### Communications and Competition Law

# Key Issues in the Telecoms, Media and Technology Sectors

#### Edited by

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the global voice of the legal profession®



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#### International Bar Association

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The International Bar Association (IBA), established in 1947, is the world's leading organisation of international legal practitioners, bar associations and law societies. The IBA influences the development of international law reform and shapes the future of the legal profession throughout the world.

It has a membership of over 55,000 individual lawyers and 206 bar associations and law societies spanning all continents. It has considerable expertise in providing assistance to the global legal community as well as being a source of distinguished legal commentators for international news outlets.

Grouped into two divisions – the Legal Practice Division and the Public and Professional Interest Division – the IBA covers all practice areas and professional interests, providing members with access to leading experts and up-to-date information.

Through the various committees of the divisions, the IBA enables an interchange of information and views among its members as to laws, practices and professional responsibilities relating to the practice of business law around the globe.

The IBA Communications Law Committee is a leading global forum for legal practitioners with specialist expertise or interest in the communications sector. The Committee offers members access to a worldwide network of leading practitioners, in-house counsel and regulators active in telecommunications, content and media markets. The Committee encourages the sharing of sectoral expertise through an

annual newsletter, periodic technical journal and the annual Committee Conference, hosted jointly with the IBA Antitrust Committee.

The scope of the Committee's work covers network, service and content-related developments across all delivery platforms. This provides members with access to practical global perspectives on the array of technological, commercial and policy issues which confront communications lawyers, their companies and clients.

The Antitrust Committee provides an international forum for the exchange of the most current thinking in the field of antitrust law. In addition, there is a strong commitment to bring together international practitioners to facilitate closer working relationships. The committee is increasingly relied upon by government officials and members of the private sector for its expertise and practical input into antitrust developments.

The Antitrust Committee forms working groups to study major international competition policy issues and to submit comments to regulators on proposed new and reformed legislation. The Committee meets at the IBA Annual Conference and also has a specialist antitrust conference each year, together with regular seminars and events organized by the Committee's local country chairs.

### About the Brazilian Institute of Studies on Competition, Consumer Affairs and International Trade – IBRAC



Brazilian Institute of Studies on Competition, Consumer Affairs and International Trade

The Brazilian Institute of Studies on Competition, Consumer Affairs and International Trade – **IBRAC** is a nonprofit private entity established in 1992 to foster the development of research, studies and debates involving competition, consumer law issues and international trade.

In order to achieve that end, IBRAC has played an active role in the promotion of events, notably the much-heralded International Seminar on Competition Defense, which is held every year with the attendance of illustrious panelists from Brazil, the United States of America, the European Community and Latin America.

In addition, IBRAC also maintains technical cooperation agreements with the Brazilian antitrust authorities (*Conselho Administrativo de Defesa Econômica* – CADE) and a number of other non-governmental institutions, all of which has translated into constant meetings and workshops to discuss specific topics of relevant subjects.

Also in keeping with its objective of creating a forum on competition defense issues in Brazil, IBRAC maintains a permanent university extension course in São Paulo, whose classes are given by leading professionals and authorities in the Brazilian competition segment.

In the international area, IBRAC has participated as a Non Governmental Advisor at ICN Conferences since the first one in Naples. IBRAC also co-chairs events with IBA, as the pre-ICN event in 2012 and the 24th Annual Communications and Competition Law Conference, in 2013, both in Rio de Janeiro. IBRAC has also organized a biannual event with ABA Section of Antitrust Law (Antitrust in the Americas), and the next edition will take place in Rio de Janeiro, on June 2015.

Consumer law and International trade are also important issues for IBRAC, areas in which IBRAC has been a quite active player in academic and practical discussions.

Since it was founded in 1992, IBRAC has successfully managed to stand as a landmark in the antitrust and competition scenarios. For further information on IBRAC, please visit our Web site at www.ibrac.org.br, or write to our e-mail address ibrac@ibrac.org.br.

Very truly yours, Cristianne Zarzur, IBRAC President (2014–2015) Tito Andrade, IBRAC President (2012–2013) São Paulo September 2014

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He has been a member of the international regulatory counsel in a number of telecommunications reform projects funded by World Bank and EU Commission (including Albania, Azerbaijan, Bulgaria, Kazakhstan and Poland), advised the Italian Treasury in the privatization of Telecom Italia S.p.A. in 1997, and cooperated in the drafting of the Italian part of the European Commission Green Book on multimedia applications in Europe.

He regularly advises national and international carriers in relation to the regulatory aspects of the introduction of convergent telecommunications services and all issues regarding the offering of telecommunication and information technology services. Having been admitted to the Italian High Courts, Fabrizio has also been Legal Assistant to the Italian House of Parliament (1988–1991) and Contract Lecturer in Telecommunications Law (2000–2002) at La Sapienza University, Rome.

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His expertise includes large scale and complex IT, telecoms (fixed, wireless and superfast broadband) infrastructure, BPO and business transformation projects; system integration arrangements; ICT managed service contracts; software licensing and distribution; X-aaS contracts; e-commerce (including omni-channel platform arrangements); data protection; information security; all aspects of IP including protection,

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Rehman is a former technology consultant and is also qualified as a professional electronic and communications engineer. He is a member of the British Computer Society, Society for Computers and Law, Institute of Engineering and Technology, the advisory board of "Communication Law Journal" (published by Bloomsbury Professional – international circulation); International Bar Association's IT, Communications (serving officer) and IP & Media committees.

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Rijn, The Netherlands, 2012); (4) Brazilian Cartel Enforcement: From Revolution to the Challenges of Consolidation (*Antitrust* magazine, Section of Antitrust Law, ABA, Summer 2011, Vol. 25, No. 3); (5) Country Profile: Brazil. In: chapter "Cable Sector: Competition and Regulation in an International Comparative Perspective". RAB, Suzanne; SPRAGUE, Alison. *Media Ownership and Control: Law, Economics and Policy in an Indian and International Context* (Oxford: Hart Publishing, 2014).

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## Summary of Contents

About the IBA	V
About the IBRAC	vii
List of Editors	ix
List of Contributors	xiii
Foreword by Michael J. Reynolds	li
Foreword by Daniel A. Crane	liii
Foreword by Gesner Oliveira	lv
Preface	lvii
List of Figures	lxi
List of Tables	lxiii
Part I Convergence, Takeovers and Mergers in the Communications and Technology Industry: Comparative Experiences	1
CHAPTER 1 Introducing Diversity in EU Merger Control  Vuan Desmedt & Philippe Lacente	3

#### Summary of Contents

CHAPTER 2 Summary of Recent U.S. Enforcement Decisions in Communication/Entertainment Industry Transactions Ilene Knable Gotts	13
CHAPTER 3 Competition and Regulatory Aspects of Convergence, Takeovers and Mergers in the Communications and Media Industries Thomas Janssens & Joep Wolfhagen	27
CHAPTER 4 Brazil's Antitrust and Regulatory Reviews of TIM/Telefónica: Lessons Learned Ana Paula Martinez & Alexandre Ditzel Faraco	35
CHAPTER 5 Changes in the Global Telecommunication Market and Its Implications in Brazil Gesner Oliveira & Wagner Heibel	51
CHAPTER 6 Mergers in the Canadian Communications Sector: An Increasingly Curious Situation Lorne Salzman	61
Part II Looking Ahead: New Markets and Competitive Hurdles in the Offering of Globalized Services	67
Chapter 7 In Search of a Competition Doctrine for Information Technology Markets: Recent Antitrust Developments in the Online Sector  Jeffrey A. Eisenach & Ilene Knable Gotts	69
CHAPTER 8 The Internet of Things in the Light of Digitalization and Increased Media Convergence Anna Blume Huttenlauch & Thoralf Knuth	91
CHAPTER 9 Dynamic Markets and Competition Policy Bernardo Macedo & Sílvia Fagá de Almeida	105

Chapter 10	
Recent Antitrust Developments in the Online Sector Federico Marini-Balestra	117
CHAPTER 11 Mobile Payments and Mobile Banking in Brazil: Perspectives from an Emerging Market Márcio Issao Nakane, Camila Yumy Saito & Mariana Oliveira e Silva	135
CHAPTER 12 Internet of Things: Manufacturing Companies Industry and Use of 'White Spectrum': Ghost in the Machine? Kurt Tiam & Andy Huang	153
Part III Intellectual Property and Competition in Electronic Environments	163
CHAPTER 13 Competitive Aspects of Cloud-Based Services Fabrizio Cugia di Sant'Orsola & Silvia Giampaolo	165
CHAPTER 14 Standard-Essential Patents and US Antitrust Law: Light at the End of the Tunnel? Leon B. Greenfield, Hartmut Schneider & Perry A. Lange	181
CHAPTER 15 IP and Antitrust: Recent Developments in EU Law Miguel Rato & Mark English	193
CHAPTER 16 Antitrust Cases Involving Intellectual Property Rights in the Communication and Media Sector in Brazil Barbara Rosenberg, Luis Bernardo Cascão & Vivian Terng	205
CHAPTER 17 Patents Meet Antitrust Law: The State of Play of the FRAND Defense in Germany	
Wolrad Prinz zu Waldeck und Pyrmont	215
PART IV Power over Data	231

#### Summary of Contents

CHAPTER 18 The Role of Privacy in a Changing World Chris Boam	233
CHAPTER 19 The Transatlantic Perspective: Data Protection and Competition Law Pamela Jones Harbour	247
CHAPTER 20 Power over Data: Brazil in Times of Digital Uncertainty Floriano de Azevedo Marques Neto, Milene Louise Renée Coscione & Juliana Deguirmendjian	257
CHAPTER 21 Big Data and the Cloud: Privacy and Security Threats of Mass Digital Surveillance? Lyda Mastrantonio & Natalia Porto	281
Part V Open Internet and Net Neutrality	291
CHAPTER 22 Net Neutrality Regulation: A Worldwide Overview and the Chilean Pioneer's Experience Alfonso Silva & Sebastian Squella	293
CHAPTER 23 Net Neutrality in Singapore: A Fair Game Chung Nian Lam	305
CHAPTER 24 Internet Regulation in Brazil: The Network Neutrality Issue Lauro Celidonio Gomes dos Reis Neto, Fabio Ferreira Kujawski & Thays Castaldi Gentil	317
CHAPTER 25 The New Brazilian Internet Constitution and the Netmundial Forum João Moura	329
CHAPTER 26 The Brazilian Telecom Regulatory Scenario and the Proposals of the Internet Law Regina Ribeiro do Valle	335

PART VI Regulatory Policy Round Table: A Brazilian Case Study	343
CHAPTER 27 Competition in the Brazilian Telecommunication Market Maximiliano Martinhão, Guido Lorencini Schuina, Haitam Laboissiere Naser & Leonardo Fernandez Zago	345
CHAPTER 28 A New Horizon for Competition Advocacy in Brazil Adriano Augusto do Couto Costa, Marcelo de Matos Ramos & Roberto Domingos Taufick	359
CHAPTER 29 Overlaps and Synergies between Regulators in the Brazilian Telecommunications Market Marcelo Bechara de Souza Hobaika & Carlos M. Baigorri	375
CHAPTER 30 The New Competition Law in Brazil and the New Framework for Merger Analysis in Telecom Carlos Emmanuel Joppert Ragazzo & Cristiane Landerdahl de Albuquerque	387
CHAPTER 31 Regulatory Policy Round Table: A Dialogue between Telecommunications and Antitrust Authorities  Denis Alves Guimarães	397
Index	413

### Table of Contents

ADOUT THE IBA	V
About the IBRAC	vii
List of Editors	ix
List of Contributors	xiii
Foreword by Michael J. Reynolds	li
Foreword by Daniel A. Crane	liii
Foreword by Gesner Oliveira	lv
Preface	lvii
List of Figures	lxi
List of Tables	lxiii
PART I Convergence, Takeovers and Mergers in the Communications and Technology Industry: Comparative Experiences	1
Chapter 1	
Introducing Diversity in EU Merger Control Yvan Desmedt & Philippe Laconte	3
1. Scope of the Commission's Competence to Promote Cultural Diversity and Media Plurality under EU Merger Rules	4

#### Table of Contents

2.	The Commission's Restrictive Approach in Relation to Media Plurality in News Corp/BskyB	7
3.	The Commission's Interventionist Approach in Relation to Cultural Diversity, as Shown in Universal/EMI	8
4.	The Way Forward, Risks, and Opportunities	10
Commu	2 ry of Recent U.S. Enforcement Decisions in nication/Entertainment Industry Transactions able Gotts	13
1.	AT&T/T-Mobile	13
2.	Verizon/SpectrumCo	16
3.	Deutsche Telekom/MetroPCS	18
4.	Mobile Phone Patent Portfolio Developments	21
	4.1. DOJ Mobile Phone Investigations	21
	4.2. FTC Google Settlement	23
5.	VIVENDI/EMI	25
Mergers	3 tion and Regulatory Aspects of Convergence, Takeovers and in the Communications and Media Industries  Janssens & Joep Wolfhagen	27
1.	Introduction	27
2.	Regulatory Changes Are Reflective of Consolidation and Convergence Trends	28
3.	Consolidation in the Mobile Sector	29
	3.1. Striking the Right Balance between Competition and Investment Incentives	29
	3.2. Recent EU Practice May Shape the Framework for Further	
	Consolidation	30
	3.3. The Limits of Mobile Consolidation: The US Experience	31
4.	Service and Infrastructure Convergence Drive Cable Consolidation	31
	4.1. Analysing the Effects of Cable Mergers  4.2. Margara Involving Cable Operators in the EII	32
	<ul><li>4.2. Mergers Involving Cable Operators in the EU</li><li>4.3. US Cable Consolidation</li></ul>	32 33
5.	Conclusion	33
		33
	4 Antitrust and Regulatory Reviews of TIM/Telefónica: Learned	
	rla Martinez & Alexandre Ditzel Faraco	35
1.	Brief Description of the Telefónica/Telco Transaction	36

