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REGION CODES AND THE TERRITORIAL MESS[♦]

PETER K. YU*

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INTRODUCTION

Intellectual property rights are territorial by nature.¹ Copyright holders cannot yet obtain unitary protection throughout the world. Instead, they obtain rights in Australia, Brazil, China, France, South Africa, and the United States. What type of rights they obtain, how strong these rights will be, and whether the rights will be effectively enforced depend largely on the intellectual property system each individual country has put in place. It is therefore no surprise that copyright holders seeking to protect their works in multiple markets remain frustrated by the “territorial mess” created by national divergences in laws, policies, and institutions, not to mention the additional differences in market capacities and consumer expectations.²

Although countries have occasionally enforced laws extraterritorially to abate this “territorial mess,”³ especially in situations involving the Internet, a less intrusive approach is to harmonize the laws of different countries. Since the nineteenth century, sovereign governments have worked with each other to address cross-border challenges by establishing international intellectual property agreements.⁴ These agreements ranged from the Paris, Berne, and Rome Conventions⁵ to the Agreement on Trade-Related Aspects of

¹ See Berne Convention for the Protection of Literary and Artistic Works art. 5(3), Sept. 9, 1886, S. Treaty Doc. No. 99-27, 828 U.N.T.S. 221 (revised at Paris July 24, 1971) [hereinafter Berne Convention] (“Protection in the country of origin is governed by domestic law.”); Paris Convention for the Protection of Industrial Property art. 4*bis*(1), Mar. 20, 1883, 13 U.S.T. 2, 828 U.N.T.S. 305 (revised July 14, 1967) [hereinafter Paris Convention] (“Patents applied for . . . by nationals of a country of the Union shall be independent of patents obtained for the same invention in other countries . . .”); General Council, Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health ¶ 6(i), WT/L/540 (Sept. 2, 2003), 43 I.L.M. 509 (2004) (noting “the territorial nature of the patent rights”); see also Frederick M. Abbott, *Seizure of Generic Pharmaceuticals in Transit Based on Allegations of Patent Infringement: A Threat to International Trade, Development and Public Welfare*, 1 WIPO J. 43, 44 (2009) (noting the difference between the territoriality and the independence of intellectual property rights).

² See Peter K. Yu, *Teaching International Intellectual Property Law*, 52 ST. LOUIS U. L.J. 923, 943 (2008) (noting “the ‘messiness’ of international intellectual property law”).

³ For discussions of extraterritorial enforcement of intellectual property rights, see generally Curtis A. Bradley, *Territorial Intellectual Property Rights in an Age of Globalism*, 37 VA. J. INT’L L. 505 (1997); Jane C. Ginsburg, *Extraterritoriality and Multiterritoriality in Copyright Infringement*, 37 VA. J. INT’L L. 587 (1997).

⁴ See generally Peter K. Yu, *Currents and Crosscurrents in the International Intellectual Property Regime*, 38 LOY. L.A. L. REV. 323, 330–75 (2004) [hereinafter Yu, *Currents and Crosscurrents*] (providing the history of the development of the international intellectual property regime).

⁵ Berne Convention, *supra* note 1; Paris Convention, *supra* note 1; International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations, Oct. 26,

Intellectual Property Rights⁶ (“TRIPS Agreement”) of the World Trade Organization (“WTO”) to the 1996 Internet Treaties⁷ of the World Intellectual Property Organization (“WIPO”).

While territorial challenges posed by national borders continue to exist and remain quite significant, rapid globalization, the increased mobilization of goods and people, and the arrival of the Internet and new communications technologies have further exacerbated these challenges. In the mid-1990s, the popularization of the Internet led commentators and netizens to question the success and appropriateness of using existing laws and regulations to govern the borderless Cyberspace.⁸ In *A Declaration of the Independence of Cyberspace*, for example, John Perry Barlow provocatively declared:

Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather.

We have no elected government, nor are we likely to have one, so I address you with no greater authority than that with which liberty itself always speaks. I declare the global social space we are building to be naturally independent of the tyrannies you seek to impose on us. You have no moral right to rule us nor do you possess any methods of enforcement we have true reason to fear.⁹

By now, it is quite clear that Cyberspace, though borderless, is far from unregulable. As Lawrence Lessig, Joel Reidenberg, Tim Wu, and many others have reminded us, code can become law.¹⁰ By

1961, 496 U.N.T.S. 43.

⁶ Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 108 Stat. 4809, 869 U.N.T.S. 299 [hereinafter TRIPS Agreement].

⁷ WIPO Copyright Treaty, Dec. 20, 1996, S. Treaty Doc. No. 105-17, at 1 (1997); WIPO Performances and Phonograms Treaty, Dec. 20, 1996, S. Treaty Doc. No. 105-17, at 18 (1997).

⁸ David Post and Jack Goldsmith provided the now classic exchange on this particular topic. See David R. Johnson & David G. Post, *Law and Borders—The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367 (1996) (discussing how efforts to control the flow of electronic information across physical borders will likely fail); Jack L. Goldsmith, *Against Cyberanarchy*, 65 U. CHI. L. REV. 1199 (1998) (disputing the need to distinguish between Cyberspace and real-space transactions and advocating the need to ground Cyberspace transactions in real-space laws); David G. Post, *Against “Against Cyberanarchy,”* 17 BERKELEY TECH. L.J. 1365 (2002) (providing a retort to Professor Goldsmith’s article).

⁹ John Perry Barlow, *A Declaration of the Independence of Cyberspace*, ELECTRONIC FRONTIER FOUND. (Feb. 8, 1996), <https://projects.eff.org/~barlow/Declaration-Final.html>.

¹⁰ See generally LAWRENCE LESSIG, CODE: VERSION 2.0 (2006) (pioneering the concept that code is law and discussing how technology can be used as a tool to regulate behavior and to facilitate compliance with legal norms); Joel R. Reidenberg, *Lex Informatica: The Formulation of Information Policy Rules Through Technology*, 76 TEX. L. REV. 553, 555 (1998) (arguing that policymakers need to understand, recognize, and encourage the set of rules for information flows imposed by technology and communication networks known as “Lex Informatica”); Tim Wu, *When Code Isn’t Law*, 89 VA. L. REV. 679 (2003) (exploring the relationship between code and

manipulating or regulating code, countries have successfully fortified borders to assert their longstanding, and often much-needed, sovereign control.¹¹ After all, political scientists Robert Keohane and Joseph Nye have noted, “information does not flow in a vacuum, but in political space that is already occupied.”¹²

Notwithstanding its regulability, the borderless Cyberspace continues to pose major challenges to the enforcement of intellectual property rights.¹³ To alleviate these challenges, the House and the Senate introduced, respectively, bills to enact the Stop Online Piracy Act¹⁴ (“SOPA”) and the PROTECT IP Act¹⁵ (“PIPA”). These proposed statutes seek to target “rogue” websites that facilitate online piracy and counterfeiting.¹⁶ At the international level, the United States, Japan, members of the European Union, and other like-minded countries also aggressively pushed for the adoption of the Anti-Counterfeiting Trade Agreement¹⁷ (“ACTA”). As of this writing, the United States is busy negotiating the Trans-Pacific Partnership Agreement,¹⁸ which is

compliance with law through the study of code design and interest group behavior).

¹¹ As Jack Goldsmith and Tim Wu observe:

Far from flattening the world, the Internet—its language, its content, its norms—is conforming to local conditions. The result is an Internet that differs among nations and regions that are increasingly separate by walls of bandwidth, language, and filters. This bordered Internet reflects top-down pressures from governments that are imposing national laws on the Internet within their borders. It also reflects bottom-up pressures from individuals in different places who demand an Internet that corresponds to local preferences, and from the web page operators and other content providers who shape the Internet experience to satisfy these demands.

JACK GOLDSMITH & TIM WU, *WHO CONTROLS THE INTERNET?: ILLUSIONS OF A BORDERLESS WORLD* viii (2006).

¹² ROBERT O. KEOHANE & JOSEPH S. NYE, *POWER AND INTERDEPENDENCE* 217 (3d ed. 2001).

¹³ See Peter K. Yu, *Enforcement, Enforcement, What Enforcement?*, 52 *IDEA* (forthcoming 2012) [hereinafter Yu, *What Enforcement?*] (discussing the enforcement challenges in the digital environment).

¹⁴ H.R. 3261, 112th Cong. (2011).

¹⁵ Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act of 2011, S. 968, 112th Cong. (2011).

¹⁶ For criticisms of these bills, see generally Peter K. Yu, *Congress Should Rethink Online Piracy Bill*, *DES MOINES REG.*, Mar. 8, 2012, <http://www.desmoinesregister.com/article/20120308/OPINION/303080079/Iowa-View-Congress-should-rethink-online-piracy-bill>; Letter from Prof. John R. Allison et al. to Members of the U.S. Cong. (July 5, 2011), available at http://cdt.org/files/pdfs/SOPA_House_letter_with_PROTECT_IP_letter_FINAL.pdf (opposing PIPA). In the interest of full disclosure, the Author has signed on to the law professors’ letter in opposition to this Act.

¹⁷ Anti-Counterfeiting Trade Agreement, *opened for signature* May 1, 2011, 50 *I.L.M.* 243 (2011) [hereinafter ACTA]. See generally Peter K. Yu, *ACTA and Its Complex Politics*, 3 *WIPO J.* 1 (2011) (criticizing the use of the “country club” approach to negotiate ACTA); Yu, *What Enforcement?*, *supra* note 13 (suggesting ways to improve the design of an anti-counterfeiting trade agreement); Peter K. Yu, *Six Secret (and Now Open) Fears of ACTA*, 64 *SMU L. REV.* 975 (2011) (discussing the serious concerns about ACTA).

¹⁸ See *Trans-Pacific Partnership*, OFF. U.S. TRADE REPRESENTATIVE, <http://www.ustr.gov/tp> (last visited Apr. 15, 2012) (providing up-to-date information about the Agreement). See generally Meredith Kolsky Lewis, *The Trans-Pacific Partnership: New Paradigm or Wolf in Sheep’s Clothing?*, 34 *B.C. INT’L & COMP. L. REV.* 27 (2011) (discussing the Trans-Pacific Partnership Agreement); Peter K. Yu, *The Alphabet Soup of Transborder Intellectual Property Enforcement*, *DRAKE L. REV. DISCOURSE* (forthcoming June 2012), available at <http://ssrn.com/abstract=2054950> (explaining why the Trans-Pacific Partnership Agreement is

anticipated to include intellectual property provisions pertaining to cross-border enforcement.¹⁹

Because David Levine's article and the attendant commentaries in this Symposium already cover many of these issues,²⁰ this Article focuses on an issue commentators have somewhat ignored: the deployment of region-based restrictions to protect copyrighted content. These restrictions show that, while technology undoubtedly has exacerbated challenges posed by territorial boundaries, rights holders, with the help of national governments, have also successfully co-opted technology to strengthen the protection of their copyrighted content.

A leading example of such technology is the use of region codes by the movie, software, and game industries to protect content stored on digital video discs ("DVDs")—or what the home electronics industry has now rebranded as "digital versatile discs."²¹ Designed as technological protection measures, DVD region codes direct machines to allow access to the protected content only if the product was coded to be played in the authorized geographic region. The playback control mechanism initiated by these region codes can be found on both DVD players and computers containing DVD-ROM drives.²² Although a number of legal commentators have briefly analyzed DVD region codes in the context of digital rights management,²³ very few have examined

more dangerous than ACTA from a public interest standpoint).

¹⁹ See *Enhancing Trade and Investment, Supporting Jobs, Economic Growth and Development: Outlines of the Trans-Pacific Partnership Agreement*, OFF. U.S. TRADE REPRESENTATIVE, <http://www.ustr.gov/about-us/press-office/fact-sheets/2011/november/outlines-trans-pacific-partnership-agreement> (last visited Apr. 13, 2012); see also Catherine Saez, *Trans-Pacific Partnership Agreement: Did US Move Threaten Public Health?*, INTELL. PROP. WATCH (July 12, 2011, 5:57 PM), <http://www.ip-watch.org/2011/07/12/trans-pacific-partnership-agreement-did-us-move-threaten-public-health/> (discussing the Trans-Pacific Partnership Agreement negotiations at the intersection of intellectual property and public health).

²⁰ See David S. Levine, *Bring in the Nerds: Secrecy, National Security and the Creation of International Intellectual Property Law*, 30 CARDOZO ARTS & ENT. L.J. 105 (2012); Annemarie Bridy, *Copyright Policymaking as Procedural Democratic Process: A Discourse-Theoretic Perspective on ACTA, SOPA, and PIPA*, 30 CARDOZO ARTS & ENT. L.J. 153 (2012); Mary LaFrance, *Graduated Response by Industry Compact: Piercing the Black Box*, 30 CARDOZO ARTS & ENT. L.J. 165 (2012).

²¹ As Jim Taylor recounts: "In the early days of DVD's development, the letters stood for digital video disc. Later, like a stepsister trying to squish her ugly foot into a glass slipper, a few companies tried to retrofit the acronym to 'digital versatile disc' in a harebrained attempt to express the versatility of DVD." JIM TAYLOR, *DVD DEMYSTIFIED* 3 (2d ed. 2001).

²² For the purposes of this Article, DVD players may include DVD-ROM drives.

²³ See, e.g., CORY DOCTOROW, *CONTENT: SELECTED ESSAYS ON TECHNOLOGY, CREATIVITY, COPYRIGHT, AND THE FUTURE OF THE FUTURE* 11–13 (2008) (discussing DVD region codes in the context of anti-circumvention legislation); MELVILLE B. NIMMER & DAVID NIMMER, *NIMMER ON COPYRIGHT* § 12A.06D[2][b] (Perm. ed. 2006) (pointing out that region encoding used in DVDs and video games "constitutes neither an access control (inasmuch as buyers of the disc obtain the lawful right to access it, at least under certain circumstances) nor a copying control (inasmuch as disabling the regional coding does not implicate the copyright owner's rights as defined in the Copyright Act)"), quoted in Peter K. Yu, *Anticircumvention and Anti-anticircumvention*, 84 DENV. U. L. REV. 13, 69 (2006); Stefan Bechtold, *The Present and Future of Digital Rights Management—Musings on Emerging Legal Problems*, in *DIGITAL RIGHTS MANAGEMENT: TECHNOLOGICAL, ECONOMIC, LEGAL AND POLITICAL ASPECTS* 597, 628–29

the expediency of using region-based restrictions to protect media content.²⁴ This Article seeks to fill this void by critically evaluating the use of such restrictions to protect intellectual property rights.

Part I of this Article provides a historical background of DVD region codes and a brief overview of the technology involved. Part II advances four justifications for the deployment of DVD region codes. This Part critically evaluates the strengths and weaknesses of these justifications. Part III identifies four areas in which DVD region codes have created unintended consequences: consumption, competition, cultural rights, and censorship. Part IV advances three modest proposals to address the shortcomings of DVD region codes. Specifically, this Part discusses (1) the voluntary removal of these codes; (2) the provision of affordable multiregion players; and (3) the introduction of a right to circumvent. Part V concludes with an explanation of why a better and deeper understanding of region-based restrictions is both timely and important. By linking DVD region codes to streaming platforms, device-embedded applications, cloud computing, and other emergent technologies, this Part warns that the impact of region-based restrictions on consumers is likely to increase in the near future.

I. HISTORICAL ORIGINS

Dubbed the “the medium of the new millennium” by the DVD Entertainment Group,²⁵ DVD provided “the first high-quality interactive medium to be affordable to the mass market.”²⁶ Although two groups of technology developers initially disagreed over what form the new medium should take—with Sony and Philips embracing Multimedia CD while Hitachi, Matsushita (Panasonic), Mitsubishi, Victor (JVC), Pioneer, Thomson (RCA/GE), and Toshiba supporting Super Disc—they eventually set aside their differences to focus on a single medium: DVD.²⁷ DVD, DVD players, and DVD-ROM drives were commercially released in the United States in 1997, and in Japan a few months earlier.²⁸

(Eberhard Becker et al. eds., 2003) [hereinafter DIGITAL RIGHTS MANAGEMENT] (discussing DVD region codes as an illustration of how digital rights management technology can be used to control complimentary markets); Yu, *Anticircumvention and Anti-anticircumvention*, *supra*, at 75 (discussing region codes in relation to the debate on digital rights management); Sun Qixiang, Note, *The DMCA Anti-Circumvention Provisions and the Region Coding System: Are Multi-Zone DVD Players Illegal After the Chamberlain and Lexmark Cases?*, 2005 U. ILL. J.L. TECH. & POL’Y 317 (exploring the legality of manufacture, importation, or distribution of multiregion players under the Digital Millennium Copyright Act).

²⁴ The rare exception is Rostam J. Neuwirth, *The Fragmentation of the Global Market: The Case of Digital Versatile Discs (DVDs)*, 27 CARDOZO ARTS & ENT. L.J. 409 (2009).

²⁵ TAYLOR, *supra* note 21, at 2.

²⁶ *Id.* at 4.

²⁷ See JIM TAYLOR ET AL., DVD DEMYSTIFIED 2–3 to –6 (3d ed. 2006).

²⁸ See *id.* at 2–12 to –13.

To protect the content stored on DVDs, movie studios and other content providers have actively pushed for the adoption of a copy-protection architecture featuring the Content Scrambling System (“CSS”).²⁹ Designed by the ten-member DVD Consortium (which later became the DVD Forum),³⁰ this architecture includes a regional playback control mechanism. This mechanism divides the world into six different regions. Recognizing these regions as well as two additional uses of media content,³¹ region codes used on DVDs include the following:³²

²⁹ “The *content scrambling system* (CSS) is a data encryption and authentication scheme intended to prevent copying video files directly from the disc.” *Id.* at 5–4. CSS was notoriously decrypted by the deCSS software and became the subject of litigation in *Universal City Studios, Inc. v. Corley*, 273 F.3d 429 (2d Cir. 2001).

³⁰ The ten initial members of the DVD Consortium were Hitachi, JVC, Matsushita, Mitsubishi, Philips, Pioneer, Sony, Thomson, Time Warner, and Toshiba. TAYLOR ET AL., *supra* note 27, at 2–6. “In October [1997], the . . . Consortium changed its name to the DVD Forum and opened membership to all interested companies. By the time the first DVD Forum general meeting was held in December, the organization had grown to 120 members.” *Id.* at 2–18. The official website of the DVD Forum is available at <http://www.dvdforum.org/>.

³¹ The eight regions were selected in an effort to fit all the flags within a single byte. As Jim Taylor points out: “Since each region is represented by a bit, a single byte can hold 8 region flags. The neighboring byte is reserved, so it would be possible for the DVD Forum to designate a total of 16 regions in the future.” TAYLOR ET AL., *supra* note 27, at 5–20 n.4.

³² This table combines, with slight modifications, information found on *DVD Region Code*, WIKIPEDIA, http://en.wikipedia.org/wiki/DVD_region_code (last visited Mar. 6, 2012) and Robert Silva, *DVD Region Codes—What You Need to Know*, ABOUT.COM HOME THEATER, <http://hometheater.about.com/cs/dvdlaserdisc/a/aaregioncodesa.htm> (last visited Mar. 6, 2012) [hereinafter Silva, *DVD Region Codes*].

Region	Geographical Location or Type of Use
0	Informal term meaning "worldwide." Region 0 is not an official setting; discs that bear the region 0 symbol either have no flag set or have regions 1–6 flags set. ³³
1	USA and Canada
2	Japan, Europe, Egypt, South Africa, Middle East, and Greenland
3	South Korea, Taiwan, Hong Kong, and parts of Southeast Asia
4	Australia, New Zealand, and Latin America (including Mexico)
5	Eastern Europe, Russia, India, and Africa (except Egypt and South Africa)
6	China
7	Reserved for unspecified special use (found in use on protected screener copies of MPAA-related DVDs and "media copies" of pre-releases in Asia)
8	Reserved for cruise ships, airlines, etc.
ALL	Region ALL discs have all eight flags set, allowing the disc to be played in any locale on any player.

Although region codes function automatically,³⁴ it is worth unpacking the technology and policy choices behind the adoption of these codes. As Marybeth Peters, the former Register of Copyrights, explains:

There are two components to the region coding system—the region code flag on a DVD and the region code check conducted by a licensed DVD player. The region code check performed by a licensed player is designed to prevent the player from rendering the

³³ As Jim Taylor explains:

Region 0 is a common but misleading term. There is no region 0. Region-free players and all-region discs exist, but region 0 players or region 0 discs are nonexistent. A player modified to work in all regions may have all the bits in the region mask set, which means that it is technically a region 65535 or region FFFF (hex).

TAYLOR ET AL., *supra* note 27, at 5–21 n.5.

³⁴ See Reidenberg, *supra* note 10, at 572 ("Lex Informatica . . . allows for automated and self-executing rule enforcement.").

content of a DVD unless the correct region code flag is found on that DVD. In the ordinary course of its operation, the process of applying the flag to the region code check results in access being granted where the region of the disc matches the region of the player.³⁵

Based on this technical setup, DVD players sold in the United States are designed or technologically modified³⁶ to play only those DVDs that are coded for Region 1. Because of this restriction, a DVD a U.S. consumer purchased in a hurry at the London Heathrow Airport will not be viewable on her DVD player at home even though that individual has made a *lawful* purchase in England. The purchased DVD from Heathrow would have a Region 2 flag, but her DVD player could only play Region 1 or Region ALL DVDs. Thus, if she wanted to view the DVD, she would have to locate a Region 2 or multiregion player (which would allow her to play DVDs coded for multiple regions).

Although this Article focuses primarily on region codes, it is important to recognize that these codes represent only part of the content scrambling system that the movie industry has deployed to protect its copyrighted content. As the DVD Copy Control Association (“DVD CCA”), the licensing body for copy-protection technology used in DVD players,³⁷ explains on its website:

The Content Scramble System (CSS) is the protection system that has enabled the owners of movie content to provide consumers access to high quality DVD movies for home viewing on their video systems and computers. CSS prevents movies from being illegally duplicated, protecting the intellectual property of the manufacturers, producers and writers from theft. CSS is a two-part system for which manufacturers of both the movie content (discs) and hardware or software (players) purchase licenses. The information on DVD discs is encrypted. The DVD players—either a computer drive or a

³⁵ Memorandum from Marybeth Peters, Register of Copyrights, to James H. Billington, Librarian of Congress 121 (Oct. 27, 2003), available at <http://www.copyright.gov/1201/docs/registers-recommendation.pdf> (Recommendation of the Register of Copyrights in RM 2002-4, Rulemaking on Exemptions from Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies) [hereinafter Register of Copyrights Memo].

³⁶ See Neuwirth, *supra* note 24, at 429 (“[I]n order to save production costs, the hardware is generally designed in a universal way and manipulated or encoded to play only discs from one region at the end.”).

³⁷ As the DVD Copy Control Association states on its website:

The DVD Copy Control Association (DVD CCA) is a not-for-profit corporation with responsibility for licensing CSS (Content Scramble System) to manufacturers of DVD hardware, discs and related products. Licensees include the owners and manufacturers of the content of DVD discs; creators of encryption engines, hardware and software decrypters; and manufacturers of DVD Players and DVD-ROM drives.

Frequently Asked Questions and Answers, DVD COPY CONTROL ASS’N, <http://www.dvdcca.org/faq.aspx> (last visited Mar. 5, 2012) [hereinafter DVD CCA FAQ].

home video player—have technology to “decrypt” the information so it can be viewed. CSS is critical to DVD.³⁸

According to this licensing body:

Without sufficient protections, movie studios would not have offered their copyrighted films to consumers in this high quality digital format. Because they are “digital”, DVDs can be used as a perfect master for an infinite number of exact copies if the master is not protected by a system like CSS. Without such protection, movie content manufacturers would hesitate to release their products, including movies, because they would risk easy illegal copying.³⁹

While DVD CCA’s explanation accounts for the studios’ need for CSS, it does not fully explain why technology developers agreed to include CSS in DVD players. From the consumer standpoint, the inclusion of these consumer-unfriendly technological measures would make the devices less attractive.⁴⁰ The measures mandated by the studios therefore would undercut the DVD players’ marketability and the technology developers’ profit margin.

The reason for such inclusion is very simple: movie studios control the content that can be viewed on DVD players. By holding back content—through a refusal to release content initially and encryption later—the studios were able to obtain the needed leverage to convince technology developers to protect media content by incorporating technological measures into their devices.⁴¹ While DVD players might be less attractive with CSS installed, they would be even less attractive if they could not play DVDs released by the major movie studios. The

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ See Yu, *Anticircumvention and Anti-anticircumvention*, *supra* note 23, at 75 (“[T]echnology developers, and those who incorporate DRM systems into their products, are constantly struggling with the trade-offs between cost and effectiveness and between protection and inconvenience.”); see also NAT’L RESEARCH COUNCIL, COMM. ON INTELLECTUAL PROP. RIGHTS & THE EMERGING INFO. INFRASTRUCTURE, THE DIGITAL DILEMMA: INTELLECTUAL PROPERTY IN THE INFORMATION AGE 153 (2000) (noting “inherent trade-offs between the engineering design and implementation quality of a system on the one hand and the cost of building and deploying it on the other”).

⁴¹ See TAYLOR ET AL., *supra* note 27, at 5–1 (“Before Hollywood would embrace DVD, it had to be assured that DVD would not put Hollywood’s bread and butter out on the open market for anyone to make perfect digital copies.”). As Tarleton Gillespie recounts:

In 1996, a coalition of the major movie studios, consumer electronics manufacturers, and information technology providers formed the Copy Protection Technical Working Group (CPTWG) to consider how to protect digital media content from being duplicated and redistributed over the Internet, using strategies already familiar to the software industry. Protecting the DVD format was their first and most important task.

TARLETON GILLESPIE, WIRED SHUT: COPYRIGHT AND THE SHAPE OF DIGITAL CULTURE 170 (2007); see also TAYLOR ET AL., *supra* note 27, at 2–11 to –13 (discussing CPTWG).

technology developers therefore had no choice⁴² but to strike a compromise by entering into an arrangement with the studios.⁴³ Through DVD CCA and the CSS license it issues, studios provide technology developers with the decryption technology needed to unlock copyrighted DVD content.

To date, CSS has placed significant constraints on the consumer experience involving DVDs.⁴⁴ One of the most annoying constraints is regional playback control. Although such control is technically independent of the content protection mechanism, it is “included as a requirement of CSS-compliant components.”⁴⁵ Region codes apply to only commercially released DVDs, such as movies or television shows; they do not affect DVD recordings made on consumer-based recorders, camcorders, or computers.⁴⁶ On the current market, most DVDs are

⁴² Ironically, “[s]everal studio executives have suggested that if they had to do it all over again, they never would have agreed to allow DVDs to play on computers, given how trivial it was for the encryption to be broken.” J.D. LASICA, *DARKNET: HOLLYWOOD’S WAR AGAINST THE DIGITAL GENERATION* 115 (2005). As Adrian Alperovich, executive vice president of Sony’s Columbia TriStar Home Entertainment, candidly admits, “[f]rankly, we made some mistakes last time. I think the standards should have been tougher.” *Id.*

⁴³ See GILLESPIE, *supra* note 41, at 167 (“In the case of DVDs, the movie industry discovered that the very content they were trying to protect offered its own political leverage for imposing obligations on their consumer electronics partners. Rather than begin by trying to convince manufacturers to agree to a DRM standard, the studios could simply encrypt their films.”); TAYLOR ET AL., *supra* note 27, at 5–3 (“[T]he makers of DVD playback systems essentially agree to implement content protection features in return for being granted access to the decryption keys and algorithms needed to play back encrypted content.”). As Jim Taylor explains:

Each CSS licensee is given a *player key* from a master set of 400 keys that are stored on every CSS-encrypted disc. This allows a license to be revoked by removing its key from future discs. The CSS algorithm exchanges player keys with the drive unit to generate an encryption key that is then used to obfuscate the exchange of disc keys and title keys that are needed to decrypt data from the disc.

All standard DVD players have a decryption circuit that decrypts the data before displaying it. The process is similar to scrambled cable channels, except that the average consumer will never see the scrambled video and will have no idea that it has gone through an encryption/decryption process. The process does not degrade the data; it merely shifts the data around and alters it so that the original values are unrecognizable and difficult to decipher. The decryption process completely restores the data. The only case in which someone is likely to see a scrambled video signal is if they attempt to play the disc on a player or computer that does not support CSS or if they attempt to play a copy of the data or the disc. Since the copy does not include the key, the video signal cannot be decrypted and appears garbled or blank.

Id. at 5–6; see also GILLESPIE, *supra* note 41, at 181–82 (discussing the restrictions required under the forty-three page CSS license). A sample CSS license agreement is available at <http://contracts.onecle.com/intervideo/dvd-copy.lic.2000.12.22.shtml>.

⁴⁴ These constraints, apparently, did not bother the studios. Indeed, there remains a significant cultural gap between the studios and technology developers (as well as the customers they serve). As noted technology lawyer James Burger recalls a public hearing in Washington: “One studio executive got up and said, ‘People pay for the privilege of watching movies.’ Could you imagine a computer executive saying, ‘People pay for the privilege of using one of our machines?’ He’d be slaughtered. There’s sometimes a regal attitude in Hollywood.” LASICA, *supra* note 42, at 24.

