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**A Spatial Critique of Intellectual
Property Law and Policy**

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I. Introduction

From border walls to travel bans to the import tax, President Trump and his earlier electoral campaign have embraced policies that evoke powerful geographical imageries.¹ While the use of these imageries have excited supporters and reminded them of the president's commitment to putting "America First,"² it has also raised considerable policy concerns while alarming the United States' neighbors in the north, the south, and across both oceans.³

1. See Jeremy Diamond & Steve Almasy, *Trump's Immigration Ban Sends Shockwaves*, CNN, <http://edition.cnn.com/2017/01/28/politics/donald-trump-executive-order-immigration-reaction/index.html> (last updated Jan. 30, 2017, 12:34 PM) (last visited Nov. 23, 2017) (reporting President Trump's initial executive order requiring the "extensive vetting" of citizens of seven Muslim majority countries seeking to enter the United States) (on file with the Washington and Lee Law Review); Tal Kopan, *Homeland Security Seeking Border Wall Proposals*, CNN, <http://www.cnn.com/2017/02/24/politics/border-wall-prototypes-solicitation/> (last updated Feb. 24, 2017, 3:44 PM) (last visited Nov. 23, 2017) (reporting the Customs and Border Protection's solicitation for proposals to design and build several "prototype wall structures" near the U.S.-Mexico border) (on file with the Washington and Lee Law Review); Eric Martin, *Why Trump's "Big Border Tax" Gets Taken Seriously: Quick Take Q&A*, BLOOMBERG, <https://www.bloomberg.com/politics/articles/2017-01-18/why-trump-s-tariff-threats-get-taken-so-seriously-quicktake-q-a> (last updated Mar. 1, 2017) (last visited Nov. 23, 2017) (discussing the "border tax" proposed by President Trump on the campaign trail) (on file with the Washington and Lee Law Review).

2. See Donald Trump, President of the United States, Inaugural Address in Washington, D.C. (Jan. 20, 2017) ("From this day forward, a new vision will govern our land. From this moment on, it's going to be America First. Every decision on trade, on taxes, on immigration, on foreign affairs, will be made to benefit American workers and American families.").

3. See Steve Benen, *U.S. Allies Abroad Fear the Consequences of a Trump Presidency*, MSNBC (Jan. 17, 2017, 11:22 AM), <http://www.msnbc.com/rachel-maddow-show/us-allies-abroad-fear-the-consequences-trump-presidency> (last visited Nov. 23, 2017) ("Now that Trump is poised to take power, . . . anxiety and mistrust among American allies has reached levels unseen in generations.") (on file with the Washington and Lee Law Review); Michael Birnbaum, *European Leaders Shocked as Trump Slams NATO and E.U., Raising Fears of Transatlantic Split*, WASH. POST (Jan. 16, 2017), https://www.washingtonpost.com/world/europe-leaders-shocked-as-trump-slams-nato-eu-raising-fears-of-transatlantic-split/2017/01/16/82047072-dbe6-11e6-b2cf-b67fe3285cbc_story.html (last visited Nov. 23, 2017) ("Trump's attitudes have raised alarm bells across Europe, which is facing a wave of elections this year in which anti-immigrant, Euroskeptic leaders could gain power.") (on file with the Washington and Lee Law Review); see also Michael Crowley, *Foreign Policy Experts Fret Over Trump's America First Approach*, POLITICO (Jan. 20, 2017, 3:52 PM), <http://www.politico.com/story/2017/01/2017-trump-inauguration-foreign-policy-reaction-233924> (last visited Nov. 23, 2017) ("President Donald Trump's

Regardless of one's support for the current administration, however, location-based policy discussions are likely to continue in at least the next few years.

Coincidentally, there has been renewed scholarly, policy, and popular attention to geographical studies and spatial analysis. Having closed the Geography Department shortly after the Second World War, Harvard University reentered this intellectual turf by launching a new Center for Geographic Analysis in fall 2005.⁴ In addition, the geographically based works of Jared Diamond and Robert Kaplan have become *New York Times* bestsellers.⁵ Meanwhile, Nobel Laureate Paul Krugman successfully introduced “new economic geography” through his academic and popular works, bringing geography and international trade closer to each other.⁶

inaugural address focused on an ‘America First’ approach that downgrades the value of America’s global leadership and traditional alliances—a sharp break with the internationalist vision of nearly every U.S. president of the past 100 years that troubled veteran foreign policy experts.”) (on file with the Washington and Lee Law Review).

4. See Elizabeth Gehrman, *Geography Center Launched*, HARV. GAZETTE (May 11, 2006), <http://www.news.harvard.edu/gazette/2006/05.11/05-geography.html> (last visited Nov. 23, 2017) (reporting the launch of the Center for Geographic Analysis at Harvard University) (on file with the Washington and Lee Law Review); see also Hari M. Osofsky, *A Law and Geography Perspective on the New Haven School*, 32 YALE J. INT’L L. 421, 433–34 (2007) (“When Harvard opened its Center for Geographic Analysis in 2006, its president, Lawrence Summers, explicitly acknowledged this step as a reversal of its 1948 decision and as ‘embracing the new geography.’”).

5. See generally JARED DIAMOND, *COLLAPSE: HOW SOCIETIES CHOOSE TO FAIL OR SUCCEED* (2011) [hereinafter DIAMOND, *COLLAPSE*] (recounting the success and failure of societal responses to dramatic environmental changes); JARED DIAMOND, *GUNS, GERMS, AND STEEL: THE FATES OF HUMAN SOCIETIES* (1997) [hereinafter DIAMOND, *GUNS, GERMS, AND STEEL*] (discussing how environmental conditions have affected global developments more than what many believe); ROBERT D. KAPLAN, *THE REVENGE OF GEOGRAPHY: WHAT THE MAP TELLS US ABOUT COMING CONFLICTS AND THE BATTLE AGAINST FATE* (2012) (using maps, terrains, and other geopolitical insights to shed light on ongoing and future global conflicts).