2.	Regu	latory Aspects	36
	2.1.	Regulatory Framework for Reviewing Transactions in the	
	2.2	Telecommunications Sector in Brazil	37
	2.2.	Why Telefónica's Indirect Equity Interest in TIM Brasil May Be Viewed as Problematic from a Regulatory Perspective	38
	2.3	ANATEL's Review of Telefónica/Telco Transaction	40
3.	Antit	rust Review	41
	3.1.	Merger Review Framework in Brazil	41
	3.2.	•	44
	3.3.	, 6	
		Telecom Transaction and Its Impact on the 2013 Telefónica/Telco Transaction	46
4.	Lesso	ons Learned	47
т.		Lesson 1: Behavioral Remedies Are Resource-Intensive and	-11
		Will Likely Be Viewed with Skepticism as a Remedy under	
		Brazil's New Pre-merger Review System	48
	4.2.	Lesson 2: The Regulatory and Antitrust Agencies Are Expected to	
		Conduct Independent Reviews	48
	4.3.	Lesson 3: Minority Shareholdings Raise Substantial Antitrust	4.0
	4.4.	Concerns Lesson 4: Enhanced Skepticism towards the Role of	48
	7.7.	Economics in Minority Shareholdings Cases	49
CHAPTER	-		
_		e Global Telecommunication Market and Its Implications	
in Brazi		on O Marcon Haibal	<b>-</b> 1
Gesner (	Juveu	ra & Wagner Heibel	51
1.	Scena	ario 1: Authorization of the Operation That Permits Telefónica to	
	Abso	rb TIM's Share of the Market	53
2.		ario 2: Splitting of TIM and Its Absorption by the Main Competitors	53
3.		ario 3: Arrival of a New Player	55
	3.1.		55
	3.2.		57
	3.3.	VIVENDI	57
CHAPTER	6		
Mergers	in the	e Canadian Communications Sector: An Increasingly Curious	
Situation			
Lorne So	ılzma	n	61
1.	Legal	Infrastructure	62
2.	Legal Infrastructure Carly Days		
3.	The Turning Point 6		
4.		er Law Fallout	64

_		d: New Markets and Competitive Hurdles in the Offering Services	67	
Markets	h of a : Rece	Competition Doctrine for Information Technology ent Antitrust Developments in the Online Sector enach & Ilene Knable Gotts	69	
1. 2.	The I 2.1.	duction T Challenge to Traditional Antitrust Doctrine The IT Trifecta: Dynamism, Modularity, and Demand-Side Effects	69 71 71	
3.		Implications for Enforcement Theory to Practice: Recent Enforcement Review Involving IT Related) Markets	72 76	
	3.1.	Transactions Involving Content Providers 3.1.1. Horizontal Theories 3.1.2. Vertical Theories	76 77 79	
		Transactions Involving Database Software Transactions Involving Hardware, Platforms, or Networks Transactions Involving Potential Competition and Future Markets	80 82 87	
4.		ing Ahead: Some Issues for the Future  Net Neutrality: When (If Ever) Is Ex Ante Regulation Appropriate?  Big Data and the Internet of Things	88	
5.		lusions	90	
Media C	ernet o Convei	of Things in the Light of Digitalization and Increased rgence Huttenlauch & Thoralf Knuth	91	
1. 2. 3.	Digita	duction alization and Convergence as Industry Trends oach of Antitrust Authorities, Namely the European	91 92	
		mission and the German Federal Cartel Office	93	
		Content versus Advertising Markets	94	
		Online versus Offline User Reality and Criticism	94 95	
		How Do Competition Authorities Take the Increasing	73	
		Competition into Account?	96	
	3.5.	Challenges Ahead	97	
4.		nd Antitrust: The Spamming Fridge	98	
5.	Legislation and Consultations 9			
6.		our Car Tell Your Insurer About Your Whereabouts	102	
	6.1.	A Real-Life Example	102	

7.	6.2. Outlo	What Positions Have Been Taken by Authorities and Courts?	104 104
-	c Mar	kets and Competition Policy	
Bernard	о Мас	edo & Sílvia Fagá de Almeida	105
1.	Intro	duction	105
2.	The C	Competition Environment in Dynamic Markets	106
	2.1.	0	106
	2.2.	Elements That Intensify Competition	107
3.		rust Enforcement	109
		Relevant Market	109
		Market Power and the Competitive Environment	110
4.		Efficiencies lusions	112 113
Bibliogr		iusions	113
Dibliogi	арпу		114
Снартек	10		
Recent A	Antitrı	ist Developments in the Online Sector	
Federico	Mari	ni-Balestra	117
1.	Intro	duction	117
1.		Over-the-Top Applications and Services Providers	119
2.		Neutrality vis-á-vis Regulatory and Antitrust	121
	2.1.		122
	2.2.	The European Union: A Complementary Use of Antitrust	
		Law and Regulation to Enforce Net Neutrality	124
		2.2.1. On the Regulatory Side, "There Are No Clear Rules on	
		Net Neutrality Today at EU Level", Forbidding All Traffic	
		Management and Data Prioritization	124
		2.2.2. Also on the Antitrust Side Net Neutrality Recently	
2	D	Emerged as a Protagonist	127
3.		nt Initiatives in the European OTT Sector	127
	3.1.	Appraising the Role of OTT Services Online Search Sector	127
		Online Selling	128 131
4.		lusions	133
CHAPTER			
		ents and Mobile Banking in Brazil: Perspectives	
		ging Market	105
Marcio I	ssao I	Nakane, Camila Yumy Saito & Mariana Oliveira e Silva	135
1.	Intro	duction	135
2.		lian Market	136

	2.1. Mobile Banking, Mobile Payment	136
	2.2. Mobile Phone Evolution in Brazil	137
	2.3. Financial Inclusion	139
	2.3.1. Recent Development	139
	2.3.2. International Comparative	141
	2.3.3. Crossing between Mobile Phones and Financial System	141
	2.3.4. Important Disparity between Geographic Regions in Brazil	
3.	Regulatory Framework	144
	3.1. Framework for Regulatory Analysis	144
	3.2. Objectives of Legislation	146
4	3.3 Scope of Payment Services	147
4.	Evaluation and Conclusions	149
Bibliog	rapny	150
Снартей		
	t of Things: Manufacturing Companies Industry and Use of	
	Spectrum': Ghost in the Machine?	
Kurt Tu	am & Andy Huang	153
1.	China's IOT Drive	153
2.	The Case for White Spectrum	154
3.	Allocation of Frequency Spectrum in China	154
4.	Development of IPv6 Addressing	155
5.	Foreign Investment Challenges in the M2M Industry	156
6.	Setting Standards and Antitrust Concerns	157
7.	Data Protection and Data Transfer Concerns	158
8.	Restrictions on Types of Data Transferred	160
9.	Encryption Requirements in China	161
10.	Conclusion	161
Part III		
Intellec	tual Property and Competition in Electronic Environments	163
Снартей	2 13	
Compet	titive Aspects of Cloud-Based Services	
Fabrizio	o Cugia di Sant'Orsola & Silvia Giampaolo	165
1.	Introduction	165
2.	The Structure of Clouds	167
3.	Competitive Aspects	170
	3.1. Standardization	170
	3.2. Licensing and the "Revised" TTBER	172
	3.3. Article 102 TFEU	175
4.	Conclusions	178

Снарте	R 14	
Standa	rd-Essential Patents and US Antitrust Law: Light at the	
End of	the Tunnel?	
Leon B	. Greenfield, Hartmut Schneider & Perry A. Lange	181
1.	Introduction	181
2.	Standard-Essential Patent Enforcement	182
3.	Injunctions Based on Standard-Essential Patents	184
4.	Antitrust Violations Based on Abuse of Standard-Essential Patents	187
5.	Determining FRAND Rates	188
6.	The Ability to Challenge Standard-Essential Patents:	100
0.	Validity/Infringement/Enforceability	190
7.	Conclusion	191
	Conclusion	1)1
Снарте		
	Antitrust: Recent Developments in EU Law	
Miguel	Rato & Mark English	193
1.	Introduction	193
2.	Background	194
	2.1. Factual Context: Standards, SEPs and FRAND Commitments	194
	2.2 Theoretical Context: 'Hold-Up' and 'Reverse Hold-Up'	195
3.	The Samsung and Motorola Decisions	197
4.	Critical Assessment	199
5.	Final Remarks	202
Снарте	n 16	
	ist Cases Involving Intellectual Property Rights in the	
	unication and Media Sector in Brazil	
		205
σαιυαι	a Rosenberg, Luis Bernardo Cascão & Vivian Terng	203
1.	Introduction	205
2.	Relevant Precedents Involving IPRS	206
	2.1. CDs and DVDs: Abuse of Dominant Position and Patent Pool	206
	2.2. Sham Litigation: Tachographs, Shop Tour and Pharmaceutical,	
	Cases	207
	2.3. Musical Rights and Copyrights: The ECAD Case	209
3.	Merger Control in Brazil: General Aspects, Associative	
	Agreements and Licensing IPRS	210
4.	Merger Control: Communication and Media	212
	4.1. Phonographic Industry: Music Recording and Music Publishing	
	Market - Universal/EMI and Sony/EMI Case	212
	4.2. Film Distribution	213
	4.3. Digital Music and Phonographic Industry	213
5.	Final Remarks	214

Снартек	17	
Patents	Meet Antitrust Law: The State of Play of the FRAND Defense	
in Germ	•	
Wolrad	Prinz zu Waldeck und Pyrmont	215
1.	Background: Standardization and FRAND Licensing Declarations	215
2.	Setting the Scene: Peculiarities of the German Patent Litigation System	216
3.	The Origin: The Orange Book Standard Decision	218
	3.1. Unconditional License Offer on Non-refusable Terms	219
	3.2. Compliance with the Obligations under the Prospective License	220
4.	The Orange Book's Progeny: Subsequent Application and Extension	221
	4.1. Restrictive Interpretation of "Customary License Terms"	222
	4.2. The Amount of the FRAND Royalty	223
	4.3. Rendering of Accounts and Deposit of License Fees	224
5.	The Watershed: Developments on the European Union Level	225
6.	Changing Tides?: The Impact of the Commission's Antitrust	
	Investigations in Germany	227
7.	Outlook: What Makes a Licensee Willing/Unwilling	228
Part IV		
	over Data	231
TOWEIC	ivel Data	231
CHAPTER		
	e of Privacy in a Changing World	
Chris Bo	oam	233
1.	Privacy Is Nebulous, but Its Function in Society Is Not	234
2.	Has Law Bridged the Gap: Assuming That We Know What	
	the "Gap" Is?	236
3.	The Sea Change in the Role of Trust	240
4.	Where Do We Go from Here?	241
CHAPTER	19	
The Tra	nsatlantic Perspective: Data Protection and Competition Law	
Pamela	Jones Harbour	247
1.	Introduction	247
2.	Data Protection and Competition	248
	2.1. Google/Doubleclick and Beyond	248
	2.2. Data Protection and Competition: EU	249
3.	Three Theories for Evaluating Privacy Issues in a Competition Law	
	Framework	251
	3.1. Competition in Privacy Protections	251
	3.2. Competition in Technologies to Strengthen User Privacy	253
	3.3 Defining a Product Market for Data	253

٦	$\Gamma_{\alpha}$	h	$\sim$	Ωf	Contents

4. 5.	Privacy, Competition and the Impact on Consumers Conclusion	254 255
Florian	R 20 over Data: Brazil in Times of Digital Uncertainty to de Azevedo Marques Neto, Milene Louise Renée Coscione & la Deguirmendjian	257
1.	Intimacy, Private Life, Honor and Image as Persons' Fundamental	
	Rights	259
2.	Legislation of the Telecommunications Sector in Brazil	261
3.	Brazil's Specific Legislative Initiatives on the Protection	
	and Confidentiality of Data	262
4.	Contributions of International Experience to Brazil	264
	4.1. Canada	265
	4.2. European Union 4.3. Brazil	268 273
5.	Conclusion	273
Mass I Lyda N	R 21 ta and the Cloud: Privacy and Security Threats of Digital Surveillance? Mastrantonio & Natalia Porto Introduction	281
1. 2.	The Cloud: An Evolving Model	281 282
3.	Cloud and the EU Digital Agenda	284
4.	Users' (Big) Data	285
5.	Privacy and Data Retention	286
6.	Security	288
7.	Conclusion	290
Part V Open I	nternet and Net Neutrality	291
Pionee	outrality Regulation: A Worldwide Overview and the Chilean r's Experience	
Alfonso	o Silva & Sebastian Squella	293
1.	Introduction	293
2.	Net Neutrality Concept	295
	2.1. Pros and Cons of Net Neutrality	296
3.	Regulatory Perspective of Net Neutrality	298
	3.1 FFIII	298

	3.2. European Commission	299
4.	An Approach to the Chilean Experience	300
	4.1. The Net Neutrality Law	300
	4.2. Content of the Net Neutrality Law	301
	4.2.1. Identification of the Relevant Players Regulated	
	by This Law	301
	4.2.2. Prohibitions and Obligations	301
	4.3. Net Neutrality Special Regulation	302
	4.4. Network Traffic Management	302
	4.5. Main Criticism to the Net Neutrality Law	303
5.	Conclusions	304
Снартен	R 23	
Net Ne	utrality in Singapore: A Fair Game	
Chung .	Nian Lam	305
1.	Introduction	305
2.	Net Neutrality Basic Concepts	306
3.	The Telecoms Regulatory Approach in Singapore	306
<i>5</i> .	3.1. Licensing Regulation in Singapore	307
	3.2. The TCC's Interconnection and Non-discrimination Obligations	307
4.	The IDA's Position on Net Neutrality	309
т.	4.1. No Blocking of Legitimate Internet Content	309
	4.2. Compliance with Competition and Interconnection Rules	309
	4.3. Providing Information Transparency	310
	4.4. Meeting Minimum Quality of Service (' <i>QoS</i> ') Standards	310
	4.5. Niche or Differentiated Internet Services Allowed	311
5.	Other Issues	312
5.	5.1. Pricing Models and Net Neutrality?	312
	5.2. Infrastructure and Net Neutrality	313
6.	Conclusion	314
Снарте		
	t Regulation in Brazil: The Network Neutrality Issue	
	Celidonio Gomes dos Reis Neto, Fabio Ferreira Kujawski	
& Thay	s Castaldi Gentil	317
1.	Purpose	317
2.	Brief Summary of Internet History	317
3.	Network Neutrality: History and Concept	319
4.	Network Neutrality Regulation	322
	4.1. Europe	323
	4.2. United States	324
	4.3. Brazil	326
5.	Conclusion	327
		J = 1