⁴⁵ TAYLOR ET AL., *supra* note 27, at 5–6.

⁴⁶ See Silva, *DVD Region Codes*, *supra* note 32 (“[S]ince DVD Region Coding is a commercial application, any DVD recordings you make on a consumer-based DVD recorder, DVD camcorder, or even a PC, are not Region Coded.”); accord Rick Maybury, *Ask Rick: System Tests, DVD Formats, Outlook Express, Missing Folders and Microsoft Word*, DAILY TELEGRAPH (London) (Oct. 16, 2010, 8:00 AM), <http://www.telegraph.co.uk/technology/advice/8064723/>

coded for only one region, but they can also be coded for multiple regions.⁴⁷ In fact, because region codes apply to each side of the disc, “it is possible to have a disc that is one region on one side and a different region on the other.”⁴⁸

To complicate the technology a little further, whether one can watch a DVD at home depends on the television set one has. Because of the different historical origins and policy choices involved, television systems vary from one country to another.⁴⁹ For example, the United States has the NTSC system, which is named after its standard-setting body, the National Television Standards Committee.⁵⁰ Meanwhile, the United Kingdom and many Commonwealth and European countries adopted the PAL (Phase Alternate Line) system.⁵¹ Unlike either the United States or the United Kingdom, France, Russia, some former Soviet Republics, and some countries in Africa, Asia, and the Middle East have deployed a third system: SECAM (*Séquentiel couleur à*

Ask-Rick-system-tests-DVD-formats-Outlook-Express-missing-folders-and-Microsoft-Word.html, at 37 (“As your DVDs are homemade they do not contain any regional coding (this stops commercial recordings being played outside the country or region in which they were sold or licensed).”).

⁴⁷ The most obvious example is Region ALL, where all eight flags are set. See also Neuwirth, *supra* note 24, at 417 (“It is . . . possible that a DVD can be coded with multiple regions, such as Regions Two and Four, which would make it playable, for instance, in Europe and in Australia and in Central America as well as South America.”).

⁴⁸ TAYLOR ET AL., *supra* note 27, at 5–19 n.3.

⁴⁹ See Robert Silva, *Who's Your PAL?—An Overview of PAL NTSC and SECAM Video Standards*, ABOUT.COM HOME THEATER, <http://hometheater.about.com/cs/consumerresources/a/aawhosyourpala.htm> (last visited Mar. 6, 2012) [hereinafter Silva, *Who's Your PAL?*] (“[T]elevision was ‘invented’ at different times in various parts of the world (U.S., U.K., and France). Politics pretty much dictated at the time which system would be employed as the national standard in these countries.”).

⁵⁰ As Robert Silva describes:

NTSC is based on a 525-line, 60 fields/30 frames-per-second at 60Hz system for transmission and display of video images. This is an interlaced system in which each frame is scanned in two fields of 262 lines, which is then combined to display a frame of video with 525 scan lines.

This system works fine, but one drawback is that color TV broadcasting and display was not part of the equation when the system was first approved. A dilemma arose as to how to incorporate Color with NTSC without making the millions of [black-and-white] televisions in use by the early 1950’s obsolete. Finally, a standardization for adding Color to the NTSC system was adopted in 1953. However, the implementation of color into the NTSC format has been a weakness of the system, thus the term for NTSC became known by many professionals as “Never Twice The Same Color”. Ever notice that color quality and consistency varies quite a bit between stations?

Id.

⁵¹ As Robert Silva describes:

PAL is the dominant format in the World for analog television broadcasting and video display . . . and is based on a 625 line, 50 field/25 frames a second, 50HZ system. The signal is interlaced, like NTSC into two fields, composed of 312 lines each. Several distinguishing features are one: a better overall picture than NTSC because of the increased amount of scan lines. Two: since color was part of the standard from the beginning, color consistency between stations and TVs are much better. There is a down side to PAL however, since there are fewer frames (25) displayed per second, sometimes you can notice a slight flicker in the image, much like the flicker seen on projected film.

Id.

mémoire).⁵²

Although these three distinctly different systems exist for transmitting television signals, DVDs are pressed in either NTSC or PAL.⁵³ By virtue of these different television standards, a Region 2 DVD pressed in PAL will not be viewable on an NTSC television set in the United States, even if the owner has acquired a Region 2 player.⁵⁴ If our hypothetical consumer wants to play the DVD she purchased at Heathrow, she will also need to have access to either a PAL television set or a multisystem set (with a built-in NTSC/PAL converter).

As if these divergent television standards are not complicated enough, the migration of television from analog to digital has resulted in countries adopting a whole set of new standards throughout the world. As Robert Silva describes: “The US and several North American and Asian countries have adopted the ATSC (Advanced Television Standards Committee[]) standard, Europe has adopted the DVB (Digital Video Broadcasting) standard, and Japan is opting for its own system, ISDB (Integrated Services Digital Broadcasting).”⁵⁵

In sum, although region codes were created arbitrarily by movie studios and other content providers to establish geographical restrictions for the use of media content, other barriers exist to prevent this content from flowing freely from one region to another. Whether these barriers can be broken down will depend on whether technology developers can harness the latest technology—multisystem television sets and multiregion DVD players being some of the earlier examples. As shown throughout this Article, the interaction between law and technology will determine whether consumers will ultimately have the ability to enjoy media content across territorial borders.

II. LIMITED BENEFITS

By design, DVD region codes help content providers segregate the global market into six arbitrarily created regions.⁵⁶ Over the years,

⁵² *Id.*

⁵³ For those countries using the SECAM system, DVDs will be played back under the PAL system. *See id.*

⁵⁴ The converse is not always true. *See* TAYLOR ET AL., *supra* note 27, at 12–4 to –5 (“Because NTSC is the dominant standard, almost all DVD players released in PAL countries can play both types of discs as long as the right kind of television is connected. . . . Most NTSC players cannot play PAL discs.”).

⁵⁵ Silva, *Who’s Your PAL?*, *supra* note 49.

⁵⁶ As some commentators point out: “Historically, the segmentation of markets through territorial restraints has been the predominant organizing principle in the protection of intellectual property rights.” Claude E. Barfield & Mark A. Groombridge, *The Economic Case for Copyright Owner Control over Parallel Imports*, 1 J. WORLD INTELL. PROP. 903, 908; *see also* PAUL DEMARET, PATENTS, TERRITORIAL RESTRICTIONS, AND EEC LAW: A LEGAL AND ECONOMIC ANALYSIS 35 (1978) (“Territorial discrimination is consistent with the patent rationale. It increases the patentee’s reward by enabling him to capture a larger part of the potential value attached to his invention and, thereby, intensifies the incentive to invent.”). Nevertheless, it is important to keep in mind that the intellectual property system does not focus only on rights. The limitations and

industry executives, policymakers, and commentators have advanced four different justifications for deploying these region codes. This Part closely examines the strengths and weaknesses of each justification. Because industries have different needs, interests, constraints, and economic peculiarities, this Part focuses primarily on the movie industry, the primary driver of CSS and DVD region codes. Nevertheless, the discussion in this Part, to a great extent, also applies to other industries embracing region-based restrictions, such as those producing or distributing television programs, computer software, and online games.

A. Sequential Release

The most widely cited justification for DVD region codes concerns the need to segment the global market so that studios can release movies in different places at different times. That justification was the *only* rationale provided by DVD CCA to account for the need for region codes. As the Association declares on its website:

Movies are often released at different times in different parts of the world. For example, a film that opens in December in the U.S. might not premier [sic] in Tokyo until several months later. By the time that Tokyo premier [sic] occurs, the film may be ready for DVD distribution in the U.S. Regional DVD coding allows viewers to enjoy films on DVD at home shortly after their region's theatrical run is complete by enabling regions to operate on their own schedules. A film can be released on DVD in one region even though it is still being played in theaters in another region because regional coding ensures it will not interfere with the theatrical run in another region. Without regional coding, all home viewers would have to wait until a film completes its entire global theatrical run before a DVD could be released anywhere.⁵⁷

The studios' need for sequential distribution is understandable. There are both practical and business reasons for releasing movies at different times in different parts of the world. For example, foreign release may be delayed due to "the complications and differing costs of local/video duplication, dubbing and/or sub-titling, promotion, or dealing with censors."⁵⁸ Indeed, it can be very costly for studios to

exceptions are equally important. As Stefan Bechtold rightly recognizes, "regional code management systems can undermine the free movement of goods which intellectual property law protects by the exhaustion principle." Bechtold, *supra* note 23, at 629.

⁵⁷ DVD CCA FAQ, *supra* note 37; see also Barfield & Groombridge, *supra* note 56, at 929 ("Sequential or 'staggered' release (also called 'windowing' in the movie industry) . . . is an essential practice in these copyright industries in that it allows firms to co-ordinate and maximize profit-enhancing publicity and to take advantage of particular market idiosyncrasies.").

⁵⁸ Barfield & Groombridge, *supra* note 56, at 930.

prepare film prints for a simultaneous worldwide release.⁵⁹ As Brian Hu reminds us, “studios who own foreign distribution companies need time to reposition films to fit each respective market, for example by changing dialogue to fit local tastes or to record local popular songs to include on foreign versions.”⁶⁰ It is also not uncommon for movies to be “released with different languages and occasionally different edits to suit local sensibilities.”⁶¹

Moreover, directors, actors, and writers need to travel from one region to another to promote the movie.⁶² It is not new that movies with significant marketing campaigns perform better in the box office.⁶³ Having the director, actors, and writers on site for the opening night or around the time of the opening is certainly one of the most effective ways to promote a movie. In fact, many celebrity actors are hired not only for their superb performance, but also for their marketing appeal.⁶⁴

Apart from practical and business reasons, timing can affect a movie’s box office performance. For instance, a summer movie shown in the United States during the July 4 weekend may have weak ticket sales in Australia and New Zealand if shown at the same time; the Southern hemisphere is still in the middle of winter at that time. Likewise, a blockbuster movie opening in the United States during

⁵⁹ Cf. *A Tangled Web*, SUNDAY AGE (Melbourne), June 27, 2004, at 18 (“Impatient studios adamant on a simultaneous release, or something close to it, pay top whack to complete dubbing and subtitling quickly, and are unable to recycle prints as they did in the past. Argentine cinemas used to get prints that might have gone right across the American midwest, but due to time restrictions, more and more new prints now have to be struck.”).

⁶⁰ Brian Hu, *Closed Borders and Open Secrets: Regional Lockout, the Film Industry, and Code-Free DVD Players*, MEDIASCAPE, Spring 2006, at 4, available at http://www.tft.ucla.edu/mediascape/Spring06_ClosedBordersAndOpenSecrets.pdf.

⁶¹ LASICA, *supra* note 42, at 106. “When Disney re-released *Snow White and the Seven Dwarfs* in October 2001, the more significant alterations to the film occurred in other DVD regions. If you watch the movie in Germany, the names of Sleepy, Dopey, Doc, and the other dwarfs are now inscribed on their beds in German.” *Id.*

⁶² See Barfield & Groombridge, *supra* note 56, at 929 (noting that in the film industry, a product may be introduced sequentially in order to take advantage of a publicity tour by a film star); Hu, *supra* note 60, at 4 (“[A]ctors cannot be everywhere at once to publicize a new film.”); Yu, *Anticircumvention and Anti-anticircumvention*, *supra* note 23, at 75 (noting that DVD region codes “enable the scheduling of DVD releases based on . . . the progress of the relevant promotional campaign”).

⁶³ See Mark S. Nadel, *How Current Copyright Law Discourages Creative Output: The Overlooked Impact of Marketing*, 19 BERKELEY TECH. L.J. 785, 797 (2004) (“In many media markets today, marketing may be the most significant cost. That may not appear to be the case for major feature films, for which 2002 figures indicate average costs of \$58.8 million to produce and \$27.3 million to market, but those figures hide a significant marketing cost in production costs.” (footnote omitted)); see also HAROLD L. VOGEL, ENTERTAINMENT INDUSTRY ECONOMICS: A GUIDE FOR FINANCIAL ANALYSIS 127–28 (8th ed. 2011) (noting the increasing difficulty for “lightly marketed but nonetheless promising releases to . . . attract enough attention to be profitable” and that “[a]lthough no amount of marketing savvy can make a really bad picture play well, an intelligent strategy can almost certainly help to make the box-office (and ultimately the home video and cable) performance of a mediocre picture better”).

⁶⁴ See Nadel, *supra* note 63, at 797 (“While actors’ salaries are treated as a production cost, the fees commanded by superstar actors seem to reflect their marketing value rather than their acting skills.”).

Thanksgiving may perform much better if shown a month or two later in Hong Kong, during either Christmas or the Chinese New Year. Indeed, distributors often have to compete with each other over movie release dates that can help maximize return on their investments. Because theater screens are scarce, it is also not uncommon for movies to compete against others released by the same studio or distributor.

Finally, studios may prefer to stagger release dates “to test the potential appeal of the movie before it is marketed on a wider or even a global scale.”⁶⁵ As Rostam Neuwirth points out: “If . . . an audience in California likes a movie, it is likely worth marketing the movie to the rest of North America. If the same movie also appeals to a European audience, it is perhaps also worth trying it in the Middle East and so on and so forth around the globe.”⁶⁶ Thus, for movies with a limited appeal to the global audience, studios sometimes hesitate to show them in other countries until they have attained box office success in the home market or primary markets or until after they have performed well in major film festivals. Most Hollywood movies premiere in the United States before they are shown abroad, but there are some notable exceptions.⁶⁷

Although studios have had significant control over the theatrical release of movies—through control of film prints, contracts, and intellectual property laws—they have much weaker control over the circulation of DVDs. With the increased mobilization of goods and people, a DVD released in the United States can easily find its way *legally* to Hong Kong within a few days—through tourism, online purchase, arrangement by friends, or other means. While the importation of the DVD is likely to displace sales from the local DVD distributor, especially when the disc is sold at more or less the same price, such importation can be disastrous for the studio or its local distributor if the relevant movie has not even been shown in cinemas.⁶⁸

⁶⁵ Neuwirth, *supra* note 24, at 421; *accord A Tangled Web*, *supra* note 59 (“In the old days, studios used to be able to roll out releases territory by territory, often building on the US opening and word of mouth.”).

⁶⁶ Neuwirth, *supra* note 24, at 421.

⁶⁷ *The Adventures of Tintin*, for example, premiered in Belgium and Paris on October 23, 2011. In the United States, the movie was not shown until November 10, 2011 during the AFI Film Festival. The movie premiered in New York more than a month later, followed by a nationwide theatrical release on December 21, 2011. See *The Adventures of Tintin (2011)*, INTERNET MOVIE DATABASE, <http://www.imdb.com/title/tt0983193/releaseinfo> (last visited Mar. 18, 2012). The earlier release in Belgium was understandable given the movie’s appeal in Europe. After all, the movie was based on comic albums created by Belgian artist Georges Remi under the pen name Hergé.

⁶⁸ See GILLESPIE, *supra* note 41, at 264 (“[I]n the case of a DVD being released in one market before the film even hits theaters in another, international DVD sales could undercut the box office for the theatrical release.”); Bruce Orwall & Evan Ramstad, *Web’s Reach Forces Hollywood to Rethink America-First Policy*, WALL ST. J. (Dec. 6, 2000), <http://online.wsj.com/article/SB96076055497278634.html> (reporting that the release of *The Blair Witch Project* on DVD posed a particularly acute problem for European film distributors, because the movie “was a

To complicate things even further, studios do not distribute products in only first-run cinemas and through DVDs. The distribution cycle for movies includes many different versions of the same product: “domestic and international box office, airline performances, pay-per-view, rental, home sale, satellite, premium and basic cable, over-the-air broadcast.”⁶⁹ Before the movie can be released as a DVD (or in other home use formats), the product has to go through this time-tested distribution cycle. Thus, a differential in the dates of theatrical release can easily trickle down to differentials in the release dates for other products. The later the movie is shown in local cinemas, the more time the studio will need before it can release the DVD in the same region.⁷⁰

To be certain, studios can always delay the DVD release until after the movie has been shown in cinemas from all over the world (or at least in most of the movie’s primary markets). However, consumers may want to purchase the DVD a few months after the original release. The studio may also want to maximize profit by releasing the DVD within an appealing sales window. Region codes therefore provide the much-needed technological fix to allow consumers in the first market,

cult-like film appealing to . . . people who have the latest in electronic gadgetry and tend to get together to watch DVDs”).

⁶⁹ Susan P. Crawford, *The Biology of the Broadcast Flag*, 25 HASTINGS COMM. & ENT. L.J. 603, 607 (2003); see also Nadel, *supra* note 63, at 827 (“Film studios have long taken advantage of such prior technologies, and most now generally maximize their revenues by releasing a film first to theaters, [sic] than on videocassettes/DVDs, next on pay-per-view, then on pay cable, and finally on network TV.”). As Harold Vogel explains:

[F]ilms are normally first distributed to the market that generates the highest marginal revenue over the least amount of time. They then “cascade” in order of marginal-revenue contribution down to markets that return the lowest revenues per unit time. This has historically meant theatrical release, followed by licensing to pay cable program distributors, home video, television networks, and finally local television syndicators.

VOGEL, *supra* note 63, at 126.

⁷⁰ However, such lead time is not needed, if the studio has chosen to speed up the DVD release by forgoing the distribution of some of the products or by distributing those products at the same time. For example, an award-winning movie may be shown in local cinemas even though the DVDs have already become available or will be released shortly afterwards. In fact, as Harold Vogel points out:

[B]ecause the amounts of capital invested in features have become so large, and the pressures for faster recoupment so great, there appears to be a trend toward earlier opening of all windows. Indeed, changes in the historical window time sequencing have already occurred in DVDs, and are now changing with regard to video-on-demand, Internet downloads, and mobile, small-screen viewing platforms.

VOGEL, *supra* note 63, at 126 (citation omitted).

Today, studios not only have direct-to-video features, but have also significantly reduced the time lag between theatrical releases and video-on-demand. See Michael Cieply, *Scuffle over On-Demand Movies Portends Battles to Come*, N.Y. TIMES, Apr. 25, 2011, at B3 (“[F]our studios—Sony Pictures Entertainment, 20th Century Fox, Universal Pictures, and Warner Brothers—took the first step in their arrangement with DirecTV to release films two months after their theatrical release.”). In China, Warner Brothers has also released DVDs on the same day as the U.S. theatrical release. See Walton Morais, *Movie Studios Watch as DVD Distributors Sweat*, BUS. TIMES SING., June 25, 2005 (reporting Warner’s decision to release the DVD of *Sisterhood of the Travelling Pants* in China on the same day as the movie’s theatrical release in the United States).

usually the United States, to watch the DVD while at the same time preventing that DVD from being viewed in regions in which the movie has not yet been shown.⁷¹

In sum, sequential release provides a convincing justification for DVD region codes. Nevertheless, three recent developments have undercut this justification. First, in the past decade, some blockbuster movies have been simultaneously released worldwide,⁷² partly in response to widespread illegal downloading.⁷³ Even if the movies are not released worldwide simultaneously, the lag time between the U.S. release and the release in foreign markets seems to have been significantly reduced.⁷⁴ Simultaneous worldwide release and the

⁷¹ While this technological solution seems to benefit U.S. consumers at the expense of their foreign counterparts, due in large part to Hollywood's strength and the large volume and range of U.S. media products, DVD region codes could deliver benefits in the opposite direction. For example, many foreign movies, including those winning major film awards, are released much later in the United States than in the originating countries. Last year's winner of the Academy Award for the Foreign Language Film, *Hævnen* [*In a Better World*], did not receive a limited release in the United States until April 1, 2011, even though the movie was already shown nationwide in Denmark on August 26, 2010. See *Release Dates for In a Better World (2010)*, INTERNET MOVIE DATABASE, <http://www.imdb.com/title/tt1340107/releaseinfo> (last visited Mar. 13, 2012). It took even longer for Zhang Yimou's *Hero* to be shown in the United States. That film was released in China shortly before Christmas in 2002, but was not shown in the United States until August 2004. See *Release Dates for Hero (2002)*, INTERNET MOVIE DATABASE, <http://www.imdb.com/title/tt0299977/releaseinfo> (last visited Mar. 16, 2012). As Brian Hu recounts: "Miramax bought the U.S. rights for Zhang Yimou's *Hero* but waited several years before releasing the film theatrically. In the interim, Miramax threatened online vendors who sold any DVD or VCD version of *Hero*—with or without English subtitles, credits, or title screens." Hu, *supra* note 60, at 3.

Furthermore, countries such as India and Nigeria have vibrant film industries with very high output. Both Bollywood and Nollywood actually have higher output than Hollywood. See generally Madhavi Sunder, *Bollywood/Hollywood*, 12 THEORETICAL INQUIRIES IN LAW 275 (2011); Olufunmilayo Arewa, *The Rise of Nollywood: Creators, Entrepreneurs, and Pirates* (U.C. Irvine Sch. of Law, Research Paper No. 2012-11, 2012), available at <http://ssrn.com/abstract=2011980>. Hong Kong also has very successful film products in the genres of action movies and historical dramas. See Peter K. Yu, *No Personality Rights for Pop Stars in Hong Kong?*, in THE NEW LAW OF BRANDS AND REPUTATION IN THE ASIA PACIFIC RIM 64, 64 (Andrew Kenyon et al. eds., 2012) ("[Hong Kong's] entertainment products, in particular movies, television programs, and music, are highly popular in not only Asia, but also different parts of the world."). DVD codes therefore could benefit consumers living in these regions.

⁷² See Orwall & Ramstad, *supra* note 68 ("Hollywood is rushing toward all-at-once global distribution for many films. The major studios have occasionally distributed films this way in the past, notably big productions with bankable stars. But the exception is now morphing into the rule, continuing the evolution of a global entertainment culture manufactured by and launched from the U.S.").

⁷³ See Hu, *supra* note 60, at 4 ("[S]tudios are reducing geographic windows primarily to diminish the appeal of piracy: if films are immediately released in theaters, consumers are less likely to buy pirated DVDs and VCDs or download bootlegged films online. However, only the most high-profile films (*Lord of the Rings*, *Harry Potter*) are released day-and-date around the world; geographic windowing is still the more cost-effective and practical practice for most films.").

⁷⁴ See Emily Dunt et al., *The Economic Consequences of DVD Regional Restrictions*, ECON. PAPERS: J. APPLIED ECON. & POL'Y, Mar. 2002, at 32, 40 ("[L]ags between cinema release dates in different countries have begun to decrease. For, [sic] example while the release of *Braveheart* was spread over seven months in 1995, the lag in the release of *The Patriot* in 2000 was one month, and Columbia Pictures ran near simultaneous releases for its five biggest films in 2000."); Neuwirth, *supra* note 24, at 422 (pointing out that "*Casino Royale* . . . was released globally over a period of slightly more than two months, and *The Lord of the Rings: The Fellowship of the Ring* . . . was released in all regions within four months (and a majority of the countries in less than one

reduced time lag therefore have greatly undercut the justification for sequential release, unless studios can demonstrate that the time lag needed between theatrical release and DVDs varies from region to region. As Jim Taylor, the author of the best-selling *DVD Demystified*, predicts: “As the Internet breaks down national boundaries of commerce, and as digital cinema allows movies to debut in theaters worldwide at the same time, region codes will become mostly irrelevant.”⁷⁵

Second, and related to the first, one has to rethink whether sequential release will remain an appealing distribution strategy for movie studios amid continued widespread illegal downloading. Even if such downloading activities subside, the availability of spoilers over the Internet and the unavoidable discussion of movie content could take away the attraction of seeing the movie for the first time in a cinema.⁷⁶ This is particularly true for those movies that include witty dialogues, plot twists, and surprise elements. At some point, the benefits of sequential release cannot compensate for the reduced audience interest in foreign markets. As studios abandon their traditional geographically based distribution strategies, the justification for sequential release will be further weakened.

Finally, the use of region codes in many DVDs simply cannot be explained by the need for sequential release. For example, many movies have already completed the whole distribution cycle, including even over-the-air broadcast (which is at the end of the food chain). Indeed, it is frustrating to find “old movies such as the *James Bond 007—From Russia With Love*, which was released long before the DVD era in 1964, . . . sold in a regionally encoded format.”⁷⁷ Likewise, sequential release does not provide a good justification for region coding in direct-to-video features.⁷⁸ After all, the DVD release is in the

month”).

⁷⁵ TAYLOR ET AL., *supra* note 27, at 12–2.

⁷⁶ *See id.* (“[T]he delay in the global release dates of a movie should become shorter because awareness of audiences in other countries is greater since they may read about the release of a film on the Internet.”); Dunt et al., *supra* note 74, at 40 (“The rise of news and marketing over the Internet compromises the effective execution of staggered marketing campaigns for films across the globe.”); Orwall & Ramstad, *supra* note 68 (“Regardless of where they live, today’s movie fans can use the Web to access the movie-marketing materials that flood the U.S. before a film’s release. Right now, they are watching Internet trailers for not just U.S. summer releases, but also next holiday season’s offerings And they are keeping tabs on future films via movie-gossip Web sites”).

⁷⁷ Neuwirth, *supra* note 24, at 422.

⁷⁸ “So-called direct-to-video features, which are designed to skip a theatrical release phase entirely and go directly to home-video market, have . . . become [increasingly] important, especially in the family film genre. Elimination of relatively high theatrical releasing costs here enhances the profit potential of such titles.” VOGEL, *supra* note 63, at 139–40. It is not easy for studios to decide which movie to release straight to DVD, however. “Warner Bros. was ready to send [*Slumdog Millionaire*] straight to DVD in 2008 but, at the last minute, made a deal giving distribution rights to Fox Searchlight *Slumdog* went on to earn eight Oscars and more than \$377-million in worldwide box office.” Liam Lacey, *Dusting off the Long-shelved Films of*

beginning of the distribution cycle, not the *middle* of the cycle.

B. Price Discrimination

The second most widely cited justification concerns price discrimination.⁷⁹ Price discrimination is a profit-maximizing mechanism studios use to “charge[] a high price to high valuation users and a low price to low valuation users.”⁸⁰ It not only allows studios to recoup costs in the home market before exporting the product abroad,⁸¹ but also enables them to price the product according to the cost of living in foreign countries. For example, many Mexican consumers are reluctant to buy DVDs of Hollywood movies at U.S. retail prices. Region codes therefore allow U.S. studios to sell products in Mexico at a much lower price. After all, the Region 4 DVDs purchased in Mexico are unviewable on Region 1 players in the United States.

Price discrimination can be beneficial to both consumers and producers. Consumers living in countries with much lower costs of living will have access to products they otherwise may not be able to afford.⁸² Without region codes, movie studios understandably would be reluctant to sell DVDs at discount prices, fearing that those discounted products would eventually enter their primary markets as parallel

Hollywood, GLOBE & MAIL, Oct. 7, 2011, at R1.

⁷⁹ See VOGEL, *supra* note 63, at 126 (“Sequencing is always a marketing decision that attempts to maximize income, and it is generally sensible for profit-maximizing distributors to price-discriminate in different markets or ‘windows’ by selling the same product at different prices to different buyers.”); Neuwirth, *supra* note 24, at 422–23 (stating that the use of DVD region codes “allows—in line with the governing laws and regulations of the place—charging different prices in different markets for the same product”); Yu, *Anticircumvention and Anti-anticircumvention*, *supra* note 23, at 75 (noting that DVD region codes “facilitate price discrimination”).

⁸⁰ Michael J. Meurer, *Price Discrimination, Personal Use and Piracy: Copyright Protection of Digital Works*, 45 BUFFALO L. REV. 845, 850 (1997).

⁸¹ As Rostam Neuwirth explains:

Price discrimination was named as the main reason for the success of American film and media productions in the global context because the size of their (linguistically comparatively homogenous) home market allows them to recoup costs before exporting it to another country, which for instance, is certainly more difficult for a Slovenian language production, since its market is limited to 2,000,000 people.

Neuwirth, *supra* note 24, at 423 (footnote omitted).