6. See generally Paul Krugman, *Where in the World Is the New Economic Geography*, in THE OXFORD HANDBOOK OF ECONOMIC GEOGRAPHY 49 (Gordon L. Clark et al. eds., 2000) (discussing the goals, focus, and limitations of the sub-field of “new economic geography”). Professor Krugman’s other works in this area include MASAHISA FUJITA, PAUL KRUGMAN & ANTHONY J. VENABLES, *THE SPATIAL ECONOMY: CITIES, REGIONS, AND INTERNATIONAL TRADE* (1999); PAUL KRUGMAN, *DEVELOPMENT, GEOGRAPHY, AND ECONOMIC THEORY* (1997); PAUL KRUGMAN, *GEOGRAPHY AND TRADE* (1991) [hereinafter KRUGMAN, *GEOGRAPHY AND TRADE*]. Professor Krugman is also a columnist for the *New York Times*, writing on

Interestingly, although geography has had an important and lasting impact on the development of intellectual property law and policy—at both the domestic and international levels⁷—geographical perspectives and spatial analysis have thus far not attracted much attention from policymakers and commentators. Only recently have we seen greater linkage between these two undeniably connected fields.⁸ Even with such linkage, the discussion tends to focus narrowly on specific issues, such as the parallel importation of pharmaceuticals,⁹ the protection of geographical indications,¹⁰ and the treatment of traditional knowledge and traditional cultural expressions.¹¹

Taking note of the limited interactions between intellectual property and geography, this Article critically examines issues lying at the intersection of these two interconnected fields. Part II recounts how the post-war decline of academic geography in the United States helps explain the limited role of geographical insights and spatial analysis in law and policy debates.¹² It further explores the revival of geographical studies just as intellectual property began to garner greater public attention in the 1980s and the 1990s.¹³ Part III notes that geography has had a longstanding and profound impact on the development of intellectual property law and policy. For illustrative purposes, it discusses the principle of territoriality,¹⁴ the doctrine of exhaustion of rights,¹⁵ the

macroeconomics, trade, and other topics. See *The Opinion Pages: Paul Krugman*, N.Y. TIMES, <https://www.nytimes.com/column/paul-krugman> (last visited Nov. 23, 2017) (listing Professor Krugman's opinion pieces) (on file with the Washington and Lee Law Review).

7. See *infra* Part III (discussing the longstanding impact of geography on the development of intellectual property law and policy).

8. See *infra* notes 61–69 and accompanying text (discussing the growing linkage between the fields of geography and intellectual property).

9. *Infra* Part III.B.

10. *Infra* Part III.C.

11. *Infra* Part IV.B.

12. *Infra* notes 23–36 and accompanying text.

13. *Infra* notes 37–69 and accompanying text.

14. *Infra* Part III.A.

15. *Infra* Part III.B.

protection of geographical indications,¹⁶ and the establishment of regional intellectual property norms.¹⁷

Part IV laments the inadequate use of geographical insights and spatial analysis in the development of intellectual property law and policy.¹⁸ It calls for a more geographically informed analytical approach, which is especially well suited to addressing the increasing complexities in intellectual property law and policy. Part V outlines two approaches that can help improve the use of geography in developing law and policy in this area.¹⁹ Focusing on the dual notion of “spatializing law” and “legalizing space,” this Part underscores the interconnectedness between law and geography and brings readers full circle to the beginning of the Article.

II. Law and Geography

Geography is an important subject that predates law, political science, and many other humanities subjects that are now widely studied in the United States.²⁰ As Hari Osofsky described, “[g]eography has ancient historical origins that trace to Greece, Rome, North Africa, and Southwest Asia. The growth of geographical thought in fifteenth and sixteenth century Europe, which built on those traditions, was deeply intertwined with the colonial project.”²¹ Utilizing maps, coordinates, scales, contour lines, geological data, and aerial photographs, the study of geography enables us to develop a better understanding of our natural, political, social, and cultural environments.²²

16. *Infra* Part III.C.

17. *Infra* Part III.D.

18. *Infra* Part IV.

19. *Infra* Part V.

20. See Osofsky, *supra* note 4, at 428 (“Geography had more of a presence in the early years of elite U.S. educational institutions than did law.”).

21. *Id.*

22. See HARM DE BLIJ, WHY GEOGRAPHY MATTERS: THREE CHALLENGES FACING AMERICA: CLIMATE CHANGE, THE RISE OF CHINA, AND GLOBAL TERRORISM 6 (2005) (“Geographers do research on glaciations and coastlines, on desert dunes and limestone caves, on weather and climate, even on plants and animals. We also study human activities, from city planning to boundary making, from wine growing to churchgoing.”).

Yet, as longstanding and beneficial as it is, academic geography began to decline after the Second World War. In 1946, Harvard University closed its Geography Department, with the university president declaring that “geography is not a university subject.”²³ Other leading universities, such as the University of Pennsylvania, Stanford University, and Yale University, soon followed suit.²⁴ While “[g]eography experienced a net loss of thirty-two departments from 1970 to 1976, . . . in the mid-1980s, Columbia, Northwestern, and the University of Chicago all closed their departments.”²⁵ Thus, in the late twentieth century, one often has to go to public universities to study geography.²⁶ Even worse, “an American student [today] might go from kindergarten through graduate school without ever taking a single course in geography—let alone a fairly complete program.”²⁷

Given the reduced opportunities to study geography, it is understandable why Americans have been frequently, and often harshly, criticized for their lack of basic geographical literacy.²⁸ As Harm de Blij lamented, “[a]t one Midwestern college, only 5 percent of the students could identify Vietnam on a world map. At another college, only 42 percent correctly named Mexico as our

23. See Osofsky, *supra* note 4, at 430 (“In 1948, geography suffered what has been characterized as a ‘terrible blow’ . . . from which ‘it has never completely recovered.’ Not only did Harvard eliminate its geography department, but its President, James Conant, issued a directive stating that ‘geography is not a university subject.’”). For discussions of Harvard’s closure of its geography department and the post-war decline of academic geography in the United States, see generally *id.* at 427–34; Andrew F. Burghardt, *On “Academic War Over the Field of Geography,” The Elimination of Geography at Harvard, 1947–1951*, 78 ANNALS ASS’N AM. GEOGRAPHERS 144 (1988); Saul B. Cohen, *Reflections on the Elimination of Geography at Harvard, 1947–51*, 78 ANNALS ASS’N AM. GEOGRAPHERS 148 (1988); Neil Smith, “Academic War Over the Field of Geography”: *The Elimination of Geography at Harvard, 1947–1951*, 77 ANNALS ASS’N AM. GEOGRAPHERS 155 (1987).