CHAPTER		
The New João Mo	w Brazilian Internet Constitution and the Netmundial Forum	329
JOUO IVIC	υμια	329
1.	The Political Dividends: A Positive Balance	331
2.	What Is in That for Businesses?	332
3.	Data Protection	332
4. 5.	Obligation to Maintain Logs of Connection and Access to Applications The Usage of Data from Aggregated Customers to Develop New	332
6	Applications Net Neutrality	332 333
6. 7.	More Revenues, Innovation and Competition	333
7.	More Revenues, filliovation and Competition	555
CHAPTER		
	zilian Telecom Regulatory Scenario and the Proposals of the	
Internet Regina	. Law Ribeiro do Valle	335
1100011001	Abelio do Falle	000
1.	Introduction	335
2.	Current Scenario of Internet Services Regulation in Brazil	336
3.	Neutrality of Network vis-á-vis the Right to Charge for	
4	Quality Services	338
4.	Conclusion	340
PART VI		
Regulat	ory Policy Round Table: A Brazilian Case Study	343
CHAPTER	27	
	ition in the Brazilian Telecommunication Market	
_	liano Martinhão, Guido Lorencini Schuina, Haitam Laboissiere	
	Leonardo Fernandez Zago	345
1.	Introduction	345
2.	Institutional Aspects for Telecommunications in Brazil	345
3.	The Brazilian Telecommunications Sector	346
<i>5</i> .	3.1. The Telecommunications Market	347
	3.1.1. Fixed Telephony	347
	3.1.2. Mobile Telephony and Broadband	348
	3.1.3. Fixed Broadband	348
	3.1.4. Pay TV	349
	3.2. Indicators for the Telecommunication Sector	350
	3.2.1. Indicator for Companies' Performance	350
	3.2.2. Competition Indicators	350
	3.2.3. Service Indicators	350
4.	Actions for the Telecommunications Sector in Brazil	351

5.	4.2. 4.3. 4.4. 4.5. 4.6.	General Plan of Competition: PGMC Wholesale Products Broker System: SNOA Regulation of Industrial Exploitation of Dedicated Lines: EILD Anatel's Competition Office Law of Conditioned Access Service Infrastructure Sharing lusion	351 353 354 354 355 355 357
Adriano	Horizo Augu	on for Competition Advocacy in Brazil usto do Couto Costa, Marcelo de Matos Ramos mingos Taufick	359
		Ç	2 = 0
1.		communications and Competition in Brazil	359
		Completion of Universal Access	361
	1.2.	Digital TV End of the Term of the PSTN Concession	361 361
		Not Enough Incentives for Competition	361
2.		Secretariat for Economic Monitoring and the Leap to	301
2.		petition Advocacy	362
		Advocacy According to the Former Competition Law	362
	2.2.		363
		2.2.1. Engaging in Economic-Oriented Opinions to the Public	
		Sector	363
		2.2.2. Other Advocacy Measures	364
	2.3.	Brazil's 2011 Competition Law: Changes in the Existing	
		Assignments	365
3.	Enha	ncing Competition Advocacy	369
	3.1.	The National Competition Advocacy Program: A Broader View	369
		3.1.1. Overview	369
		3.1.2. Outreach	370
		3.1.2.1. The Public Sector	370
		3.1.2.2. Private Undertakings	371
		3.1.2.3. Academic Institutions	371
		3.1.2.4. News Agencies	372
		3.1.2.5. Final Consumers	372
4.	Final	Remarks	372
CHAPTER	29		
		Synergies between Regulators in the Brazilian	
_		cations Market	
		ıra de Souza Hobaika & Carlos M. Baigorri	375
1	Tankar -	J.,;	275
1.		duction	375
2.	me I	Necessity of Regulation	378

3.	Anatel's Role under the Law 8.884/94	379
4.	The New Institutional Structure	380
	4.1. The General Plan of Competition (PGMC)	380
5.	Synergies	383
6.	Conclusion	384
Bibliog	raphy	384
Снартен The Ne	x 30 w Competition Law in Brazil and the New Framework for	
Merger	Analysis in Telecom	
Carlos I	Emmanuel Joppert Ragazzo & Cristiane Landerdahl de Albuquerque	387
1.	Introduction	387
2.	The Telecommunication Sector in Brazil	388
	2.1. The Importance of the Telecommunication Sector	
	in the Brazilian Economy	388
	2.2. Mergers in the Telecom	389
	2.2.1. Minority Shareholding	390
	2.2.2. Vertical Integration and Access to Inputs	390
	2.2.3. Large Horizontal Overlap and Vertical Concerns	390
	2.2.4. Network Sharing	390
3.	Merger Review in Brazilian Telecom Sector	391
	3.1. Previous Procedure	391
	3.2. Merger Review under the New Competition Law	393
4.	Cooperation between Agencies	395
5.	Final Remarks: The Need for Ongoing and Strong Cooperation	
	between the Antitrust and Regulatory Agencies	396
Снартен	31	
_	ory Policy Round Table: A Dialogue between Telecommunications	
	titrust Authorities Alves Guimarães	397
1		205
1.	Introduction	397
2.	Institutional Background	398
	2.1. Secretariat of Telecommunications of the Ministry of	200
	Communications (STE/MiniCom)  2.2. Secretariat for Economic Monitoring of the Ministry of	398
	Finance (SEAE/MF)	398
	2.3. National Agency of Telecommunications (ANATEL)	399
	2.4. CADE's General Superintendence (SG/CADE)	399
3.	Content Background: Building Policy Consensus	400
4.	Improving Policy Consensus	407
	4.1. Merger Reviews	407

	4.2. Anticompetitive Practices	408
	4.3. Competition Advocacy	408
5.	Overcoming Policy Consensus	409
6.	Conclusion	410
Index		413

## Foreword by Michael J. Reynolds

It gives me enormous pleasure as current President of the IBA to introduce this extremely valuable and informative book based on topics and papers presented following our Communications and Anti trust Conferences in Rio de Janeiro (2013) and Prague (2014).

This annual conference has just celebrated its 25th year. Every year it brings together top experts in communications regulatory and anti trust law and is put on jointly by the communications and Anti trust committees in the IBA. In the audience there are always in-house counsels from some of the top companies in the communications sector.

It is an excellent idea to have collected papers on the two most recent conferences in this book. Taken together the papers give an in-depth and up to date insight into some of the main regulatory and anti trust issues that affect this sector and deal with the major recent cases on both sides of the Atlantic. Taking the annual conference to Brazil was a recognition of this very important market and the papers record the important regulatory and anti trust developments in the communications sector in this BRICS jurisdiction.

I congratulate the officers of the Communications Committee and Anti trust committee on the continuing success of this conference, the first of which I co-chaired in Brussels in 1990. I have no doubt that the annual conference will go from strength to strength in the years to come and this important publication forms part of that achievement.

Michael J. Reynolds IBA President Brussels May 2014

## Foreword by Daniel A. Crane

It is a generally held belief that sectoral regulation and competition law are the two alternative modes for addressing problems of access, discrimination, and market power in communications and related technology industries. In fact, experience shows that this is far too simplistic a conception of the problem. The legal and regulatory toolkit contains many more tools than command-and-control prescriptions on prices and terms of service, on the one hand, or general antitrust prohibitions on the other. Available tools include adjustments in patent, copyright, or trademark policy to favor open competition or investment, reinforcement of private contractual solutions such as FRAND commitments, and direct governmental investments to subsidize the growth of particular firms or sectors. Sophisticated jurisdictions utilize a combination of these tools to advance innovation and consumer choice in the communications field, also keeping in mind that sometimes the best regulatory intervention is no regulatory intervention at all.

Given the amount of theoretical academic ink that has been spilled on these topics, it is refreshing to see a volume of this kind that channels the experience and real-world knowledge of distinguished practitioners from around the globe. In this fine comparative book, we have the opportunity to examine regulatory vignettes from Asia, Brazil, Europe, and the United States. We see problems of competition in the telecommunications and technology spaces addressed across a range of interfaces, from merger policy, to Internet architecture, to IP interventions, to more traditional regulation. The information is up to date and filtered through the best minds working on the relevant problems.

As with any volume that captures episodic, circumstance-specific vignettes, the sum of this book's wisdom should be appreciated in the context of the wider theoretical frameworks proposed by the economics and political science literature. We see hints in these pages of market failures and rehabilitations, interest group capture and public choice theory, and of the perennial conflicts between static and dynamic efficiency. It

is to be hoped that this volume will make a lasting contribution to understanding good and bad legal and regulatory policy in the communications sector.

Daniel A. Crane Associate Dean for Faculty and Research & Frederick Paul Furth Sr. Professor of Law, University of Michigan. Counsel; Paul, Weiss, Rifkind, Wharton & Garrison LLP

## Foreword by Gesner Oliveira

The idea of publishing this book came up during the 24th Annual Communications and Competition Law Conference, hosted jointly by the IBA and the IBRAC in Rio de Janeiro.

Among several topics highly relevant to the ones active in the fields of Communications and Competition Law, we are particularly pleased to have delivered contributions in respect to two of them: (1) *Convergence, Takeovers and Mergers in the Communications and Technology Industry* in Part I of this book, where we hope you appreciate the joint contribution prepared by an economist and an engineer on the *Changes in the Global Telecommunication Market and Its Implications in Brazil* and (2) *Regulatory Policy Round Table* in the final Part VI of the book, subject approached by us in the 24th Annual Communications and Competition Law Conference.

In respect to the regulatory policy matter, co-editors of this book had the great idea of gathering contributions from the most important Brazilian authorities responsible for formulating and implementing regulatory and antitrust policies for the communications sector. The diversity of regulators somehow involved in this policy-making creates the threat of inefficient overlapping competencies while at the same time makes possible that valuable synergies are achieved.

The final Chapter 31 of the book – *Regulatory Policy Round Table: A Dialogue between Telecommunications and Antitrust Authorities* – mediates such debate between the main regulators: two high profile government bodies subordinated to Brazil's President, the Secretariat of Telecommunications of the Ministry of Communications (STE/MiniCom) and the Secretariat for Economic Monitoring of the Ministry of Finance (SEAE/MF); and two independent agencies, the National Agency of Telecommunications (ANATEL) and the CADE's General Superintendence (SG/CADE).

The chapter also reminds of an issue particularly relevant to economists, the importance of a solid economics *bureau* within the structure of the antitrust bodies and its ability to conduct complex analyses on any sector of the economy. In the Brazilian case, this body is the Department of Economic Studies (DEE) of the Administrative Council for Economic Defense (CADE).

Having experience in the private and public sectors and in business and academia, we are sure that this book will be a valuable and lasting contribution to practitioners, policymakers and researchers.

Gesner Oliveira Managing Partner at GO Associados Professor of Economics, Getulio Vargas Foundation Business Administration School of São Paulo (FGV/EAESP)

### Preface

"Why is it that Communications is subject to special competition rules?" This almost naïve question, now that almost twenty years have passed from the dawn of liberalization in communications, has often been posed to regulatory lawyers during their practice, being the postulants operators, colleagues or officers indeed of Competition or Regulatory Agencies. Sometimes the question would be asked almost with a philosophical nuance, probably with some hidden interest in touching deeper cords: "how much does Communications stand out alone as a practice, within the general mare magnum of competition law?"

The answer, if existent, naturally is not clear-cut, and would entail a series of related topics, issues and clarifications. This book provides an attempt to shed some light on the current international debate, and provides an excellent insight into worldwide experiences in the field, from different angles and on the different aspects related to the crucial mix between sector specific regulation and "special" competition rulings applied to communications.

In this respect, it follows the healthy debates triggered by two gatherings of regulatory lawyers of Communications and Competition IBA Committees, held in Rio de Janeiro in 2013 and Prague 2014, and we are very grateful to all contributors for their commitments and contributions.

Fact is that as in all general big-bangs, liberalization and the following digital revolution have moved elements even further apart, and the legal universe of communications is now drifting away and expanding. Nowadays no-one believes anymore that someday, at the end of its strange parabola, "special" competition regulation will dissolve and converge into the general framework, as originally believed. But this is now evidently a non-issue: the particular experience and application of competitive rules provides a lengthy experience to practitioners, enriches the field, and provides for further speculations. Convergence entails the bundling of networks and services, and sector specific regulation is progressively concentrating on other side-related topics, where the competitive battleground now appears very complex, and once formed simply an ancillary side-related content in communications. Matters such as intellectual property of content, or consumer protection, privacy and data security once fell in side categories. Yet connectivity and network offering (the theoretical ground on which

the application of the essential facility doctrine still resides) represents more and more a commodity, and competitive analysis in the area has moved further on to different items, such as necessity to identify FRAND conditions on compulsory licensing of standards, or the strategic role of open sources or the antitrust clearings in case of mergers between operators acting on potential sensitive data aggregation and profiling.

Defined relevant markets appear more and more as silent icebergs drifting away detached from technological evolution and speed of change. It is foreseeable that the communications sector will focus in the near future more and more on the protection and regulation of content, both copyrighted and user-generated, with giants like Google already looking forward to concentrate on all the business-line, from network to content, as in the Google Fiber project. Also, mobile e-commerce, Internet advertising, search engine optimization and geolocalization services appear destined to converge and interact, modifying again the competitive implications and presumably the definition of markets. In this sense the potential growth of mobile online advertising should not be underestimated, as the geolocalization capabilities of modern handsets will expand the possibility for consumer profiling and related tailored promotional contents.