⁸² See FREDERICK M. ABBOTT, PARALLEL IMPORTATION: ECONOMIC AND SOCIAL WELFARE DIMENSIONS 6 (2007), available at http://www.iisd.org/pdf/2007/parallel_importation.pdf (“[Parallel importation] allows the retailer to charge a lower price to the consumer, and to better compete with other retailers. Opening national markets to parallel importation should have a positive consumer welfare effect by making products available at low prices.” (footnote omitted)); Barfield & Groombridge, *supra* note 56, at 931 (“[I]f publishers could not sell textbooks and professional books priced to the market (to meet the needs of the lower income students in developing countries) because of fear of these works being imported into developed countries and undercutting the legitimate market, the choice would be not to sell them at all in the low-cost markets, or sell at uniform pricing to avoid them being exported.”); William W. Fisher III, *Property and Contract on the Internet*, 73 CHI.-KENT L. REV. 1203, 1239 (1998) (stating that price discrimination “has made the product available to a much larger set of consumers, who are now enjoying surpluses”); Keith E. Maskus, *The Curious Economics of Parallel Imports*, 2 WIPO J. 123, 127 (2010) [hereinafter Maskus, *Curious Economics*] (“[P]rice discrimination can expand global consumption because lower prices make goods affordable to consumers in more price-sensitive markets.”).

imports—unauthorized goods legally imported from abroad, usually at discount prices.⁸³

By enlarging the global market to cover customers who otherwise could not afford the product, studios will also be able to maximize profit.⁸⁴ This enlarged market, in turn, will generate even more profits by allowing studios to take advantage of economies of scale.⁸⁵ If studios are willing to plow back some of these additional profits into production and make larger investments, such investments will further benefit consumers in the form of new and better products.⁸⁶

Unfortunately, the reality is sometimes different from the theory. Movie studios do not always price their products based on the living cost of their target market. Even with DVD region codes, studios may fear that the discounted products would flow back to their primary markets to compete with sales. Moreover, because of the highly uneven distribution of wealth in many developing countries, studios may sometimes price their products based on the demand of the local affluent minority population, as opposed to that of the larger and poorer majority.⁸⁷ Although studios certainly can increase their customer base

⁸³ See Peter K. Yu, *The Copyright Divide*, 25 CARDOZO L. REV. 331, 436 (2003) (noting the concern over the backflow of discounted products as parallel imports).

⁸⁴ See Glynn S. Lunney, Jr., *Copyright's Price Discrimination Panacea*, 21 HARV. J.L. & TECH. 387, 388 (2008) (“[Price discrimination] can increase the producer surplus or rents associated with the production of any given copyrighted work and thus ensure the expected profitability of a wider range of works. This increase in profitability should, in turn, lead to the production of more copyrighted works.” (footnotes omitted)).

⁸⁵ See Ryan L. Vinelli, Note, *Bringing Down the Walls: How Technology Is Being Used to Thwart Parallel Importers amid the International Confusion Concerning Exhaustion of Rights*, 17 CARDOZO J. INT’L & COMP. L. 135, 143 (2009) (“[P]rice discrimination is particularly important for manufacturing products that have large development costs [such as movies] and relatively small production costs [such as DVDs], since companies can produce cheaply and profit more with larger distribution and increased consumption. Thus by reducing costs to groups and being able to recuperate large development costs, price discrimination can improve welfare and expand consumption.” (footnote omitted)).

⁸⁶ As Ryan Vinelli explains:

Beneficial price discrimination arguably increases competition by giving businesses more tools with which to compete. By charging different consumers different prices companies can compete more effectively with other businesses which have a uniform or different asymmetric pricing strategy. Further, the prudent or relative price point for one market/industry is not necessarily the same as another. Allowing price discrimination facilitates entry of companies into new and lower-priced markets. Without the ability to charge different prices, companies might not be able to tailor their price to the local market, which would result in a lack of sales that would deter and stop further market expansion.

Id. at 142; see also ABBOTT, *supra* note 82, at 8 (noting that pharmaceutical producers argue that price discrimination is beneficial, because it will allow “originator companies [to] make more money so that they can invest more in research and development (R&D), ultimately providing benefit to consumers in the form of new and better medicines.”); Maskus, *Curious Economics*, *supra* note 82, at 123 (“[T]he global research-based pharmaceutical firms oppose permitting [parallel importation] of patented or trade marked medicines into the United States, arguing that the likely reduction in profits would reduce their ability to innovate.”).

⁸⁷ This reason is indeed one of the primary reasons why price discrimination of pharmaceuticals does not occur often in the developing world. See Patricia M. Danzon & Adrian Towse, *Theory and Implementation of Differential Pricing for Pharmaceuticals*, in INTERNATIONAL PUBLIC GOODS AND TRANSFER OF TECHNOLOGY UNDER A GLOBALIZED INTELLECTUAL PROPERTY

by lowering the price to attract poorer customers, they can also keep the price high and focus instead on the affluent minority population, which at times provides a more stable market.

If the gap between theory and reality has not sufficiently weakened the price discrimination justification, the regions used in DVD region codes are too crudely defined to allow the codes to function well as a price discrimination mechanism. Consider Region 4 for example. That region includes not only Mexico and Latin America, but also Australia. While the dates of the theatrical release in Mexico and Latin America may be similar to those in Australia—that is, chronologically after North America (Region 1), Europe (Region 2) and perhaps even Southeast Asia (Region 3)—the price points Australians can afford is clearly above what many Latin American consumers can.⁸⁸

Even worse, Region 4 does not seek to differentiate between the different markets in Latin America. Chile, for example, has the region's most well developed economy. Holding the highest rank in the global competitive index,⁸⁹ the country has entered into a bilateral free trade agreement with the United States.⁹⁰ By contrast, Brazil is a large middle income country that commentators have grouped together with Russia, India, and China as the “BRICs.”⁹¹ It has the largest economy in Latin America.⁹² As forecasted by Goldman Sachs, based on projections for 2050, Brazil “has the capacity to become an economy close to \$10 trillion, about five times bigger than it is today. On a relative basis, Brazil has the potential to overtake Germany and

REGIME 425, 455 (Keith E. Maskus & Jerome H. Reichman eds., 2005) (noting that “pricing in some [developed countries] is dominated by the demands of small, affluent populations, resulting in prices that are unaffordable to the majority of poorer people”); Keith E. Maskus, *Ensuring Access to Essential Medicines: Some Economic Considerations*, 20 WIS. INT'L L.J. 563, 566 (2002) (“[P]harmaceutical firms and their distributors in poor countries may find it more profitable to sell drugs in low volumes and high prices to wealthier patients with price-inelastic demand rather than in high volumes at low prices to poorer patients.”); Peter K. Yu, *The International Enclosure Movement*, 82 IND. L.J. 827, 844–45 (2007) (“[B]ecause wealth is usually distributed very unevenly in many less developed countries—South Africa being the most cited example—some pharmaceutical companies choose to sell their products at high prices that are affordable by the ‘more affluent minority,’ even if it means that the product will become unaffordable to the larger and poorer majority.” (footnote omitted)).

⁸⁸ Interestingly, the DVD Consortium could not initially decide where to put Australia, Mexico, and New Zealand in the six regions. See TAYLOR ET AL., *supra* note 27, at 2–11 (“By [September 1996], the DVD Consortium had managed to fit most of the world into six geographic regions for release-control purposes, but Mexico, Australia, and New Zealand were still bouncing from region to region.”).

⁸⁹ Peter K. Yu, *Sinic Trade Agreements*, 44 U.C. DAVIS L. REV. 953, 1001 n.216 (2011).

⁹⁰ United States–Chile Free Trade Agreement, U.S.–Chile, June 6, 2003, 42 I.L.M. 1026 (2003).

⁹¹ The term was coined by Jim O’Neill, Goldman Sachs’s then-chief global economist. See Jim O’Neill, *Building Better Global Economic BRICs* (Goldman Sachs, Global Economics Paper No. 66, 2001), available at <http://www.goldmansachs.com/our-thinking/brics/brics-reports-pdfs/build-better-brics.pdf>; see also JIM O’NEILL, *THE GROWTH MAP: ECONOMIC OPPORTUNITY IN THE BRICs AND BEYOND* (2011) (providing an up-to-date analysis of the BRICs and what O’Neill now calls “growth markets”). Goldman Sachs’ past literature on the BRICs countries is available at <http://www.goldmansachs.com/our-thinking/brics/>.

⁹² See generally O’NEILL, *supra* note 91, at 47–57 (discussing the growth potential of Brazil).

Japan”⁹³

Compared with Chile and Brazil, however, Haiti has one of the poorest economies in the region, if not the world. Under the United Nations classification, the country is technically a least developed country—a country having an estimated average per capita gross national income of less than \$905 per year.⁹⁴ Haiti also continues to struggle with the aftermath of a major earthquake in January 2010, which killed at least tens of thousands while leaving hundreds of thousands homeless.⁹⁵ Despite all of these economic challenges, Haiti is shockingly included in Region 4, along with Chile and Brazil (as well as Australia).

Latin America is not the only region for which region codes do not correlate well to local economic development. Region 5 has the same problem. That region includes Russia and India (two other BRICs) along with countries in sub-Saharan Africa, many of which have been designated by the United Nations as least developed countries.⁹⁶ It also includes Eastern Europe, most of which is now part of the European Union with fast-growing markets and increasingly high costs of living. Given the wide economic divergences, Region 5 is more accurately described as the region with weak markets for Hollywood, rather than one deserving special region-based discounts. To put it bluntly, Region 5 is simply the region Hollywood does not care much about. That region has very little to do with price discrimination.

In sum, although price discrimination could work well in theory, it provides a rather weak justification for DVD region codes in reality. Outside the major markets in North America, Europe, and Japan, these codes are unlikely to be designed with price discrimination in mind. In fact, if studios are really serious about price discriminating their DVDs, they are much better off basing their decisions on gross national income or consumer purchasing power, as opposed to physical geography.

C. *Distribution and Licensing Arrangements*

The third justification concerns distribution and licensing arrangements.⁹⁷ Although studios could directly distribute movies and related products throughout the world, they often establish distribution

⁹³ *Id.* at 51.

⁹⁴ *Least Developed Countries—About LDCs*, U.N. OFF. HIGH REP. FOR LEAST DEVELOPED COUNTRIES, <http://www.unohrrls.org/en/ldc/25/> (last visited Mar. 13, 2012).

⁹⁵ See Simon Romero & Marc Lacey, *Fierce Quake Devastates Haiti*, N.Y. TIMES, Jan. 13, 2010, at A1 (reporting the January 2010 earthquake in Haiti); Randal C. Archibold, *U.S. Reduces Estimates of Homeless in Haiti Quake*, N.Y. TIMES, June 1, 2011, at A4 (providing estimates of the total death toll and homeless population in Haiti); Editorial, *Haiti's Slow Recovery*, N.Y. TIMES, Jan. 9, 2012, at A18 (reporting the slow recovery in Haiti two years after the earthquake).

⁹⁶ See *Least Developed Countries—About LDCs*, *supra* note 94.

⁹⁷ See TAYLOR ET AL., *supra* note 27, at 5–19 (“The primary reason for regional management is to preserve exclusive distribution arrangements with local distributors.”).

and licensing agreements instead.⁹⁸ Such an arrangement makes sense for both business and practical reasons. Indeed, distributors and exclusive licensees provide much added value to the studios.

For example, they “often customize the products to meet local market demands, including dubbing/sub-titling, duplication of the customized product, special packaging and advertising.”⁹⁹ In countries such as China or Russia, or in Latin America or Africa, these distributors and licensees can also help studios navigate through the complex local business environment.¹⁰⁰ In addition, “newer and smaller motion picture companies . . . [may] need to raise capital for production, usually in large amounts, . . . by selling or licensing rights to particular territories and media or both before a picture is produced.”¹⁰¹ The same is also true for blockbuster projects that are very costly for even established studios to produce. Thus, by conferring exclusive control over a region,¹⁰² studios provide local distributors or licensees with the much-needed incentive to invest in regional distribution and marketing efforts.¹⁰³

⁹⁸ As Harold Vogel explains:

Distributors normally design their marketing campaigns with certain target audiences in mind, and marketing considerations are prominent in a studio’s decision to make (i.e., “green-light”) or otherwise acquire a film for distribution. Indeed, in the earliest stages, marketing people will attempt to forecast the prospects for a film in terms of its potential appeal to different audience demographic segments, with male/female, young (under 25)/old (known as “four quadrant”), and sometimes also ethnic/cultural being the main categorizations.

Distributors will then typically attempt to align their releases with the most demographically suitable theaters, subject to availability of screens and to previously established relationships with the exhibition chains. They accomplish this by analyzing how similar films have previously performed in each potential location and then by developing a release strategy that provides the best possible marketing mix, or platform, for the picture.

VOGEL, *supra* note 63, at 127 (footnote omitted).

⁹⁹ Barfield & Groombridge, *supra* note 56, at 930.

¹⁰⁰ See Peter K. Yu, *From Pirates to Partners: Protecting Intellectual Property in China in the Twenty-First Century*, 50 AM. U. L. REV. 131, 209–10 (2000) [hereinafter Yu, *From Pirates to Partners*] (noting the benefits of establishing joint ventures in China).

¹⁰¹ Barfield & Groombridge, *supra* note 56, at 930. As Jim Taylor further explains:

Many studios sell exclusive foreign release rights to other distributors. If the foreign distributor can be assured that discs from other distributors will not be competing in its region, then the movie studios can sell the rights for a better price. The foreign distributors are free to focus on their region of expertise, where they may better understand the cultural and commercial environment.

TAYLOR ET AL., *supra* note 27, at 5–20.

¹⁰² As Keith Maskus explains: “Efficient distribution often requires permitting the IPR [intellectual property right] holder a significant degree of vertical control over its licensees. Multinational enterprises build markets through establishing exclusive dealership rights in various territories. Exclusivity makes it easier for original firms to monitor marketing efforts and enforce product quality.” Maskus, *Curious Economics*, *supra* note 82, at 128.

¹⁰³ As Emily Dunt, John Gans, and Stephen King remind us:

Without territorial restrictions on distribution, retailers can import the product from overseas rather than from the licensed distributor. This enables importers either to free ride on investments in marketing and customer service to undercut the licensed distributor or to undermine or dilute the investments by providing inferior products or service.

Because distribution and licensing agreements are based on geographical regions, the distributor in one region may not have rights to release the DVD in another region. Even if the distributor is a subsidiary of a large conglomerate targeting a worldwide market, the distributors in different regions may be formed as separate legal entities based on different regulatory standards, corporate governance structures, and tax arrangements. These distributors may also have different strategies for marketing, distribution, post-sale remedies, and intellectual property enforcement.

In fact, when purchasing a DVD, most consumers do not have contact with more than one distributor. For example, our hypothetical consumer who bought the DVD at Heathrow obtained her rights from the U.K. distributor. When she enters the United States, however, her use of the product will affect the rights (and often the sales) of the U.S. distributor, with whom she may not have any contact. In fact, had she not been able to view her U.K. DVD at home, she most likely would have to re-purchase the DVD in the United States—this time, benefiting the U.S. distributor.

In contrast to the strict region-based restrictions, many countries have set up exceptions within the copyright system to allow consumers to bring a small quantity of personal items into their country, in part to alleviate the burden on nationals traveling abroad. For example, section 602(a) of the U.S. Copyright Act allows for

importation or exportation, for the private use of the importer or exporter and not for distribution, by any person with respect to no more than one copy or phonorecord of any one work at any one time, or by any person arriving from outside the United States or departing from the United States with respect to copies or phonorecords forming part of such person's personal baggage¹⁰⁴

Even the highly controversial ACTA includes a *de minimis* provision stipulating that “[a] Party may exclude . . . small quantities of goods of a non-commercial nature contained in travellers’ personal luggage.”¹⁰⁵ Because of this provision, ACTA members, including the United States, are allowed to retain such importation exceptions as found in section 602(a) of the Copyright Act.

Even though this importation exception allows our hypothetical consumer to bring the U.K. DVD into the United States—and even

Dunt et al., *supra* note 74, at 39.

¹⁰⁴ 17 U.S.C. § 602(a)(3)(B) (2006); *see also id.* § 602(a)(3)(C) (providing a similar exception for “importation by or for an organization operated for scholarly, educational, or religious purposes and not for private gain”).

¹⁰⁵ ACTA, *supra* note 17, art. 14.2.

though “merely watching a lawfully obtained copy of a non–Region 1 DVD is a noninfringing use,” as the former Register of Copyrights has recognized¹⁰⁶—the situation is much more complicated. After all, the importation act taken by our hypothetical consumer does implicate rights of another distributor with whom she has no privity. To alleviate this conflict, some countries, like Japan, have introduced the “implied license” doctrine, which holds that, by granting the license, “the right holder has tacitly consented to unrestricted resale of the goods.”¹⁰⁷

Although the need for distribution or licensing arrangements has undoubtedly provided a strong theoretical justification for DVD region codes, it is unclear how well this justification holds up empirically. As mentioned earlier, Regions 4 and 5 include quite a large number of countries that have distinct cultures, different languages, and varying economic conditions. From the business standpoint, it is highly doubtful that distribution or licensing arrangements in these regions are actually arranged based on DVD codes. Region 2 provides another good example. Although both Europe and Japan are included in the same region, these two markets are likely to be big enough to justify different distribution or licensing arrangements, not to mention the closed market Japan has traditionally enjoyed.

Moreover, distribution and licensing arrangements, while important, can be made based on geographical regions even without the use of DVD region codes. Natural barriers exist to prevent competition between products sold in different markets. These natural barriers include differences in language, taste, and cultural references. For example, “by dubbing the original products in the local language or including subtitles, the studios successfully make the discounted products unappealing to consumers in the English-speaking world.”¹⁰⁸ Such differences also explain why Hollywood comedies do not always perform well abroad.¹⁰⁹

In addition, studios can easily differentiate their products by providing additional features, such as extra scenes, discarded footage, alternate endings, bonus interviews, web chats, and movie-based games.¹¹⁰ Studios have already actively provided special editions in

¹⁰⁶ Register of Copyrights Memo, *supra* note 35, at 121.

¹⁰⁷ Vinelli, *supra* note 85, at 157. It is worth noting, however, that Japan and the United States do not have the same exhaustion of rights regime. While Japan has an international exhaustion regime, the United States has only a national exhaustion regime. See discussion *infra* Part IV.C.

¹⁰⁸ Yu, *The Copyright Divide*, *supra* note 83, at 436.

¹⁰⁹ See Ben Fritz, *Nothing Funny About Financing Comedies*, WASH. POST, July 17, 2011, at T2 (“Once one of the movie industry’s most successful genres, . . . comedy is now among the most challenging propositions for the studios that bankroll them. The fact that they typically aren’t popular overseas—where culturally specific humor can be hard to translate—has become a larger obstacle in a global film business.”).

¹¹⁰ See LASICA, *supra* note 42, at 61 (“The studios . . . load DVDs with lots of extra goodies—interviews, outtakes, discarded scenes, alternate endings . . .”); Sherwin Loh, *Blur over Blu? Get Answers Here*, STRAITS TIMES DIGITAL LIFE (Sing.) (Jan. 20, 2010), <http://www.asiaone.com/>

DVD format, such as wide screen/full screen formats, the director's cut, and the ultimate edition. They have also used different film titles, although such titles could create consumer confusion, especially if written in the same language.¹¹¹

In sum, while region-based restrictions (and the potential for exclusivity) certainly will make distribution or licensing arrangements more attractive financially, they are not a prerequisite for developing such arrangements. In fact, it is not uncommon to find different distributors or licensees targeting customers from the same region—with Europe and Japan again providing the leading examples. Even within Region 1, U.S. and Canadian DVDs sometimes have very different contents.¹¹²

D. Censorship Ratings and Regulatory Standards

The final justification concerns the practical needs created by the considerable divergences in film ratings and regulatory standards across the world.¹¹³ Regulatory differences are not new, and film ratings vary

Digital/Features/Story/A1Story20100121-193439.html [hereinafter Loh, *Blur over Blu?*] (“Hit titles like *The Dark Knight* and *Harry Potter and the Half-Blood Prince* have BD web chats that are accessible via BD Live, but other like Disney and Paramount prefer to focus on making it easier for consumers to pick a BD title: They offer a combo pack that includes a DVD or digital copy which can be moved to a portable device as well.”); see also Aaron Perzanowski & Jason Schultz, *Digital Exhaustion*, 58 UCLA L. REV. 889, 897 (2011) (“[A]fter a work has been circulating for several years, copyright owners frequently release new versions that include remastered material or extra content.”). A widely cited example is the “white rabbit” feature in *The Matrix* DVD. As one reporter observes: “Th[is] sci-fi action-adventure movie was packed with special effects, and the DVD had an optional feature called the ‘white rabbit’ in which a bunny could appear on the screen, indicating there was extra information available on the disc about the effects being viewed.” Stanley A. Miller II, *Uncoding DVDs*, MILWAUKEE J. SENTINEL, May 8, 2001, at 1M. Ironically, that novel feature caused problems with many DVD players. See TAYLOR ET AL., *supra* note 27, at 2–26 (“*The Matrix* gained notoriety as buyers reported problems playing it on dozens of different player models. While there were a couple of errors on the disc itself, it was discovered that many players had not been properly engineered to handle a disc that aggressively exercised DVD features and included extra content for use on PCs.”).

¹¹¹ As Rostam Neuwirth points out:

[T]he French movie *37°2 le matin* (1986) (which, literally translated means, “37.2°C in the Morning”) was titled *Betty Blue* in the English version. Hence, given that the translation is not even vaguely literal, it is possible (though not likely) that a consumer who, for instance, likes the main actress in the movie, buys both movies thinking that they are two different movies.

Neuwirth, *supra* note 24, at 426. Because of potential confusion among consumers, one could argue that DVD region codes are needed to prevent such confusion. See Dunt et al., *supra* note 74, at 40 (“Where copyrighted products differ between countries, exclusive territories for distribution may be used to prevent confusion.”).

¹¹² See Neuwirth, *supra* note 24, at 417 (“Occasionally, DVDs from the same regions may also differ in terms of the content stored on them, diverging particularly in terms of extras and further splitting the relevant market into even smaller units.”).

¹¹³ See *id.* at 426 (“[S]ince films are released in different versions in different countries, restrictions on the parallel importation of DVDs are a means for protecting the DVD version which was authorised by the national broadcasting authority of the respective country.”); Caitlin Fitzsimmons, *Restricting DVDs “Illegal” Warns ACCC*, AUSTRALIAN IT, Mar. 27, 2001, at 33 (“Another reason [for having DVD region codes] was compliance with national censorship ratings.”); *id.* (“The Australian release could have cuts of scenes with violence and sex The

largely from country to country.¹¹⁴ Even more problematic, the ratings and regulations for movies can be quite different from those for television.¹¹⁵ The theatrical version of a movie can also be quite different from the DVD version in the same market.¹¹⁶

Out of the six regions, Region 6 provides the most obvious example of how studios need to adjust their distribution strategies in response to local regulations. Unlike all other regions, that region includes only one country: China. The need for such distinction is understandable, for at least two reasons.

First, China is widely known for its aggressive censorship of media content.¹¹⁷ What is shown in the United States, Europe, or Japan may not be shown in China. By having a different region code from the ones used in other countries, studios can easily adjust the content based on what is allowed under Chinese content regulations.

Second, and equally important, China continues to experience considerable piracy and counterfeiting problems.¹¹⁸ Every year, China is listed among the Watch List or Priority Watch List in the United States Trade Representative's Section 301 Report.¹¹⁹ Having separate region codes, therefore, allows the studios to respond to the piracy problems in China—perhaps by deploying additional technological protection measures.

Even if no additional measures are deployed, the use of a separate

distributor might be happy to release a movie in Australia as MA [Mature Audiences], but the original movie would have been an R [Restricted].” (quoting Marc Gareton, Managing Director, Warner Home Video Australia).

¹¹⁴ In the United States, for example, the film ratings were formulated by the Motion Picture Association of America. More information about the MPAA ratings is available at <http://mpaa.org/ratings>.

¹¹⁵ For this *Journal's* past symposium on television ratings, see generally Symposium, *The Jurisprudence of Ratings Symposium* (pts. 1 & 2), 15 CARDOZO ARTS & ENT. L.J. 103 (1997), 15 CARDOZO ARTS & ENT. L.J. 403 (1997). For an excellent collection of essays on content filtering on television, see generally THE V-CHIP DEBATE: CONTENT FILTERING FROM TELEVISION TO THE INTERNET (Monroe E. Price ed., 1998).

¹¹⁶ See Rebecca Caldwell, *DVDs Without the XYZ*, GLOBE & MAIL, Feb. 23, 2001, at R5 (“Dutch director Lars von Trier’s film *The Idiots* . . . ran uncut in Ontario, but when it came to releasing the DVD, the Canadian distributor simply picked up the U.S. version, which had 15 minutes excised by U.S. censors.”).

¹¹⁷ For discussions of censorship in Chinese cinema and the country’s importation quota for foreign movies, see generally Mary Lynne Calkins, *Censorship in Chinese Cinema*, 21 HASTINGS COMM. & ENT. L.J. 239 (1999); Carl Erik Heiberg, Note, *American Films in China: An Analysis of China’s Intellectual Property Record and Reconsideration of Cultural Trade Exceptions Amidst Rampant Piracy*, 15 MINN. J. INT’L L. 219 (2006).

¹¹⁸ For the Author’s earlier discussions on piracy and counterfeiting problems in China, see generally Peter K. Yu, *Intellectual Property, Economic Development, and the China Puzzle*, in INTELLECTUAL PROPERTY, TRADE AND DEVELOPMENT: STRATEGIES TO OPTIMIZE ECONOMIC DEVELOPMENT IN A TRIPS PLUS ERA 173 (Daniel J. Gervais ed., 2007) [hereinafter Yu, *China Puzzle*]; Yu, *From Pirates to Partners*, *supra* note 100; Peter K. Yu, *From Pirates to Partners (Episode II): Protecting Intellectual Property in Post-WTO China*, 55 AM. U. L. REV. 901 (2006) [hereinafter Yu, *From Pirates to Partners II*].

¹¹⁹ The notable exception was during the honeymoon period following China’s accession to the WTO in December 2001. In April 2005, the United States Trade Representative elevated China back to the Priority Watch List. See Yu, *From Pirates to Partners II*, *supra* note 118, at 925.

region code ensures those DVDs, if pirated, not compete with DVDs sold in the primary markets, which have different region codes. It is therefore no surprise to find that Southeast Asia and China, both hotbeds for movie piracy, belong to two separate regions: Region 3 for Southeast Asia and Region 6 for China.¹²⁰ Both regions are intentionally isolated from such regions as North America, Europe, and Japan (Regions 1 and 2).

While the differences in film ratings and national regulations may justify the existence of Region 6 (and to a lesser extent Region 3), this justification does not account well for other regions. Indeed, China is not the only country having a heavy information control policy. Restrictive content regulations can also be found in Russia, Eastern Europe, the Middle East, and North Africa (Regions 2 and 5).¹²¹ In addition, although both Europe and the Middle East belong to Region 2, the cultural sensibilities in the latter are certainly different from the former.

Moreover, Internet-based content control now appears in virtually all established Western democracies. As Rebecca MacKinnon, the former CNN Beijing Bureau Chief, observes: “The Internet censorship club is expanding and now includes a growing number of democracies. Legislators are under growing pressure from family groups to ‘do something’ in the face of all the threats sloshing around the Internet, and the risk of overstepping is high.”¹²² Likewise, the *Google Transparency Report* has shown that, from January to June 2011, Google has received requests for user data or content removal from government agencies in a diverse array of countries, including China, Cook Islands, France, Germany, India, Libya, Norway, Poland, Russia, South Korea, Spain, Sri Lanka, Thailand, Turkey, the United Kingdom, and the United States.¹²³

Similar to the censorship problems, the piracy problems

¹²⁰ See Fitzsimmons, *supra* note 113 (“South-East Asia and China each had their own regions because of rampant piracy.”).

¹²¹ See generally ACCESS DENIED: THE PRACTICE AND POLICY OF GLOBAL INTERNET FILTERING (Ronald Deibert et al. eds., 2008) (documenting information-control policies in different parts of the world).

¹²² Rebecca MacKinnon, *The Green Dam Phenomenon*, WALL ST. J. ASIA, June 18, 2009, available at <http://online.wsj.com/article/SB124525992051023961.html>; see REBECCA MACKINNON, CONSENT OF THE NETWORKED: THE WORLDWIDE STRUGGLE FOR INTERNET FREEDOM 101 (2012) (“[P]oliticians throughout the democratic world are pushing for stronger censorship and surveillance by Internet companies to stop the theft of intellectual property. They are doing so in response to aggressive lobbying by powerful corporate constituents without adequate consideration of the consequences for civil liberties, and for democracy more broadly.”); Christopher Rhoads & Loretta Chao, *Iran’s Web Spying Aided by Western Technology*, WALL ST. J., June 22, 2009, at A1, available at <http://online.wsj.com/article/SB124562668777335653.html> (discussing internet control in Britain, Germany, United States, and Australia).

¹²³ The Google transparency report is available at <http://www.google.com/transparencyreport/governmentrequests/>.

confronting China, while serious, are not more excessive than those found in other parts of the world. For instance, the piracy survey conducted by the Business Software Alliance did not include China on the list of the world's top twenty-five pirate nations.¹²⁴ With a piracy rate of merely seventy-nine percent, China was twenty-sixth in the 2010 survey, behind Indonesia, Ukraine, Vietnam, and Nigeria. When one takes into consideration such factors as per capita income, comparable levels of economic development, and the age of the country's intellectual property system, China also compares favorably with other countries.¹²⁵

In sum, there are practical needs for DVD region codes in light of the divergences in film ratings and regulatory standards throughout the world. Nevertheless, those needs do not match well with the existing codes. Although the conditions in China provide some explanation for having Region 6 as a separate region, the differences in film ratings and national regulations in other countries do not provide a strong justification for DVD region codes.