24. See Osofsky, *supra* note 4, at 430 (noting that “the University of Pennsylvania, Stanford, and Yale all closed their departments in the mid-1960s”).

25. *Id.*

26. See *id.* at 426 (stating that “66% of public doctoral/research universities grant undergraduate geography degrees, while only 19% of private doctoral/research universities grant them”).

27. DE BLIJ, *supra* note 22, at 13.

28. See *id.* at 16 (noting “an evident and worsening national geographic illiteracy” in the United States).

southern neighbor.”²⁹ In his bestselling book, *Why Geography Matters*, Professor de Blij included a story in which President Ronald Reagan expressed pleasure to be in Bolivia when he was actually speaking in Brazil.³⁰ That book also recalled the embarrassing moment when the staff of Secretary of State Henry Kissinger confused Mauritius with Mauritania.³¹ As if these tidbits and factoids were not enough, a hilarious, and simultaneously sad, viral clip emerged a decade ago showing a Miss South Carolina Teen struggling to explain why many Americans could not even locate their home country on a world map.³² Shortly after the Boston Marathon bombings, the Czech ambassador to the United States also took pain to issue a statement reminding social media users that the two suspects “actually traced their roots to Chechnya, not the Czech Republic.”³³

In an article providing a “law and geography” perspective on the New Haven School of International Law,³⁴ Professor Osofsky carefully traced the decline of academic geography in the United States.³⁵ She further explained why such a decline had led to the limited utilization of geographical insights and spatial analysis in law school.³⁶ Although her article focused on law school in general

29. *Id.* at 17.

30. *Id.*

31. *Id.* at 13 (quoting HENRY KISSINGER, *YEARS OF RENEWAL* 72 (1999)).

32. See Karen Thomas, *That Wasn't Miss South Carolina's Final Answer*, USA TODAY (Aug. 28, 2007, 9:30 PM), http://usatoday30.usatoday.com/life/people/2007-08-28-miss-south-carolina_n.htm (last updated Aug. 28, 2007, 11:44 PM) (last visited Nov. 23, 2017) (reporting about the viral clip) (on file with the Washington and Lee Law Review).

33. Charlie Campbell, *Czech Republic Forced to Remind the Internet That Chechnya Is in Different Country After Boston Bombing*, TIME (Apr. 23, 2013), <http://newsfeed.time.com/2013/04/23/czech-republic-forced-to-remind-the-internet-that-chechnya-is-a-different-country-after-boston-bombing/> (last visited Nov. 23, 2017) (on file with the Washington and Lee Law Review); see also Press Release, Embassy of the Czech Republic in Washington, D.C., Statement of the Ambassador of the Czech Republic on the Boston Terrorist Attack (Apr. 19, 2013) (providing the ambassador's statement).

34. Osofsky, *supra* note 4, at 427–34.

35. See *id.* (discussing the decline of academic geography in the United States); see also THE ORIGINS OF ACADEMIC GEOGRAPHY IN THE UNITED STATES (Brian W. Blouet & Teresa L. Stitcher eds., 1981) (providing an early history of academic geography in the United States).

36. See Osofsky, *supra* note 4, at 426 (noting the striking “lack of overlap between universities with geography departments and those with law schools

and international law in particular, her observations are likely to be applicable to intellectual property law as well. After all, intellectual property is a rather young subject in law school and did not begin to attract greater scholarly attention until the 1980s. As I noted in an earlier article,

Intellectual property law was in the backwater only a few decades ago. The Section on Intellectual Property Law of the Association of American Law Schools . . . was not even founded until the early 1980s, and the creation of intellectual property specialty programs has been a recent phenomenon. As senior legal scholars reminisced, early in their career, they would have been lucky to find a school that would allow them to teach a class on intellectual property law. Even if they were able to do so, that “niche” class might very well have been the only one, and the rest of their teaching duties would have been devoted to other subject areas, such as property, contracts, or commercial law.³⁷

To make things more challenging, intellectual property law is highly specialized and often practice oriented.³⁸ As a result, it does not lend itself immediately to interdisciplinary and multidisciplinary research. Although historical and economic analyses of intellectual property law and policy have been published from time to time, efforts to link intellectual property to other disciplines are mostly a recent phenomenon.³⁹

that are top producers of new law teachers”); *id.* (noting that the siege of geography as an academic discipline in U.S. universities in the mid-twentieth century “has limited the educational exposure of current law professors to geography”).

37. Peter K. Yu, *Teaching International Intellectual Property Law*, 52 ST. LOUIS U. L.J. 923, 924 (2008).

38. *See id.* at 942 (describing the intellectual property law curriculum as “specialized, and at times technical”).

39. *See id.* at 940 (noting that “the ‘law and . . .’ movement has finally spread to international intellectual property law, and the subject has become increasingly multidisciplinary”); *see also* Peter K. Yu, *Intellectual Property Training and Education for Development*, 28 AM. U. INT’L L. REV. 311, 328 (2012)

[B]ecause of the ever-expanding scope of intellectual property rights and the ability for these rights to spill over into other areas of international regulation, intellectual property training and educational programs should feature inter- and multi-disciplinary perspectives. Many of the existing programs focus primarily on the legal aspects of intellectual property. However, it is increasingly important to consider other aspects of intellectual property, such as

Interestingly, and coincidentally, the study of geography revived just as intellectual property began to garner greater public attention in the 1980s and the 1990s.⁴⁰ In the past two decades, there have been many promising developments in the geographical field. For example, Jared Diamond's Pulitzer Prize-winning book, *Guns, Germs, and Steel*,⁴¹ received considerable attention among the popular audience. Focusing on "why . . . history unfold[ed] differently on different continents,"⁴² this best-selling book discussed how environmental conditions had affected global developments more than what many believe.⁴³ Specifically, it explores how "[h]istory followed different courses for different peoples because of differences among peoples' environments, not because of biological differences among peoples themselves."⁴⁴

More than a decade later, Professor Diamond provided a follow-up to his earlier work by releasing *Collapse*.⁴⁵ This book recounted the success and failure of societal responses to dramatic environmental changes, such as natural calamities, population explosion, and rapid globalization.⁴⁶ Drawing on observations from both historic and modern societies, the book offered practical lessons on how societies could better respond to future environmental challenges.⁴⁷

More recently, Robert Kaplan's *The Revenge of Geography*,⁴⁸ another *New York Times* bestseller, used maps, terrains, and other geopolitical insights to shed light on ongoing and future global conflicts.⁴⁹ As this book noted in its opening, "[a] good place to

political, economic, social, and cultural.

