sanctions. Delimatis offers a careful analysis of the GATS public morals general exception after US – Gambling and China – Audiovisual Products, and traces the changing scope of regulatory sovereignty regarding the protection of public morality in a digital landscape.

The fourth part of the volume is devoted to a topic that has been key in the cyberspace law context, and discusses the impact of digital technologies on the global intellectual property regime. The contributions here, however, are tailored to fit the trade governance context specifically and meant to create new thematic linkages. They are also uniquely timed in view of the implementation of the WIPO Development Agenda and recent technological developments, such as cloud computing and the Google Books project. Unafraid of all complexities involved, Tony Taubman provocingly asks whether the TRIPS Agreement is essentially an analogue treaty in a digital age, or a forward-looking, even prescient, trade agreement, capable of retrofitting the Internet and facilitating the rise in trade in digital products and services. Going post-TRIPS, Daniel Gervais critically analyses the emerging new ‘club’ type of norm making in intellectual property in the wake of ACTA and offers stimulating ideas on its implications for innovation and creativity. Jeremy de Beer focuses on digital copyright by looking at what is certainly the most significant case study so far, namely that of Google Books. He advances innovative paths to solving the orphan works problem, which may unlock creative possibilities so far chilled by copyright law.