E. *Summary*

Out of the four justifications advanced in this Part, only sequential release provides a convincing justification for DVD region codes. It is therefore no surprise that DVD CCA includes only the first justification in its explanation of the need for region codes. Nevertheless, even though the three other justifications are somewhat shaky and remain under constant challenge—by both commentators and new technologies—these justifications, together with sequential release, provide a good idea of the different needs and interests of movie studios (as well as other content providers). They also provide useful insight into the needs and benefits of using region-based restrictions to protect intellectual property rights.

III. UNINTENDED CONSEQUENCES

While the previous Part identified the needs of movie studios and other content providers as well as the potential benefits of DVD region codes, these technological fixes have also brought many unintended consequences, greatly undermining these benefits. This Part discusses four areas in which DVD region codes have created unintended consequences: (1) consumption; (2) competition; (3) cultural rights; and (4) censorship. The concerns identified in these areas not only

¹²⁴ BUS. SOFTWARE ALLIANCE & INT'L DATA CORP., SEVENTH ANNUAL BSA/IDC GLOBAL SOFTWARE PIRACY STUDY 7 (2010).

¹²⁵ See Aaron Schwabach, *Intellectual Property Piracy: Perception and Reality in China, the United States, and Elsewhere*, 2 J. INT'L MEDIA & ENT. L. 65, 74 (2008); Peter K. Yu, *Enforcement, Economics and Estimates*, 2 WIPO J. 1, 13–14 (2010).

underscore the shortcomings of DVD region codes, but also raise important questions about the expediency of using region-based restrictions to protect copyrighted content. Instead of focusing only on the movie industry, this Part widens the discussion to cover all content providers.

A. Consumption

The first set of unintended consequences concerns consumption. With increased globalization and frequent consumer travel, a model that conditions the enjoyment of digital content on the place of purchase is seriously outdated. As lifestyle and consumer preferences continue to change, DVD region codes could eventually backfire on content providers by reducing consumption.

Consider, for example, the inconvenience region codes have created for students or workers living abroad for a temporary period of time. Most of these individuals are unlikely to repurchase a large number of DVDs they already own. Nor is it always convenient for them to bring a DVD player for use in a foreign country. The device could be bulky, and the electrical voltage may be different.¹²⁶

If these individuals choose to purchase DVDs abroad—for example, in a museum or upon recommendation by foreign friends—they will also face the same issue from an opposite direction. Unless they have region-relevant or multiregion players, they will not be able to view those DVDs they have lawfully purchased abroad. It would indeed be a pity that they could no longer enjoy those DVDs (and the related memories) after returning to their home country.

While region codes have created considerable inconvenience for tourists and business travelers, such inconvenience provided interesting stories for the mainstream media when DVDs were presented as gifts by national leaders or when the discs were taken up to space. When President Barack Obama gave then-British Prime Minister Gordon Brown a set of twenty-five American classic movies, he was quickly criticized not only for his choice of gift, but also for the fact that those DVDs were unviewable on U.K. DVD players.¹²⁷ Although “[a] Downing Street spokesman said he was ‘confident’ that any gift Obama gave Brown would have been ‘well thought through,’ . . . [he] referred [reporters] to the White House for assistance on the ‘technical

¹²⁶ See Sun, *supra* note 23, at 336 (“[An] electricity voltage converter also may be needed if the DVD player does not work with U.S. power voltage.”).

¹²⁷ See Tim Walker, *Brown Is Frustrated by ‘Psycho’ in No 10*, DAILY TELEGRAPH (London), Mar. 19, 2009, at 8 (reporting that “the words ‘wrong region’ came up” on Brown’s screen when he attempted to watch one of his gift DVDs); see also WILLIAM F. PATRY, HOW TO FIX COPYRIGHT 46 (2011) (lamenting that President Obama’s gift DVDs “couldn’t be lawfully played on Brown’s DVD player”).

aspects.”¹²⁸

Indeed, those DVDs put the administration in a catch-22 situation. If the DVDs were made in the United States and coded for Region 1 (as they turned out to be), Brown would not have the opportunity to enjoy those classic movies, no matter how much entertainment these movies would provide. American protectionism might have ended up being the only memory the former British prime minister had after failing to view those DVDs.¹²⁹ By contrast, if the DVDs were coded for Region 2, the region to which the United Kingdom belongs, Brown would be able to enjoy the movies. However, those gift movies would not represent what ordinary Americans typically enjoy. They would not be considered a genuine American gift.

DVD region codes posed a similar challenge when the Space Shuttle Atlantis took two DVDs up to the International Space Station.¹³⁰ If those DVDs were coded for Region 1, non-American astronauts in the station would not be able to view the discs on their players. Russian astronauts, for example, may own Region 5 DVD players. Those players do not play Region 1 DVDs from the United States. Fortunately, before sending portable DVD players up to space, NASA (National Aeronautics and Space Administration) had already contracted with U.K.-based Techtronics to modify the players “to play discs from all DVD regions, reflecting multinational makeup of [the International Space Station] crew.”¹³¹ The non-U.S. astronauts therefore did not end up with the same disappointing experience as Gordon Brown.

The examples concerning President Obama and Space Shuttle Atlantis, while admittedly infrequent and somewhat isolated, highlight the inconvenience caused by DVD region codes. More importantly, such inconvenience could eventually lead to reduced consumption, affecting both content providers and their contracted authors.

To a great extent, region codes force consumers to think in advance about not only whether they want the product in the first place, but also where they want to enjoy the product and whether they have the needed equipment to do so. If consumers cannot decide on the spot, and the DVD is not so cheap that they would not hesitate to buy the product twice, they may choose not to purchase the product at all. After all, a wrong decision concerning the place where the DVD will be viewed

¹²⁸ Walker, *supra* note 127. Interestingly, when President Obama met former Australian Prime Minister Kevin Rudd later, he returned to the region-free analog world and gave Rudd a historic score of *The Star Spangled Banner* instead. See *Present and Correct*, DAILY TELEGRAPH (Austl.), Mar. 26, 2009, at 2.

¹²⁹ See Neuwirth, *supra* note 24, at 428 (characterizing the studios’ use of region code as “defensive economic protectionism”).

¹³⁰ See *NASA Using Region-Free DVD*, CONSUMER ELECTRONICS, Mar. 12, 2001.

¹³¹ *Id.*

could eventually render the product unusable. In the end, inconvenience on the part of consumers could result in lost sales on the part of content providers. In international transportation hubs (such as airports, ports, or railway stations) or in countries where tourism and business travel make up for a large part of the retail business, region codes are likely to have a significant negative impact on DVD sales.¹³²

Even worse, the inconvenience DVD region codes generate may force viewers to turn to websites that distribute content without the content providers' authorization. For example, I am eager to pay ten times the usual retail price for DVDs showing those Japanese animés I watched in Hong Kong during childhood. However, many of those DVDs are still unavailable today—or are only available in Japan in Japanese through a special commemorative release (Thanks, Toei Animation!). While some of these animés have been dubbed in English and released in the United States, the products sadly are not always the same. Sometimes, the character names and the underlying soundtracks are different. At other times, the plots, dialogues, and cultural references have been changed. For faithful animé fans, *Robotech* is just not an acceptable substitute for *Macross*.¹³³

Interestingly, and unsurprisingly, fragments or even full episodes of many of these animés can now be found on YouTube or other streaming platforms, often without the copyright holder's authorization. While one could debate whether watching those animés on YouTube is right, especially given the unsettled nature of the law,¹³⁴ it is hard to be sympathetic to those Japanese animé producers who stubbornly refuse to release their works despite an extant demand from willing customers.¹³⁵ This is particularly true when those works have already been released in DVD format from time to time.

Moreover, DVD region codes could undermine the protection of media content, one of the main reasons why the studios set up CSS and

¹³² See Neuwirth, *supra* note 24, at 417 (stating that the region coding system “punishes every traveler or tourist who purchases a legal copy of a DVD abroad and who will find out that it will not play on his or her home DVD player”).

¹³³ *Chōjīkū Yōsai Macross* (Big West et al. 1982). The work was later adapted by Harmony Gold in the name of *Robotech*. *Robotech: The Macross Saga* (Harmony Gold et al. 1985).

¹³⁴ See *Viacom Int'l, Inc. v. YouTube, Inc.*, 676 F.3d 19 (2d Cir. 2012), *affirming in part and reversing in part* 718 F. Supp. 2d 514 (S.D.N.Y. 2010). In the interest of full disclosure, the Author of this Article has signed on to an amicus brief in support of YouTube. See Brief for Intellectual Property and Internet Law Professors as Amici Curiae Supporting Respondent, *Viacom Int'l, Inc. v. YouTube, Inc.*, 2012 WL 1130851 (2d Cir. Apr. 5, 2011) (No. 10–3270). For discussions of the benefits of YouTube, see Peter K. Yu, *Digital Copyright and Confuzzling Rhetoric*, 13 VAND. J. ENT. & TECH. L. 881, 897–99 (2011).

¹³⁵ See Hu, *supra* note 60, at 2 (stating that DVD region codes “are a headache in America . . . for . . . foreign-film connoisseurs who want access to films without U.S. distribution”); see also Yu, *Anticircumvention and Anti-anticircumvention*, *supra* note 23, at 75 (“[R]egion codes can be annoying, especially to frequent travelers or foreign film or anime aficionados, whose interests have yet to generate a big enough market to facilitate domestic distribution.”).

regional playback control in the first place.¹³⁶ To some extent, content providers are shooting themselves in the foot when they choose not to meet consumer demand. As Pink Floyd's first manager reminds us: "The flagrant spread of 'Internet piracy' in developed countries is a reflection of the failure of the industry as a whole to develop an appropriate copyright response to the distribution and remuneration options made possible by the new technologies."¹³⁷ Likewise, William Patry observes, "[s]uccessful Internet business models are based on satisfying consumer preferences, honed and targeted through information provided by consumers. Such business models offer more choices, more consumer satisfaction (since they are based on consumers' own preferences), and therefore ultimately lead to greater revenue."¹³⁸

According to Patry, "[t]he best way to prevent the sale of unauthorized goods is to flood the market with authorized goods."¹³⁹ It is therefore high time content providers rethink the use of region-based restrictions so that willing consumers can pay for products they want. After all, as the British *Hargreaves Review* recently declared: "Where enforcement and education alone have so far struggled to make an impact on levels of copyright infringement, there has been more evidence of success where creative businesses have responded to illegal services by making available lower priced legal products in a form consumers want."¹⁴⁰

B. Competition

The second set of unintended consequences surrounds the

¹³⁶ See discussion *supra* Part I.

¹³⁷ GREG KOT, RIPPED: HOW THE WIRED GENERATION REVOLUTIONIZED MUSIC 2 (2009) (quoting Peter Jenner, Pink Floyd's first manager); see also Joe Karaganis, *Rethinking Piracy, in* MEDIA PIRACY IN EMERGING ECONOMIES 1, 65 (Joe Karaganis ed., 2011) ("Where there is no meaningful legal distribution, the pirate market cannot be said to compete with legal sales or generate losses for industry. At the low end of the socioeconomic ladder where such distribution gaps are common, piracy often simply is the market. The notion of a moral choice between pirated and licit goods—the basis of anti-piracy campaigns—is simply inoperative in such contexts, an impractical narrative of self-denial overwhelmed by industry marketing campaigns for the same goods.").

¹³⁸ WILLIAM PATRY, MORAL PANICS AND THE COPYRIGHT WARS 11 (2009) [hereinafter PATRY, MORAL PANICS].

¹³⁹ PATRY, HOW TO FIX COPYRIGHT, *supra* note 127, at 256. As Patry reminds us:

Laws are not the answer to all problems. Laws are useful for solving only those problems laws can solve. If there are non-legislative ways to solve whatever the problem is, the last thing we should want is for lawyers, courts, or governments to get involved. Many businesses that rely on copyrighted material have a problem: not enough consumers are paying for their works. While copyright owners like to portray this as a legal problem—a problem of piracy—the problem is a market problem, arising from the continual failure of copying owners to respond and adapt to changing markets and the technologies that drive consumer demand.

Id. at 141.

¹⁴⁰ IAN HARGREAVES, DIGITAL OPPORTUNITY: A REVIEW OF INTELLECTUAL PROPERTY AND GROWTH 79 (2011), available at <http://www.ipo.gov.uk/ipreview-finalreport.pdf>.

anticompetitive effects of DVD region codes. To some extent, one can view those region-based restrictions as a post-sale mechanism content providers deploy to control the way consumers use their work after making a lawful purchase. By exercising such control, and thereby reducing competition, content providers can artificially inflate the selling price, often to the detriment of local consumers.¹⁴¹

Such control has also resulted in fewer choices for consumers. For example, many movies are yet to be released on DVDs, for several reasons. These movies may have been tied up with legal issues or held back for commemorative editions.¹⁴² The studio may have difficulty finding good enough original materials to work from.¹⁴³ In addition, the studio may question the market potential for a DVD version of a commercially unsuccessful movie.¹⁴⁴ As George Feltenstein of Warner Brothers bluntly declared: “The fact that a film is old doesn’t necessarily make it a classic.”¹⁴⁵ The studio may also choose to release the movie in only one or two regions—for example, Regions 1 and 2, but not Region 4.¹⁴⁶

Even if the DVDs are available, region codes could greatly limit consumer choice. For example, some viewers may prefer the original Ricky Gervais’ version of *The Office* but not Steve Carell’s American remake.¹⁴⁷ Others may prefer to watch both so that they can decide which one they like more. Worse still, when the same movie or television series is released in multiple regions, non-Region 1 DVDs often come in inferior quality to those released in the United States.¹⁴⁸

¹⁴¹ See JONATHAN BAND & MASANOBU KATOH, INTERFACES ON TRIAL 2.0, at 1 (2011) (“Although ‘locking in’ was extremely profitable for dominant vendors, . . . competitors and users suffered from high prices, indifferent service, limited choice, and slow innovation.”).

¹⁴² See Hu, *supra* note 60, at 4 (“Jean-Luc Godard’s *Historie(s) du Cinema* has famously been undistributable in the U.S. because of copyright clearance issues, and the fact that its soon-to-be-released DVD will be Region 2 encoded serves to keep the DVD from being watchable on American players.”); Thomas K. Arnold, *Lost in the DVD Desert*, USA TODAY, Dec. 12, 2006, at 3D (pointing out that many movies have not been released as DVDs because they “are tied up with legal issues, . . . are a result of an inability to find good-enough elements to work from, and . . . are being held back for commemorative opportunities”).

¹⁴³ See Lawrence Wes Chler, *Sublime Decay*, N.Y. TIMES, Dec. 22, 2002, § 6 (Magazine), at 44 (providing a colorful description of the decay of chemically-unstable cellulose nitrate film stock).

¹⁴⁴ See Hu, *supra* note 60, at 4 (“Economic reasons (such as territorial distribution rights) also keep certain obscure, difficult, or culturally-specific films from getting American distribution, i.e. a Region 1 release.”); Arnold, *supra* note 142 (pointing out that many movies have not been released as DVDs “because the studio doesn’t think it will sell” (quoting George Feltenstein, Warner Brothers)).

¹⁴⁵ Arnold, *supra* note 142; accord GILLESPIE, *supra* note 41, at 19 (stating that region coding “gives the movie studios a way to . . . ignore markets they do not see as lucrative”).

¹⁴⁶ See GILLESPIE, *supra* note 41, at 264 (“In practice, studios need not even release a film in all regions if they think its market prospects are poor. Under these circumstances, a film may be completely unavailable in a region.”).

¹⁴⁷ Compare *The Office* (BBC television broadcast 2001–2003), with *The Office* (NBC television broadcast 2005–Present).

¹⁴⁸ See Paul Zach, *DVDs Made for SE Asia out in the Market*, STRAITS TIMES (Sing.), Sept. 27, 1997, at 6 (“Another concern of home-video enthusiasts is that discs for the Region 3 market will be inferior to imports from the United States or Japan. This has already proven true of many

Some also include fewer features.¹⁴⁹

As if such a lack of consumer choice is not harmful enough, the lack of choice in DVDs could eventually lead to a lack of choice in DVD hardware. As Emily Dunt, John Gans, and Stephen King rightly observe in the Australian context:

[T]he regional coding system impacts on both the market for DVD software and the market for DVD hardware, increasing the effective cost of a DVD player and facilitating price discrimination in the market for DVD players.

The regional coding of DVD software has meant that fewer titles are available on DVD in the lower demand regions (predominantly Regions 3, 5 and 6 but initially also Regions 2 and 4). The reduced range of DVD titles has reduced take-up rates for DVD players in these countries. The attractiveness of portable DVD players is significantly reduced when portability is reduced because a portable player cannot play DVD titles purchased or rented in countries within different DVD regions.¹⁵⁰

In light of the concerns over the anticompetitive effects generated by DVD region codes, the Australian Competition and Consumer Commission (“ACCC”), in 2001, undertook an investigation to evaluate whether the use of those codes was consistent with the Trade Practices Act of 1974.¹⁵¹ As Allan Fels, the Commission’s then-chairman, pointed out, “If the manufacturers have an agreement to do that, it looks like an anti-competitive agreement breaching not only Australian law but laws in other countries. . . . It is a breach of Australian law to make an agreement offshore that harms competition in Australia.”¹⁵²

released for the region from Hongkong [sic] and Taiwan which are often edited haphazardly, lacking letterboxed versions and with blurry pictures, and no THX or Dolby sound.”)

¹⁴⁹ As Sun Qixiang points out in the U.S. context:

Even if the DVD has been released in Region 1, it is likely that American consumers will need to buy a product locally with different features from the one originally released overseas. Such an undue interference of the exercise of consumer rights is getting even more serious in the age of globalization as more consumers buy DVDs from different countries where they frequently visit or work.

Sun, *supra* note 23, at 332–33; accord Sherwin Loh, *Listen to Your Customers*, STRAITS TIMES (Sing.), Aug. 19, 2009 (“DVDs bought locally do not contain the same special features as the ones from United States do—like a digital copy of the movie.”).

The opposite can also happen. As one reporter observes: “[I]n some cases due to the different distribution companies involved and their access to product, the Canadian DVD is actually more comprehensive than the one available in the States. The releases of *Pulp Fiction* and *The Sweet Hereafter* in [Canada] contain more bells and whistles, such as cast and crew commentaries, than their U.S. counterparts.” Caldwell, *supra* note 116.

¹⁵⁰ Dunt et al., *supra* note 74, at 41.

¹⁵¹ See Fitzsimmons, *supra* note 113. The Trade Practices Act of 1974 has now been replaced by the Competition and Consumer Act of 2010. *Competition and Consumer Act 2010* (Cth) (Austl.).

¹⁵² *Id.* (quoting Allan Fels, Chairman, Australian Competition and Consumer Commission). Indeed, as the Ergas Committee Report noted in the Australian context:

Australia is a relatively small and somewhat isolated market, which is nonetheless

Taking a similar approach, Graeme Samuel, Fels' successor, offered strong criticism of the High Court's ruling in *Kabushiki Kaisha Sony Computer Entertainment v. Stevens* a couple of years later.¹⁵³ Despite the lower court's finding that region codes did not constitute technological protection measures within the meaning of the anticircumvention provisions of the Australian Copyright Act of 1968, the High Court held that the sale of a mod chip that enabled game consoles to circumvent region-based restrictions violated those provisions.¹⁵⁴ As Samuel declared after the High Court's ruling: "The ACCC believes region coding is detrimental to consumers as it severely limits their choice and, in some cases, access to competitively priced goods. . . . The ACCC is disappointed that technology which can overcome these unfair restrictions will not be generally available for consumers' use."¹⁵⁵

Like the ACCC, the EU competition authorities "investigated whether the regional code management system in DVD players is used to overcharge European . . . customers for DVD discs compared to U.S. customers."¹⁵⁶ As Mario Monti, the European Commissioner for Competition Policy, explained:

The thrust of the complaints that we have been receiving is that such a system allows the film production companies to charge higher DVD prices in the EU because EU consumers are artificially prevented from purchasing DVDs from overseas.

As a direct result of these complaints, we have initiated contacts with the major film production companies. We will examine closely what they have to say. Whilst I naturally recognise the legitimate protection which is conferred by intellectual property rights, it is

attractive because per capita incomes are relatively high. Although international comparisons are difficult, it seems reasonable to assume that Australians are substantial consumers of material covered by copyright, in all its various forms. The willingness to pay for such material is likely to be quite high—most notably when compared to markets in poorer parts of the world. A supplier of such material with some degree of market power, and the ability to price-discriminate internationally, would likely set higher prices in the Australian market than elsewhere.

INTELLECTUAL PROP. & COMPETITION REVIEW COMM., REVIEW OF INTELLECTUAL PROPERTY LEGISLATION UNDER THE COMPETITION PRINCIPLES AGREEMENT 62 (2000), available at http://www.clrc.gov.au/www/agd/agd.nsf/Page/Publications_ErgasCommitteereport-September2000 (Ergas Committee Report).

¹⁵³ *Kabushiki Kaisha Sony Computer Entm't v. Stevens* (2005) 224 CLR 193 (Austl.); see James Pearce, *Aussie Mod-chip Veto Criticised*, ZDNET AUSTRALIA (Aug. 1, 2003, 12:05 PM), <http://www.zdnet.co.uk/news/processors/2003/08/01/aussie-mod-chip-veto-criticised-39115420/>.

¹⁵⁴ See generally Kimberlee Weatherall, *On Technology Locks and the Proper Scope of Digital Copyright Laws—Sony in the High Court*, 26 SYDNEY L. REV. 613 (2004) (providing an analysis of the lower court decision).

¹⁵⁵ Pearce, *supra* note 153.

¹⁵⁶ Bechtold, *supra* note 23, at 629; Reuters News Agency, *EC Turns from CDs to DVDs in Probe of Predatory Pricing*, GLOBE & MAIL, June 12, 2001, at B13 (reporting that "[t]he European Commission is investigating the high price of DVD . . . movies in Europe").

important that, if the complaints are confirmed on the facts, we do not permit a system which provides greater protection than the intellectual property rights themselves, where such a system could be used as a smoke-screen to allow firms to maintain artificially high prices or to deny choice to consumers.¹⁵⁷

Other countries have expressed similar concerns. Although New Zealand thus far has yet to undertake an investigation, the country “has been trying to eliminate DVD region code restrictions.”¹⁵⁸ Such elimination could facilitate competition, which in turn would discipline those content providers that seek to collude to fix prices.¹⁵⁹

Although charges of antitrust violation or anticompetition seem rather serious, those charges are actually not new for the entertainment industry. In the 1950s, “the [U.S.] federal government . . . [brought] dozens of lawsuits reshaping the structure of the motion picture industry in order to prevent a few production studios from also controlling film distribution and exhibition.”¹⁶⁰ Commentators have also repeatedly criticized the increasing concentration of movie theater ownership in a few media conglomerates;¹⁶¹ such concentration, sadly, has contributed to a decline in foreign films in U.S. cinemas.¹⁶² Moreover, in October

¹⁵⁷ Mario Monti, European Comm’r for Competition Policy, Content, Competition and Consumers: Innovation and Choice, Addressed Delivered at the Scandic Hotel Slussen in Stockholm (June 11, 2001), available at <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/01/275&format=HTML&aged=0&language=EN&guiLanguage=en>.

¹⁵⁸ Silva, *DVD Region Codes*, *supra* note 32.

¹⁵⁹ See Barfield & Groombridge, *supra* note 56, at 927 (“[C]ompeting firms may collude to fix prices, and permitting parallel imports could help discipline them.”); see also Frederick Abbott, *First Report (Final) to the Committee on International Trade Law of the International Association on the Subject of Parallel Importation*, 1 J. INT’L ECON. L. 607, 622 (1998) (“Parallel imports will serve to assure that an adequate level of price competition is maintained in international markets. Price competition is essential to the effective operation of comparative advantage, and to achieving efficiency gains throughout the international trading system.”).

¹⁶⁰ Eben Moglen, *Antitrust and American Democracy*, NATION, Nov. 30, 1998, at 4.

¹⁶¹ See BEN H. BAGDIKIAN, *THE MEDIA MONOPOLY* 24 (6th ed. 2000) (noting the increasing concentration of the motion picture industry).

¹⁶² As Robert McChesney explains:

In the mid-1970s, foreign films accounted for over 10 percent of the box office at U.S. theaters. Every decent-sized city had one or more theaters specializing in foreign films, and Manhattan alone had two dozen such theaters. By the mid-1980s the percentage of box office accounted for by foreign films was around 7 percent, and by the late 1990s it is down to under .5 percent. By the logic of the “give the people what they want” thesis, this development would reflect the fact that the American people decided that they were no longer interested in seeing non-U.S. films. But it was nothing like that at all. Instead, what this reflected was the rise to dominance in the United States of the chain-owned megaplex movie theaters. With far lower costs, these multiscreen cinemas drove nearly all the one-screen theaters out of business, the very theaters that had specialized in foreign fare. Megaplex chain theaters would only grant screens to foreign films if the filmmakers were as willing to devote massive amounts to U.S. marketing as U.S. studios could, something wholly unrealistic for them to do. As a result foreign films stopped being exhibited and a new generation has come along with no idea that foreign films even exist.

ROBERT W. MCCHESENEY, *RICH MEDIA, POOR DEMOCRACY: COMMUNICATION POLITICS IN DUBIOUS TIMES* 33–34 (1999).

2002, the five major record labels, along with three national retail chains, agreed to pay a reported \$143 million in refunds or CDs to settle a price-fixing lawsuit with forty states.¹⁶³

For many small markets, competition is particularly important, as these markets may not individually generate sufficient economies of scale and scope. For example, it is not uncommon for a Hong Kong retailer to import goods from both the United Kingdom and the United States. After all, the price from the two different countries can be quite different. The goods can also be quite different. For example, *Harry Potter and the Philosopher's Stone* (the original English version) has British spellings, while *Harry Potter and the Sorcerer's Stone* (the U.S. version) has American spellings. Even if the content is the same and the price is more or less the same at source, the two prices can fluctuate dramatically when currency exchange rates,¹⁶⁴ transportation costs,¹⁶⁵ package discounts, and other short-term and long-term factors are taken into consideration.¹⁶⁶

As a result, countries with small markets may prefer to have the option of importing similar or identical goods from more than one country. The need for obtaining goods from multiple countries was indeed the primary reason why WTO members such as Australia, Hong

¹⁶³ See Benny Evangelista, *\$143 Million Settlement in CD Price-Fixing Suit*, S.F. CHRON., Oct. 1, 2002, at B1.

¹⁶⁴ See Margreth Barrett, *The United States' Doctrine of Exhaustion: Parallel Imports of Patented Goods*, 27 N. KY. L. REV. 911 (2000) ("Price differentials may . . . be attributable to changes in international monetary exchange rates."); see also SETH E. LIPNER, *THE LEGAL AND ECONOMIC ASPECTS OF GRAY MARKET GOODS* 3 (1990) ("While isolated instances of gray market sales existed before [the 1980s], the meteoric rise in the value of the U.S. dollar in 1981 and 1982 caused gray market importation to become a lucrative business. During this time, it was not unusual to see prices for gray market goods one third lower than the price of their authorized counterparts. As the U.S. dollar declined in value in 1987 and 1988, the profitability of international gray market sales was undoubtedly reduced."); Barfield & Groombridge, *supra* note 56, at 923 ("[P]rices might vary due to fluctuations in foreign currency exchange markets. An extensive literature documents that parallel imports surge when a country's exchange rate appreciates because import prices do not decrease in the same proportion as the appreciation of the other country's currency."). But see John Hilke, *Free Trading or Free-Riding: An Examination of the Theories and Available Empirical Evidence on Gray Market Imports*, 32 WORLD COMPETITION 75, 81–82 (1988) ("Manufacturers' output constraints, strategic output and pricing considerations, barriers to entry, and long-run marketing considerations may make foreign suppliers reluctant to change their U.S. prices in lock step with changes in exchange rates. To the extent that foreign suppliers base their decisions on these longer-run considerations, their pricing decisions may differ from those of independent middlemen. The available evidence on trade reactions to changes in exchange rates suggests that lags are extremely common."); Paul Krugman, *Pricing to Market When the Exchange Rate Changes*, in REAL-FINANCIAL LINKAGES AMONG OPEN ECONOMIES 49 (Sven W. Arndt & J. David Richardson eds., 1987) (explaining why U.S. imports have not fallen to the degree that one might expect given the strong dollar).

¹⁶⁵ See Vinelli, *supra* note 85, at 143 ("Factors such as transportation costs make a huge difference in which regime is more effective—uniform pricing is theoretically more effective with lower transportation costs.").

¹⁶⁶ See Barfield & Groombridge, *supra* note 56, at 935 ("[P]rice variations stem from a number of causes, including differences in local demand, local ability to pay, local taxes, local regulations and international treaty obligations, local manufacturing and distribution costs, and local infrastructure.").