(footnote omitted).

40. Cf. Osofsky, *supra* note 4, at 432 ("In the mid 1980s, interactions between law and geography became more frequent. As geographers inquired into how and why geographical context matters, legal scholars explored the implications of 'law and economics, critical legal studies, feminist legal theory, law and literature, and critical race theory' during this period." (footnote omitted)).

41. See generally DIAMOND, *GUNS, GERMS, AND STEEL*, *supra* note 5.

42. *Id.* at 9.

43. *Id.* at 33–401.

44. *Id.* at 25.

45. See generally DIAMOND, *COLLAPSE*, *supra* note 5.

46. *Id.* at 27–416.

47. *Id.* at 419–525.

48. See generally KAPLAN, *supra* note 5.

49. *Id.* at 3–346.

understand the present, and to ask questions about the future, is on the ground, traveling as slowly as possible.”⁵⁰ In the author’s view, “[g]eography is the backdrop to human history itself. In spite of cartographic distortions, it can be as revealing about a government’s long-range intentions as its secret councils. A state’s position on the map is the first thing that defines it, more than its governing philosophy even.”⁵¹

Apart from Diamond and Kaplan, Nobel Laureate Paul Krugman has pioneered research on what he coined “new economic geography,” a subfield in geography that brings together geography and international trade.⁵² As he explained,

The goal of the new economic geography . . . is to devise a modeling approach—a story-telling machine—that lets one discuss things like the economics of New York in the context of the whole economy: that is, in general equilibrium. It should allow us to talk simultaneously about the centripetal forces that pull economic activity together, and the centrifugal forces that push it apart—indeed, it should let us tell stories about how the geographical structure of an economy is shaped by the tension between these forces. And it should explain these forces in terms of more fundamental, micro decisions.⁵³

Within the legal field, Nicholas Blomley, David Delaney, Richard Ford, and their colleagues—on both sides of the Atlantic and beyond—have worked tirelessly for more than a decade to develop the subfield of critical legal geography.⁵⁴ As Professor Blomley observed, “critical legal scholars . . . argu[e] that law is, first and foremost, socially constituted and politically charged, so critical geographers have argued for space as fundamentally

50. *Id.* at xiii.

51. *Id.* at 28.

52. *See generally* Krugman, *supra* note 6 (discussing the goals, focus, and limitations of the sub-field of “new economic geography”).

53. *Id.* at 50–51.

54. *See generally* NICHOLAS K. BLOMLEY, *LAW, SPACE, AND THE GEOGRAPHIES OF POWER* (1994); DAVID DELANEY, *RACE, PLACE, AND THE LAW, 1836–1948* (1998); DAVID DELANEY, *THE SPATIAL, THE LEGAL AND THE PRAGMATICS OF WORLD-MAKING: NOMOSPHERIC INVESTIGATIONS* (2010); *THE EXPANDING SPACES OF LAW: A TIMELY LEGAL GEOGRAPHY* (Irus Braverman et al. eds., 2014) [hereinafter *EXPANDING SPACES OF LAW*]; *THE LEGAL GEOGRAPHIES READER: LAW, POWER, AND SPACE* (Nicholas Blomley et al. eds., 2001) [hereinafter *LEGAL GEOGRAPHIES READER*].

social.”⁵⁵ Even if one does not take a critical stand, bringing together law and geography makes a lot of sense, especially for those embracing the “law and society”⁵⁶ or “law in context” approach.⁵⁷ As Jane Holder and Carolyn Harrison declared in their introduction to *Law and Geography*,

Context is everything. The conviction that law can properly be understood only by reference to its place in, and relationship to, social, economic, political, and ecological systems underpins contemporary critical and socio-legal scholarship. As such it conjures up a powerful challenge to approaches to law which idealize law’s separateness, rationality, and reflexivity, and which portray law as deaf to material, physical, spatial, and cultural influences. [Law and geography] reflects a contextual approach, but prioritizes the geographical—territory, region, locality, and place—over other “contexts” for good reasons, the very least of which is the paucity of research conducted self-consciously under the “Law and Geography” banner.⁵⁸

In the past two decades, one can find additional scholarly literature, usually critical scholarship, exploring issues at the intersection of law and geography.⁵⁹ As Irus Braverman, Nicholas

55. BLOMLEY, *supra* note 54, at 42.

56. Notably, the Law and Society Association includes a Collaborative Research Network on Legal Geography, organized by Professors David Delaney and Alexandre Kedar. See *generally Collaborative Research Networks*, LAW & SOC’Y ASS’N, <http://www.lawandsociety.org/crn.html> (last visited Nov. 23, 2017) (on file with the Washington and Lee Law Review).

57. See Jane Holder & Carolyn Harrison, *Connecting Law and Geography*, in LAW AND GEOGRAPHY 3, 3 (Jane Holder & Carolyn Harrison eds., 2003) (discussing the contextual approach used in law and geography); Graeme B. Dinwoodie, *Trademarks and Territory: Detaching Trademark Law from the Nation-State*, 41 HOUS. L. REV. 885, 892 (2004) (“Law is contextual, and geography is an important part of context.”).

58. Holder & Carolyn Harrison, *supra* note 57.

59. See *generally* LAUREN BENTON, A SEARCH FOR SOVEREIGNTY: LAW AND GEOGRAPHY IN EUROPEAN EMPIRES, 1400–1900 (2010) (examining the Europeans’ historical efforts in projecting sovereignty into distant territories and the spatial variations and jurisdictional complexities under their imperial rule); THE GEOGRAPHY OF LAW: LANDSCAPE, IDENTITY AND REGULATION (William Taylor ed., 2006) (collecting articles discussing the law’s relationship with notions of space, representations of landscapes, and concerns for individual identity and autonomy); LAW AND GEOGRAPHY, *supra* note 57 (collecting articles exploring the relationship between law and geography); SPATIALIZING LAW: AN ANTHROPOLOGICAL GEOGRAPHY OF LAW IN SOCIETY (Franz von Benda-Beckmann et al. eds., 2009) [hereinafter SPATIALIZING LAW] (collecting articles studying how law constructs spaces in different socio-political, legal, and ecological settings).