In fact, recent concerns about the protection of personal privacy and the activities of national law enforcement and security services have arisen in the commercial sphere in connection with both transmission services and the emergence of cloud computing and other technologies that offer substantial benefits to users. In their most efficient manifestations, these services and technologies are trans-border in nature, and present familiar private international commercial law problems.

In this respect, this book focuses also on the specific Brazilian experience. In Brazil the NSA scandal has triggered, as known, an initiative at the General Assembly, followed then by the issuing of the Net Mundial statement, the first Internet Charter ever drawn. Yet even before Snowden, heightened public awareness of the rights of access to electronically transmitted and stored communications by law enforcement and security services had added an additional dimension affecting both commercial decisions and regulatory relationships. This additional dimension has been manifest in the deliberations over DG Justice's proposed European General Data Protection Regulation to replace the 1995 Data Directive, currently debated in Europe. The proposal's ambitious scope, certain specific provisions such as the right to be forgotten, the anxiety in some quarters (especially in the United States) that it unnecessarily threatens economic efficiency and, as a practical matter, its extraterritorial effect, assured that controversy would attend it.

From the very beginning of consideration of the proposal, the traditional transatlantic complications over privacy protection presented some difficulties. At a foundational level, the rather different perspectives on privacy arise – is it a basic human right, integral to human dignity, or not? Likewise, different approaches to privacy protection – comprehensive in Europe, sector by sector in the United States – lead to a European view deeply skeptical of the possibility of mutual recognition arrangements.

The fact that regulatory and competition review and reform may make treasure also from the outcome of international conferences, debates and for organized and held by practitioners acting worldwide, ensures that the international community may

truly exploit the vast array of experiences which delve on a continuous basis from practical grounds.

We indeed hope this book will provide you a helpful framework for your everyday practice and comparative analysis.

Fabrizio Cugia di Sant'Orsola, Rehman Noormohamed & Denis Alves Guimarães Rome, London and São Paulo September 12, 2014

#### CHAPTER 14

# Standard-Essential Patents and US Antitrust Law: Light at the End of the Tunnel?

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#### 1. INTRODUCTION

Many of the world's most important industries, including telecommunications and computing, rely on industry standards. Standards are typically developed by standard-setting organizations (SSOs), comprising industry participants. For example, the members of the 3rd Generation Partnership Project (3GPP), which is a collaboration of SSOs interested in mobile telephony, include mobile phone chip makers, network infrastructure vendors and carriers. Once implemented, standards facilitate interoperability of devices by serving as a source of common technical specifications around which rival companies design and build products with differentiating designs and features. For example, manufacturers of 4G-enabled mobile phones compete on the basis of characteristics such as size, battery life, screen resolution, or design, among other features. By promoting investment and innovation in new products, reducing costs and stimulating demand, standards can bring tremendous benefits to industry and consumers alike.

Standards frequently incorporate technologies that may be covered by patents. Patents that are necessary to implement a standard – for example, to manufacture a standard-compliant device – are called "standard-essential patents" (SEPs). Many SSOs require participants to publicly disclose patents that may be essential to a standard under development. Hundreds or even thousands of patents – issued in jurisdictions

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around the world – may be declared essential to a single standard used in a high-technology industry. Disputes regarding alleged abuses of declared standard-essential patents have become a frequent subject of litigation and regulatory investigation throughout the world.

Recent decisions in the United States are bringing more clarity to several crucial issues regarding declared standard-essential patents. This chapter discusses judicial and regulatory developments in the United States that address the intersection of competition, patent and contract law when patent holders seek to enforce patents they have declared essential to industry standards. Because SEP holders have typically committed to license their patents to standard implementers on "fair, reasonable, and non-discriminatory" (FRAND) terms, decisions that set or influence licensing terms for a declared SEP holder for one license in a given jurisdiction have substantial implications for what it can demand from other licensees in other jurisdictions. Courts' treatment of FRAND and disclosure commitments has important consequences for levels of investment in innovation for products that are sold globally.

The trend in the United States (as it is globally) is towards vigorous enforcement of FRAND licensing and disclosure commitments – whether as a matter of competition, contract, or patent law. If this trend continues, it will promote investments in innovation, foster successful licensing negotiations and reduce the likelihood that failed negotiations will result in disruptive and costly litigation.

#### 2. STANDARD-ESSENTIAL PATENT ENFORCEMENT

The standard-setting process necessarily involves collaboration to limit technical design choices. It therefore eliminates rivalry among competing technologies and can confer monopolies on holders of patents claimed to cover standardized technology.<sup>2</sup> These monopolies may enable standard-essential patent owners to "hold-up" standard implementers that have become "locked into" making products that incorporate standardized technologies for exorbitant royalties or other licensing terms.<sup>3</sup> This is because, once a standard is set and standard implementers have sunk investments into

<sup>1.</sup> For example., *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872 (9th Cir. 2012); *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297 (3d Cir. 2007); *Apple, Inc. v. Motorola, Inc.*, 869 F. Supp. 2d 901 (N.D. Ill. 2012) (Posner, J., sitting by designation), *aff'd in relevant part* 2014 WL 1646435 at \*34-35 (Fed. Cir. Apr. 25, 2014); *Microsoft Corp. v. Motorola, Inc.*, 871 F. Supp. 2d 1089 (W.D. Wash. 2012); *see also* Analysis of Agreement Containing Consent Order to Aid Public Comment, *In re Robert Bosch GmbH*, F.T.C. File No. 121-0081 (F.T.C. Nov. 26, 2012), *available at* http://ftc.gov/os/caselist/1210081/121126boschanalysis.pdf; Analysis of Proposed Consent Order to Aid Public Comment, In re Motorola Mobility LLC and Google Inc., F.T.C. File No. 121-0120 (F.T.C. Jan. 3, 2013), *available at* http://www.ftc.gov/os/caselist/1210120/130103 googlemotorolaanalysis.pdf. For a discussion of SEP litigation in jurisdictions outside of the US, *see* Leon B. Greenfield, Hartmut Schneider, and Joseph J. Mueller, *SEP Enforcement Disputes Beyond the Water's Edge: A Survey of Recent Non-U.S. Decisions*, Antitrust, Summer 2013, p. 50.

<sup>2.</sup> See, e.g., Broadcom, 501 F.3d at 310 (observing that holders of standard-essential patents "may be able to extract supracompetitive royalties from the industry participants" because those participants are "'locked in' to the standard").

<sup>3.</sup> See, e.g., ibid. at 304-305 (describing Broadcom's allegations); Microsoft, 696 F.3d at 876.

compliant products, rival technologies that may have constrained the pricing of standardized technologies before standardization may no longer do so.

To address concerns that fear of hold-up will chill industry implementation of standards they promulgate, SSOs commonly impose patent disclosure and FRAND licensing requirements on participants in the standard-setting process. Disputes typically arise when SEP holders are alleged to have broken such rules. For example, the SEP holder may be alleged to have breached its promise to license on FRAND terms. Or it may be accused of having failed to timely disclose that its patents might cover technology under consideration for standardization, thereby depriving SSO participants of the chance to consider the patent claims when evaluating competing technical solutions and creating opportunities for "patent ambush" where the patent-holder unexpectedly demands royalties from locked-in implementers.

The masses of declared standard-essential patents also create the risk of "royalty stacking" – aggregate royalty burdens that could make it uneconomical to market standard-compliant products at all or that chill welfare-enhancing innovation that differentiates products that support a given standard – and can impose other obstacles to bringing products to market quickly and efficiently.<sup>6</sup>

As competition enforcers have observed, standards are prevalent in dynamic industries that drive economies and bring great benefits to consumers.<sup>7</sup> Striking the

<sup>4.</sup> See, e.g., ibid. at 304-305; Apple, 2012 WL 1672493 at \*4.

<sup>5.</sup> See Rambus Inc. v. FTC, 522 F.3d 456 (DC Cir. 2008).

<sup>6.</sup> See, e.g., Microsoft Corp., No. 10-01823, 2013 WL 2111217 (W.D. Wash, Apr. 23, 2013) ("a proper methodology for determining a RAND royalty should address the risk of royalty stacking by considering the aggregate royalties that would apply if other SEP holders made royalty demands of the implementer"). One example of another obstacle is the use of injunctive relief to prevent implementers from practicing the technology disclosed in the SEP, See, e.g., Third Party United States Federal Trade Commission's Statement on the Public Interest at 3, In re Certain Wireless Communication Devices, Portable Music and Data Processing Devices, Computers and Components Thereof, ITC Inv. No. 337-TA-745 (Jun. 6, 2012), available at http://www.ftc.gov/os/20 12/06/1206ftcwirelesscom.pdf (injunctive relief in the patent context may appropriately "pres erve the exclusivity that forms the foundation of the patent system's incentives to innovate," but in the SEP context, "remedies that reduce the chance of patent hold-up... can encourage innovation by increasing certainty for firms investing in standards-compliant products and complementary technologies. Such remedies may also prevent the price increases associated with patent hold-up without necessarily reducing incentives to innovate."); Press Release, European Commission, Commission Sends Statement of Objections to Motorola Mobility on Potential Misuse of Mobile Phone Standard-Essential Patents (May 6, 2013), available at http://europa. eu/rapid/press-release\_IP-13-406\_en.htm (recognizing patent holders may abuse a dominant position by seeking injunctions on SEPs); Press Release, European Comm'n, Antitrust: Commis sion Sends Statement of Objections to Samsung on Potential Misuse of Mobile Phone Standard-Essential Patents (Dec. 21, 2012), available at http://europa.eu/rapid/press-release\_IP-12-1448 \_en.htm (same).

<sup>7.</sup> See, e.g., Broadcom Corp., 501 F.3d at 308-309; U.S. Dep't of Justice & U.S. Patent & Trademark Office, Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments at 3-4 (Jan. 8, 2013), available at http://www.uspto.gov/about/offices/ogc/Final\_DOJ-PTO\_Policy\_Statement\_on\_FRAND\_SEPs\_1-8-13.pdf (hereinafter DOJ & PTO Statement) ("[V]oluntary consensus standards, whether mechanical, electrical, computer-related, or communications-related, have incorporated technological advances that are fundamental to the interoperability of many of the products on which consumers have come to rely."); Renata B. Hesse, IP, Antitrust and Looking Back on the Last Four Years, Presented at Global Competition Review 2nd Annual Antitrust Law Leaders Forum (Feb. 8, 2013), available at http://www.justi

correct balance is therefore a complex but crucial exercise. Abuse of declared SEPs threatens to chill innovation by standard implementers and harm consumers. But ensuring that SEP holders receive value for their patents that reflects the value they add to products that implement the standard – to the extent their patents are actually practiced by implementers and are valid and enforceable – is important to preserve innovators' incentives to invest in new technologies.

The remainder of this article reviews the treatment by U.S. courts and regulators of several important questions that lie at the heart of disputes over licensing of SEPs:

- In what circumstances, if any, may a declared SEP holder that has made a FRAND commitment obtain an injunction against infringement of a SEP and thereby keep standard-compliant products off the market?
- Besides seeking injunctions, what types of conduct by a declared SEP holder can constitute a violation of antitrust or competition law?
- What is a "reasonable" rate to license SEPs? Are there methods or principles that licensors and prospective licensees - or courts or other tribunals in the event of a dispute - can apply to value a license to particular SEPs and determine the appropriate FRAND rate?
- What rights should a prospective licensee to SEPs have to challenge infringement, validity, or enforceability of the patents?

#### 3. INJUNCTIONS BASED ON STANDARD-ESSENTIAL PATENTS

U.S. courts and regulators have grown increasingly skeptical about granting injunctive relief based on declared SEPs, except in very narrow circumstances – for example, if an infringer refuses to pay royalties ordered by a court or the infringer is outside of U.S. jurisdiction. Moreover, threatening an injunction during SEP license negotiations may be a breach of the standard-essential patent holder's FRAND obligations to prospective licensees.

In *Microsoft v. Motorola*, Microsoft alleged that Motorola breached its commitment to license on FRAND terms patents declared essential to the 802.11 Wi-Fi standard and H.264 video compression standard by (i) demanding an "unreasonable" royalty of 2.25% per Microsoft product, such as the Xbox, for a license, and (ii) seeking injunctions and exclusion orders against Microsoft products based on its SEPs.<sup>8</sup>

The court's calculation of FRAND royalties is discussed in section 5 below. As to the injunction claim, a U.S. federal court in Washington State preliminarily barred Motorola from enforcing an injunction it obtained against Microsoft in Germany, a

ce.gov/atr/public/speeches/292573.pdf, at 16 (noting "standards offer our economy great efficiencies and offer consumers and businesses new, advanced products").

<sup>8.</sup> Microsoft v. Motorola, 871 F. Supp.2d 1089 (W.D. Wash 2012).

decision upheld on appeal. The Court of Appeals explained that the FRAND commitment arguably included a guarantee that the patent-holder will not take steps to keep would-be users from using the patented material, such as seeking an injunction at least in cases where the prospective user is willing to take a license. Later, a jury determined that Motorola's efforts to obtain an injunction breached Motorola's FRAND commitment and awarded Microsoft USD 14.5 million in damages. Motorola was permanently enjoined from enforcing injunctions against Microsoft.

In *Realtek v. LSI*, plaintiff Realtek alleged that the defendants breached their obligation to license on FRAND terms patents declared essential to the 802.11 standard by demanding exorbitant royalties and threatening Realtek with an injunction if it did not take a license. The U.S. District Court for the Northern District of California held that threatening an injunction distorts the FRAND negotiation and violates the FRAND commitment, reasoning that "once the patentee interposes the threat of an injunction, the standard implementer is placed at a bargaining disadvantage in private negotiations such that the determination of a true FRAND rate almost necessarily must be conducted by a court." In a later decision, the court held that the defendants breached their FRAND commitment as a matter of law when they initiated a U.S. International Trade Commission (ITC) proceeding to block imports of Realtek's products before offering a FRAND license, and it granted Realtek's request for a preliminary injunction barring defendants from enforcing any relief granted by the ITC.