Kong, New Zealand, and Singapore actively pushed for the adoption of article 6 of the TRIPS Agreement.¹⁶⁷ That provision prevents the use of the mandatory WTO dispute settlement process “to address the issue of the exhaustion of intellectual property rights.”¹⁶⁸

Competition and parallel importation can also be beneficial to content providers. While providers will no longer have full control over their product, they could benefit by gathering more information about the needs and interests of local consumers.¹⁶⁹ For example, when high volumes of Japanese animés are being imported into Region 1, such importation clearly signals a growing demand for those products in the United States. The importation may also provide distributors with useful information about whether they have correctly priced the products and whether the features they include on Region 1 DVDs are comparable to those found on DVDs from other regions.

C. Cultural Rights

The third set of unintended consequences focuses on the protection of cultural rights, rights that commentators have found “to be among the least understood and developed of all human rights both conceptually and legally.”¹⁷⁰ It goes without saying that the enjoyment and exercise of cultural rights depend largely on the existence of cultural materials. By restricting access to these important materials, DVD region codes therefore threaten to intrude on the viewer’s enjoyment and exercise of his or her cultural rights.

When I studied at Wisconsin as a foreign undergraduate student, it was not uncommon for my schoolmates and I to get together to watch Hong Kong movies—usually after dinner in a Chinese restaurant and some karaoke. Many of these Hong Kong movies were not widely available in the United States. Even if they were, the alterations in those movies would have made us regret not watching the originals in the first place.

¹⁶⁷ See Jayashree Watal, *From Punta del Este to Doha and Beyond: Lessons from the TRIPS Negotiating Processes*, 3 WIPO J. 24, 26 (2011).

¹⁶⁸ TRIPS Agreement art. 6.

¹⁶⁹ See *In re Certain Alkaline Batteries*, 225 U.S.P.Q. (BNA) 823, 850 (1984) (a case involving the unauthorized importation of Duracell alkaline batteries). As Commissioners Paula Stern and Stern Rohr of the International Trade Commission wrote:

Because consumers enjoy paying less for similar goods, retailers and wholesalers would also discover that there is a demand for the fairly-traded product. Not only would consumers benefit from having the option of purchasing such fairly-traded gray market goods, but Duracell, Inc. would benefit by the resulting expansion of the market for lower priced, popular-sized foreign-made “Duracell” batteries.

Id.

¹⁷⁰ Stephen A. Hansen, *The Right to Take Part in Cultural Life: Toward Defining Minimum Core Obligations Related to Article 15(1)(a) of the International Covenant on Economic, Social and Cultural Rights*, in *CORE OBLIGATIONS: BUILDING A FRAMEWORK FOR ECONOMIC, SOCIAL AND CULTURAL RIGHTS* 279, 281 (Audrey Chapman & Sage Russell eds., 2002) [hereinafter *CORE OBLIGATIONS*].

For immigrant families in the United States, having access to cultural materials is equally important. This is particularly true when the parents want to teach their children their native language or culture.¹⁷¹ DVDs therefore can come in handy—whether they are movies in the native language or American movies with subtitles in that particular language.¹⁷² Unfortunately, finding DVDs with subtitles in foreign languages in the United States is not easy, unless that language is French or Spanish.¹⁷³ Even if the product is available in Chinese, it may only be available in Cantonese but not Mandarin, or vice versa.¹⁷⁴

While the first two examples focus on foreign students and immigrant families, DVD region codes can affect domestic students who are eager to learn foreign languages.¹⁷⁵ One of DVDs' major benefits is their large storage space for sub-titles and audio tracks in a wide variety of languages.¹⁷⁶ Indeed, DVDs can play a very important

¹⁷¹ See Hu, *supra* note 60, at 2 (stating that DVD region codes “are a headache in America primarily for immigrants who want to watch films from their homeland”); James C. Luh, *Breaking Down DVD Borders*, WASH. POST, June 1, 2001, at E1 (“The small market for multiregion players is mostly driven by immigrants who want to watch movies from their home countries, language students and foreign-film enthusiasts” (quoting Richard Stanton, DVD City, an electronics retailer in Atlanta)).

¹⁷² See, e.g., Paul Zach, *Bedazzled Yet Bedevilled by the DVD*, STRAITS TIMES (Sing), June 13, 1997, at 1 (“Warner’s Region 3 DVDs will all include the original-language version of the film but with Mandarin, Cantonese, Bahasa Malaysia, Thai, Bahasa Indonesia and Korean subtitles.”).

¹⁷³ *Harry Potter and the Deathly Hallows, Part 1*, for example, includes subtitles in only English and Spanish. Meanwhile, *Toy Story 3* has the English and Spanish editions in two separate DVDs. Viewers interested in having both editions will have to buy *two* DVDs of the same work.

¹⁷⁴ As Brian Hu recounts:

In 2001, Stephen Chow’s *Shaolin Soccer* became the highest grossing film of all time in Hong Kong, and the action comedy became a cultural touchstone in Chinese-speaking communities around the world. Recognizing the film’s financial potential in the United States, Miramax acquired the theatrical rights. Not taking a chance with importation of the disc, Miramax prohibited popular online retailers like Yesasia.com to sell the DVD to customers in the United States. When Miramax finally decided to release the film in 2004, the film was re-edited, re-titled, dubbed, and all Chinese text was digitally altered into English. Under pressure from fans, the title was changed back and the English dub was scrapped in favor of English subtitles, but the other manipulations persisted. To date, this altered, de-Sinified version is the only one legally available in the United States. And while the Hong Kong version of the DVD has both Cantonese and Mandarin audio options (to satisfy both demographics) as well as Chinese subtitles, the American release contains only Cantonese and English dubs and English subtitles, making the film incomprehensible to Mandarin-speaking immigrants who can’t understand or read English.

Hu, *supra* note 60, at 5 (footnote omitted).

¹⁷⁵ See *id.* at 2 (stating that DVD region codes “are a headache in America . . . for . . . foreign-language students who use films to practice listening skills”); Peter Ecke, *Coping with the DVD Dilemma: Region Codes and Copy Protection*, 38 DIE UNTERRICHTSPRAXIS / TEACHING GERMAN 89 (2005) (“Foreign language teachers’ use of DVDs, purchased abroad, has become increasingly difficult through restrictions imposed by the motion picture industry on DVD, DVD-playing equipment and software.”).

¹⁷⁶ See Neuwirth, *supra* note 24, at 452 (“DVD technology allows for the storage of several language versions, in both sound and subtitles, on one single DVD, thereby enabling linguistically diverse audiences to enjoy their content.”); see also TAYLOR ET AL., *supra* note 27, at 4–3 (“The DVD-Video standard provides for up to eight soundtracks to support multiple languages and supplemental audio Video can be supplemented with one of 32 subpicture tracks for subtitles, captions, and more.”).

role in language and cultural education, especially given the wide availability of computers with DVD-ROM drives in the classroom and at home.¹⁷⁷

More importantly, as Rostam Neuwirth reminds us, “the population of countries where films broadcast on television are not dubbed usually show stronger foreign language skills than in those countries where films are dubbed.”¹⁷⁸ Sadly, because most DVDs in the United States only include audio dubs in a few languages keyed primarily to potential viewers—usually English, French, and Spanish—students who want to learn German, Hebrew, or Russian are out of luck. The same goes for students who want to learn Chinese or Arabic—the two languages that have become increasingly attractive to American students.¹⁷⁹

Taken together, these three examples show how DVD region codes can reduce access to cultural materials, thereby implicating the protection of individual cultural rights. Article 27(1) of the Universal Declaration of Human Rights (“UDHR”) stipulates that “[e]veryone has the right freely to participate in the cultural life of the community”¹⁸⁰ Article 15(1)(a) of the International Covenant on Economic, Social and Cultural Rights (“ICESCR”) also explicitly recognizes an individual right “[t]o take part in cultural life.”¹⁸¹ As the Committee on Economic, Social and Cultural Rights declared in the opening paragraph of *General Comment No. 21*: “The full promotion of and respect for cultural rights is essential for the maintenance of human dignity and positive social interaction between individuals and communities in a diverse and multicultural world.”¹⁸² The Committee further noted that the State’s obligation consists of “both abstention (i.e., non-interference with the exercise of cultural practices and with access to cultural goods and services) and positive action (ensuring

¹⁷⁷ See TAYLOR ET AL., *supra* note 27, at 3 (“Even though DVD-Video players still may not be widely adopted in education, DVD computers are becoming commonplace in the classroom. CD-ROM infiltrated all levels of schooling from home to kindergarten to college and is now passing the baton to DVD as new computers with built-in DVD-ROM drives are purchased.”).

¹⁷⁸ Neuwirth, *supra* note 24, at 452.

¹⁷⁹ See Chris Kenning, *Foreign Exchange*, COURIER-JOURNAL (Louisville), May 15, 2006, at 1A (“Although Spanish still dominates increasingly popular foreign-language classes, parents, educators and policymakers are pushing for more non-Western languages, particularly Chinese and Arabic.”).

¹⁸⁰ Universal Declaration of Human Rights art. 27(1), G.A. Res. 217 (III) A, U.N. Doc A/RES/2167(III) (Dec. 10, 1948) [hereinafter UDHR].

¹⁸¹ International Covenant on Economic, Social and Cultural Rights art. 15(1)(a), Dec. 16, 1966, 993 U.N.T.S. 3 [hereinafter ICESCR].

¹⁸² U.N. Econ. & Soc. Council [ECOSOC], Comm. on Econ., Soc. & Cultural Rights [CESCR], *General Comment No. 21: Right of Everyone to Take Part in Cultural Life (Art. 15, Para. 1(a), of the International Covenant on Economic, Social and Cultural Rights)*, ¶ 1, U.N. Doc. E/C.12/GC/21 (Dec. 21, 2009) [hereinafter *General Comment No. 21*]. Through this general comment, the Committee on Economic, Social and Cultural Rights provides an authoritative interpretation of article 15(1)(a) of the ICESCR.

preconditions for participation, facilitation and promotion of cultural life, and access to and preservation of cultural goods).¹⁸³ Because DVD region codes threaten to take away an individual's "cultural choice,"¹⁸⁴ laws supporting the retention of such codes are unlikely to sit well with a state's obligation to protect the right to take part in cultural life.¹⁸⁵

Under the ICESCR, only states can be held accountable for violating their human rights obligations. However, many U.N. human rights bodies, nongovernmental organizations, and commentators hold the view that private actors, including content providers, bear some human rights responsibilities.¹⁸⁶ Indeed, the Committee on Economic, Social and Cultural Rights in the past has urged states to "consider regulating the responsibility resting on the private business sector, private research institutions and other non-State actors to respect the

¹⁸³ *Id.* ¶ 6.

¹⁸⁴ *Id.* ¶ 7.

¹⁸⁵ It is not uncommon to find tension between the protection of human rights and measures developed to strengthen the protection of intellectual property rights. Only recently, Frank La Rue, the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression, "considers cutting off users from Internet access, regardless of the justification provided, including on the grounds of violating intellectual property rights law, to be disproportionate and thus a violation of article 19, paragraph 3, of the International Covenant on Civil and Political Rights." Human Rights Council, *Rep. of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression* ¶ 78, U.N. Doc. A/HRC/17/27 (May 16, 2011) (by Frank La Rue) [hereinafter *Report of the Special Rapporteur on Freedom of Expression*], available at http://www2.ohchr.org/english/bodies/hrcouncil/docs/17session/A.HRC.17.27_en.pdf. As a result, he "urges States to repeal or amend existing intellectual copyright laws which permit users to be disconnected from Internet access, and to refrain from adopting such laws." *Id.* ¶ 79.

¹⁸⁶ See ECOSOC, Sub-Comm'n on the Promotion & Prot. of Human Rights, *Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises with Regard to Human Rights*, U.N. Doc. E/CN.4/Sub.2/2003/12/Rev.2 (Aug. 13, 2003), available at [http://www.unhcr.ch/huridocda/huridoca.nsf/\(Symbol\)/E.CN.4.Sub.2.2003.12.Rev.2.En?OpenDocument](http://www.unhcr.ch/huridocda/huridoca.nsf/(Symbol)/E.CN.4.Sub.2.2003.12.Rev.2.En?OpenDocument) ("Within their respective spheres of activity and influence, transnational corporations and other business enterprises have the obligation to promote, secure the fulfilment of, respect, ensure respect of and protect human rights recognized in international as well as national law, including the rights and interests of indigenous peoples and other vulnerable groups."); *Report of the Special Rapporteur on Freedom of Expression*, *supra* note 185, ¶ 45 ("While States are the duty-bearers for human rights, private actors and business enterprises also have a responsibility to respect human rights."); Human Rights Council, *Rep. of the Special Rapporteur on the Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health*, delivered to the United Nations General Assembly, U.N. Doc. A/63/263, at 8–11 (Aug. 11, 2008) (by Paul Hunt), available at <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N08/456/47/PDF/N0845647.pdf?OpenElement> (discussing the "human rights responsibilities of pharmaceutical companies in relation to access to medicines"); MACKINNON, *supra* note 122, at 175 ("Companies must . . . be convinced that respecting and protecting their users' universally recognized human rights is in their long-term commercial self-interest—a proposition that continues to puzzle or elude too many Internet companies, in contrast to longer established technology companies and others in virtually every other industry."); Molly Beutz Land, *Protecting Rights Online*, 34 YALE J. INT'L L. 1, 8 (2009) ("[P]rivate harms that the state fails to prevent or punish—for example, restrictions on the ability to take part in cultural life that result from the use of digital rights management systems—would be as much of a violation as actions taken by the state itself."); Peter K. Yu, *Intellectual Property and Human Rights in the Nonmultilateral Era*, 64 FLA. L. REV. 1043, 1066–68 (2012) (discussing corporate human rights responsibilities in the intellectual property area).

rights recognized in [the ICESCR].”¹⁸⁷

In sum, the lack of access to cultural materials is not merely a simple matter of inconvenience or anticompetition. It amounts to an intrusion upon the universally recognized right to take part in cultural life (as well as other human rights). Enshrined in the UDHR, the right to take part in cultural life may have already achieved the status of customary international law.¹⁸⁸ Such intrusion therefore could become a cause for concern for the whole international community. As countries increasingly attach criminal liability to copyright infringement¹⁸⁹ and the circumvention of technological protection measures,¹⁹⁰ intrusion on cultural and other human rights could also become quite important.

D. Censorship

The final set of unintended consequences relates to censorship. As noted earlier, DVD region codes allow content providers to adjust content based on either the requirements of censorship regulations or thorough self-censorship.¹⁹¹ While such adjustment no doubt helps content providers open the market and maximize profit, it also helps facilitate censorship in countries having strong information control environments.¹⁹²

Indeed, DVD region codes could make content providers highly

¹⁸⁷ See CESCR, *General Comment No. 17: The Right of Everyone to Benefit from the Protection of the Moral and Material Interests Resulting from Any Scientific, Literary or Artistic Production of Which He Is the Author (Article 15, Paragraph 1(c), of the Covenant)*, ¶ 55, U.N. Doc. E/C.12/GC/17 (Jan. 12, 2006) [hereinafter *General Comment No. 17*] (“While only States parties to the Covenant are held accountable for compliance with its provisions, they are nevertheless urged to consider regulating the responsibility resting on the private business sector, private research institutions and other non-State actors to respect the rights recognized in article 15, paragraph 1 (c), of the Covenant.”).

¹⁸⁸ See JOHN P. HUMPHREY, HUMAN RIGHTS AND THE UNITED NATIONS: A GREAT ADVENTURE 75–76 (1983) (providing evidence that the UDHR “is now part of the customary law of nations”); Richard Pierre Claude, *Scientists’ Rights and the Human Right to the Benefits of Science*, in CORE OBLIGATIONS, *supra* note 170, at 247, 252 (“After fifty years, the Universal Declaration . . . has begun to take on the qualities of ‘customary international law.’”); Paul Torremans, *Copyright (and Other Intellectual Property Rights) as a Human Right*, in INTELLECTUAL PROPERTY AND HUMAN RIGHTS 195, 201 (Paul L.C. Torremans ed., 2008) (“[W]here initially Member States were not obliged to implement [the UDHR] on the basis [that it is merely aspirational or advisory in nature], it has now gradually acquired the status of customary international law and of the single most authoritative source of human rights norms.”). See generally THEODOR MERON, HUMAN RIGHTS AND HUMANITARIAN NORMS AS CUSTOMARY LAW (1991).

¹⁸⁹ See Peter K. Yu, *Digital Copyright Reform and Legal Transplants in Hong Kong*, 48 U. LOUISVILLE L. REV. 693 (2010) (criticizing the increasing push to criminalize copyright infringement).

¹⁹⁰ See Peter K. Yu, *P2P and the Future of Private Copying*, 76 U. COLO. L. REV. 653, 724–25 & n.353 (2005) [hereinafter Yu, *P2P and the Future*] (discussing the arrest of Russian cryptographer Dmitry Sklyarov and the criminal prosecution of ElcomSoft).

¹⁹¹ See discussion *supra* Part I.D.

¹⁹² See Hu, *supra* note 60, at 4 (“Region coding enforces economic and political censorship by denying the option to see alternative films or alternate versions with alternative languages.”); Neuwirth, *supra* note 24, at 426 (“One[] probably initially unwanted side-effect of the regional coding system is the technical possibility . . . to exercise censorship.”).

undesirable *allies* of governments eager to censor media content. As Rebecca MacKinnon reminds us in her new book, *Consent of the Networked*:

The technologies and policies that make surveillance and censorship possible in China and many other countries are closely connected to policy, business and technical decision being made by governments and companies in the democratic West. Sometimes those decisions are made by people who understand the implications for their actions but simply have other priorities. Others have good intentions but are ill-informed about the dynamics of power, control, and freedom across a global Internet.¹⁹³

Commentators have widely reported the challenging issues concerning the social responsibility of such American companies as Cisco, Facebook, Google, Microsoft, and Yahoo! in China.¹⁹⁴ In previous works, I have also noted how U.S. intellectual property policies—including, in this case, the support of widespread deployment of DVD region codes—have threatened to undermine the country’s longstanding interests in promoting free speech, free press, and other civil liberties abroad.¹⁹⁵

Without region codes, individuals in repressive countries who successfully obtain a DVD from the outside may still be able to obtain information censored by the authorities or self-censored by content providers. With region codes, however, it is much harder and much more costly for these individuals to obtain the uncensored version, even if they are willing to take risks to import that version from abroad. The tension created by DVD region codes and the protection of free speech is particularly acute in countries where distribution of media content remains heavily controlled, but consumers are otherwise relatively free

¹⁹³ MACKINNON, *supra* note 122, at xiv.

¹⁹⁴ *See id.* at 115–86 (discussing Cisco, Facebook, Google, Microsoft, and Yahoo! in China); *see also* Anupam Chander, *Googling Freedom*, 99 CAL. L. REV. 1 (2011) (explaining why Google and its peers have an obligation to protect the freedoms of political dissidents).

¹⁹⁵ *See* Yu, *From Pirates to Partners*, *supra* note 100, at 174 (describing how U.S. intellectual property policy toward China has backfired on its longstanding interests in promoting the protection of human rights and civil liberties in China); *see also* MACKINNON, *supra* note 122, at 105 (“Especially in China, strong pressure from the US Trade Representative and US business groups to crack down on copyright violation has had the unfortunate—if unintended—consequence of complementing the Chinese government’s efforts to stifle dissent.”); William P. Alford, *Making the World Safe for What? Intellectual Property Rights, Human Rights and Foreign Economic Policy in the Post-European Cold War World*, 29 N.Y.U. J. INT’L L. & POL. 135, 144–45 (1997) (noting that the U.S. coercive trade policy provides China with “a convenient legitimization” for its repressive measures while constraining the United States’ capacity to complain about such actions); Robert S. Rogoyski & Kenneth Basin, *The Bloody Case that Started from a Parody: American Intellectual Property Policy and the Pursuit of Democratic Ideals in Modern China*, 16 UCLA ENT. L. REV. 237, 239 (2009) (arguing that “existing American foreign policy objectives with respect to intellectual property have been in conflict with American democratic ideals and democratic foreign policy objectives”).

to import non-politically sensitive materials from abroad.¹⁹⁶

To be certain, one may question why these individuals should have access to movies and television shows, as opposed to news stories or other politically sensitive works. However, it is not always easy to pinpoint the usefulness of those materials that can be used to promote democratic transition and the development of civil society. While many entertainment products are uncontroversial, highly commercial, and seemingly frivolous, they nonetheless may contain useful political information, feature the American way of life, and therefore suggest the possibility of a different, if not better, life.¹⁹⁷ It is indeed not uncommon to find Hollywood movies or American television programs filled with discussions of the American government, the need for checks and balances or the separation of powers, and the protection of constitutional rights and civil liberties.¹⁹⁸ Even the latest installments of *Star Wars* are filled with issues concerning corruption, slavery, federalism, democracy, racial tension, and the American government.¹⁹⁹

Finally, although censorship in countries such as China and Russia and in the Middle East has been widely reported in the mainstream media, in part due to internal U.S. politics, censorship can be found in the United States and in other Western democracies. In the United States, for example, there is a long history of movie censorship, which spans from the Hays Office and the Motion Picture Production Code²⁰⁰

¹⁹⁶ Region codes will play a much less important role if the viewing of DVDs is also strictly banned.

¹⁹⁷ See Neil Weinstock Netanel, *Copyright and a Democratic Civil Society*, 106 YALE L.J. 283, 350 (1996). As Neil Netanel explains:

Many creative works have broad political and social implications even if they do not appear or even seek to convey an explicit ideological message. Literature and art may be subtle, but powerful, vehicles for attitude change or reinforcement. Even what may seem to be abstract, “pure” artistic expression may challenge accepted modes of thought and belie the efforts of governments or cultural majorities to standardize individual sensitivities and perceptions. For that reason totalitarian regimes have prohibited styles of art and music that might be seen as politically innocuous in other contexts—and for that reason a democratic polity committed to the dialogic interchange of independent-minded individuals must protect them from official or private censorship.

Id.; accord LESSIG, *supra* note 10, at 300 (“The alternatives offered by TV are alternatives of the imagination. The interactive life of cyberspace offers alternative ways of living (or at least some cyberspaces do.)”); see also Marci A. Hamilton, *Art Speech*, 49 VAND. L. REV. 73, 96–101 (1996) (providing examples to illustrate the destabilizing potential of art and the relationship between art censorship and totalitarian regimes); Neil Weinstock Netanel, *Asserting Copyright’s Democratic Principles in the Global Arena*, 51 VAND. L. REV. 217, 253–57 (1998) (discussing how the commercial media help “undermine authoritarian rule by providing a window to the democratic West and presenting a rosy portrait of life in a more open and materially prosperous society”).

¹⁹⁸ See, e.g., ABSOLUTE POWER (Columbia Pictures 1997); THE PEOPLE VS. LARRY FLYNT (Columbia Pictures 1996); *Law & Order* (NBC television broadcast 1990–Present); *The West Wing* (NBC television broadcast 1999–2006).

¹⁹⁹ STAR WARS: EPISODE I—THE PHANTOM MENACE (Twentieth Century Fox 1999); STAR WARS: EPISODE II—ATTACK OF THE CLONES (Twentieth Century Fox 2002); STAR WARS: EPISODE III—REVENGE OF THE SITH (Twentieth Century Fox 2005).

²⁰⁰ For a detailed discussion of movie censorship in the United States, see generally EDWARD DE

to the film ratings system currently used by the Motion Picture Association of America (“MPAA”).²⁰¹ Even today, one can still find different products on the two sides of the Atlantic.

Consider Stanley Kubrick’s *Eyes Wide Shut*, for example. While the Region 2 version of the movie includes the original material, the orgy scene on Region 1 DVDs has been digitally altered to meet the MPAA censorship ratings.²⁰² Although such editing may be appealing to some DVD viewers, especially prior CleanFlicks customers,²⁰³ others find it sacrilegious to modify the important work of the late director, not to mention that the alterations were made after the director’s death.²⁰⁴ In fact, without access to non-Region 1 or multiregion players, U.S. film students will have a very difficult time studying Kubrick’s original conception of his final film.

E. Summary

Although there are some justifications for introducing DVD region codes, these codes have created unintended consequences in at least

GRAZIA & ROGER K. NEWMAN, BANNED FILMS: MOVIES, CENSORS AND THE FIRST AMENDMENT (1982).

²⁰¹ See Lily Altavenna, *Should the R Rating for “Bully” Be Changed?*, N.Y. TIMES BLOG: THE LEARNING NETWORK (Mar. 16, 2012, 5:00 AM), <http://learning.blogs.nytimes.com/2012/03/16/should-the-r-rating-for-bully-be-changed/> (discussing the controversial rating of an anti-bullying documentary, which contains strong language and difficult content but could stimulate productive conversation among school-aged children); see also Michael Cieply, *The Dust Kicked up by “Bully” Still Flies*, N.Y. TIMES, Apr. 7, 2012, at C1 (reporting that an edited version of *Bully* received a PG-13 rating upon appeal).

²⁰² As Rostam Neuwirth recounts:

Eyes Wide Shut (1999) . . . was released in different versions in Region One, Two, and Three, with the main differences relating to sexually explicit content out of respect for religious texts. In this regard the European version is completely uncensored whereas the orgy scene was partially censored in the American release to avoid an “NC-17” rating (i.e., “No Children 17 and Under Admitted”) under the Motion Picture Association of America Rating System by placing computer generated people in front of the sexually explicit action.

Neuwirth, *supra* note 24, at 426–27 & n.49; accord Hu, *supra* note 60, at 2 (“[T]he Region 1 DVD of Stanley Kubrick’s *Eyes Wide Shut* contains the digital manipulations necessary for the film to secure an MPAA R-rating, whereas these manipulations are not evident in non-Region 1 discs.”). The same thing can happen in the opposite direction. For example, “the Region 2 DVD in Britain of Catherine Breillat’s *Fat Girl* is several minutes shorter than the Region 1 American version, which accounts for cuts made by the British Board of Film Classification in compliance with the 1978 Protection of Children Act which prohibits films containing underage sex.” Hu, *supra* note 60, at 2.

²⁰³ CleanFlicks was a third party provider of sanitized versions of Hollywood movies. For discussions of the copyright issues involving CleanFlicks, see generally Nicole Griffin Farrell, Note, *Frankly, We Do Give a . . . Darn! Hollywood’s Battle Against Unauthorized Editing of Motion Pictures: The “CleanFlicks” Case*, 2003 UTAH L. REV. 1041; Michael P. Glasser, Note, *“To Clean or Not to Clean”: An Analysis of the Copyright and Trademark Issues Surrounding the Legal Battle Between Third Party Film Editors and the Film Industry*, 22 CARDOZO ARTS & ENT. L.J. 129 (2004); Eric B. Hiatt, Note, *The “Dirt” on Digital “Sanitizing”: Droit Moral, Artistic Integrity and the Directors Guild of America v. CleanFlicks et al.*, 30 RUTGERS COMPUTER & TECH. L.J. 375 (2004).

²⁰⁴ See Mike Snider, *DVD Player Can Strip Protective Coding*, USA TODAY, Mar. 23, 2000, at 3D (reporting that Stanley Kubrick’s fans were upset that the sexual scenes in *Eyes Wide Shut* had been digitally altered after the director’s death).

four areas: (1) consumption; (2) competition; (3) cultural rights; and (4) censorship. While the first set of unintended consequences backfires on content providers, the other three harm consumers both inside and outside the United States.

To add insult to injury, the regions used in DVDs are highly arbitrary and at times unexplainable. They do not follow physical, political, or economic geography; they only seem to make sense when viewed in light of Hollywood's distribution strategies.

For example, China is assigned Region 6, even though Hong Kong, a part of China, is assigned Region 3. While it is good that region codes respect the "one country, two systems" framework set up for the transition of this former British colony,²⁰⁵ a Hong Kong resident who is interested in Asian movies will have to struggle with region codes from four different regions: Region 2 (Japan), Region 3 (Hong Kong and Southeast Asia), Region 5 (India), and Region 6 (China).²⁰⁶

Although Latin America and Africa have fewer regions than Asia, they are not much better off. For instance, Region 4 includes English-speaking Australia, French-speaking Haiti, Spanish-speaking Argentina, and Portuguese-speaking Brazil. All of these countries clearly have distinct cultural interests, language needs, and economic conditions. Likewise, Region 5 includes not only the two BRICs, but also some members of the European Union and virtually all countries in Africa. South Africa, however, has been left behind in Region 2, to be grouped together with its former colonial master in Europe.

In sum, the unintended consequences of DVD region codes not only have greatly undermined the justifications discussed in Part I, but they have clearly outweighed those benefits. They are also highly offensive to the international community, given how countries are arbitrarily divided without consideration of their history, language, culture, political interests, and economic conditions. Not since the colonial period in the nineteenth and the early twentieth centuries have countries been divided in such a shameful and arbitrary fashion.²⁰⁷ It is therefore high time we rethink the expediency of DVD region codes and the use of region-based restrictions to protect media content.

IV. THREE MODEST PROPOSALS

Given the needs and interests of movie studios and other content

²⁰⁵ See Peter K. Yu, *Succession by Estoppel: Hong Kong's Succession to the ICCPR*, 27 PEPP. L. REV. 53, 69–70 (1999) (noting China's resumption of sovereignty over Hong Kong on July 1, 1997).