Blomley, David Delaney, and Alexandre Kedar noted in the introduction to their latest book, *The Expanding Spaces of Law*,

Legal geography is a stream of scholarship that makes the interconnections between law and spatiality, and especially their reciprocal construction, into core objects of inquiry. Legal geographers contend that in the world of lived social relations and experience, aspects of the social that are analytically identified as either legal or spatial are conjoined and co-constituted. Legal geographers note that nearly every aspect of law is located, takes places, is in motion, or has some spatial frame of reference. In other words, law is always “worlded” in some way. Likewise, social spaces, lived places, and landscapes are inscribed with legal significance. Distinctively legal forms of meaning are projected onto every segment of the physical world. These meanings are open to interpretation and may become caught up in a range of legal practices. Such fragments of a socially segmented world—the *where* of law—are not simply the insert sites of law but are inextricably implicated in *how* law happens.⁶⁰

Even in the much narrower field of intellectual property, discussions on the intersection of this specialized area of law and geography have slowly emerged. For instance, in September 2010, the International Society for the History and Theory of Intellectual Property, known affectionately by its acronym “ISHTIP,” entitled its second workshop “Geographies of Intellectual Property.”⁶¹ In March 2013, the Annual Meeting of the Association for the Study of Law, Culture and the Humanities included a panel on “Intellectual Property and Geography,”⁶² which I organized. A year later, the *WIPO Journal* devoted the special issue in its sixth volume to intellectual property and geography.⁶³ In September 2017, the 12th Annual Meeting of the European Policy for

60. Irus Braverman et al., *Introduction to EXPANDING SPACES OF LAW*, *supra* note 54, at 1.

61. See generally *2010 Events*, AM. U. WASH. C. L., <https://www.wcl.american.edu/impact/initiatives-programs/pijip/events/2010-events> (last visited Nov. 23, 2017) (on file with the Washington and Lee Law Review).

62. ASS'N FOR THE STUDY OF LAW, CULTURE & THE HUMANITIES, *SCULPTING THE HUMAN: LAW, CULTURE AND BIOPOLITICS: CONFERENCE PROGRAMME 91–93* (2013), <https://static1.squarespace.com/static/520cce1ae4b08c3424a3ec6e/t/5757389a8a65e29530505644/1465333919483/2013+Program.pdf>.

63. See generally Peter K. Yu, *Intellectual Property Geographies*, 6 *WIPO J.* 1 (2014).

Intellectual Property Association at the University of Bordeaux in France focused on the theme of “Claims on Area: The Geography–IP Interface.”⁶⁴

Vigilant observers may even notice that works linking the two interconnected fields already slowly emerged in intellectual property literature about two decades ago. Notable pioneering works include those written by the late Keith Aoki⁶⁵ and Rosemary Coombe,⁶⁶ both of whom participated in the historic *Stanford Law Review* symposium on “Surveying Law and Borders” in February 1996.⁶⁷ Also included in this symposium were articles exploring the interactions between physical and cyber spaces by David Johnson and David Post and by Lawrence Lessig.⁶⁸ In addition, since the mid-1990s a growing volume of geographically related works has surfaced in the fields of cyberlaw and intellectual property law.⁶⁹

Taken together, all of these scholarly endeavors in the field of geography and in the crossover fields of law and geography and, later, intellectual property and geography have suggested that the

64. *Claims on Area: The Geography-IP Interface*, EPIP 2017 CONF., <http://epip2017.org> (last visited Nov. 23, 2017) (on file with the Washington and Lee Law Review).

65. See generally Keith Aoki, *(Intellectual) Property and Sovereignty: Notes Toward a Cultural Geography of Authorship*, 48 STAN. L. REV. 1293 (1996) (criticizing the current maps of intellectual property law and policy and highlighting the changing geographies of the information age); Margaret Chon, *Notes on a Geography of Global Intellectual Property*, 6 WIPO J. 16 (2014) (discussing Professor Aoki’s contributions to intellectual property and geography).

66. See Rosemary J. Coombe, *Authorial Cartographies: Mapping Proprietary Borders in a Less-than-Brave New World*, 48 STAN. L. REV. 1357, 1358 (1996) (commenting on Professor Aoki’s article).

67. See Symposium, *Surveying Law and Borders*, 48 STAN. L. REV. 1037, 1040 (1996) (collecting articles discussing the geographic nature of legal development).

68. See David R. Johnson & David Post, *Law and Borders—The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367, 1367 (1996) (arguing that the new boundaries of Cyberspace will lead to the creation of new laws and legal institutions); see also Lawrence Lessig, *The Zones of Cyberspace*, 48 STAN. L. REV. 1403, 1403 (1996) (commenting on Professors Johnson and Post’s article).

69. See generally WILLIAM J. MITCHELL, *CITY OF BITS: SPACE, PLACE, AND THE INFOBAHN* (1995); Anupam Chander, *Law and the Geography of Cyberspace*, 6 WIPO J. 99 (2014); Julie E. Cohen, *Cyberspace as/and Space*, 107 COLUM. L. REV. 210 (2007); Michael J. Madison, *Notes on a Geography of Knowledge*, 77 FORDHAM L. REV. 2039 (2009); Pamela Samuelson, *Mapping the Digital Public Domain: Threats and Opportunities*, 66 LAW & CONTEMP. PROBS. 147 (2003).

timing is ripe to inject geographical insights and spatial analysis into intellectual property law and policy. Not only will such injection introduce fresh perspectives and methodologies, but it will also raise important conceptual and theoretical questions, such as those concerning the principle of territoriality, the doctrine of international exhaustion, and the notion of geographical indications. The greater use of spatial analysis will also allow us to call into question the many geographical assumptions that have been consciously and subconsciously built into intellectual property law and policy.

III. A Longstanding Link

Geography has a longstanding and profound impact on the development of intellectual property law and policy, which can be traced back more than two centuries. In the United States, the Intellectual Property Clause of the U.S. Constitution⁷⁰ and the first set of laws⁷¹ that Congress enacted based on the power enumerated by that clause were all adopted at a time when the country was slowly expanding beyond the then newly independent colonies. It is no coincidence that the Copyright Act of 1790, the first federal U.S. copyright statute, focused its protection on maps in addition to charts and books.⁷² Indeed, publishers and printers at that time did not need federal copyright protection until new transportation methods and communication technologies had enabled markets to expand geographically beyond their home states.⁷³

70. See U.S. CONST. art. I, § 8, cl. 8 (“The Congress shall have Power . . . to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”).