In *Apple v. Motorola*, Judge Richard Posner of the Court of Appeals for the Seventh Circuit, one of the most influential federal judges and legal scholars in the United States who was sitting by designation in the U.S. District Court for the Northern District of Illinois, applied equitable principles of patent law to hold that injunctions are not available for infringement of FRAND-encumbered SEPs. <sup>16</sup> It is a general principle of U.S. law that money damages are the appropriate remedy for most civil wrongs, including breach of contract or torts such as patent infringement. A patent-holder is entitled to an injunction barring an accused infringer from using its patent only if it satisfies a four-factor test, which includes showing that the patent-holder will suffer

<sup>9.</sup> *Microsoft v. Motorola*, 871 F. Supp. 2d at 1102-1103 (2012) (finding that Microsoft would face irreparable harm if German injunction were enforced, and that on balance the equities and public interest favored granting an injunction); *Microsoft*, 696 F.3d at 884 (9th Cir. 2012).

<sup>10.</sup> Ibid. ("Implicit in such a sweeping promise is, at least arguably, a guarantee that the patent-holder will not take steps to keep would-be users from using the patented material, such as seeking an injunction, but will instead proffer licenses consistent with the commitment made").

<sup>11.</sup> Microsoft v. Motorola, No. C10-1823JLR, D.I. 909 (Sept. 4, 2013) (verdict form).

<sup>12.</sup> *Microsoft v. Motorola*, No. C10-1823JLR, 2012 WL 5993202 at \*7-8 & n. 10 (W.D. Wash. Nov. 30, 2012).

<sup>13.</sup> Realtek Semiconductor Corp. v. LSI Corp., C-12-03451-RMW, 2013 WL 2181717 at \*1-2 (N.D. Cal. Oct. 10, 2012).

<sup>14.</sup> Ibid. at \*5.

<sup>15.</sup> Realtek, 946 F. Supp. 998, 1008 (N. D. Cal. 2013) (granting summary judgment for plaintiff on claim that defendants breached their RAND commitment "where defendants did not even attempt to offer a license, on 'RAND' terms or otherwise, until after seeking injunctive relief"); *Ibid.* at 1008-1010 (granting preliminary injunction "until this Court determines defendant's RAND obligations and defendants have complied therewith").

<sup>16.</sup> Apple v. Motorola, 869 F. Supp. 2d 901, 913-915 (N.D. Ill. 2012) (Posner, J.).

"irreparable harm" unless an injunction is issued and that money damages are "inadequate to compensate" for the infringement.<sup>17</sup> The parties in *Apple v. Motorola* had filed patent claims against one another in various venues. In particular, Motorola alleged that Apple infringed certain patents that it had declared essential to certain cellular standards and it sought to bar Apple from manufacturing or selling devices that used these patents. Judge Posner determined that because Motorola had "committed to license its patents on FRAND terms to anyone willing to pay a FRAND royalty" it could not show irreparable harm due to Apple's infringement or that money damages were not adequate compensation.<sup>18</sup>

A fragmented three-judge panel of the Court of Appeals for the Federal Circuit later affirmed Judge Posner's conclusion, but disagreed with him to the extent that his opinion might be read to suggest that injunctions could never be available based on SEPs. 19 The opinion for the court reasoned that a "patentee subject to FRAND commitments may have difficulty establishing irreparable harm," but held that "an injunction may be justified where an infringer unilaterally refuses a FRAND royalty or unreasonably delays negotiation to the same effect."20 The court, however, found no evidence that adding Apple as one more licensee to the "large number of industry participants that are already using the system claimed in the [contested] patent" would cause irreparable harm, or "that Apple has been, for example, unilaterally refusing to agree to a deal." It therefore agreed that money damages were adequate to compensate Motorola for any infringement and that Motorola had produced no evidence that an injunction was necessary to avoid irreparable harm.<sup>21</sup> Another judge, while agreeing with the result, would have imposed a more restrictive rule than the main opinion, finding that injunctions "might be appropriate" only in very narrow circumstances such as where a potential licensee lacked the financial capacity to pay for a FRAND license or refused to pay royalties that a court had declared FRAND.<sup>22</sup> A third judge would have remanded to allow Motorola an opportunity to prove that "Apple's alleged unwillingness to license or even negotiate supports a showing that money damages are inadequate and that it suffered irreparable harm."23

In the last two years, U.S. regulators have shown deep concerns about attempts to use declared SEPs to seek injunctive relief. In August 2013, the United States Trade Representative overturned an ITC exclusion order directed to imported Apple products

<sup>17.</sup> eBay Inc. v. Mercexchange, LLC, 547 U.S. 388, 390-392 (U.S. 2006).

<sup>18.</sup> *Apple*, 869 F. Supp. 2d at 913-914 ("I don't see how, given FRAND, I would be justified in enjoining Apple from infringing the '898 unless Apple refuses to pay a royalty that meets the FRAND requirement. By committing to license its patents on FRAND terms, Motorola committed to license the '898 to anyone willing to pay a FRAND royalty and thus implicitly acknowledged that a royalty is adequate compensation for a license to use that patent").

<sup>19.</sup> *Apple v. Motorola*, 757 F.3d 1286, 1331(Fed. Cir. 2014) ("to the extent that the district court applied a per se rule that injunctions are unavailable for SEPs, it erred.").

<sup>20.</sup> *Ibid.* at 1332 (citing US Dep't of Justice and US Patent and Trademark Office, *Policy Statement on Remedies for Standard-Essential Patents Subject to Voluntary F/RAND Commitments*, at 7-8 (Jan. 8, 2013), available at http://www.uspto.gov/about/offices/ogc/Final\_DOJ-PTO\_Policy\_Statement\_on\_FRAND\_SEPs\_1-8-13.pdf).

Ibid.

<sup>22.</sup> Ibid. at 1342 (Prost, J., concurring-in-part and dissenting-in-part).

<sup>23.</sup> Ibid. at 1334 (Rader, C.J., concurring-in-part and dissenting-in-part).

that allegedly infringed Samsung's standard-essential patents.<sup>24</sup> The decision overturning the exclusion order emphasized that, due to the potential for patent hold-up associated with SEPs, exclusion orders based on SEP infringement will be appropriate only in narrow circumstances. Decisions on injunctions by the U.S. Federal Trade Commission (FTC) are discussed in the next section.

# 4. ANTITRUST VIOLATIONS BASED ON ABUSE OF STANDARD-ESSENTIAL PATENTS

Several courts and regulators in the United States have determined abuses of SEPs to be violations of the antitrust laws.

Failing to timely disclose potential SEPs during the standardization process, or causing purportedly patented technology to be included in a standard based on false FRAND commitments, may violate section 2 of the U.S. Sherman Act, which prohibits conduct that creates or maintains a monopoly through foreclosing competition. <sup>25</sup> Such conduct may cause the SSO to adopt patented technology over an alternative technology that may be unpatented or available for lower royalties. <sup>26</sup> For example, in May 2012, the U.S. District Court for the Northern District of California declined to dismiss an Apple antitrust claim alleging that Samsung failed to disclose, before the standard was finalized, patents that Samsung later claimed were essential to certain 3G cellular standards in litigation with Apple. <sup>27</sup>

Efforts to obtain injunctions based on SEPs may also violate U.S. antitrust law (in addition to giving rise to contract claims, as discussed above). In November 2012 the FTC indicated in a proposed consent decree that seeking an injunction on FRAND-committed patents can violate section 5 of the FTC Act as an "unfair method of competition." The decree arose out of a merger investigation between manufacturers of, among other things, devices that automotive technicians use to remove refrigerant from vehicle air conditioning systems. The FTC alleged that the acquisition target (SPX)

<sup>24.</sup> Letter of Ambassador Michael B. G. Froman, U.S. Trade Representative to Chairman Irving A. Williamson, U.S. International Trade Commission (Aug. 3, 2013).

<sup>25.</sup> Broadcom, 501 F.3d at 314 ("We hold that (1) in a consensus-oriented private standard-setting environment, (2) a patent holder's intentionally false promise to license essential proprietary technology on FRAND terms, (3) coupled with an SDO's reliance on that promise when including the technology in a standard, and (4) the patent holder's subsequent breach of that promise, is actionable anticompetitive conduct."); Research In Motion Ltd v. Motorola, Inc., 644 F. Supp. 2d 788, 796-797 (N.D. Tex. 2008) (allegation that SSOs "relied on Motorola's false promises that it would license its patents on FRAND terms," enabling its monopoly power, was sufficient to state a claim).

<sup>26.</sup> *Broadcom*, 501 F.3d at 313-314 ("Deception in a consensus-driven private standard-setting environment harms the competitive process by obscuring the costs of including proprietary technology in a standard and increasing the likelihood that patent rights will confer monopoly power on the patent holder").

<sup>27.</sup> Apple Inc. v. Samsung Electronics Co., No 11-cv-01846, 2012 WL 672493 at \*8 (N.D. Cal. May 14, 2012).

<sup>28.</sup> Statement of the Commission, *In the Matter of Robert Bosch GmbH*, No. C4377 at 13 (F.T.C Nov. 26, 2013) ("the threat of injunctive relief in matters involving RAND-encumbered SEPs, where infringement is based on implementation of standardized technology, has the potential to cause substantial harm to U.S. competition consumers and innovation") (internal quotations omitted).

violated section 5 of the FTC Act by seeking injunctions – based on alleged infringement of two patents for which SPX had made FRAND commitments to relevant SSOs – against competing manufacturers of these devices. The final consent decree required the buyer (Bosch) to license its SEPs royalty-free to any implementer of the standards.<sup>29</sup>

In a subsequent action against Google settled in July 2013, the FTC found that Google's attempts to obtain injunctions/ITC exclusion orders based on Motorola Mobility's declared SEPs violated section 5 of the FTC Act.<sup>30</sup> The consent decree requires Google to follow specific steps before it can sue (or maintain suits against) most potential licensees for exclusionary relief based on FRAND-committed patents. Google generally must either engage potential licensees in structured negotiations or follow detailed requirements before seeking an injunction in a court or the US International Trade Commission. Google may seek an injunction against an infringer that is outside the jurisdiction of U.S. district courts, or has taken specific actions that suggest it is not a willing licensee – for example, if it fails to confirm it will take a FRAND license, repudiates a FRAND license under oath, or refuses to enter a FRAND license on terms that a court or binding arbitration has set.

#### 5. DETERMINING FRAND RATES

In recent decisions, two U.S. courts following bench trials and two federal juries, have determined FRAND licensing rates for particular declared essential patents. In detailed decisions following the bench trials, the courts have placed particular emphasis on principles that FRAND rates: (i) must reflect concerns about royalty-stacking; (ii) should be based on the inherent inventive value of the patent and not the hold-up "value" attributed to the fact a technology has been standardized and prestandardization alternatives eliminated; and (iii) must reflect the portion of the end product that actually implements the relevant standard, rather than the entire value of the product (which will often be driven by features having nothing to do with the relevant standard). In both decisions, the court determined that a FRAND royalty rate was only a small fraction of the royalties that the declared SEP holder was seeking. We expect that these decisions will prove influential both for negotiations over FRAND licenses and for future cases setting FRAND rates.

The *Microsoft v. Motorola* breach of FRAND action in the Western District of Washington was bifurcated in two parts: first, a bench trial – presided over by Judge James Robart – to determine the FRAND rate and range for Motorola's SEPs;<sup>31</sup> and second, a jury trial, to determine – using the FRAND rates and ranges from the bench trial – whether Motorola's 2.25% per Microsoft device initial license offer breached its

<sup>29.</sup> Decision and Order, *In the Matter of Robert Bosch GmbH*, No. C4377 at 13 (FTC Apr. 23, 2013).

<sup>30.</sup> Decision and Order, In The Matter of Motorola Mobility LLC and Google Inc., (F.T.C. Jul. 24, 2013).

<sup>31.</sup> *Microsoft Corp. v. Motorola, Inc.*, 2013 WL 2111217 at \*4 (W. D. Wash. Apr. 25,2013). Judge Robart determined a range for a FRAND license, in addition to a rate, because there was more than one rate that could qualify as FRAND. For purposes of the breach of contract determination, any offered rate within the range likely would comply with Motorola's FRAND obligation. *Ibid.* at \*3.

obligation to make a good faith FRAND offer (as discussed above, the jury also considered whether Motorola's efforts to obtain an injunction violated FRAND).

In a lengthy opinion following the bench trial on the FRAND rate and range, Judge Robart focused on the relative technical merit and value of the technology covered by the Motorola patents to determine the FRAND rate and range. He first focused on the relative importance of the Motorola patents to the Wi-Fi and H.264 standards. He determined that the Motorola patents were not particularly valuable to either standard.<sup>32</sup> Second, he considered how important both the standard and the patented features were to the accused Microsoft devices. He found that, to the extent the features were used, they did not represent important functionality for the products at issue. 33 Finally, he looked at purported comparable licenses that the parties offered and considered the stacking effect of the rates that Motorola proposed. He determined that if all of the holders of SEPs for Wi-Fi and H.264 sought the same royalties as Motorola, the cost of the end-user devices would-be "untenable," suggesting that the proposed rates were not FRAND.<sup>34</sup> Ultimately, the court determined that the proper FRAND rate for Motorola's Wi-Fi patents was 3.471 cents per Xbox or 0.8 cents for other products. The FRAND rate for Motorola's H.264 patents was 0.555 cents per product. By way of comparison, Motorola's initial offer of 2.25% of the price of an Xbox for a license to either its 802.11 or its H.264 SEPs would have amounted to nearly USD 6 per device for either portfolio (and nearly USD 12 for both).<sup>35</sup> The jury later determined that Motorola's offer was so excessive that it violated the duty to make a good faith FRAND offer.<sup>36</sup>

In *In re Innovatio IP Ventures LLC Patent Litigation* ("*Innovatio*") – a patent infringement case in which the defendants raised defenses based on FRAND – the parties agreed to a bench trial to determine the FRAND rate to plaintiff Innovatio's portfolio of patents essential to the Wi-Fi standard before addressing the merits of the patent claims or defenses.<sup>37</sup> In essence, the parties and the court agreed to evaluate the potential damages owed to Innovatio up front, which the court hoped would spur settlement rendering the liability phase potentially unnecessary.<sup>38</sup> Judge James Holderman, adopted a similar methodology to Judge Robart in *Microsoft*, with some

<sup>32.</sup> Ibid. at \*28-42 (H.264), \*53-64 (802.11).