²⁰⁶ See Yu, *Anticircumvention and Anti-anticircumvention*, *supra* note 23, at 75 (noting that products purchased in Asia have a region code of 2, 3, 5, or 6).

²⁰⁷ J.D. Lasica made a similar observation: "Like Allied powers carving up Europe and the Middle East as spoils of war, Hollywood moguls had carved the world into six grand regions." LASICA, *supra* note 42, at 23.

providers and the many problems and unintended consequences raised by DVD region codes, this Part seeks to strike the middle ground by advancing three different proposals for reform. The first one concerns voluntary efforts undertaken by content providers to remove region-based restrictions. The second proposal focuses on efforts to make affordable multiregion players widely available to those in need. The final proposal relates to the creation of a right to circumvent region-based restrictions under justified conditions. Although all of these proposals seek to address the unintended consequences and problems identified in Part II, each of them has different strengths and weaknesses.

A. *Voluntary Removal*

As Part II.A has shown, a growing number of customers are interested in buying DVDs outside their regions if given the opportunity.²⁰⁸ For example, those who enjoyed *Downton Abbey* on PBS may be interested in buying DVDs of other television shows produced for or distributed by BBC. U.S. customers may also be elated to find Amazon U.K. distributing a complete DVD set of Shakespeare plays from BBC, even though such a set is not yet fully available in the United States, except in some English departments or university libraries.²⁰⁹

In fact, quite a number of expatriates are eager to pay a subscription fee to enjoy movies and television shows from their native countries. They fail to do so only because of region-based restrictions deployed in the broadcasters' or service providers' official websites. As a result, some of these frustrated subscribers choose other forms of entertainment, usually from competitors outside the country. Others opt to watch those shows by paying a subscription fee to third-party services, such as My Expat Network,²¹⁰ even though these providers may not share revenue with the original distributor.²¹¹ A third group of

²⁰⁸ See discussion *supra* Part II.A.

²⁰⁹ BBC SHAKESPEARE COLLECTION BOX SET (2 Entertain Video 1978). The Author first came in touch with this box set in the Department of English at the University of Wisconsin-Madison. This 38-DVD box set was an indispensable collection for students studying Shakespeare and other Elizabethan literature. While the complete set is available in the United Kingdom, it is not commercially available in the United States (other than through special order, perhaps). Instead, the set was broken down into comedies, tragedies, and history plays. Adding insult to injury, one could not obtain the full set even if one is willing to pay additional costs to purchase all the available mini-collections.

²¹⁰ See Marketa Trimble, *The Future of Cybertravel: Legal Implications of the Evasion of Geolocation*, 22 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 567, 603 (2012) (discussing My Expat Network). Other third party services include those "retransmit[ing] television programs themselves (e.g., ivi in the United States, TV CatchUP in the United Kingdom, shiftTV in Germany, and ManekiTV in Japan) . . . [and those] enabl[ing] users to share retransmission of television programs (e.g., Justin.tv and WorldTV)." *Id.* at 573-74.

²¹¹ The ongoing lawsuits suggest that these third party services have not shared revenue with the original distributors. See, e.g., WPIX, Inc. v. Inc., 765 F. Supp. 2d 594 (S.D.N.Y. 2011)

viewers turn to unauthorized streaming sites on the internet, even though many of these viewers would have been willing to pay a monthly subscription fee in the first place.²¹²

Thus, it would make great business sense for content providers to rethink their geographically based distribution strategies. In the past decade, they have spent a considerable amount of time, energy, effort, and resources to explore responses to challenges created by the internet and new communication technologies. They, however, did not spend enough time rethinking their global distribution strategy. For example, they could think about how to set up a distribution system based on a global platform, as opposed to a few platforms designed around some arbitrarily selected regions. They could also explore ways to allow rights holders in different regions to share in revenues generated through a single distribution platform—with the assistance of collecting societies, perhaps.²¹³

To be certain, distributors may be reluctant to make their programming available online in the United States even though widespread demand exists. Consider, for example, BBC, whose iPlayers included region-based restrictions.²¹⁴ That provider has already licensed programming out to other distributors. While *Downton Abbey* was shown on PBS, many other BBC shows, including the famous *Doctor Who* series, were being shown on BBC America. BBC may also be conscious of the fact that a show needs to generate enough publicity in the United Kingdom or other Commonwealth markets before it could become successful in the United States.

(granting television stations a preliminary injunction over ivi's unauthorized streaming of copyrighted content). For further discussion of these lawsuits, see Trimble, *supra* note 210, at 630–31.

²¹² While commentators always advance the argument that you cannot compete with free, people do pay for bottled water and bundled public domain materials. Yu, *P2P and the Future*, *supra* note 190, at 716. In fact, Chris Anderson has collected a wide variety of business models that are built on free content. See CHRIS ANDERSON, *FREE: THE FUTURE OF A RADICAL PRICE* (2009). Many consumers indeed will be willing to pay a small subscription fee to have reliable delivery of entertainment they enjoy. As time becomes more valuable to these users, the money they saved by viewing unauthorized content will become less attractive unless the delivery of such content is fairly reliable.

²¹³ As William Patry writes:

There should be worldwide exhaustion of digital rights once a work has been licensed in one country. National or regional exhaustion is a relic of the analog world. Societies should be required to maintain free, publicly accessible online databases of which works they claim the right to administer, as well as contact information for the rights holders sufficient to permit users to contact the rights holders directly. There should be legally required fixed time periods to distribute monies, specially for foreign rights holders. If foreign money is not distributed within the requisite time period, the foreign rights holder or the home society of the rights holder may bring suit and are entitled to attorney's fees or penalties.

PATRY, *HOW TO FIX COPYRIGHT*, *supra* note 127, at 182.

²¹⁴ See Marie Boran, *Stream of Online TV Shows and Movies Starts Flowing*, IRISH TIMES, Dec. 2, 2011, at 6 (discussing the difference between the British version and the international version of the BBC iPlayer).

Moreover, BBC may not have acquired all the rights in the underlying materials for the show to be broadcasted in the United States. In fact, until content providers start thinking more seriously about adopting a global distribution strategy, they may remain reluctant to obtain global rights for use in their works, as those rights tend to be more costly, more difficult, and more time-consuming to secure.

Nevertheless, content providers need to be conscious of consumers' changing lifestyles and preferences as well as the increasing demand for borderless enjoyment of media content. It does not make much business sense when customers cannot obtain desired programming despite their willingness to pay reasonable costs.²¹⁵ More importantly, the inability for these customers to view the content has eventually fueled the demand for its unauthorized distribution.

To be certain, rights holders could strengthen enforcement against such distribution, as has been done through the ongoing proposals for such legislation as SOPA and PIPA and the recording industry's earlier *en masse* litigation against individual file sharers.²¹⁶ However, such efforts are likely to be quite costly and of limited success. If directed against potential customers who would have paid for the content had it not been for region-based restrictions, those efforts could backfire on the provider by eroding its customer base. Indeed, as Ben Depoorter, Alain Van Hiel, and Sven Vanneste have recently observed in the larger copyright context:

²¹⁵ Indeed, as William Patry points out:

[A]s much attention as unauthorized uses on the Internet receive, the largest problems facing authors today are not unauthorized uses but the obstacles put in the way of buyers willing to pay for access to or copies of the work. These obstacles have caused a huge loss of income for composers, performers, and photographers (given the sheer volume of works they create).

PATRY, HOW TO FIX COPYRIGHT, *supra* note 127, at 183. As the European Union declares in *A Digital Agenda for Europe*:

Consumers expect, rightly, that they can access content online at least as effectively as in the offline world. Europe lacks a unified market in the content sector. For instance, to set-up a pan-European service an online music store would have to negotiate with numerous rights management societies based in 27 countries. Consumers can buy CDs in every shop but are often unable to buy music from online platforms across the EU because rights are licensed on a national basis. This contrasts with the relatively simple business environment and distribution channels in other regions, notably the US, and reflects other fragmented markets such as those in Asia

A Digital Agenda for Europe, at 7, COM (2010) 245 final/2 (Aug. 26, 2010); *see also* PATRY, HOW TO FIX COPYRIGHT, *supra* note 127, at 186 (“[M]any tens of millions of dollars are left on the table in Europe alone because of the inability to get pan-European licenses. Instead, licensees have to negotiate on a country-by-country basis with national collecting societies, music publishers, and record labels (to name only the top three groups), to say nothing of countries where there are no collecting societies. Authors lose because deals aren’t done; the public loses because there is a dearth of authorized, complete services; copyright law as system loses for both these reasons.”).

²¹⁶ *See* Yu, *P2P and the Future*, *supra* note 190, at 663–70 (discussing the first wave of RIAA’s individual lawsuits); Fred von Lohmann, *RIAA v. The People Turns from Lawsuits to 3 Strikes*, ELEC. FRONTIER FOUND. (Dec. 19, 2008), <http://www.eff.org/deeplinks/2008/12/riaa-v-people-turns-lawsuits-3-strikes> (noting that the RIAA has filed lawsuits against more than 35,000 individual file-sharers).

When noncompliance and infringements are widespread, effective deterrence cannot be attained without raising enforcement to levels that undermine support for the underlying rules. But when enforcement reaches levels that are perceived as normatively excessive, this can have the inadvertent effect of moving behavior in the opposite direction from that intended by the law. If individuals perceive enforcement as excessive, this may reinforce or even strengthen a belief that the legal regime is not legitimate or that a legal rule is unjust.²¹⁷

Moreover, distribution strategies have changed slowly in light of the internet and the changing global economy. Today, a growing number of movies are released across the world simultaneously, or within a very short time lag. Such release therefore calls into question the sequencing strategies movie studios have historically employed.²¹⁸ The rapid rise of the middle-income countries, especially the BRICs, has also generated fast-growing markets that do not fit well with the current quasi-geographical groupings used in DVD region codes.²¹⁹ It is indeed no surprise that Blu-ray DVDs are now released under only three regions, as opposed to the original six.²²⁰ To some extent, the change in the studios' distribution strategy for Blu-ray DVDs has provided a tacit admission that the distribution strategies based on DVD region codes do not work well in the marketplace.

Finally, delivering multiregion DVDs is nothing new, and content providers are free to decide whether they want to include region codes on their discs.²²¹ For instance, most DVDs for classical music and operas are already released without region-based restrictions so that consumers can enjoy the products regardless of where they are. While having a global distribution strategy for these DVDs certainly makes sense for the niche market in classical music, these DVDs have provided useful precedents from which content providers can draw important lessons.

²¹⁷ Ben Depoorter et al., *Copyright Backlash*, 84 S. CAL. L. REV. 1251, 1256 (2011).

²¹⁸ See discussion *supra* Part II.A.

²¹⁹ See discussion *supra* Part II.B.

²²⁰ As Robert Silva describes:

[F]or Blu-ray Discs, there are only three regions, designated as follows:

Region A: U.S., Japan, Latin America, East Asia (except China).

Region B: Europe, Africa, Australia, New Zealand

Region C: China, Russia, remaining countries.

However, despite the provisions for Blu-ray Disc region coding, many Blu-ray Discs are released without region coding.

Robert Silva, *Blu-ray Region Code*, ABOUT.COM HOME THEATER, <http://hometheater.about.com/od/hometheaterglossary/g/Blu-Ray-Disc-Region-Code.htm> (last visited Mar. 13, 2012); see also Loh, *Blur over Blu?*, *supra* note 110 (reporting that some studios, like Warner Brothers, have yet to lock their Blu-ray DVDs to region codes).

²²¹ See TAYLOR ET AL., *supra* note 27, at 5–20 (“The use of regional codes is entirely optional. Discs with no region locks will play on any player in any country. The codes are not an encryption system; just one bit of information on the disc that the player checks.”).

Technology developers have also been slowly thinking about region-free platforms. Had the HD DVD, rather than the Blu-ray DVD, been adopted as the dominant standard for high-quality DVDs, those DVDs would have been released region-free.²²² There have also been talks in China about releasing a region-free version of DVDs.²²³ While content providers would most certainly complain about such an effort, at least initially, the enormous Chinese market and its fast-growing middle class could ultimately attract these providers to work closely with the country to provide products that Chinese consumers want.

In sum, similar to the computer industry, studios may eventually decide that region codes are too much of a hassle for consumers, and they are much better off stopping the practice of region coding their DVDs. Nevertheless, studios may continue to use these codes. After all, although DVD sales made up for only a small portion of the movie studio revenues in the late 1990s, “DVDs are now where the industry makes its money.”²²⁴ With the recent decline in DVD sales²²⁵ and the continued global economic problems, content providers may remain reluctant to experiment with new business models.²²⁶ In fact, some may want to assert even more control over their intellectual property assets.

B. Multiregion Players

The second proposal concerns the making available of affordable multiregion players. Such availability is important to those who are in need of these players to exercise their human rights or other civil liberties as well as to exercise rights that are traditionally protected under the copyright system, such as fair use and first sale rights. Availability is also important in small countries where the anticompetitive effects of region codes are particularly acute. After all, as Charles Clark put it in the title of his well-cited but somewhat inaptly

²²² See Rob Pegoraro, *Help File: Watching DVDs Outside Its Region*, WASH. POST, http://www.washingtonpost.com/business/help-file-watching-dvds-outside-its-region-/2011/03/16/ABt2Tix_story.html (Mar. 19, 2011) (“A competing, unsuccessful high-definition disc format, HD DVD, never supported region codes at all.”).

²²³ See Vinelli, *supra* note 85, at 170 (“China is developing a high definition multimedia disc standard to compete with the DVD, HD-DVD, and Blu-ray standards. Most importantly, this new format will be region-free and therefore will not lead to market segmentation like regionalized DVDs.” (footnote omitted)).

²²⁴ Brooks Barnes, *For a Thrifty Audience, Buying DVDs Is So 2004*, N.Y. TIMES, Nov. 23, 2008, at BU8; accord Patrick Goldstein, *DVD Sales Show the “No Disc” Warning*, CHI. TRIB., May 26, 2009, at C3 (“DVD sales . . . have traditionally represented the biggest chunk of pure profits in the business”).

²²⁵ See Goldstein, *supra* note 224 (“DVD revenues have cratered in the past six or so months, dropping off (depending upon whose figures you trust) as much as 15 percent to 18 percent overall.”).

²²⁶ *But see* Richard Verrier, *Directors Yell “Cut!” on Studios’ On-demand Plans*, CHI. TRIB., Apr. 21, 2011, at C4 (“Studios are looking to experiment with new business models at a time when DVD revenue is down about 40 percent from the market high and box-office revenue and attendance are off 20 percent this year.”).

titled chapter, “the answer to the machine is in the machine.”²²⁷ In order to solve the problem created by DVD region codes, a strong need exists to make available machines that can ignore these ill-advised technological fixes.

There are a number of ways the multiregion players can be made available. For example, the legislature could clarify or revise the law to ensure the legality of the manufacture, importation or distribution of non-Region 1 or multiregion players. In common law jurisdictions, judges could also do the same thing.²²⁸ The legislature could even take a step further to mandate the provision of multiregion players.²²⁹

Revamping the law is important, as it remains ambiguous as to whether the provision of such players will be considered illegal under anticircumvention laws. In the United States, for example, section 1201(a)(2) of the Copyright Act prohibits the manufacture, importation, or distribution of any technology or device that is primarily designed, produced, or knowingly marketed for the purpose of circumventing such a measure or that does not have any commercially significant purpose other than to circumvent the measure.²³⁰ Because a multiregion player circumvents the technological protection measures used to establish region-based restrictions, it could potentially fit within the scope of this provision.²³¹

Notwithstanding the plain meaning of section 1201(a)(2), it remains questionable whether DVD region codes are actually technological measures used to *protect copyright*, as opposed to measures used to *provide post-sale control of media content*. After all, these codes are triggered only after consumers have made a lawful DVD purchase—our poor hypothetical consumer at Heathrow providing a very good example.

Thus far, U.S. case law seems to suggest that section 1201 does not cover such post-sale control.²³² As the United States Court of

²²⁷ Charles Clark, *The Answer to the Machine Is in the Machine*, in *THE FUTURE OF COPYRIGHT IN A DIGITAL ENVIRONMENT* 139 (P. Berti Hugenholtz ed., 1996) (capitalization omitted); see also PATRY, *HOW TO FIX COPYRIGHT*, *supra* note 127, at 236–41 (explaining why the title of Charles Clark’s article is largely misnamed in light of its conclusion that “[t]he answer to the machine may turn out to be not only in the machine, but the machine will certainly be an important part of the answer”).

²²⁸ See Derek E. Bambauer & Oliver Day, *The Hacker’s Aegis*, 60 *EMORY L.J.* 1051, 1095–96 (2011) (“[J]udges can adapt protections to fit different circumstances, and variation among courts permits helpful experimentation in the scope of protection. Exceptions such as fair use in copyright law have a rich precedential history that could guide judges in tailoring protection appropriately.” (footnote omitted)).

²²⁹ See Fitzsimmons, *supra* note 113 (listing as a possibility “legislation to declare Australia a market that would only sell multiregion DVD players”).

²³⁰ See 17 U.S.C. §§ 1201(a)(2), (b) (2006).

²³¹ *Cf.* Register of Copyrights Memo, *supra* note 35, at 121 n.213 (“Persons who use multi-region players to watch non-region 1 DVDs probably would be circumventing a technological protection measure that prevents access.”).

²³² See TAYLOR ET AL., *supra* note 27, at 5–22 (“The only requirement for manufacturers to make

Appeals for the Federal Circuit reminded us in *Chamberlain Group, Inc. v. Skylink Technologies, Inc.*:

The DMCA [Digital Millennium Copyright Act] does not create a new property right for copyright owners. Nor, for that matter, does it divest the public of the property rights that the Copyright Act has long granted to the public. . . . A copyright owner seeking to impose liability on an accused circumventor must demonstrate a reasonable relationship between the circumvention at issue and a use relating to a property right for which the Copyright Act permits the copyright owner to withhold authorization—as well as notice that authorization was withheld. A copyright owner seeking to impose liability on an accused trafficker must demonstrate that the trafficker’s device enables either copyright infringement or a prohibited circumvention. . . . This connection is critical to sustaining a cause of action under the DMCA.²³³

Chamberlain involved the circumvention of copy-protection measures used in garage door openers; the protected works involved were not traditional copyrighted works, such as books, music, movies, or computer programs.

Less than two months later, in *Lexmark International, Inc. v. Static Control Components, Inc.*,²³⁴ the United States Court of Appeals for the Sixth Circuit also declined to impose liability based on section 1201. *Lexmark* involved the circumvention of copy-protection technology used to prevent Lexmark’s printers from functioning with remanufactured toner cartridges supplied by competitors. As Judge Gilbert Merritt reasoned in his concurrence:

Lexmark would have us read this statute in such a way that any time a manufacturer intentionally circumvents any technological measure and accesses a protected work it necessarily violates the statute regardless of its “purpose.” Such a reading would ignore the precise language—“for the purpose of”—as well as the main point of the DMCA—to prohibit the pirating of copyright-protected works such as movies, music, and computer programs. If we were to adopt Lexmark’s reading of the statute, manufacturers could potentially create monopolies for replacement parts simply by using similar, but more creative, lock-out codes. . . . Congress did not intend to allow the DMCA to be used offensively in this manner, but rather only

region-coded players is the CSS license. Physically modifying a player will void the warranty but is not illegal.”)

²³³ *Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1204 (Fed. Cir. 2004).

²³⁴ *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522 (6th Cir. 2004).

sought to reach those who circumvented protective measures “for the purpose” of pirating works protected by the copyright statute.²³⁵

Based on both *Chamberlain* and *Lexmark*, the law is clearly unsettled over whether the circumvention of DVD region codes would be illegal within the meaning of the DMCA. If anything, the cases seem to suggest the legality of manufacturing or distributing multiregion players.

Thus, if sufficient demand exists, technology developers may consider providing players for other regions—or more likely, multiregion players for all the different regions. For example, U.S. developers could offer Region 2 players in light of the widespread popularity of *Downton Abbey*, *Doctor Who*, and other British television shows. If enough demand is generated for action movies from Southeast Asia, these developers could also consider offering Region 3 players. Indeed, new players from Asia have already entered the U.S. market.²³⁶ More than half of the DVD players used abroad are also estimated to be multiregion.²³⁷

There are two remaining challenges, however. First, consumers may not have access to affordable non-Region 1 or multiregion players. To begin with, the lack of economies of scale in production may make multiregion players more expensive than Region 1 players.²³⁸ While most developers are likely to design players for global use before making specific adjustments to tailor the machine to the region of target sales,²³⁹ the limited sales and unpredictable demand may induce distributors to increase the price of players from outside Region 1. It also may not make good business sense for technology developers to manufacture or distribute these players at all, even though a niche market may exist.

Even if there is a big enough market, there is no guarantee that technology developers will provide non-Region 1 or multiregion players. For instance, technology developers may consider “high-value

²³⁵ *Id.* at 552 (Merritt, J., concurring).

²³⁶ For example, Cyberhome was made in Taiwan. *See* Hu, *supra* note 60, at 3.

²³⁷ *See* TAYLOR ET AL., *supra* note 27, at 12–2 (“Outside the United States, because of the inconvenience of regional codes, more than 50 percent of players sold in most countries are modified (or modifiable) to disable region coding.”); Luh, *supra* note 171 (“About 64 percent of DVD players in use in Europe are multiregion-capable, according to Understanding and Solutions, a Dunstable, England-based market analysis firm—although that share seems to be shrinking as the European DVD market grows . . .”); *see also* Hu, *supra* note 60, at 3 (“[R]egion-free players became widespread in Europe and Asia and became popular among cult consumers in the United States who rely on Japanese distributors for anime films and television programs, British labels like Artificial Eye for undistributed art films, and Region 3 distributors like Celestial for original-language, remastered versions of Shaw Brothers films.”).

²³⁸ *See* Luh, *supra* note 171 (“Many stores sell pre-modified players, though often at a hefty premium over single-region models . . .”).

²³⁹ *See* Neuwirth, *supra* note 24, at 429.

film and music content . . . crucial to the economic value of their products.”²⁴⁰ They may also be interested in working closely with studios to obtain premium content.²⁴¹

In addition, a developer may be a subsidiary of a media conglomerate that has a substantial movie division.²⁴² Because of this corporate structure, the conglomerate may make a conscious choice not to let the electronics division sell multiregion players for fear of undercutting the profit of its movie division. It is indeed no surprise that multiregion players are usually manufactured and distributed by unknown or lesser-known brands, such as Apex Digital, Cyberhome, and Malata.²⁴³

Thus, if technology developers decline to manufacture or distribute non-Region 1 or multiregion players, the only remaining option is for users to independently import multiregion players or devices from the relevant region. Using the importation exception identified in Part I.C,²⁴⁴ one could easily import players from Regions 2 to 6. Such importation is available even if U.S. technology developers refuse to manufacture or distribute non-Region 1 or multiregion DVD players.

This solution, however, is not ideal, for two reasons. First, it is rather expensive and inconvenient for people to import DVD players. Importing a non-Region 1 or multiregion player is not cheap; it can be

²⁴⁰ GILLESPIE, *supra* note 41, at 221. As Tarleton Gillespie writes:

Information technology manufacturers are increasingly seeing high-value film and music content as crucial to the economic value of their products. Many of them are spearheading the production of their own DRM encryption products, which means they are dramatically more invested in the success of these systems than they ever were. Consumer electronics manufacturers are increasingly making Faustian bargains with content producers, recognizing that with encryption, those who don't comply face a possibility that even producing legitimate DVD players and digital television receivers may be technically and legally impossible.

Id.

²⁴¹ See LASICA, *supra* note 42, at 26 (“[C]omputer companies, seeing slower growth, have begun to invade the home entertainment turf, becoming dependent on Big Entertainment’s wares.”); *cf.* Peter K. Yu, *The Graduated Response*, 62 FLA. L. REV. 1373, 1385–86 (2010) (discussing how internet service providers have slowly “migrated from a model that provides mere ‘dumb pipes’ to one that includes premium entertainment content”).

²⁴² As J.D. Lasica explains:

[G]rowing media consolidation has muddied the waters. For instance, when it was an electronics company, Sony only had to worry about making cool devices. Now that it owns a major motion picture studio as well as a record label, the company often gives greater priority to protecting copyrighted material rather than delivering a superior customer experience.

LASICA, *supra* note 42, at 26; *see also* GILLESPIE, *supra* note 41, at 221 (“Technological convergence and increasingly deregulated corporate mergers mean it is often the same corporation that is producing media content, electronics, computers, and networks, and that therefore has even more invested in finding solutions that fit them all.”).

²⁴³ See Hu, *supra* note 60, at 3 (“California electronics company Apex Digital—followed by others such as Taiwan’s Cyberhome—began to make easily hackable players for under \$200 available in major American electronics stores such as Circuit City and Best Buy, beating the major manufacturers in price and region accessibility.”); *id.* at 5 (“Region-free DVD players . . . tend to be lesser-known brands like Cyberhome or Malata.”).

²⁴⁴ See discussion *supra* Part I.C.

even more costly if the user has to import players from more than one region. If that user already has a Region 1 player, the addition of a non-Region 1 or multiregion player could be even more costly and inconvenient. Moreover, users who are not frequent travelers or savvy shoppers of international goods may have no idea where they can obtain non-Region 1 or multiregion players.²⁴⁵ Owners of those players may also have difficulty repairing the devices in the United States should those devices break down.

Second, content providers could strengthen the measures used to provide region-based restrictions for DVDs. They could also push for new standards that are not compatible with existing non-Region 1 or multiregion players. For example, Blu-ray DVDs not only require new players, but also contain enhanced copy-protection measures.²⁴⁶ RCE (region code enhancement) technology has also been successfully deployed to prevent selected Region 1 DVDs from being viewed on multiregion players.²⁴⁷ Thus, if more restrictive technology is deployed, multiregion players are unlikely to provide a good solution.²⁴⁸ Even when one could constantly update the devices to respond to the ever-stronger copy-protection technologies, such updating would require

²⁴⁵ Nevertheless, it is worth noting that the use of multiregion players is increasingly common in the United States.

²⁴⁶ As Jim Taylor acknowledges:

The Blu-ray Disc format will further augment AACIS [Advanced Access Content System] with *self-protecting digital content* (SPDC), which provides an extended level of renewability by making it possible for each disc to have its own unique security software. Combined with additional transmission protection scheme such as DTCP [Digital Transmission Content Protection] and HDCP [High-bandwidth Digital Content Protection], it is hoped that the next generation of content protection will provide security long enough for the new disc formats to reach success.

TAYLOR ET AL., *supra* note 27, at 5–23.

²⁴⁷ See Silva, *DVD Region Codes*, *supra* note 3232. RCE discs “query the player for its region code and refuse to work if the player is not set to the single correct region. These discs prevent code-free players from working” TAYLOR ET AL., *supra* note 27, at 5–21. “The first DVD to feature [RCE] technology was Mel Gibson’s *The Patriot*.” Dino Scatena, *Bootleggers Raise the Bar with DVDs*, DAILY TELEGRAPH (Sydney), Dec. 15, 2000, at 39. In fact, some copy-protection measures have made the DVDs unviewable in some old players. See GILLESPIE, *supra* note 41, at 266 (noting that “new RCE discs will be incompatible with some old DVD players”); see also Yu, *P2P and the Future*, *supra* note 190, at 724 (“[An encrypted CD] may not be playable on car stereos, some PCs, and old CD players, forcing consumers to buy new hardware they do not otherwise need or cannot afford.”).

²⁴⁸ As Emily Dunt, John Gans, and Stephen King explain in relation to RCE DVDs and the Australian market:

If RCE DVDs are distributed overseas, even if they are not distributed in Australia, they would effectively prevent any importing of overseas DVDs into Australia. Secondly, if it were not possible to sell RCE DVDs in Australia due to the requirement that players not be regionally coded, then this may have severe implications for the range of titles that are released on DVD in Australia. If RCE software continued to be sold outside Australia, release of non-RCE software to the Australian market would require additional productions, potentially making service of the Australian market unprofitable. Given the size of the Australian market relative to other markets, this may make the optimal strategy for film-makers not to release films on DVD in Australia at all.

Dunt et al., *supra* note 74, at 44.

technological expertise, money, professional service—or worse, the purchase of yet another new device.