71. See Act of April 10, 1790, ch. 7, 1 Stat. 109 (providing the first federal patent law); Act of May 31, 1790, ch. 15, 1 Stat. 124 (providing the first federal copyright law).

72. See Act of May 31, 1790, ch. 15, 1 Stat. 124, (granting protection to “maps, charts, and books”).

73. See THE FEDERALIST NO. 43, at 271–72 (James Madison) (Clinton Rossiter ed., 1961) (“The States cannot separately make effectual provision for either of the cases, and most of them have anticipated the decision of this point, by laws passed at the instance of Congress.”); see also Barbara Ringer, *Two Hundred Years of American Copyright Law*, in AM. BAR ASS’N, 200 YEARS OF ENGLISH AND AMERICAN PATENT, TRADEMARK & COPYRIGHT LAW 117, 124 (1977)

At the international level, the need to establish new and distant markets also accelerated the development of intellectual property law and policy. As Paul Geller recounted, “[i]n the nineteenth century, the industrial revolution increased the production of hard goods. Better transport, starting with the railway and steam ships, enabled these goods to be distributed across longer distances.”⁷⁴ Yet, when these goods were reproduced without authorization—in the right holders’ home states or in foreign states—the pirated products threatened to undercut their returns on investments.⁷⁵ These products would make it difficult for right holders to continue their original production cycles.⁷⁶ As Stephen Ladas noted in relation to inventions, “no country [at that time] could expect to satisfy the claims and protect the interests of its own people in the sphere of industrial property without securing protection on an international level.”⁷⁷

Thus, when the two early international intellectual property agreements—the Paris Convention for the Protection of Industrial Property⁷⁸ (Paris Convention) and the Berne Convention for the Protection of Literary and Artistic Works⁷⁹ (Berne Convention)—were established, they were heavily influenced by contemporary geopolitics. The rights granted were accordingly territorial in nature and scope.⁸⁰ Because the negotiations surrounding the

(noting “the fundamental difficulties of intercolonial transportation and communication”).

74. Paul Edward Geller, *Copyright History and the Future: What’s Culture Got to Do with It?*, 47 J. COPYRIGHT SOC’Y U.S.A. 209, 229 (2000).

75. *See id.* (noting that the “power of new media increased [the] risks of piracy”).

76. *See id.* (“Culture industries . . . had to secure returns on their investments to continue production cycles.”).

77. STEPHEN P. LADAS, PATENTS, TRADEMARKS, AND RELATED RIGHTS: NATIONAL AND INTERNATIONAL PROTECTION 12 (1975).

78. Paris Convention for the Protection of Industrial Property, Mar. 20, 1883, 21 U.S.T. 1583, 828 U.N.T.S. 305 (revised at Stockholm July 14, 1967) [hereinafter Paris Convention].

79. Berne Convention for the Protection of Literary and Artistic Works, Sept. 9, 1886, 828 U.N.T.S. 221 (revised at Paris July 24, 1971) [hereinafter Berne Convention].

80. *See id.* art. 5(3) (“Protection in the country of origin is governed by domestic law.”); Paris Convention, *supra* note 78, art. 4*bis*(1) (“Patents applied for . . . by nationals of countries of the Union shall be independent of patents obtained for the same invention in other countries . . .”).

Paris and Berne Conventions involved mostly European colonial powers with very limited participation from other parts of the world⁸¹—most of which were still under colonial rule—these two foundational conventions focused primarily on issues that were important to European powers.⁸² In retrospect, this narrow focus explains why many important questions about the protection of genetic resources, traditional knowledge, and traditional cultural expressions have not been actively explored until about two decades ago.⁸³

Today, geography continues to play a very important role in intellectual property law and policy. Among the current issues that can benefit from geographical insights and spatial analysis are the protection of geographical indications,⁸⁴ traditional knowledge,

81. The twelve countries that participated in the final conference on September 6, 1886, approving the Berne Convention were Belgium, France, Germany, Haiti, Italy, Japan, Liberia, Spain, Switzerland, Tunisia, the United Kingdom, and the United States, with Japan and the United States participating as only observers. Sam Ricketson, *The Birth of the Berne Union*, 11 COLUM.-VLA J.L. & ARTS 9, 29 (1986). The eleven countries that participated in the conference on March 20, 1883 approving the Convention were Belgium, Brazil, France, Guatemala, Italy, the Netherlands, Portugal, Salvador, Serbia, Spain, and Switzerland. LADAS, *supra* note 77, at 67.

82. The original Berne Convention, for example, provided merely minimum protection for translation and public performance rights. *See* Sam Ricketson & Jane C. Ginsburg, INTERNATIONAL COPYRIGHT AND NEIGHBOURING RIGHTS: THE BERNE CONVENTION AND BEYOND 76–81 (2d ed. 2005) (discussing the original draft of the Berne Convention); *see also* Peter K. Yu, *Currents and Crosscurrents in the International Intellectual Property Regime*, 38 LOY. L.A. L. REV. 323, 339 (2004) (discussing the original Berne Convention).

83. *See infra* notes 251–252 and accompanying text (discussing the recent effort of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore of the World Intellectual Property Organization); *see generally* PROTECTING TRADITIONAL KNOWLEDGE: THE WIPO INTERGOVERNMENTAL COMMITTEE ON INTELLECTUAL PROPERTY AND GENETIC RESOURCES, TRADITIONAL KNOWLEDGE AND FOLKLORE (Daniel F. Robinson et al. eds., 2017) (providing a detailed analysis of the Intergovernmental Committee's effort).