<sup>33.</sup> *Ibid.* at \*43-52 (H.264), \*53-64 (802.11).

<sup>34.</sup> Ibid. at \*73.

<sup>35.</sup> Motorola's offers were subject to offsets for the value of Microsoft's SEPs. *Microsoft v. Motorola*, C10-1823-JLR, 2013 WL 4053225 at \*2 (W. D. Wash. Aug. 12, 2013). During the bench trial, Motorola's expert opined that the net cost to Microsoft of the H.264 license was only 0.68% to 0.84% per device, and that the net cost of the 802.11 SEPs was 1.15%-1.73% per device. However, the Court found that Motorola failed to enter evidence of the value of the Microsoft patents into the record and disregarded these lower net rates. *Microsoft*, 2013 WL 2111217 at \*72-73 (W. D. Wash Apr. 25, 2013).

<sup>36.</sup> Microsoft Corp. v. Motorola, Inc., 2013 WL 5373179 (W.D. Wash. Sept. 24, 2013).

<sup>37.</sup> *In re Innovatio IP Ventures, LLC Patent Litig.*, No. 11-cv-9308, 2013 WL 5593609 (N.D. Ill. Oct. 3, 2013). Prior to the FRAND rate bench trial, the court held a hearing to determine whether Innovatio's patent claims, which had been declared essential to the Wi-Fi standard, were in fact essential. The court determined that they were. *In re Innovatio IP Ventures, LLC Patent Litig.*, No. 11-cv-9308, 956 F. Supp. 2d 925 (N.D. Ill. 2013).

<sup>38.</sup> Innovatio, 2013 WL 5593609 at \*1.

modifications. In *Innovatio*, the court found that the appropriate royalty base was the Wi-Fi chip – the component that supplied the Wi-Fi functionality – and therefore determined that it did not need to separately consider the importance of the Innovatio patents to both the standard as well as to end-user devices.<sup>39</sup> As in *Microsoft*, however, the court found that avoiding excessive royalty stacking was important to the analysis, as was basing the value of a royalty on the intrinsic technical value of the patent, not the hold-up value of the standard.<sup>40</sup>

To determine the FRAND rate to Innovatio's patents with those principles in mind, the court employed a "top down" analysis. It started with operating profits on a Wi-Fi chip, which it determined to be the amount available to license all of the patents necessary for the Wi-Fi standard. It then determined – based on the size and relative technical merit of the Innovatio portfolio – the Innovatio share of the total licensing cost to implement the Wi-Fi standard. Finding that the Innovatio patents were relatively important to the Wi-Fi standard and therefore to Wi-Fi chips, the court determined that the FRAND rate to the Innovatio portfolio of 19 Wi-Fi patents was 9.56 cents per Wi-Fi chip.<sup>41</sup>

In *Realtek v. LSI*, a jury, rather than a judge, determined the proper FRAND rate. Following a trial in which many arguments were similar to those raised in *Motorola v. Microsoft* and *Innovatio*, the jury determined that the FRAND rate to two LSI Wi-Fi SEPs was 0.19%, using Realtek's chip sales as the royalty base. Another jury, in *Ericsson v. D-Link Systems, Inc.*, set a FRAND rate of 15 cents per unit for past infringement of 5 Ericsson SEPs relating to Wi-Fi functionality included in various end-user devices. In a post-trial order upholding the jury verdict, the court rejected concerns about royalty-stacking or patent hold-up as purely "theoretical" and not a basis for adjusting the jury's verdict. As

# 6. THE ABILITY TO CHALLENGE STANDARD-ESSENTIAL PATENTS: VALIDITY/INFRINGEMENT/ENFORCEABILITY

United States law generally encourages accused infringers, and even licensees, to challenge the validity and enforceability of patents, as well as infringement. <sup>44</sup> In the FRAND context specifically, U.S. courts and antitrust agencies are recognizing that a standard implementer must be able to challenge the validity, enforceability and infringement of declared SEPs, without being deemed an "unwilling licensee" against whom an injunction may be appropriate. This is essential to ensuring both that (i) standard implementers (and ultimately end consumers) are required to pay royalties only on patents covering genuine inventions they are actually practicing and (ii)

<sup>39.</sup> Ibid. at \*6-7.

<sup>40.</sup> Ibid. at \*8-10.

<sup>41.</sup> Ibid. at \*43.

<sup>42.</sup> Realtek Semiconductor Corp. v. LSI Corp., C-12-03451-RMW, D.I. 324 (N.D. Cal. Feb. 26, 2014) (Jury Verdict Form).

<sup>43.</sup> Ericsson Inc. v. D-Link Systems, Inc., 10-CV-473, 2013 WL 4046225 (E.D. Tex. 2013).

<sup>44.</sup> *Lear, Inc. v. Adkins*, 395 U.S. 653 (1969) (Licensee not estopped from challenging validity of patent and could avoid payment of royalties on invalidated patent).

inventors who have truly contributed valuable technology to a standard do not see their returns diluted by overpayments to others. Moreover, the outcomes of challenges to patent merits can affect the FRAND rate if certain SEPs are rendered invalid, not infringed, or unenforceable.

In *LSI v. Realtek*, the defendants sought to dismiss Realtek's breach of FRAND suit on the grounds that Realtek was challenging validity and denying infringement of the defendants' SEPs at the same time it was asking the court to set the terms of a license to those patents. The defendants argued that Realtek's challenges to the patents meant it was not actually seeking a license and therefore there was no actual dispute between the parties about FRAND terms. The court disagreed, holding that Realtek's FRAND claim was ripe for adjudication. Indeed, the court noted that as a matter of patent law, determining how much Realtek would ultimately pay for a FRAND license of LSI's patents was dependent on questions of invalidity and infringement. Finally, the court noted that the defendants' efforts to bar Realtek's products from the market during negotiations – through an ITC exclusion order – put Realtek at a "bargaining disadvantage," making adjudication of the FRAND rate almost "necessarily" appropriate for the Court. As

As described above, the rate decisions in both the *Microsoft v. Motorola* and *Innovatio* cases turned substantially on the technical merits of the patents. While infringement and invalidity were not at issue in the Western District of Washington *Microsoft* case, Judge Robart factored the actual essentiality of the Motorola patents in his analysis, as well as the use made by the Microsoft devices, in essence considering the strength of an infringement argument. In *Innovatio*, what the royalty defendants will ultimately owe will depend on the liability phase of the case.<sup>47</sup>

Finally, the consent decree entered by the FTC in the *Google/Motorola Mobility* investigation discussed above specifically provides that Google may not deem a potential licensee an unwilling licensee and seek an injunction, merely because the potential licensee challenges the validity, value, infringement, or essentiality of Google's declared essential patents.<sup>48</sup>

#### 7. CONCLUSION

U.S. courts and regulators have been robustly enforcing FRAND and disclosure commitments in disputes regarding SEPs to ensure the integrity of the standard-setting process and to protect against patent hold-up. With some exceptions, that trend is

<sup>45.</sup> Realtek, 2012 WL 4845628 at \*5.

<sup>46.</sup> Ibid.

<sup>47.</sup> Since the FRAND rate trial, Cisco reportedly settled with Innovatio at a rate of 3.2 cents per unit, substantially lower than the 9.56 cents per unit RAND rate that Judge Holderman determined for the Innovatio portfolio. David McAfee, *Cisco Strikes \$2.7M Deal With Innovatio in Wi-Fi Patent Row*, Law360 (Feb. 6, 2014), available at http://www.law360.com/ip/articles/507936?nl\_pk = 05fe90c0-0229-4658-8ea1-24d92aba6de0&utm\_source = newsletter&utm\_medium = email&utm \_campaign = ip (subscription req.).

<sup>48.</sup> Final Consent Decree and Order, In The Matter of Motorola Mobility LLC and Google Inc. at 8.

reflected in other jurisdictions.<sup>49</sup> These increasingly consistent outcomes will help shape for the better the competitive landscape in mobile communications and many other critical industries, to the benefit of competition and consumers. The more SEP holders and standard implementers can rely on courts in varying jurisdictions to apply consistent and sensible principles to patent enforcement disputes, the more that will narrow divergence in their expectations about results from litigation. This will promote agreements on FRAND licensing terms without litigation,<sup>50</sup> ultimately the best result for SEP holders, potential licensees, other industry participants and consumers alike.

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<sup>49.</sup> See Greenfield, Schneider and Mueller, SEP Enforcement Disputes, supra n. 1.

<sup>50.</sup> See, e.g., F. Easterbrook, *The Limits of Antitrust*, 63 Tex. L. Rev. 1, 12-13 & n. 24 (1984) (observing that "[c]ases are settled when parties can agree on the likely outcome of a trial").

# Index

Α

Agency cooperation, 48, 287, 388, 394,

	395, 396
Abuse of dominance, 64, 173, 175, 206,	Amazon, 85, 92, 169, 237
207	América Móvil, 56, 347
Abuse of dominant position, 128, 176,	American Convention on Human Rights,
178, 206–207, 209, 210, 225–227,	260
377, 382	Anticompetitive practices, 41, 363, 364,
Abusive practice, 158, 207, 310, 341	399, 400, 407, 408, 410
Access, 9, 29, 48, 55, 63, 77, 95, 119,	Antitrust, 7, 22, 27–28, 32, 35–49,
138, 156, 166, 194, 211, 216, 243,	69-90, 93, 98-99, 106, 108-114,
254, 263, 282, 294, 305, 317, 330,	117-133, 157-158, 174, 176, 177,
336, 345, 361, 375, 390	181-203, 205-229, 251, 255, 335,
Access to data, 166–168, 254, 257, 264,	341, 352, 354, 362–365, 370, 371,
266, 274–276, 282	373, 387–393, 395, 396, 397, 399,
Access to the courts, 194, 200,	400, 407-410
201, 203	Antitrust authorities, 29, 32, 33, 91,
Accuracy of data, 266, 269, 275	93-98, 104, 113, 209-211, 214,
Administrative Council for Economic	336, 387, 390, 397–411
Defense (CADE), 35, 38, 41–49,	Antitrust defense, 218, 220, 221, 229
51, 53, 54, 113, 205–214, 341,	Antitrust policy, 71, 112, 114, 387, 389,
362, 364, 365, 368, 369, 371, 374,	393, 395, 397, 398, 409, 411
375, 377–380, 383, 384, 387, 388,	Apple, 21, 23, 72, 82, 83, 131, 172,
390–396, 398–400, 407, 408	175–178, 185–187, 197, 201, 202,
Advertising, 7, 72, 82–84, 91–98,	226
128–130, 239, 249–251, 254, 255,	Article 11(2) of the EU charter on
271, 287, 290, 319	fundamental rights, 4, 10
Advertising budget, 93, 96	Article 21(4) of the EU merger
Advertising market, 94–97, 178	regulation, 6, 11-12
Advocacy, 205, 359–373, 383, 393, 399,	Article 167(4) of the treaty on the
400, 407–410	functioning of the EU, 5, 6, 9, 12
AgCom, 127, 128	Article 102 TFEU, 121, 126, 173,
Agência Nacional de Telecomunicações	175–178, 199, 200, 221, 225–227
(ANATEL), 35, 53, 138, 322, 332,	Article 102(c) TFEU, 121
335, 346, 360, 375, 387, 398	Associative agreements, 210-212

AT&T, 13–16, 20, 31, 33, 51, 55–57, 63,	Canada, 61–66, 81, 142, 258, 264–269,
69, 75 Audiovisual content, 119, 337	272, 274–278 Canadian Competition Bureau, 97
Audiovisual services providers, 337	Car, 90, 98, 99, 102–104, 166, 209, 233,
Autonomous car, 98, 99	239, 250
Auto Parts Designs Case, 209 Axel Springer, 92, 96	Carriers, 14, 15, 18, 21, 31, 87, 119, 122, 137, 139, 181, 305, 322, 325, 331,
В	352, 355, 356, 360, 361 Cellular, 13, 19, 53, 186, 187
D I 'ld. 110 207 200 221 227	Cellular South, 14
Bandwidth, 119, 297, 308, 321, 327,	China, 153–161
336–337, 339, 340 Big data, 88–90, 166, 167, 238, 239, 242,	Circulation, 15, 92, 122, 168
243, 281–290	Civil Landmark of the Internet, 258,
Booking.com, 132	262–265, 274–279 CLARO 53, 54, 56, 57
Bosch, 24, 188	CLARO, 53, 54, 56, 57 Collection of data, 104, 250, 266, 268,
Brasil, 35, 36, 38-41, 45-47, 377, 390,	277, 278
396	Comcast, 16, 33, 75, 79, 123, 312, 324,
Brazil, 35-44, 46-49, 51-59, 135-150,	331
205-214, 257-279, 317-327, 329,	Commission, 3, 19, 27, 62, 89, 100, 125,
332, 334–337, 340, 341, 345–346,	146, 154, 166, 188, 193, 207, 225,
350–357, 359–373, 375, 376, 379, 382, 384, 387–397, 400, 409–411	250, 264, 324, 331, 339, 362
Brazilian Competition Policy System	Communications, 3, 13, 28, 61, 72, 92,
(BCPS), 335, 336, 362–364, 368,	111, 117, 155, 165, 192, 193, 205,
373, 399, 407, 409	229, 234, 257, 283, 294, 317, 330, 337, 346, 360, 375, 388, 398
Brazilian Supreme Court, 333	Communications industries, 28, 65, 111,
Bright house, 16, 18, 87	133, 193
Broadband, 15–17, 19–20, 55, 56, 86, 88,	Competition, 3, 13, 28, 35, 52, 61, 69,
89, 119, 122, 124, 126, 295,	92, 105, 117, 146, 154, 165, 182,
298–300, 310, 313, 314, 320–322,	193, 205, 215, 247, 286, 297, 305,
324–327, 331, 336, 337, 340, 341,	323, 333, 335, 345, 360, 375, 388,
347–351, 355, 356, 361, 367, 375–378, 384, 388–390	398
Broadcasting, 7, 29, 31, 79, 93, 154, 155,	Competition advocacy, 205, 359–373,
211, 307, 361, 364	383, 399, 400, 408–410
Bundeskartellamt (BKA), 132	Competition law, 3, 5, 6, 8, 11, 12, 29, 41, 42, 69, 88, 119–121,
	133, 184, 193, 194, 197, 201,
C	202, 205–208, 210, 212, 213,
Cable, 16–18, 28, 31–33, 79, 87, 92, 298,	215, 216, 218–221, 225, 247–256,
312, 313, 325, 337, 390	361, 363–372, 378, 380, 383,
CADE's General Superintendence	387–396, 398, 409
(SG/CADE), 208, 209, 368, 393,	Competition policy, 5, 11, 72, 90,
394, 398–400, 407, 408	105–114, 213, 380, 388