C. *The Right to Circumvent*

The final proposal concerns what commentators have described as a right to hack or a right to circumvent. The proposal for such a right was advanced as early as the late 1990s, largely in response to the DMCA anticircumvention provision.²⁴⁹ Commentators have widely criticized this misguided provision for eroding fair use and first sale rights while at the same time upsetting the traditional balance in the copyright system.²⁵⁰ In fact, during the second DMCA rule-making proceeding in 2003, the Register of Copyrights received more than a hundred comments supporting the creation of an exception to circumvent DVD region codes.²⁵¹ As the Register reported, “[t]he overwhelming majority of those comments were from individuals who had acquired DVDs from a region outside the U.S. and then encountered difficulty in playing those DVDs on devices purchased in the U.S.”²⁵²

In the past decade, policymakers and commentators have also advanced proposals concerning the need for a right to circumvent. In January 2003, Congressman Richard Boucher introduced the Digital Media Consumers’ Rights Act, seeking to restore the historical balance struck by fair use in copyright law.²⁵³ Section 5(b)(1) of the bill created an exception for the circumvention of “a technological measure in connection with access to, or the use of, a work if such circumvention does not result in an infringement of the copyright in the work.”²⁵⁴ Section 5(b)(2) further stipulated that “[i]t shall not be a violation . . . to manufacture, distribute, or make non-infringing use of a hardware or software product capable of enabling significant non-infringing use of a copyrighted work.”²⁵⁵

In addition, Julie Cohen argues that “licensees . . . should be accorded rights of electronic self-help when necessary to preserve the balance that the Copyright Act is intended to establish.”²⁵⁶ Andrew

²⁴⁹ 17 U.S.C. § 1201 (2006).

²⁵⁰ For criticisms of the anti-circumvention provision of the DMCA, see generally GILLESPIE, *supra* note 41, at 167–91; JESSICA LITMAN, *DIGITAL COPYRIGHT* 122–45 (2001); Ian R. Kerr et al., *Technical Protection Measures: Tilting at Copyright’s Windmill*, 34 OTTAWA L. REV. 7 (2002); Yu, *Anticircumvention and Anti-anticircumvention*, *supra* note 23.

²⁵¹ See Register of Copyrights Memo, *supra* note 35, at 122 (“In the course of this rulemaking, the Office received more comments on this proposed exception than any other. . . . [O]ver one hundred of those comments were in support of the proposed exception.”).

²⁵² *Id.*

²⁵³ H.R. 107, 108th Cong. (2003).

²⁵⁴ *Id.* § 5(b)(1).

²⁵⁵ *Id.* § 5(b)(2).

²⁵⁶ Julie E. Cohen, *Copyright and the Jurisprudence of Self-Help*, 13 BERKELEY TECH. L.J. 1089, 1092 (1998).

Shapiro underscores the need for allowing people to engage in what he describes as “fair hacking” or a “fair breach,”²⁵⁷ in analogy to fair use.²⁵⁸ More recently, in response to Canada’s attempt to amend its copyright law, Michael Geist proposed to “include a positive user right to circumvent a technological measure for lawful purposes.”²⁵⁹

While it is important to preserve the historical balance in the copyright system by allowing users to circumvent technological protection measures under the right conditions, my proposal here goes beyond what these commentators have advanced. The goal of my proposed right to circumvent is not based only on the need to restore the balance in the copyright system, but also on the need to protect against the intrusion on fundamental human rights. The human rights implicated in this intrusion include the right to freedom of expression, the right to freedom of association, the right to education, the right to take part in cultural life, and the right to enjoy the arts and to share in scientific advancement and its benefits.²⁶⁰

Consider the right to take part in cultural life, for example. As the Committee on Economic, Social and Cultural Rights elaborated in its interpretive comment, “[a]ccess covers in particular the right of everyone . . . to know and understand his or her own culture and that of others through education and information, and to receive quality education and training with due regard for cultural identity.”²⁶¹ In order for an individual to fully realize his or her right to take part in cultural life, that individual must have “effective and concrete opportunities for individuals and communities to enjoy culture fully, within physical and financial reach for all in both urban and rural areas, without discrimination.”²⁶² As the Committee rightly recognized, the right to take part in cultural life and the right to education go hand in hand.²⁶³ To some extent, the right to education can be characterized as an empowerment right that enables individuals to benefit from other human rights.²⁶⁴

²⁵⁷ See ANDREW L. SHAPIRO, *THE CONTROL REVOLUTION: HOW INTERNET IS PUTTING INDIVIDUALS IN CHARGE AND CHANGING THE WORLD WE KNOW* 179 (1999) (proposing “a rule analogous to fair use that might be known as ‘fair hacking’ or ‘fair breach’”).

²⁵⁸ See 17 U.S.C. § 107 (2006) (codifying the fair use privilege).

²⁵⁹ Michael Geist, *Anti-circumvention Legislation and Competition Policy: Defining a Canadian Way?*, in *IN THE PUBLIC INTEREST: THE FUTURE OF CANADIAN COPYRIGHT LAW* 211, 248–49 (Michael Geist ed., 2005).

²⁶⁰ See International Covenant on Civil and Political Rights art. 19, Dec. 16, 1966, 999 U.N.T.S. 171 (protecting the right to freedom of expression); *id.* art. 22 (protecting the right to freedom of association); ICESCR, *supra* note 181, art. 13 (protecting the right to education); *id.* art. 15(1) (protecting the rights to take part in cultural life, to enjoy the arts, and to share in scientific advancement and its benefits).

²⁶¹ *General Comment No. 21*, *supra* note 182, ¶ 15(b) (emphasis omitted).

²⁶² *Id.* ¶ 16(b).

²⁶³ See Hansen, *supra* note 170, at 296 (“Education is one of the main vehicles for the perpetuation of culture . . .”).

²⁶⁴ See Fons Coomans, *In Search of the Core Content of the Right to Education*, in *CORE*

In the cultural context, it is also important to recognize the impact of region-based restrictions on children and the minority. As the Committee reminded us: “Children play a fundamental role as the bearers and transmitters of cultural values from generation to generation. . . . [T]he fundamental aim of educational development is the transmission and enrichment of common cultural and moral values in which the individual and society find their identity and worth.”²⁶⁵ Similarly, a lack of protection of cultural rights will have a larger impact on the minority than its majority counterpart.²⁶⁶ Thus, given the conflict created by the protection of human rights and the need to use region-based restrictions to protect intellectual property, it is appropriate to strike the balance between the two.

Traditionally, the principle of human rights primacy is used to resolve conflict arising between an economic right and a fundamental human right.²⁶⁷ As the U.N. Sub-Commission reminded us in Resolution 2000/7, intellectual property has a “social function,”²⁶⁸ and human rights obligations should have “primacy . . . over economic policies and agreements.”²⁶⁹ Nevertheless, the resolution of this conflict is not as simple as one would expect, because *some* attributes of intellectual property rights are, in fact, protected in international human rights instruments.²⁷⁰ Both article 27(2) of the UDHR and article 15(1)(c) of the ICESCR recognize “the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he [or she] is the author.”²⁷¹

OBLIGATIONS, *supra* note 170, at 217, 219 (characterizing the right to education as an empowerment right); *see also* Hansen, *supra* note 170, at 290 (“It may prove to be an impossible task to examine participation in cultural life as a standalone right. The enjoyment of this right is often the result of the enjoyment of other rights and is closely related to, or is a fundamental component of, other rights. To conceptualise the scope of participation in cultural life it becomes necessary to examine how cultural life relates to other rights addressed in the Covenant.”); Peter K. Yu, *Reconceptualizing Intellectual Property Interests in a Human Rights Framework*, 40 U.C. DAVIS L. REV. 1039, 1114 (2007) [hereinafter Yu, *Reconceptualizing Intellectual Property Interests*] (discussing human rights as empowerment rights that enable individuals to benefit from other equally important rights); Peter K. Yu, *Ten Common Questions About Intellectual Property and Human Rights*, 23 GA. ST. U. L. REV. 709, 713 (2007) (same).

²⁶⁵ *General Comment No. 21*, *supra* note 182, ¶ 26.

²⁶⁶ *Cf. General Comment No. 17*, *supra* note 187, ¶ 33 (underscoring the obligations of “States parties in which ethnic, religious or linguistic minorities exist . . . to protect the moral and material interests of authors belonging to these minorities through special measures to preserve the distinctive character of minority cultures”).

²⁶⁷ *See* Yu, *Reconceptualizing Intellectual Property Interests*, *supra* note 264, at 1092–93 (discussing the principle of human rights primacy).

²⁶⁸ Intellectual Property Rights and Human Rights, Sub-Comm’n on Human Rights Res. 2000/7, ¶ 5, U.N. Doc. E/CN.4/Sub.2/RES/2000/7 (Aug. 17, 2000), available at <http://www.unhchr.ch/Huridocda/Huridoca.nsf/0/c462b62cf8a07b13c12569700046704e?Opendocument>.

²⁶⁹ *Id.* ¶ 3.

²⁷⁰ *See* Yu, *Reconceptualizing Intellectual Property Interests*, *supra* note 264, at 1077.

²⁷¹ *See* UDHR, *supra* note 180, art. 27(2) (“Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he [or she] is the author.”); ICESCR, *supra* note 181, art. 15(1)(c) (“The States Parties to the present Covenant recognize the right of everyone . . . [t]o benefit from the protection of the moral and

In earlier works, I have suggested to resolve this tension by developing a human rights–based compulsory license.²⁷² Under the just remuneration approach, authors hold a right to remuneration (rather than exclusive control), while individuals obtain a human rights–based compulsory license (as compared with a free license).²⁷³ In this case, because users have already made a lawful purchase, right holders have been compensated. Users therefore should have a free license in the form of a human rights–based right to circumvent.

Such a free license can be granted in many different ways. For example, it can be made available as either an affirmative user right or a defense of fair circumvention, through a legislative mandate or judicial recognition. It can also be implemented through an administrative complaint procedure, similar to the one available in British copyright law. Section 296ZE of the British Copyright, Designs and Patents Act of 1988 specifically provides:

Where the application of any effective technological measure to a copyright work other than a computer program prevents a person from carrying out a permitted act in relation to that work then that person or a person being a representative of a class of persons prevented from carrying out a permitted act may issue a notice of complaint to the Secretary of State.²⁷⁴

A human rights–based right to circumvent will provide a good compromise to address the need for protection of both the human rights–based interests in intellectual property rights and other fundamental human rights. To be certain, one does not have an absolute right to access copyrighted content to exercise his or her human rights to culture and education. Copyright piracy also cannot be justified by the protection of fundamental human rights alone.²⁷⁵ Nevertheless, the

material interests resulting from any scientific, literary or artistic production of which he [or she] is the author.”).

²⁷² See Yu, *Reconceptualizing Intellectual Property Interests*, *supra* note 264, at 1096–99 (advancing the concept of developing a “human rights–based compulsory license”); see also Alan B. Bennett, *Reservation of Rights for Humanitarian Uses*, in 1 *INTELLECTUAL PROPERTY MANAGEMENT IN HEALTH AND AGRICULTURE INNOVATION: A HANDBOOK OF BEST PRACTICES* 41, 41 (Anatole Krattiger et al. eds., 2007) (discussing ways to reserve rights to meet the needs of developing countries for other humanitarian purposes); Joshua D. Sarnoff, *The Patent System and Climate Change*, 16 *VA. J.L. & TECH.* 301, 350–51 (2011) (discussing humanitarian licensing).

²⁷³ See Yu, *Reconceptualizing Intellectual Property Interests*, *supra* note 264, 1095–1105 (elaborating on the just remuneration approach).

²⁷⁴ Copyright, Designs and Patents Act, 1988, c. 48, § 296ZE(2) (U.K.) (amended 2003). Drawing on this provision, Jacqueline Lipton offered an administrative complaint mechanism for individuals who sought to obtain legitimate uses of copyrighted works. See Jacqueline D. Lipton, *Solving the Digital Piracy Puzzle: Disaggregating Fair Use from the DMCA’s Anti-Device Provisions*, 19 *HARV. J.L. & TECH.* 111, 149–55 (2005). As she explained, “[a]dministrative approaches tend to be more flexible and less formal in their procedures than judicial processes and are generally less costly than judicial hearings.” *Id.* at 155.

²⁷⁵ See Yu, *Digital Copyright and Confuzzling Rhetoric*, *supra* note 134, at 899–901 (analyzing

human rights analysis is somewhat different if the user in fact has already made a lawful purchase. In that scenario, the balance certainly swings in favor of this poor individual in his or her choice to exercise human rights through the viewing of lawfully purchased DVDs.

This is particularly true as DVD region codes do not always provide sufficient information for individuals to understand the real implications of these codes (and make the right internal calculations about the economic worth of the DVD). To begin with, many individuals, especially U.S. consumers, are not aware of the existence of DVD region codes or how they function in real life. When presenting this Article in the United States, I consistently ran into audience members who were not aware of these codes.²⁷⁶

Even if consumers are vigilant enough to ask store assistants what these codes stand for, there is no guarantee that they will obtain correct information. For example, a store assistant could have mistakenly told a South African resident that Region 4 can play in Africa, even though he forgot to add that South Africa is actually in Region 2. How could one know intuitively that South Africa is identified with Europe, but not Africa?!

Finally, one might be more sympathetic to content providers if they have made a deliberate choice not to release the product. In many jurisdictions, for example, the moral right of disclosure exists to allow authors to determine when their work is ready for public dissemination.²⁷⁷ However, if rights holders have already chosen to release the work in a region—say, Japan—it is much harder to use moral rights or the nondisclosure interest to argue that Japanese diasporic communities in the United States should have no access to those DVDs for the purposes of education or cultural development because they do not reside in Japan.²⁷⁸ While there are economic and

the argument that there is no human right to steal and the complexity surrounding that argument).

²⁷⁶ As the OECD (Organisation for Economic Co-operation and Development) observed:

To those who are familiar with the region system, this labelling appears to be clear. For those who are not aware of the region system, however, a number on a globe is perhaps not enough information to indicate what playback restrictions are included. Explanatory text about the region code system is not usually included on or inside the DVD.

ORG. FOR ECON. CO-OPERATION & DEV., DIRECTORATE FOR SCI., TECH. & INDUS., COMM. ON CONSUMER POLICY, REPORT ON DISCLOSURE ISSUES RELATED TO THE USE OF COPY CONTROL AND DIGITAL RIGHTS MANAGEMENT TECHNOLOGIES 11 (2006), available at <http://www.oecd.org/dataoecd/47/31/36546422.pdf>; accord Michael Geist, "TPMs": A Perfect Storm for Consumers, TORONTO STAR, Jan. 31, 2005, at D1 ("The consumer is often unaware of the regional code until they purchase a DVD while on vacation in one region only to find that they cannot play the disc on their DVD player when they return home."); Miller, *supra* note 110 (showing how the majority of DVD owners were unaware of DVD region codes).

²⁷⁷ See Roberta Rosenthal Kwall, *Copyright and the Moral Right: Is an American Marriage Possible?*, 38 VAND. L. REV. 1, 5–6 (1985) (discussing the right of disclosure).

²⁷⁸ As Brian Hu laments:

Immigrants and their families are the biggest victims [of region coding]: mainstream films from home countries (particularly comedies, which do not translate well to the

legal reasons for not releasing the work in the United States,²⁷⁹ the nondisclosure interest can hardly justify the failure to do so.

To some extent, the discussion in this Section has raised the oft-debated questions concerning the exhaustion of intellectual property rights, an issue that countries declined to address during the negotiation of the TRIPS Agreement.²⁸⁰ As Vincent Chiappetta recounts, countries had to “agree to disagree” over the exhaustion of rights issue.²⁸¹ Their position was understandable considering the wide and longstanding disagreement among WTO member states over what exhaustion rules should apply. While the United States embraces national exhaustion, other WTO members, such as Australia, Hong Kong, New Zealand, and Singapore, prefer international exhaustion.²⁸² Unlike either the United States or these other WTO members, members of the European Union strike the middle ground by preferring community-based or regional exhaustion.²⁸³

To make things more complicated, developed countries, notably the United States, are now seeking to erode the ability of countries to

bourgeois foreign film community) typically do not receive distribution in the United States. If home video helps foster an “imagined community” in the diaspora, region coding at worst severs those ties to the homeland and its cultures, and at best, encourages piracy.

Hu, *supra* note 60, at 4.

²⁷⁹ See discussion *supra* Part I.

²⁸⁰ See discussion *supra* Part II.B.

²⁸¹ See Vincent Chiappetta, *The Desirability of Agreeing to Disagree: The WTO, TRIPs, International IPR Exhaustion and a Few Other Things*, 21 MICH. J. INT’L L. 333 (2000) (contending that the “agreement to disagree” embodied in TRIPs actually represents the appropriate international outcome rather than the product of a failed negotiation); see also S.K. Verma, *Competition Law Exhaustion of Intellectual Property Rights and Free Trade—Article 6 of the TRIPs Agreement*, 29 INT’L REV. INDUS. PROP. & COPYRIGHT L. 534 (1998) (discussing article 6 of the TRIPs Agreement in relation to the exhaustion of rights debate).

²⁸² See Watal, *supra* note 167, at 26 (“[S]ome Commonwealth members, Hong Kong, China, Singapore, New Zealand and Australia, took the initiative on the exclusion of the subject of parallel trade from dispute settlement, thus retaining the pre-existing flexibility on differing national policies. Many developing countries enthusiastically supported this, resulting in what is now art.6 on exhaustion.” (footnote omitted)); see also Vinelli, *supra* note 85, at 151–61 (providing a survey of different exhaustion regimes in the United States, the European Union, Japan, and Australia).

²⁸³ As Frederick Abbott explains:

There are three distinct geographic concepts of exhaustion and parallel importation: national, regional and international. Under a “national” exhaustion policy, the IP [intellectual property] holder’s right to exclude is only extinguished when the good or service is put onto the market in the national territory. There are no “parallel imports” permitted. Under a “regional” exhaustion policy, the IP holder’s right is extinguished when a good or service is put onto the market within any country of a defined region, such as the European Union. “Parallel imports” are permitted, but only with respect to goods first placed on the market within the regional territory. Under an “international” exhaustion policy, the IPR holder’s right is extinguished when a good or service is put onto the market anywhere in the world. “Parallel imports” are permitted with respect to goods or services lawfully first placed on the market anywhere in the world.

ABBOTT, *supra* note 82, at 5; see also Irene Calboli, *Market Integration and (the Limits of) the First Sale Rule in North American and European Trademark Law*, 51 SANTA CLARA L. REV. 1241, 1256–58 (2011) (explaining the differences among national, international, and regional exhaustion); Vinelli, *supra* note 85, at 148–51 (same).

maintain their exhaustion regimes by establishing bilateral, plurilateral, or regional trade agreements.²⁸⁴ For example, article 15.5.2 of the U.S.-Morocco Free Trade Agreement provides:

Each Party shall provide to authors, performers, and producers of phonograms the right to authorize or prohibit the importation into that Party's territory of copies of the work, performance, or phonogram that are made without authorization, or made outside that Party's territory with the authorization of the author, performer, or producer of the phonogram.²⁸⁵

A similar provision has now been advanced through the negotiation of the Trans-Pacific Partnership Agreement.²⁸⁶

Meanwhile, intellectual property rights holders have been avoiding the application of the first sale doctrine²⁸⁷ under U.S. copyright law and its national exhaustion regime by releasing content in the form of a license as opposed to a good. Indeed, there continues to be a raging debate about the scope and limits of the first sale doctrine in the digital environment.²⁸⁸ In *Quanta Computer, Inc. v. LG Electronics, Inc.*²⁸⁹ and later *Costco Wholesale Corp. v. Omega, S.A.*,²⁹⁰ the exhaustion

²⁸⁴ See, e.g., INTELLECTUAL PROPERTY AND FREE TRADE AGREEMENTS (Christopher Heath & Anselm Kamperman Sanders eds., 2007) (collecting essays discussing free trade agreements in the intellectual property context); Robert Burrell & Kimberlee Weatherall, *Exporting Controversy? Reactions to the Copyright Provisions of the U.S.-Australia Free Trade Agreement: Lessons for U.S. Trade Policy*, 2008 U. ILL. J.L. TECH. & POL'Y 259 (criticizing the U.S.-Australia Free Trade Agreement); Yu, *Currents and Crosscurrents*, *supra* note 4, at 392–400 (discussing the growing use of bilateral, plurilateral, and regional trade agreements to push for higher intellectual property standards); Yu, *Sinic Trade Agreements*, *supra* note 89, at 961–86 (critically examining the strengths and weaknesses of bilateral and plurilateral trade agreements).

²⁸⁵ United States–Morocco Free Trade Agreement art. 15.5.2, U.S.–Morocco, June 15, 2004, available at http://www.ustr.gov/sites/default/files/uploads/agreements/fta/morocco/asset_upload_file797_3849.pdf. The accompanying side letter, nevertheless, states:

With respect to copies of works and phonograms that have been placed on the market by the relevant right holder, the obligations described in Article 15.5.2 apply only to books, journals, sheet music, sound recordings, computer programs, and audio and visual works (i.e., categories of products in which the value of the copyrighted material represents substantially all of the value of the product). Notwithstanding the foregoing, each Party may provide the protection described in Article 15.5.2 to a broader range of goods.

Letter from Taïb Fassi Fihri, Minister Delegate for Foreign Affairs and Cooperation, to Robert B. Zoellick, U.S. Trade Rep. (June 15, 2004) (providing the Side Letter on article 15.5).

²⁸⁶ See John Mitchell, *Trans-Pacific Partnership Proposes Copyright Suppression of Price Competition*, INFOJUSTICE.ORG (Feb. 21, 2012), <http://infojustice.org/archives/8305> (discussing the implications of the proposed provision).

²⁸⁷ See 17 U.S.C. § 109(a) (2006) (codifying the first sale doctrine).

²⁸⁸ For discussions of the first sale doctrine in the digital context, see generally U.S. COPYRIGHT OFF., DMCA SECTION 104 REPORT 78–105 (2001); Joseph P. Liu, *Owning Digital Copies: Copyright Law and the Incidents of Copy Ownership*, 42 WM. & MARY L. REV. 1245 (2001); Perzanowski & Schultz, *supra* note 110; R. Anthony Reese, *The First Sale Doctrine in the Era of Digital Networks*, 44 B.C. L. REV. 577 (2003).

²⁸⁹ *Quanta Computer, Inc. v. LG Elecs., Inc.*, 553 U.S. 617 (2008) (a case involving the doctrine of patent exhaustion).

²⁹⁰ *Costco Wholesale Corp. v. Omega, S.A.*, 131 S. Ct. 565 (2010) (a case involving the parallel

issue has also found its way to the United States Supreme Court in both the patent and copyright contexts. Most recently, the Court granted certiorari in *Kirtsaeng v. John Wiley & Sons, Inc.*²⁹¹ These Supreme Court cases certainly underscore the continually contentious nature of the exhaustion issue.

D. Summary

This Part advances three different proposals to address the shortcomings of DVD region codes. Designed to complement each other, these proposals can be adopted together. Nevertheless, each of them has its own limitations. For example, the first proposal depends on the voluntary removal of region codes on the part of content providers. The second proposal relies on the assistance provided by technology developers both inside and outside the region. The final proposal would only succeed if users have the technical ability to circumvent DVD region codes.²⁹²

Although the last proposal relies on the protection of cultural rights and other human rights to justify the right to circumvent, it is worth pointing out that those rights can equally provide the legal basis or rhetorical frame for the other two proposals.²⁹³ Indeed, as Molly Land points out in her commentary in this Symposium, countries are free to determine for themselves which policies would best fulfill its human rights obligations.²⁹⁴ Thus, in lieu of a human rights-based right to circumvent, countries could mandate the provision of multiregion players to those in need. They could even decide to adopt both measures.

V. WHY DVD REGION CODES?

One may question the importance of analyzing the problems created by DVD region codes. After all, the technology used to protect DVDs continues to evolve, and some of it will eventually become obsolete. For example, the region codes used in Blu-ray DVDs include only three regions, even though the codes used in ordinary DVDs have six. The new region codes arguably have provided a market-driven

importation of Swiss Watches manufactured by Omega).

²⁹¹ *Kirtsaeng v. John Wiley & Sons, Inc.*, 654 F.3d 210 (2d Cir. 2011), *cert. granted*, 80 U.S.L.W. 3580 (U.S. Apr. 16, 2012) (No. 11-697) (a case involving the parallel importation of textbooks published by John Wiley & Sons).

²⁹² See Yu, *Anticircumvention and Anti-anticircumvention*, *supra* note 23, at 47–48 (discussing the limited availability of decryption tools or technological expertise to perform the needed circumvention as allowed under narrowly-crafted exceptions).

²⁹³ See Molly Land, *Region Codes and Human Rights*, 30 CARDOZO ARTS & ENT. L.J. 275, 282 (2012) (noting that the proposal for a human rights-based right to circumvent “could be extremely powerful both as an example of a domestic policy designed to ensure a right of access and as a framing device”).

²⁹⁴ See *id.*

correction.

The rapid use of online streaming and distribution platforms also suggests that these technologies and services may eventually replace DVDs.²⁹⁵ In the past few years, Netflix has already focused growing attention on its online streaming service.²⁹⁶ Rights holders have also increasingly relied on YouTube and other streaming platforms to monetize copyrighted content.²⁹⁷ In the future, DVD region codes are likely to present less of a problem for users than they did in the past.

In addition, if DVD region codes are really annoying, consumers can always make their wishes known—by declining to buy region-coded products, perhaps. After all, the computer industry introduced very strong copy-protection measures in the 1980s, only to back away from those measures in light of their ineffectiveness and consumer resistance.²⁹⁸ It is not new that technology developers have to strike a balance concerning the difficult tradeoffs between strong protection and consumer friendliness.²⁹⁹

²⁹⁵ See Jennifer Dudley-Nicholson, *Do We Even Need Discs?*, COURIER MAIL (Brisbane), Mar. 5, 2008, at 16 (reporting that Mark Whittard, Toshiba's Australian general manager, predicted that "next-generation DVDs will be leapfrogged by internet movie downloads"); see also GILLESPIE, *supra* note 41, at 19 ("If and when the distribution of culture moves entirely to the Internet, [regional coding] could be extended in any number of ways, not to protect copyright but to maximize profit."); Perzanowski & Schultz, *supra* note 110, at 903-04 ("[T]he explosion of device-embedded and cloud-delivered content has put even greater distance between physical distribution and the realities of consumer acquisition."); Verrier, *supra* note 226 ("Premium-priced VOD is foreseen as a new revenue source for studios looking to offset declining DVD sales . . .").

²⁹⁶ See Brian Stelter, *Netflix Sees Angry Clients Cutting Profit*, N.Y. TIMES, July 26, 2011, at B3 (reporting the major customer backlash caused by the separation of Netflix's online streaming service from its DVD-by-mail service).

²⁹⁷ See Yu, *Digital Copyright and Confuzzling Rhetoric*, *supra* note 134, at 897-99 (discussing the benefits of YouTube).

²⁹⁸ As Emery Simon, an attorney with the Business Software Alliance, recalled:

The software industry has used DRMs for twenty-five years. It goes through a cycle. The software industry tightens up the DRMs and consumers scream, because they can't do very much with the software when it fails, or they want to reload it. Companies loosen up on the DRM, and the piracy goes way up, and then they tighten up on it. That has been the cycle, and that continues to be the cycle, and we're reconciled to that cycle. What we do in that cycle is we abandon technologies that consumers hated the worst. I'll give you an example. There is something called a dongle, a little piece of hardware that people attach to the back of the PC with which the PC has to shake hands in order to run the software. People hated it. Nobody uses a dongle anymore. So yes, there are DRMs that are hated by the marketplace, and are taken out of the marketplace in response to the market.

Symposium, *Edited & Excerpted Transcript of the Symposium on the Law & Technology of Digital Rights Management*, 18 BERKELEY TECH. L.J. 697, 750 (2003) (remarks of Emery Simon, Business Software Alliance); see also Kerr et al., *supra* note 250, at 31 (recalling that "in the early 1980s many companies that sold software applications employed a form of copy protection to prevent the floppy disks on which their applications were sold from being copied" and that "massive consumer resistance to this approach led to the abandonment of this TPM and yet software companies subsequently found the risk of illegal copying to be within acceptable limits"). It is worth noting that the movie industry is much more highly concentrated than the computer industry. See BAGDIKIAN, *supra* note 161, at 24.

²⁹⁹ See Yu, *Anticircumvention and Anti-anticircumvention*, *supra* note 23, at 74-75 ("[T]echnology developers constantly have to deal with their systems' market responsiveness Indeed, technology developers, and those who incorporate DRM systems into their

In the DVD context, one may recall the failure of DivX (Digital Video Express), a competing DVD format based on a pay-per-view model.³⁰⁰ Although studios (and the now-defunct Circuit City) initially backed the format, DivX failed to take off. As Jim Taylor acknowledges in retrospect, the major psychological hurdle for DivX was that “many people were uncomfortable buying a disc that they did not control.”³⁰¹

Moreover, and quite importantly, the existence of non-Region 1 or multiregion DVD players already provides some relief to those who need to play DVDs from other regions for justified reasons.³⁰² Laptops also allow users to change their regions a few times.³⁰³ In addition, players can be modified through the use of “cheat” codes,³⁰⁴ the installation of mod chips,³⁰⁵ or the assistance of professionals.³⁰⁶ Indeed, cheat codes have now become an open secret; they can be easily

products, are constantly struggling with the trade-offs between cost and effectiveness and between protection and inconvenience.”).

³⁰⁰ As J.D. Lasica recounts:

It is little remembered today that in the mid-1990s, most studios fought the DVD and tried to derail its introduction. Only Warner and Sony pushed the DVD, which offered a packaged product similar to books and CDs that movie lovers could own, collect, and resell.