84. For book-length discussions of geographical indications, *see generally* TESHAGER W. DAGNE, INTELLECTUAL PROPERTY AND TRADITIONAL KNOWLEDGE IN THE GLOBAL ECONOMY: TRANSLATING GEOGRAPHICAL INDICATIONS FOR DEVELOPMENT (2014); DEV GANGJEE, RELOCATING THE LAW OF GEOGRAPHICAL INDICATIONS (2015); GEOGRAPHICAL INDICATIONS AT THE CROSSROADS OF TRADE, DEVELOPMENT, AND CULTURE: FOCUS ON ASIA-PACIFIC (Irene Calboli & Ng-Loy Wee Loon eds., 2017) [hereinafter GEOGRAPHICAL INDICATIONS AT THE CROSSROADS]; THE PROTECTION OF GEOGRAPHICAL INDICATIONS: LAW AND PRACTICE (Michael Blakeney ed., 2014); RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY AND

and traditional cultural expressions;⁸⁵ the discussions on intellectual property and climate change;⁸⁶ the development of high-technology innovation clusters;⁸⁷ the negotiation of regional

GEOGRAPHICAL INDICATIONS (Dev S. Gangjee ed., 2016) [hereinafter RESEARCH HANDBOOK ON GEOGRAPHICAL INDICATIONS]; THE IMPORTANCE OF PLACE: GEOGRAPHICAL INDICATIONS AS A TOOL FOR LOCAL AND REGIONAL DEVELOPMENT (William van Caenegem & Jen Cleary eds., 2017) [hereinafter IMPORTANCE OF PLACE].

85. For book-length treatments on traditional knowledge and traditional cultural expressions, see generally JANE E. ANDERSON, LAW, KNOWLEDGE, CULTURE: THE PRODUCTION OF INDIGENOUS KNOWLEDGE IN INTELLECTUAL PROPERTY LAW (2009); MICHAEL F. BROWN, WHO OWNS NATIVE CULTURE? (2003); JONATHAN CURCI, THE PROTECTION OF BIODIVERSITY AND TRADITIONAL KNOWLEDGE IN INTERNATIONAL LAW OF INTELLECTUAL PROPERTY (2010); PETER DRAHOS, INTELLECTUAL PROPERTY, INDIGENOUS PEOPLE AND THEIR KNOWLEDGE (2014); GRAHAM DUTFIELD, INTELLECTUAL PROPERTY, BIOGENETIC RESOURCES AND TRADITIONAL KNOWLEDGE (2004); GENETIC RESOURCES AND TRADITIONAL KNOWLEDGE: CASE STUDIES AND CONFLICTING INTERESTS (Tania Bubela and E. Richard Gold eds., 2013); INDIGENOUS INTELLECTUAL PROPERTY: A HANDBOOK OF CONTEMPORARY RESEARCH (Matthew Rimmer ed., 2015) [hereinafter INDIGENOUS INTELLECTUAL PROPERTY]; INDIGENOUS PEOPLES' INNOVATION: INTELLECTUAL PROPERTY PATHWAYS TO DEVELOPMENT (Peter Drahos & Susy Frankel eds., 2012); INTELLECTUAL PROPERTY AND TRADITIONAL CULTURAL EXPRESSIONS IN A DIGITAL ENVIRONMENT (Christoph Beat Graber & Mira Burri-Nenova eds., 2008); INTERNATIONAL TRADE IN INDIGENOUS AND CULTURAL HERITAGE: LEGAL AND POLICY ISSUES (Christophe B. Graber et al. eds., 2013); KECHI MGBEOJI, GLOBAL BIOPIRACY: PATENTS, PLANTS, AND INDIGENOUS KNOWLEDGE (2006); CHIDI OGUAMANAM, INTERNATIONAL LAW AND INDIGENOUS KNOWLEDGE: INTELLECTUAL PROPERTY, PLANT BIODIVERSITY, AND TRADITIONAL MEDICINE (2006); TRADITIONAL KNOWLEDGE, TRADITIONAL CULTURAL EXPRESSIONS AND INTELLECTUAL PROPERTY LAW IN THE ASIA-PACIFIC REGION (Christoph Antons eds., 2009); DAPHNE ZOGRAFOS, INTELLECTUAL PROPERTY AND TRADITIONAL CULTURAL EXPRESSIONS (2010). For the Author's earlier discussion in the area, see generally Peter K. Yu, *Cultural Relics, Intellectual Property, and Intangible Heritage*, 81 TEMP. L. REV. 433 (2008) [hereinafter Yu, *Cultural Relics*]; Peter K. Yu, *Traditional Knowledge, Intellectual Property, and Indigenous Culture: An Introduction*, 11 CARDOZO J. INT'L & COMP. L. 239 (2003) [hereinafter Yu, *Traditional Knowledge*].

86. For book-length treatments on intellectual property and climate change, see generally ENVIRONMENTAL TECHNOLOGIES, INTELLECTUAL PROPERTY AND CLIMATE CHANGE: ACCESSING, OBTAINING AND PROTECTING (Abbe E.L. Brown ed., 2013); RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY AND CLIMATE CHANGE (Joshua D. Sarnoff ed., 2016); MATTHEW RIMMER, INTELLECTUAL PROPERTY AND CLIMATE CHANGE: INVENTING CLEAN TECHNOLOGIES (2011); ZHUANG WEI, INTELLECTUAL PROPERTY RIGHTS AND CLIMATE CHANGE: INTERPRETING THE TRIPS AGREEMENT FOR ENVIRONMENTALLY SOUND TECHNOLOGIES (2017).

87. See generally Kyle Bergquist et al., *Identifying and Ranking the World's Largest Clusters of Inventive Activity*, in THE GLOBAL INNOVATION INDEX 2017: INNOVATION FEEDING THE WORLD 161 (Soumitra Dutta et al. eds., 2017) (ranking the world's largest innovation clusters); HANDBOOK OF RESEARCH ON INNOVATION

and plurilateral trade agreements;⁸⁸ the challenges posed by cloud-based platforms and transnational distribution;⁸⁹ the use of

AND CLUSTERS: CASES AND POLICIES (Charlie Karlsson ed., 2008) (collecting articles on innovation clusters); ANNALEE SAXENIAN, REGIONAL ADVANTAGE: CULTURE AND COMPETITION IN SILICON VALLEY AND ROUTE 128 (1994) (providing a comparative study on the innovation clusters in Silicon Valley and on Route 128); Camilla A. Hrdy, *Cluster Competition*, 20 LEWIS & CLARK L. REV. 981 (2016) (discussing regional cluster competition in relation to national innovation policy).