Competitive dynamics, 69, 70, 106, 107	Data protection, 98, 100, 101, 103, 104,
Conditioned access services (SeAC), 337,	147, 154, 158–160, 169, 171,
339, 355	247–256, 261–263, 265, 268,
Confidentiality, 46, 47, 250, 257–264,	271, 277, 283, 284, 286, 289,
273, 286	290, 332
Conflicts of competence, 400	Data protection directive, 101,
"Connected Continent" package, 27, 28,	238
126, 324	Data transfer and encryption, 154,
Consent, 18, 23, 24, 69–70, 77–80, 82,	158–161, 243, 248, 288,
87, 101, 103, 148, 157–159, 187,	289, 339
188, 191, 211, 237, 238, 242, 243,	Department of economic studies (DEE),
254, 260, 264–267, 269, 272, 275,	399, 409
278, 285, 323, 332	Destruction of data, 270
Consolidation, 27–33, 36, 39–41, 47, 51,	Deutsche Telekom (DT), 13, 15, 18–21,
54, 57, 70, 74, 90, 109, 127, 249,	127
255, 258, 262, 264, 278, 314, 354,	Differentiated products, 111
360	Digital Agenda, 28, 100, 284–285
Consultation, 10, 11, 99–101, 125, 211,	Digitalization, 91–104
260, 263, 275, 309, 311, 326, 337,	Digital media, 92, 207
363–368, 370, 395, 409	Directive 95/46/EC, 268-271
Consumer protection, 90, 102, 256, 284,	Directive 2002/58/EC, 268, 270
338–339, 369	DirecTV, 33, 55, 56, 58, 390
Consumer welfare, 71–73, 75, 76, 105,	Disclosure of data, 247, 265,
108, 111–114, 128, 209, 252	278
Content markets, 94	Discriminatory conduct, 338
Content providers, 12, 31–32, 76–77, 79,	Dissemination of data, 276
93, 122, 124, 258, 276, 297, 298,	Dominance, 17, 83, 121, 129, 158, 167,
308, 310, 312, 319–321, 325, 326,	173, 176, 198, 199, 201–202, 218,
331, 337, 368	219, 221, 249, 250, 253, 255–256,
Convergence, 8, 12, 27–33, 91–104, 171,	307–308, 330, 367, 383
354, 355	Dominant position, 11, 43, 105, 108,
Cooperation, 12, 33, 48, 157, 287, 289,	111, 127, 158, 198, 200, 201, 206,
384, 388, 394–396	207, 218, 219, 225, 250, 253, 308,
Corporate structure, 51	377, 383
Court order, 126, 243, 259, 274, 276,	Draft Bill on Personal Data Protection,
287, 323	258, 262–265, 274, 276, 278
Cox, 16, 86	Draft resolution, 277
Cross-media-effects, 96	Duopoly, 96, 97, 298
Cultural diversity, 3–6, 8–12	Dutch competition authority, 32
Cyber security, 98, 289–290, 330	DVD Case, 206–207
	Dynamic competition, 87, 94, 98,
D	105-114. See also Dynamism
	Dynamic markets, 71, 86, 87, 105-114
Data controller, 263, 269, 270, 272, 273,	Dynamism, 70–74, 79, 81, 83, 86, 105,
275	107, 108, 110, 111, 388, 389

E	Expert group, 100
ECAD case, 209–210 Economics, 35, 41, 49, 74, 139, 239, 320, 365, 369–372, 393 Efficiency(ies), 14, 29, 44, 70, 72, 76, 80, 90, 109, 112–114, 147, 150, 297, 314, 363–364, 375, 378, 384, 395, 409, 410 Efficient institutional structure, 407, 410 Electronic databases, 261 Electronic person (E-person), 99 EMC, 21, 80 Emergency services, 102–103, 326, 333 Employees' data, 103, 289 Entertainment, 13–26, 103, 137, 210, 214, 294, 375 Entry barriers, 30, 45, 71, 76, 82, 87, 106, 149, 254, 297 Espionage, 262, 264, 270, 276 EU law, 173, 177, 193–203, 244 European Commission, 3, 28–30, 32–33, 93–98, 100, 146, 166, 172, 193, 225, 239, 248, 250, 251, 271, 284, 289–290, 299–300, 323–324, 394 European Convention for the Protection of Human Rights and Fundamental Freedoms, 270 European Court of Justice (ECJ), 101, 104, 131, 176 European Data Protection Supervisor, 100, 271	F Facebook, 112, 118, 168, 254, 285 Fair competition, 311, 314, 335–336, 338 Fair, reasonable, and nondiscriminatory (FRAND), 22–24, 81, 157–158, 175–178, 182–196, 198–200, 202–203, 215–229 Federal Communications Commission (FCC), 13, 15, 19–20, 33, 79–80, 89, 122–124, 299, 324–325, 331, 339 Federal Trade Commission (FTC), 13, 21, 23–25, 74, 76–78, 80–83, 87–89, 112, 124, 133, 187–188, 191, 196, 233, 242, 248, 250–251 Financial access in Brazil, 142, 149 Financial inclusion, 135, 139–144, 147, 149 Fintech, 57 Foreign investment, 156–157 Fox Film/Warner Bros, 213 FRAND, 22–24 FRAND commitments, 24, 157–158, 184–188, 194–196, 198–200, 202–203, 221 FRAND royalty, 186, 188, 222–224, 229 Frequency spectrum, 154–155, 352 Fundamental rights, 4, 10–11, 104, 194, 200, 203, 248, 258–261, 277, 288, 290
European Telecommunications Standards Institute (ETSI), 176–177, 179, 195, 197, 199, 215–216, 225–226, 290	Future markets, 76, 87–88 <b>G</b>
European Union (EU), 3–12, 28–33, 95, 100–101, 121, 124–127, 130–133, 166, 169–175, 177, 179, 193–203, 206, 216, 225–227, 229, 233, 238, 240, 244, 249–251, 258, 264–265, 268–278, 282, 284–285, 289, 323–324, 397  Expedia, 132	General Data Protection Regulation, 101, 103, 289 General Law of Telecommunications, 261–262, 336, 346, 378, 379, 399–400 General Plan of Competition (PGMC), 351–353, 361, 368, 377, 380–382, 395, 409

German Federal Cartel Office, 32, 93–98	181, 282, 283, 294, 300, 306, 307,
Germany, 7, 33, 92–93, 96, 104,	308, 312–314, 317, 318, 321, 333,
184–185, 197, 215–229, 244, 248,	341, 345, 347, 348, 350–353,
277	355–357, 359, 381, 383, 390,
Google, 21, 23–24, 70, 72, 81–83, 85, 87,	395
90, 91, 99, 104, 118, 128–131,	Injunctions, 13, 22–24, 176, 184–191,
169, 188, 191, 225, 236, 248–250,	193, 195–202, 208, 216–217, 219,
254-255	220, 222, 225, 227, 228
Google Glass, 104	Injunctive relief, 24, 175, 178, 184, 186,
GSM, 195	194, 195, 196, 197, 202, 215, 216,
GVT, 57-59, 347, 379	218, 225-226, 228-229
	Innovation, 9–10, 14–15, 22–23, 31, 33,
Н	63-64, 70, 71, 73-74, 76, 80-81,
	83–84, 86, 87, 88, 90, 92–93,
Herfindahl-Hirschman Index (HHI), 43,	104–114, 117–119, 121, 126, 128,
53, 70, 110, 376	147, 153–155, 158, 162, 175, 178,
Hold-up, 24, 182–183, 187, 188, 190,	181–184, 193, 195, 239, 241, 244,
191, 195–197, 216	247, 251, 253, 272, 286, 290,
	297–298, 304, 306, 318, 321, 324,
HRS.com, 132	
T	330–331, 333–334, 338–339, 347,
I	364, 373, 383, 388–389, 396
Turney 2 6 7 0 10 12 14 17 10 21	Institutional efficiency, 409
Impact, 3, 6, 7, 9–10, 12, 14, 17, 19–21,	Institutional framework, 42, 384, 400,
25, 32, 41, 44–47, 73, 74, 86, 99,	408, 410
109, 114, 123, 135, 168, 169, 196,	Institutional improvement, 409,
207, 209, 227–228, 233, 237, 239,	410
241, 247–248, 252, 254–255, 283,	Institutional loss, 410
306, 332, 333, 337, 364, 365, 368,	Institutional structure, 375, 380–383,
371, 379, 382, 390	400, 407, 409, 410
Implementation of rights, 265, 273, 277–279	Insurance, 99, 102–103, 135, 149, 238, 252, 287
Important competitive force, 30, 31	Intellectual property, 16, 22–23, 86,
Independent Regulatory Agency, 360,	110–111, 157, 166, 170, 174, 177,
398, 399	193, 205–214, 257, 284
Indicators, 53, 55, 142, 345, 346,	Interconnection, 69–70, 72, 75, 88–89,
350-351, 364	139, 167, 261, 307–312, 317, 319,
Individual access, 265–266, 275	322, 324, 353, 359, 377, 380, 381,
Industrial Exploitation of Dedicated	383
Lines (EILD), 354	InterContinental Group, 132
Industry 4.0, 99	Internet, 11, 16, 32, 63, 69, 91, 108, 117,
Information Technology (IT), 69–90, 98,	144, 153, 166, 194, 233, 248, 257,
148, 153, 166, 169, 170, 179, 241,	
	282, 293, 306, 317, 329, 336, 348,
247, 264, 282–283, 335, 337, 339	368, 375, 388
Infrastructure, 29, 31–33, 55, 62, 83,	Internet Broadband Access, 336,
106, 128, 147, 155, 166, 169, 171,	350–351, 376

Internet Corporation for Assigned Names and Numbers (ICANN), 313, 340–341  Internet governance, 101, 329–330  Internet of the best effort, 122, 295, 324, 339  Internet of things, 89–104, 153–162, 233, 239, 242  Internet Service Providers (ISP), 88–89, 120, 122–124, 159, 258, 294, 295, 296, 299–303, 306–312, 314, 323,	Legislative reform, 268, 278 Licenses, 9, 14, 16, 18, 21–23, 37–39, 45, 56, 62, 77–81, 87, 88, 129, 144, 157, 172–174, 176–178, 182–186, 188–193, 195–199, 201–202, 209, 216, 218–229, 307–309, 313, 335, 337, 380 Licensing agreements, 173–174, 176, 210–212 LINUX, 23 LTE, 18, 20, 31, 56, 312
336–337, 340, 341	M
Interoperability, 70, 75, 127–128, 147, 157, 168, 171–172, 178–179, 181, 215, 284  Interpretation, 39, 43, 156, 160, 161, 222–223, 227–229, 234–235, 271, 340, 407–410  Invasion of privacy, 240, 249, 259  Inviolability and secrecy of communications, 259, 261, 263, 278  IPv6, 154, 155  Irreparable harm, 186  Italian Communications Authority, 127	M Magazines, 92, 93, 95, 96, 233, 365 Mandatory neutrality, 338 "Marco Civil da Internet," 329, 338 Market, 5, 13, 27, 36, 51, 61, 69, 91, 105, 120, 135, 158, 165, 183, 196, 206, 215, 236, 248, 284, 305, 321, 329, 335, 345, 359, 375, 387, 400 analysis, 19, 352 concentration, 11, 43, 53–54, 56, 74, 110, 376, 377, 384 definition, 46, 98, 109–111, 254, 352 power, 9, 17, 21–22, 29, 43–45, 63, 70, 72, 74, 76, 83, 86, 88–90,
Law, 3, 27, 35, 61, 69, 98, 108, 119, 147, 158, 171, 182, 193, 205, 215, 234, 247, 258, 283, 294, 318, 329, 336, 346, 359, 375, 388, 397  Law 8,884 of 1994, 41, 400  Law 9,472 of 1997, 37, 399, 400, 407  Law 12,529 of 2011, 336, 364, 397, 400, 407, 408, 409  Legal and institutional scenario, 407, 410  Legal framework, 7, 99–101, 251, 261, 262, 284, 329, 377, 384, 391, 395, 407  Legislative advocacy, 407, 410  Legislative improvement, 409, 410  Legislative initiatives, 258, 262–264, 278	109–113, 120–122, 167, 174, 177, 207, 213, 249, 251, 253, 255, 308, 352, 354, 373, 378, 381–382, 395 regulation, 28, 54, 70, 73, 75, 88–89, 136, 146–147, 350, 352, 354–356, 375–384 share, 22, 30, 43–45, 52, 53, 70, 71, 90, 110–111, 128, 174, 177, 198, 213, 249, 253, 255, 310, 347–349, 352 studies, 135–136, 362–363, 368, 371, 397–399, 408–409 Media, 3, 27, 58, 70, 79, 91, 119, 205, 215, 237, 309, 335, 370 industries, 27–33 markets, 93–94, 96–98 pluralism, 3, 4, 6, 11