By contrast, Disney, Fox, Universal Pictures, and DreamWorks supported Digital Video Express, pay-per-view scheme. Digital Video Express required special modem-equipped machines that phoned in to a central computer for authorization each time someone wanted to watch a movie and imposed a fee for each viewing of a DivX movie disc, which could not play on standard DVD players. Digital Video Express sparked an Internet boycott movement, and even movie critic Roger Ebert complained, “It confuses fans with pirates.” Despite Circuit City pumping an estimated \$350 million into the effort—including more than \$20 million apiece in fees up front to the major studios—the original DivX died, unloved and unremembered, in June 1999 after only nine months and two hundred thousand players sold.

LASICA, *supra* note 42, at 89–90; *see also* LITMAN, *supra* note 250, at 152 (noting the failure of DivX); TAYLOR ET AL., *supra* note 27, at 2–16 to –18 (discussing the development of DivX and the problems it created).

³⁰¹ TAYLOR ET AL., *supra* note 27, at 2–17.

³⁰² *See* Fitzsimmons, *supra* note 113 (“Consumers keen to watch imported movies could always buy a second DVD player for the appropriate zone.”); *id.* (“As a free consumer you can buy what you want as long as the machine can play what you buy, but as a retailer you cannot import without permission from copyright owner.”) (quoting Marc Gareton, Managing Director, Warner Home Video Australia)).

³⁰³ As far as DVD-ROM drives are concerned, the user not only can set “the drive . . . to different regions five times, but . . . the drive can be reset so that the user may switch regions up to a total of twenty-five times with the assistance of an authorized dealer or service representative.” Register of Copyrights Memo, *supra* note 35, at 123 n.219.

³⁰⁴ *See* Luh, *supra* note 171 (“Some off-brand models let users bypass region locks by navigating secret but widely publicized ‘loophole’ menus with the remote control. Sometimes, users have to download an old version of a player’s firmware (the basic software stored in its circuits), then copy it onto a CD and load it in the player to ‘flash back’ its firmware and enable the hidden menus.”).

³⁰⁵ *See* Scatena, *supra* note 247 (“For region-specific models, it is possible for technicians to install a modification chip into your machine which will bypass the region-restriction function. Of course, such a modification will immediately void your machine’s manufacturer’s warranty.”).

³⁰⁶ *See* Luh, *supra* note 171 (“Other players, particularly name-brand models, have to be physically modified to gain multiregion features. No engineering degree is necessary, though: Many stores sell pre-modified players, . . . retail do-it-yourself kits to modify a player, or will perform the surgery in their shops for a fee.”).

found both online and offline.³⁰⁷ If the wide availability of these circumvention tools is not enough, content providers thus far have refrained from targeting distributors who sell multiregion players.³⁰⁸ Even if U.S. distributors could not legally distribute these products—a highly debatable premise³⁰⁹—one could clearly import those players from outside the United States.

Indeed, policymakers and intellectual property rights holders have repeatedly pointed to the access of multiregion players or other technological fixes to disprove the existence of a problem with DVD region codes. In the report issued during the second DMCA rulemaking proceeding, for example, Register of Copyrights Marybeth Peters observed:

A user may still obtain DVD players for other regions from which the user wishes to watch DVDs. A more practical approach is the ready availability of DVD-ROM drives for computers which can be switched from one region to another for a limited number of times. The record indicates that those DVD drives are available for as little as \$19.95. Those users who prefer to view DVD content on their television screens rather than their computer monitor may connect their computers or laptops to most recently manufactured television sets via S-Video, Composite Video or standard RCA jacks. These options allow the content of non-Region 1 discs to be accessed and render allegations of adverse effects mere inconveniences.³¹⁰

In an earlier proceeding, Register Peters also included VHS version of

³⁰⁷ The following advice, for example, was freely available in the Australian *Courier Mail*: To get around [DVD region codes] PC users can download a free utility called Remote Selector. This add-on connects to the computer's DVD drive and allows region-free playback.

Users can navigate the disc's menu and contents as they would a regular DVD without having to alter the region code or upgrade the firmware of the DVD drive.

Mac users can achieve the same result by downloading VLC Media Player: an open-source multimedia platform.

Stephen Fenech, *How to: Turn Your Computer into a Region-Free DVD Player*, COURIER MAIL (Brisbane), May 19, 2010, at 7; see also GILLESPIE, *supra* note 41, at 266 (“[S]ites on the Internet have explained how users can modify their own devices to ignore region coding.”); Hu, *supra* note 60, at 5 (“Like many other low-end players, the Philips 642 is modifiable without tampering with the hardware. Instead, one only needs to press a sequence of keys on the remote control to set the region-coding free. Looking at the comments on the VideoHelp.com page, I found that the sequence ‘7, 8, 9, OK, 0’ (‘0’ standing for ‘region zero,’ or region-free) works when the DVD tray is open, although some users complained that this did not unlock the player.”).

³⁰⁸ See Register of Copyrights Memo, *supra* note 35, at 121 n.213 (“[Multiregion players] are . . . widely available in the online marketplace, and there is no indication that copyright owners or others have made any efforts to stop their distribution or use.”); Hu, *supra* note 60, at 7 (“The fact that the ‘secret’ of region-free has gone uncurbed for so long suggests that the Hollywood film industry has given up on battling the programmers, subcultures, and rebel manufacturers on this issue.”); Luh, *supra* note 171 (“[N]o one’s bringing that case, and no one’s threatening to.”) (quoting Bruce Turnbull, a lawyer representing DVD CCA)).

³⁰⁹ See discussion *supra* Part III.B.

³¹⁰ Register of Copyrights Memo, *supra* note 35, at 122–23 (footnotes omitted).

the movie as a response to the demand for a specific exception to circumvent DVD region codes.³¹¹ Nevertheless, as she conceded in the later proceeding, that option, inferior quality aside, has slowly become obsolete.

Notwithstanding the reassurances by policymakers and rights holders, many problems still exist with DVD region codes and region-based restrictions. First, the fact that circumvention laws are underenforced does not mean that they are either acceptable or expedient. It is rather counterintuitive to consider a law acceptable when most people do not comply with it; quite the contrary should happen.³¹² As Mark Lemley, Geraldine Moohr, William Patry, and many others have noted, if the public widely ignores the law, such widespread ignorance may indicate that the law should be amended or repealed.³¹³

Second, multiregion players are not always available. Nor are they always affordable. In fact, it seems wrong to require consumers to pay for additional, and often costly, equipment when they have already made lawful purchases of the DVD in another region. It is even more problematic when those users have legitimate reasons to view the lawfully purchased DVDs—for example, to teach children to speak the parents' native tongue.

Third, and most importantly, region-based restrictions are slowly

³¹¹ See *id.* at 122 (“In the previous rulemaking, the Register determined that region coding did not adversely affect noninfringing uses because of the options available to those who wish to play foreign content, such as VHS versions of the works . . .”).

³¹² It goes without saying that laws should not be changed just because people do not comply with them. Nevertheless, laws with which *most* people do not comply should be subject to heightened scrutiny.

³¹³ See PATRY, MORAL PANICS, *supra* note 138, at xxiv (“Laws should be fair, fit for their purpose, and accountable to the reality of the world we live in. We do not respect, and will not follow, laws that conflict with the realities of our lives, nor should we.”); Mark A. Lemley, *Dealing with Overlapping Copyrights on the Internet*, 22 U. DAYTON L. REV. 547, 578 (1997) (“A law which nobody obeys is not a good thing as a philosophical matter. It may lead to disrespect for laws in general. More specifically, it may lead those who violate the unenforced parts of the copyright laws with impunity to assume that they can violate the copyright law in other ways as well. At a different level, if a law is so out of touch with the way the world works that it must regularly be ignored in order for the everyday activities of ordinary people to continue, perhaps we should begin to question whether having the law is a good idea in the first place.”). As Geraldine Moohr reasons:

Respect and legitimacy are threatened when a community norm that condemns prohibited conduct is not yet in place. In that situation, criminal enforcement coupled with severe penalties can make pawns of those caught in the transition period and offend community notions of due process, fairness, and commonly held ideas about notice and legality. If the community believes these severe sanctions are disproportionate to the offense, especially if only a small percentage of personal infringers are targeted, then enforcing criminal infringement crimes may be detrimental. To the extent that citizens reject rules that target people unfairly, they may similarly reject the legal system that promulgates and enforces such rules. In these circumstances, enforcing rules that do not embody a shared community norm may actually undermine the formation of a norm against the forbidden conduct.

Geraldine Szott Moohr, *Defining Overcriminalization Through Cost-Benefit Analysis: The Example of Criminal Copyright Laws*, 54 AM. U. L. REV. 783, 804–05 (2005).

emerging in other consumer products. For example, region codes have been widely used to protect not only movies and television shows, but also music,³¹⁴ computer software, computer games,³¹⁵ and, the most surprising of all, printer toner cartridges.³¹⁶ When keyed to local wireless providers, lockout codes have also been successfully deployed in cell phones to provide region-based restrictions, even though these codes technically do not have the same design and functionality as DVD region codes.³¹⁷

Even YouTube has begun to impose territorial restrictions to prevent viewers from having access to all content. These geographical restrictions indeed have taken away a major benefit of using YouTube as a region-free platform for disseminating and viewing content. As more people turn to cyberlockers and cloud computing, both of which are likely to include servers located outside the country, the debate on territorial restrictions can only become more important. In fact, the computer industry has already begun to pay attention to the impact of varying global regulatory standards on cloud computing.³¹⁸

In short, the evolving technology does not make region-based restrictions *less* important. Rather, technological change has made these restrictions *more* important. As Tarleton Gillespie warns:

³¹⁴ Although most DVD audios do not have region-based restrictions, these restrictions have been deployed in music streaming services such as Pandora and Spotify. See Michelle Griffin, *Forced on to the Internet*, AGE (Melbourne), Jan. 8, 2011, at 20 (noting that “[t]he sluggish distribution deals of local record companies ensure that Australians can’t enjoy legal music streaming sites such as Spotify and Pandora”).

³¹⁵ See TAYLOR ET AL., *supra* note 27, at 5–21 (noting that “many video game systems introduced since 1995 include regional restrictions”); Bechtold, *supra* note 23, at 628 (stating that regional playback control “can be found in Sony’s Playstation game consoles and in various software applications” (footnote omitted)); Vinelli, *supra* note 85, at 137 (listing “consumer movies (DVDs and Blu-Ray discs), printers, video games (Personal Computer video games, Microsoft’s Xbox and Xbox 360, and Sony’s Playstation 2 and 3), and cell phones (most notably Apple’s iPhone series)” as examples of the use of embedded technology to exert post-sale control of the products (footnotes omitted)). For a discussion of the use of region-based restrictions in computer games, see *Region Lockout*, WIKIPEDIA, http://en.wikipedia.org/wiki/Region_lockout (last visited Apr. 16, 2012).

³¹⁶ As Ryan Vinelli observe:

Even ink-jet printers and ink cartridges have been subject to region coding technology. As with other products, the rationale for regionalizing the lowly ink cartridge is to reduce price alterations as currencies fluctuate and to dissuade gray marketers. A major impetus for regionalization of all products has been the decline of the dollar, which makes products in the United States much cheaper than those sold in Europe or other countries with a stronger currency. Hewlett Packard, like many multinational companies from the United States, receives increased domestic revenue when it is “boosted by sales in [E]uros and other strong currencies.”

Vinelli, *supra* note 85, at 138 (footnotes omitted).

³¹⁷ See *id.* at 139 (“Cell phones in the United States are programmed in a way that segments the market along the lines of a wireless provider, a practice known as ‘locking’ the phone, rather than by geographic region. A locked cell phone only works on a pre-defined carrier’s network or within a specific territory.” (footnote omitted)).

³¹⁸ See BUS. SOFTWARE ALLIANCE, BSA GLOBAL CLOUD COMPUTING SCORECARD: A BLUEPRINT FOR ECONOMIC OPPORTUNITY (2012) (providing a ranking of 24 countries based on the countries’ preparedness to support the growth of cloud computing).

It is, of course, possible that, once the film industry fully commits to digital delivery instead of DVD, they might do away with regional coding, allowing their Internet storefront to serve a single, integrated, global market. But the more likely scenario is that, with Internet broadband connectivity, the technique behind regional coding might develop into an even more intricate cascade of purchase and use options, not unlike the cascade of releases we experience today, but exploded in number and in detail. With an encryption system in place, founded on the fear of piracy but designed also to ensure access on the studios' terms, this release schedule could be ported entirely to digital downloads, and expanded to include whether the film could be copied, whether it could be played for a certain time period, whether it could be lent out to others, and so forth.

With the shift to digital distribution, technically enforced regionalized pricing can be deployed even more effectively. Apple's iTunes Store, for example, has established different pricing structures for different countries; their DRM protects against consumer arbitrage, and their servers ensure that anyone trying to log onto, say, the U.S. iTunes website from a U.K. computer will be automatically redirected to the British site. This discrimination can be further enforced by accepting credit cards only from the same country in which the content is being purchased. This ability to offer multiple interfaces to the same products, and to redirect users to the "appropriate" one, makes possible price discrimination on a much more complex scale, and is designed deliberately to do so.³¹⁹

Increasing attention has also been devoted to situations where internet users use geolocational tools to view or use content on the internet that they otherwise would not be able to by virtue of their geographical location.³²⁰

Notwithstanding these alarming concerns, it is worth exploring whether those concerns can be greatly alleviated by the improvement of the technology used to provide region-based restrictions. As Derek Bambauer rightly suggests in his commentary in this Symposium, technology of finer grain can be developed to take advantage of the benefits examined in Part I.³²¹ The problem with DVD region codes, however, is not that region-based restrictions are bad per se. Rather, the technologies as they exist today represent both a bad technological design and ill-conceived implementation.

Although this Article does not rule out the potential for using

³¹⁹ GILLESPIE, *supra* note 41, at 267.

³²⁰ See generally Trimble, *supra* note 210 (discussing these situations where users engage in what Marketa Trimble has described as "cybertravel").

³²¹ See Derek E. Bambauer, *Pangloss's Copyright*, 30 CARDOZO ARTS & ENT. L.J. 265 (2012).

finer-grained technology to provide the benefits of region-based restrictions, I am rather skeptical of its success for two reasons. First, our current state of technology does not provide the needed fine-grained technology to establish constructive and beneficial region-based restrictions. In fact, it may not be able to do so in the near future.³²² To a large extent, the discussion reminds readers of the debate about whether digital rights management tools could be so fine-grained and sophisticated that they produced what Edward Felten described colorfully as “judge on a chip.” As he wrote: “A DRM system that gets all fair use judgments right would in effect be a ‘judge on a chip’ predicting with high accuracy how a real judge would decide a lawsuit challenging a particular use. Clearly, this is infeasible with today’s technology.”³²³

More importantly, region-based restrictions are unlikely to meet all the needs of copyright users. As Julie Cohen points out, users need access to copyrighted works for “consumption, communication, self-development, and creative play.”³²⁴ As situated users, their needs are often context-dependent. As she elaborates:

A model of the user predicated on all four practices stands a better chance of avoiding the artificiality and one-dimensionality that characterizes the three leading models of the user. Unlike the economic user [who enters the market with a given set of tastes in search of the best deal], the situated user is more than a narrow, self-interested consumer; unlike the romantic user [whose life is an endless cycle of sophisticated debates about current events,

³²² Cf. Dan L. Burk & Julie E. Cohen, *Fair Use Infrastructure for Rights Management Systems*, 15 HARV. J.L. & TECH. 41, 56 (2001) (stating that “[a]t least for now, there is no feasible way to build rights management code that approximates both the individual results of judicial determinations and the overall dynamism of fair use jurisprudence”); Edward W. Felten, *A Skeptical View of DRM and Fair Use*, COMM. ACM, Apr. 2003, at 57, 59 (“[F]air use is one of the starkest examples of the mismatch between what the law requires and what technology can do. Accurate, technological enforcement of the law of fair use is far beyond today’s state of the art and may well remain so permanently.”); Kerr et al., *supra* note 250, at 31 (“[T]he technologies employed by DRMs are not yet sufficiently sophisticated to mirror the law of copyright because TPMs themselves remain incapable of distinguishing between infringing and non-infringing uses of digital works.”); Reese, *supra* note 288, at 629 (“Technological protection measures that control reproduction or performance of a work . . . are unlikely to be well calibrated to the actual contours of, for example, copyright owners’ reproduction or public performance rights.”); Pamela Samuelson, *DRM and, or, vs. the Law*, COMM. ACM, Apr. 2003, at 41, 42 (“Thus far, digital rights expression languages (RELS) lack semantics to allow the expression of concepts like fair use. DRM cannot accommodate user rights without REL vocabularies capable of expressing them. Even if RELS developed semantics to express user rights, content owners may abjure expressing them unless forced to do so by law or competition.” (footnote omitted)).

³²³ Felten, *supra* note 322, at 58; see also Burk & Cohen, *supra* note 322, at 55 (expressing their pessimism over the ability of “system designers . . . to anticipate the types of uses that would be considered fair by a court”).

³²⁴ See Julie E. Cohen, *The Place of the User in Copyright Law*, 74 FORDHAM L. REV. 347, 372 (2005) (“[F]our activities—consumption, communication, self-development, and creative play—define the range of human use of cultural goods.”).

discerning quests for the most freedom-enhancing media technologies, and home production of high-quality music, movies, and open-source software], . . . she knows when to sit back, have a beer, and fire up the TiVo. Unlike the postmodern user [who exercises limited and vaguely oppositional agency in a world in which all meaning is uncertain and all knowledge relative], the situated user has the capacity and the will to link her own creative projects aspirationally to larger dreams of artistic and personal progress.³²⁵

Finally, at the larger policy level, the study of DVD region codes and region-based restrictions in this Article is valuable because it links the discussion to three additional debates concerning the development of intellectual property law in general. First, the Article ties the discussion to the broader debate about how laws should be developed in the first place. For example, commentators, civil libertarians, consumer advocates, and user communities have widely criticized the way in which the DMCA was drafted. As Jessica Litman laments:

The DMCA is long, internally inconsistent, difficult even for copyright experts to parse and harder still to explain. Most importantly, it seeks for the first time to impose liability on ordinary citizens for violation of provisions that they have no reason to suspect are part of the law, and to make noncommercial and noninfringing behavior illegal on the theory that that will help to prevent piracy.³²⁶

³²⁵ *Id.*

³²⁶ As William Patry writes:

Thanks to the DMCA, the copyright market has now come to resemble the planned Soviet economies of the early twentieth century, but with the market planning . . . done by corporations exercising government-created monopoly power. The government's role in this scheme is limited to setting up the laws that make it . . . unlawful to circumvent whatever rules corporations establish *for us*. What results is a form of "corporatism." "Corporatism" involves actions by unelected bodies (not necessarily corporations) whose purpose is to exert control over the social and economic life of their respective areas through agreements that are reached internally but that find support in elected, political bodies. Such special interests reach agreement among themselves and privately, but after agreement is reached, the agreement is touted as being for the public's benefit, not that of the corporatists. Corporatism only works if the government uses *its* coercive power to demand compliance with what the corporatists have agreed to, and that is the precise role played by the DMCA.

PATRY, MORAL PANICS, *supra* note 138, at 164; *see also* DOCTOROW, *supra* note 23, at 11 (criticizing anticircumvention legislation for allowing rights holders to "write private laws without accountability or deliberation"); LITMAN, *supra* note 250, at 145 ("[W]hat we have [in the DMCA] is what a variety of different private parties were able to extract from each other in the course of an incredibly complicated four-year multiparty negotiation. Unsurprisingly, they paid for that with a lot of rent-seeking at the expense of new upstart industries and the public at large."); Cory Doctorow, *A Behind-the-Scenes Look at How DRM Becomes Law*, INFO. WK. (July 11, 2007, 4:41 PM), <http://www.informationweek.com/news/201000854> ("Otto von Bismarck quipped, 'Laws are like sausages, it is better not to see them being made.' I've seen sausages made. I've seen laws made. Both processes are pleasant in comparison to the way anti-copying

Likewise, Susan Crawford has criticized the broadcast flag/analog hole legislation for allowing a single industry to determine “the choice of what ‘code’ to put in place.”³²⁷ Similar concerns also existed in the early days of the development of DVD technology. As declared by Alan Bell, the chair of the computer industry’s Technical Working Group (and later the interindustry Copy Protection Technical Working Group): “Any mandatory standard that was legislated and then administered by a government body is anathema to the computer industry.”³²⁸

Second, this Article ties the discussion to the ongoing debate about both exhaustion of intellectual property rights and the use of geographical location or country of origin to determine the scope and level of protection. As pointed out earlier, the exhaustion issue remains an unresolved item in international intellectual property negotiations.³²⁹ With the proliferation of nonmultilateral trade, investment, and intellectual property agreements by developed countries, the increased push for the protection of geographical indications by the European Union, and the growing demand for the protection of traditional knowledge and cultural expressions, geographic restrictions are likely to feature more prominently in the international intellectual property debate in the near future than it does today.

Third, the Article ties the discussion to the emerging debate about the problems raised by linking the protection of intellectual property rights to standards deployed in intellectual property-based goods and services.³³⁰ From the deployment of the Serial Copyright Management System in the Audio Home Recording Act of 1992,³³¹ to the proposed adoption of the broadcast flag in digital television, to the ongoing and heated debate about digital rights management tools, commentators have widely questioned the appropriateness of using standards to protect intellectual property assets.³³² In the DVD context, there are also unavoidable discussions about formats and standards, such as Multimedia CD vs. Super Disc, DVD vs. DivX, and Blu-ray DVD vs.

technology agreements are made.”).

³²⁷ Crawford, *supra* note 69, at 641.

³²⁸ TAYLOR ET AL., *supra* note 27, at 2–7.

³²⁹ See discussion *supra* Part IV.C.

³³⁰ For discussions of the standardization of digital rights management, see Bechtold, *supra* note 23, at 630–53; Oliver Bremer & Willms Buhse, *Standardization in DRM—Trends and Recommendations*, in DIGITAL RIGHTS MANAGEMENT, *supra* note 23, at 334.

³³¹ 17 U.S.C. § 1002 (2006) (mandating the inclusion of the Serial Copy Management System). Serial Copy Management System “provides copyright and generation status information and prevents the recording devices from producing a chain of perfect digital copies through ‘serial copying.’” Yu, *The Copyright Divide*, *supra* note 83, at 378.

³³² See, e.g., Crawford, *supra* note 69, at 641 (criticizing the broadcast flag/analog hole legislation and noting that “unlike choices made by programmers, here the choice of what ‘code’ to put in place will be made by the sovereign at the request of a single industry”).

HD DVD.³³³

Indeed, as far as new technology is concerned, standardization is of paramount importance. As Professor Cohen reminds us in her new book, *Configuring the Networked Self*:

[S]tandardization creates technical and institutional path-dependencies that are difficult for any market participant to dislodge. Standards can be changed, but change moves slowly, and design decisions tend to have consequences for many generations of products. The licensing arrangements associated with architectures of control add to the overall inertia, creating institutional lock-ins that structure commercial relationships among content providers, technology providers, and other intermediaries.³³⁴

Even worse, many of the technological standards we experience today were set by private actors without sufficient consultation with consumers and the user community.³³⁵ It is also increasingly common for industries to establish technical standards through interindustry consortia like the DVD Consortium (and later the DVD Forum), which lie outside of government authorized standard-setting organizations.³³⁶

It is therefore no surprise that growing concern arises over the overlap between patent protection and the development of standards.³³⁷

³³³ See TAYLOR ET AL., *supra* note 27, at 2–3 to –6, –16 to –18, 6–11 to –15.

³³⁴ JULIE E. COHEN, *CONFIGURING THE NETWORKED SELF: LAW, CODE, AND THE PLAY OF EVERYDAY PRACTICE* 181 (2012).

³³⁵ Cf. Julie E. Cohen, *DRM and Privacy*, 18 BERKELEY TECH. L.J. 575, 616 (2003) (“[N]ot all standards processes include end user representation, and even in those that do, there is no assurance that end user grievances, once aired, will prospectively shape the standards that are brought to market.”).

³³⁶ See GILLESPIE, *supra* note 41, at 140 (“Much of the collaboration [over the interoperability between content and hardware] occurs inside of interindustry consortia, an increasingly common means of setting technical standards outside of government authorized standard-setting organizations . . .”). As Tarleton Gillespie elaborates:

[I]ncreasingly, standards are . . . being negotiated inside an array of trade associations and intra- and cross-industry consortia that, while often careful not to present themselves as standards organizations, regularly develop “technical working groups” within which to pursue shared technical arrangements. Organizations such as the DVD Forum, SDMI [the Secure Digital Music Initiative], and the Copy Protection Technology Working Group . . . allow content producers to meet with consumer electronics and information technology manufacturers to discuss technical formats, as well as the economic and political arrangements that will accompany them. Some may have open membership and procedures, but more often these groups limit membership by imposing large fees and establishing their own rules for informal discussion and agreement. In the digital media industries and in other telecommunication and IT industries, these consortia are increasingly seen as a more effective way to reach technical coordination than the official SSOs. However, it is important to note that this shift in the locus of standards setting has important implications for what standards are chosen, how they are chosen, and why.

Id. at 141–42.

³³⁷ See GILLESPIE, *supra* note 41, at 142 (“There has . . . been discussion regarding the role of intellectual property in such coordination; often the standards being debated include technologies whose patents are held by members of the discussion, giving them a special interest in the

DVD technology, for example, involves a large number of patents from the ten initial members of the DVD Consortium.³³⁸ At the international level, developing countries have also raised concerns about the increasing overlap between patents and standards. For example, in a submission to the WTO Committee on Technical Barriers to Trade, China “propose[d] that international standard setting bodies, as well as [WTO] Members, provide the Committee with relevant information regarding practices and experience on their [intellectual property] policies in standardization for Members’ understanding and reference.”³³⁹ This proposal previews an international debate that is of growing importance for developing countries.

CONCLUSION

Region codes were developed in the mid-1990s, a bygone era where goods were distributed primarily in physical form.³⁴⁰ As consumers become more interested in borderless enjoyment of media content and as movie studios rethink their distribution strategies, it is important that we step back to reconsider the needs for region-based restrictions and their attendant benefits.

Although region-based restrictions have some benefits, they are slowly becoming obsolete. They do not sit well with today’s rapidly

outcome.”). As Tarleton Gillespie observes:

The important question . . . is not whether the consortia afford competitors the opportunity to engage in price fixing, but whether standards themselves can be a form of collusion, a means not to fix prices or achieve monopoly, but to preserve both oligopoly control over a market and, more importantly, to stabilize a particular business paradigm, within which the participants can then continue to compete.

Id.

³³⁸ As Jim Taylor recounts:

Matsushita held 25 percent of the approximately 4000 patents; Pioneer and Sony each had 20 percent; Philips, Hitachi, and Toshiba were left with 10 percent of the pie; Thomson had 5 percent; and the remaining members—Mitsubishi, JVC, and Time Warner—held negligible slivers On top of DVD-specific patents, the MPEG LA organization controversially claimed 44 essential patents from 12 companies; Columbia University, Fujitsu, General Instruments, Kokusai Denshin Denwa, Matsushita, Mitsubishi, Philips, Samsung, Scientific Atlanta, Sony, Toshiba, and Victor; Dolby, of course, had a finger in the pie with Dolby Digital (AC-3) patents. Fraunhofer, Thomson, and others held MPEG audio patents. Additional fundamental optical disc technology patents are held by Pioneer, Discovision, and others. All this led to a complex advance of cross-licensing that worked reasonably well for the major contributors, but left other companies with no recourse but to pay licensing royalties.

TAYLOR ET AL., *supra* note 27, at 2–6.

³³⁹ Communication from the People’s Republic of China, *Intellectual Property Right (IPR) Issues in Standardization*, ¶ 21, G/TBT/W/251/Add.1 (Nov. 9, 2006). For media reports on the submission, see generally *China Seeks Dialogue on Link Between Standards, IPR in WTO*, INSIDE US-CHINA TRADE, Nov. 15, 2006; William New, *China Leads Developing Country Push for Balance in IP and Standards*, INTELL. PROP. WATCH (Apr. 24, 2007), <http://www.ip-watch.org/weblog/index.php?p=599>.

³⁴⁰ See PATRY, *MORAL PANICS*, *supra* note 138, at 163 (“Rather than take a global product and make it globally available, the studios use the DMCA to ensure that ill-fitting territorial and distribution partnerships and licenses developed during the hard copy era are preserved into the twenty-first century for digital works.”).

globalizing world, where goods and people are increasingly mobilized and where lifestyle and consumer preferences continue to change. Even worse, they stifle the vast potential created by the internet and new communications technologies while at the same time intruding on our fundamental rights to free speech, education, and cultural development.

If we were to build a distribution strategy from scratch today, region codes as deployed in existing DVDs, computer software, and computer games would unlikely provide a satisfactory solution to protecting media content. Hopefully, by studying the shortcomings of DVD region codes and what we need to do to address these shortcomings, intellectual property rights holders, policymakers, and the user community can come up with a better strategy to protect media content while satisfying the growing consumer demand for borderless enjoyment of such content.