Merger control, 3–12, 61, 62, 98, 210–214	368, 375, 377–384, 387, 390, 391, 393, 395, 396, 398, 399, 407–409
Merger review, 3, 6–7, 35, 38, 41–44, 48, 65, 210, 213, 252, 363, 379, 383,	National Regulatory Authorities (NRAs), 125, 299
388, 389, 391–395, 397, 399, 400, 407–408, 410	National security, 62, 65, 160, 177, 240, 247, 269–270, 276, 287, 289
MetroPCS, 18–21, 31	Neighbouring markets, 91, 98
Microsoft, 21–23, 70, 72, 75, 80, 117,	Nest, 91
169, 177, 184–185, 188–191, 196,	Netmundial, 329–333, 340
255, 290	Net neutrality, 11, 28, 33, 75, 88–89,
Ministry of Communications, 346, 351,	119, 121–127, 133, 293–315, 317,
360, 364, 377, 398, 399	320, 322-327, 330-331, 333, 368,
Minority shareholding, 35, 42, 48–49,	378
390	Network, 11, 14, 28, 44, 65, 69, 94, 111,
M2M (Machine to Machine), 154–158,	117, 136, 158, 166, 181, 248, 255,
160	263, 282, 293, 305, 317, 330, 338,
Mobile banking, 135–150	350, 361, 375, 390
Mobile communications, 155, 177, 192,	effects, 70–72, 75, 94, 127, 248
193, 197	infrastructure, 29, 181, 294, 300, 321,
Mobile devices, 95, 108, 136–137, 167,	341, 390
201, 273, 281, 283, 285, 286, 288	neutrality, 121–122, 124, 263, 295,
Mobile network operator, 29–31, 136,	317–327
149, 307	Neutrality, 11, 28, 33, 40, 75, 88–90,
Mobile payments, 135–150	119, 121–127, 133, 263, 272, 278,
Mobile phone penetration in Brazil, 138,	293–315, 317–327, 329, 331, 333,
142	338–341, 368, 378
Mobile phones, 21–23, 137–139,	News Corp/BSkyB, 4, 6–8, 12
141–144, 181, 194, 322	Newspapers, 7, 72, 92–96, 98,
Mobile phone subscriptions in Brazil,	130, 309
138 Mobile virtual petyyork operators, 14	NEXTEL, 14, 39, 57, 347–348
Mobile virtual network operators, 14, 30, 352	Non-binding opinions, 38, 208, 409–410 Non-classical transactions, 210
Modularity, 70–72, 76, 79, 80,	ivon-classical transactions, 210
83, 86	0
Monsanto and Bayer, 210–211	
Motorola, 21, 23, 184–186, 188–191,	Object identifiers, 101
193–194, 197–199, 201–203,	Office of Fair Trading, 132
225–226, 228, 229	Office of the Privacy Commissioner of
	Canada, 268
N	Offline media, 94–95
Nichard Assess of Telescope State	OI, 40, 45, 53, 54, 57, 347, 390–391, 396
National Agency of Telecommunications	On-demand services, 31, 93, 170, 282,
(ANATEL), 35–41, 45–46, 48, 54,	283, 348 Online advertising 05 08 130 354
137–138, 322, 326, 332, 335–339, 341, 346, 351–356, 360, 361, 364,	Online advertising, 95, 98, 129, 254
541, 540, 551-550, 500, 501, 504,	Online video platform, 97

Orange, 30, 127, 198, 202, 218–225, 227–229 Orange Book, 198, 202, 218–225, 227–279 Organisation for Economic Co-operation and Development (OECD), 63, 213, 363–364, 366–367, 409 Overall advertising market, 96 Overlap, 17, 20, 39, 44, 87, 96, 212, 214, 375–384, 390, 400, 408–410 Over regulation, 338–339 Over-the-top (OTT providers), 118–121, 123, 127–128, 135, 337, 338, 373	Privileged treatment, 340 Processing of data, 157, 166, 266, 269–271, 273, 306 Proofpoint Inc, 99 ProSiebenSat1, 97 Public, 7, 10–11, 19–20, 23, 31, 35, 47, 64–66, 74, 77, 99–101, 104, 125, 128, 158, 165–166, 172, 175, 177, 195, 208, 209, 211, 222, 225, 233, 236, 242, 250, 259–260, 263, 266, 269–270, 275–276, 278, 281, 284, 286, 288–290, 294–295, 301, 305, 307–309, 313, 315, 320, 323,
123, 127–120, 133, 337, 330, 373	337–339, 346, 355, 360–373, 395,
P	398, 399, 408–409
B 1 1 157 100 001	Purpose of collection, 158–159, 240,
Patent disclosure 22, 183, 221	265–269, 274–275, 278
Patent disclosure, 22, 182, 183, 191 Patent law, 182, 185, 191, 219	n.
Patent portfolio, 21–24, 189–190, 223	R
Patents, 21–24, 75, 107, 113, 157–158,	Radio, 62, 87, 93, 100, 154, 155, 336,
175–178, 181–193, 195–200,	352
206-208, 211, 215-229	Reach, 16, 18, 25, 27, 30, 32, 44, 61, 80,
Payment institution, 146-147, 149	95, 96, 122, 124, 128, 139, 140,
Payment institution in Brazil, 145, 146	141, 197, 199, 206, 223, 234, 237,
Payment Services Directive (PSD), 144,	248, 251, 265, 297, 311, 317, 318,
146, 147, 149	331, 339, 350, 351, 361, 362,
Personal Information Protection and	368–372, 379
Electronic Documents Act	Realtek, 185, 190, 191
(PIPEDA), 265–268 PGMC. See General Plan of Competition	Reasonable and nondiscriminatory (RAND), 22
(PGMC)	(RAND), 22 Reform, 37, 126, 155, 171, 243, 268,
Plurality of the media, 3, 4, 6, 12	271, 272, 274, 277, 278, 314, 363,
Policy consensus, 400, 407–410	393, 395
Policy goal, 397–398	Refrigerator, 98, 99, 102, 242
Portability, 88, 101, 129, 168, 171–172,	Regulation, 6, 27, 37, 54, 62, 70, 101,
178, 211, 272, 278, 284, 350, 352	109, 118, 136, 154, 171, 194, 207,
Pre-merger review system, 35, 48, 397	252, 258, 284, 295, 307, 317, 330,
Principle of publicity, 260	336, 346, 359, 375, 396, 398
Privacy, 90, 98, 100–101, 104, 147,	Regulation 1/2003, 194, 197,
158–160, 233–245, 247–255,	202
257-274, 276-279, 281-290, 298,	Regulation of electronic money in Brazil,
301, 319, 326, 330–331, 338, 341  Privacy by default, 353, 372, 373, 379	144–146  Regulation of payment institution in
Privacy by default, 253, 272–273, 278 Privacy by design, 253, 272–273, 278	Regulation of payment institution in Brazil, 145–146, 149
1 11 vacy by acoign, 233, 212-213, 210	DIGZII, 175-170, 177

Regulation of payment institution in	383, 384, 391, 392, 393, 398–399,
Europe, 145–146	407, 408, 409, 410
Regulatory, 3, 15, 27, 35, 52, 64, 74,	Secretariat for Economic Monitoring of
121, 136, 153, 165, 182, 257, 286,	the Ministry of Finance
298, 305, 322, 330, 335, 351, 360,	(SEAE/MF), 398-399, 407, 409
378, 387, 397	Secretariat of Economic Law (SDE), 43,
Regulatory agency, 48, 322, 326, 335,	208, 210, 362, 363, 364, 368, 369,
339, 341, 360, 365, 378, 379, 387,	371, 392, 393, 408
391, 393, 395, 396, 398, 399, 407,	Secretariat of Telecommunications of the
408, 409, 411	Ministry of Communications
Regulatory policy, 397–411	(STE/MiniCom), 398, 399
Regulatory power, 315	Section 5 FTC Act, 187, 188
Relevant market, 11, 13, 17, 19, 22, 84,	Section 2 Sherman Act, 187
97, 104, 109-110, 131, 158, 165,	Sectorial regulatory agencies, 378, 407
171, 178, 198, 210, 214, 352, 353,	Sectorial studies, 368, 408, 409
381, 382, 383, 395	Security-as-a-service provider, 99
Remedies, 25, 29, 30, 32, 35, 41, 44, 45,	Security of data, 257, 283, 288-290
47, 48, 74, 76, 77, 79, 81, 82, 90,	Sensors, 91, 101
131, 132, 185, 194, 197, 200, 202,	SFR, 58
227, 229, 255, 256, 268, 381, 382,	Shop Tour Case, 208
390, 391, 392, 394, 396	SKY, 7, 8, 55, 56, 58, 347,
Retention of data, 288	390
Reverse hold-up, 195–197	Skype, 118, 127, 305, 306,
Right of deletion, 101	338
Right to be forgotten, 101, 272, 273,	Smart appliances manufacturer, 91
278	Smartphone, 21, 70, 92, 93, 108, 175,
Right to privacy and private life,	177, 193, 215, 218, 227, 337, 372
259–261, 274, 276, 277, 288, 298	SNOA, 353-354, 382
Rivalry, 44, 107, 111, 182, 212, 352	Songdo IBD, 91
Robots, 99, 130	Sony/EMI, 212-213
Rockstar, 21	Sony Ericsson, 21
Royalty, 18, 21, 22, 23, 87, 158, 182,	Spectrum, 14, 16–21, 27, 28, 30, 37, 39,
183, 184, 185, 186, 187, 188, 189,	54, 56, 62, 64, 65, 66, 86, 87,
190, 191, 196, 197, 207, 209, 219,	100, 153–162, 258, 351, 352, 380,
220, 222–224, 226, 229	383
Royalty stack(ing), 183, 188, 190	Sprint, 14, 15, 16, 31
RTL, 97	Standard essential patents (SEPs), 21,
	22, 23, 24, 75, 157, 158, 175, 176,
S	181–202, 207, 215, 216, 217, 218,
	220, 221, 222, 223, 225, 226, 227,
Satellite, 32, 33, 37, 55, 79, 87, 155, 337,	228, 229
367	Standardization, 70, 77, 100, 157, 166,
Score, 102, 103	168, 170–172, 177, 179, 182, 183,
Secretariat for Economic Monitoring	187, 188, 195, 196, 197, 203,
(SEAE), 43, 341, 362–373, 379,	215–216, 284, 290, 359

Standards, 19, 43, 75, 99, 111, 147, 155, Telefónica, 36, 38-41, 44-49, 51, 52, 53, 171, 181, 193, 207, 215, 235, 265, 54, 127 282, 301, 309, 330, 336 Telematics box, 102, 103 Standard-setting organizations (SSOs), Telephony, 15, 28, 44, 53, 181, 214, 261, 21, 22, 181, 183, 187, 188, 194, 283, 284, 305, 324, 346-348, 350, 195, 198, 199, 215, 216, 221, 226 351, 353, 355, 356, 359, 360, 361, State attorneys general, 14 373 Storage of data, 158, 159, 165, 167, 168, TIM, 35-49, 52-54, 57, 58, 59, 347, 390 169, 170, 171, 282, 287 Time Warner, 16, 18, 33, 87 Supremo Tribunal Federal (STF), 206 T-Mobile, 13-16, 18, 19, 20, 21, 30, 31, Synergies, 58, 74, 375-384, 400, 409, 33 Transaction, 7, 14, 27, 35, 65, 70, 91, 410 112, 135, 136, 157, 205, 218, 248, Т 314, 353, 387, 390 Transmission of data, 125, 270 Tachographs' Case, 207-209 TV, 7, 31, 32, 33, 55, 87, 93, 95, 96, 97, Technological innovation, 93, 104, 110, 104, 211, 336, 337, 338, 347, 348, 117, 119, 121, 158, 396 349, 350, 352, 355, 356, 361, 364, Technology, 16, 28, 69, 91, 105, 117, 373, 390 135, 153, 165, 181, 194, 207, 216, Two-sided markets, 72, 94, 98, 104, 312, 234, 247, 257, 282, 293, 318, 335, 321 336, 345, 361, 378, 396, 398 Telecom Argentina, 57 U Telecom Italy, 51, 57, 58, 59 Telecommunication, 3, 14, 27, 35, 51, UMTS, 175, 177, 195, 198, 201 62, 111, 117, 135, 153, 171, 181, UNESCO Convention on the Protection 194, 214, 215, 243, 257, 293, 305, and Promotion of the Diversity of 320, 331, 335, 345, 359, 375, 387, Cultural Expressions, 4, 9 397 Unfairness Policy Statement, 24 Telecommunications General Law United Nations, 277, 283, 330 (LGT), 37, 38, 39, 336, 346, 360, Universal/EMI, 3, 4, 6, 8–12, 212–213 378, 379, 399, 400, 407 Up-to-date data, 126, 266, 269 Telecommunications in Brazil, 345-346 U.S. Department of Justice (DOJ), Telecommunications Integrated Market 13-23, 31, 33, 76, 79-87, 132 Regulation, 28 User behaviour, 91 Telecommunications market, 27, 28, 29, 30, 36, 40, 47, 62, 171, 305, 345, V 347-349, 351, 352, 357, 373, 375-384, 400 Verizon, 16-18, 31, 64, 86, 87, 123, 325 Telecommunications policy, 63, 346, Vertical foreclosure, 3, 377, 378, 382 351, 360, 399 Vexatious litigation, 200 Telecommunications sector, 36-38, 66, Viber, 118 157, 258, 261-262, 265, 277, 278, Videolar against Koninklijke Philips 335, 336, 338, 345-357, 373, 377, Electronics, 207 378, 383, 384, 399, 400 Video On Demand (VoD), 337, 338, 348

Vivendi, 25–26, 51, 55, 57–59, 347 VIVO, 36, 40, 45, 46, 47, 52, 53, 54, 57, 347, 390 Vodafone, 30, 33, 51, 55, 57

#### W

Washington Post, 92 WhatsApp, 118, 293, 305, 308, 338 White spectrum, 153–162 Willing/unwilling licensee, 188, 190, 191, 198, 226, 228, 229
Wired city, 91
Working Party on the Protection of
Individuals with regard to the
Processing of Personal Data, 270,
271

#### Y

Yahoo, 128, 255 YouTube, 127, 168, 339, 372