88. See generally REGIONAL TRADE AGREEMENTS AND THE WTO LEGAL SYSTEM (Lorand Bartels & Federico Ortino eds., 2006) (collecting articles discussing regional trade agreements in relation to the World Trade Organization). For the Author's discussions of the Trans-Pacific Partnership Agreement, see generally Peter K. Yu, *The Alphabet Soup of Transborder Intellectual Property Enforcement*, 60 DRAKE L. REV. DISCOURSE 16, 24–28 (2012) [hereinafter Yu, *Alphabet Soup*]; Peter K. Yu, *Investor-State Dispute Settlement and the Trans-Pacific Partnership*, in INTELLECTUAL PROPERTY AND THE JUDICIARY (Christophe Geiger ed., forthcoming 2018); Peter K. Yu, *Thinking About the Trans-Pacific Partnership (and a Mega-regional Agreement on Life Support)*, 21 SMU SCI. & TECH. L. REV. (forthcoming 2018) [hereinafter Yu, *Thinking About TPP*]; Peter K. Yu, *TPP and Trans-Pacific Perplexities*, 37 FORDHAM INT'L L.J. 1129 (2014) [hereinafter Yu, *TPP and Trans-Pacific Perplexities*]; Peter K. Yu, *TPP, RCEP and the Crossvergence of Asian Intellectual Property Standards*, in GOVERNING SCIENCE AND TECHNOLOGY IN THE MEGA-REGIONALS: REGULATORY DIVERGENCE AND CONVERGENCE (Peng Shin-yi et al. eds., forthcoming 2018) [hereinafter Yu, *TPP, RCEP and Crossvergence*]; Peter K. Yu, *TPP, RCEP and the Future of Copyright Normsetting in the Asia-Pacific*, in MAKING COPYRIGHT WORK FOR THE ASIAN PACIFIC? JUXTAPOSING HARMONISATION WITH FLEXIBILITY (Susan Corbett & Jessica Lai eds., forthcoming 2018) [hereinafter Yu, *TPP, RCEP and Copyright Normsetting*].

89. For discussions of the legal challenges posed by cloud technology, see generally CLOUD COMPUTING LAW (Christopher Millard ed., 2013); PRIVACY AND LEGAL ISSUES IN CLOUD COMPUTING (Anne S.Y. Cheung & Rolf H. Weber eds., 2015).

geolocation and geocircumvention tools,⁹⁰ and the mining of data involved in Global Positioning System (GPS) navigation.⁹¹

Apart from these current issues, geographical insights and spatial analysis can be instrumental in analyzing past issues that have now been resolved. A case in point is the past failure to treat foreign knowledge or art as prior art in U.S. patent law.⁹² Such a geographical limitation was particularly problematic from the standpoint of protecting traditional knowledge and traditional cultural expressions.⁹³ Fortunately, this limitation has since been

90. For discussions of geolocation and geocircumvention tools, see generally Kevin F. King, *Geolocation and Federalism on the Internet: Cutting Internet Gambling's Gordian Knot*, 11 COLUM. SCI. & TECH. L. REV. 41 (2010); Kevin F. King, *Personal Jurisdiction, Internet Commerce, and Privacy: The Pervasive Legal Consequences of Modern Geolocation Technologies*, 21 ALB. L.J. SCI. & TECH. 61 (2011); Dan Jerker B. Svantesson, *Geo-Location Technologies and Other Means of Placing Borders on the "Borderless" Internet*, 23 J. MARSHALL J. COMPUTER & INFO. L. 101 (2004); Dan Jerker B. Svantesson, *How Does the Accuracy of Geo-Location Technologies Affect the Law*, 2 MASARYK U. J.L. & TECH. 11, 20 (2008); Marketa Trimble, *The Future of Cybertravel: Legal Implications of the Evasion of Geolocation*, 22 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 567 (2012); Jerusha Burnett, Note, *Geographically Restricted Streaming Content and Evasion of Geolocation: The Applicability of the Copyright Anticircumvention Rules*, 19 MICH. TELECOMM. TECH. L. REV. 461 (2013).

91. See generally Teresa Scassa & D.R. Fraser Taylor, *Intellectual Property Law and Geospatial Information: Some Challenges*, 6 WIPO J. 79 (2014) (examining the role of intellectual property law in shaping spatial data infrastructures).

92. For the exchange between Margo Bagley and Craig Nard on this issue, see generally Margo A. Bagley, *Patently Unconstitutional: The Geographical Limitation on Prior Art in a Small World*, 87 MINN. L. REV. 679 (2003) [hereinafter Bagley, *Patently Unconstitutional*]; Craig Allen Nard, *In Defense of Geographic Disparity*, 88 MINN. L. REV. 222 (2003); Margo A. Bagley, *Still Patently Unconstitutional: A Reply to Professor Nard*, 88 MINN. L. REV. 239 (2003).

93. See Bagley, *Patently Unconstitutional*, *supra* note 92, at 680 (“[The] geographical limitation [of Section 102 of the U.S. Patent Act] is particularly problematic with respect to public knowledge or use of inventions in developing countries.”); see also Gillian N. Rattray, *The Enola Bean Patent Controversy: Biopiracy, Novelty and Fish-and-Chips*, 2002 DUKE L. & TECH. REV. 8, at 2–4 (discussing the controversy surrounding the issuance of a patent and a plant variety protection certificate in the United States to the Enola variety of yellow beans that originated from Mexico). As Professor Bagley continued,

The geographical limitation is problematic from the . . . policy standpoint in three different scenarios. First, it allows third parties to patent information publicly known or used in a foreign country even though they were not aware of the earlier knowledge or use. Second, it facilitates violations of § 102(f) by making it easier for third parties to patent derived information from foreign sources that they did not

removed following the adoption of the Leahy-Smith America Invents Act,⁹⁴ the current patent statute.

The limited scope and length of this Article do not allow for a detailed examination of all of the issues identified earlier. This Part therefore focuses only on four areas of intellectual property law and policy that have a direct connection to geography: (1) the principle of territoriality; (2) the doctrine of exhaustion of rights; (3) the protection of geographical indications; and (4) the establishment of regional intellectual property norms.

A. *The Principle of Territoriality*

Territoriality is the bedrock principle of the intellectual property system, whether the protection concerns copyrights, patents, trademarks, or other forms of intellectual property rights.⁹⁵ This principle not only carefully identifies the prescriptive jurisdiction, but also helps set boundaries for protection within and outside the country.⁹⁶ Strongly supported by the principle of national sovereignty, the territoriality principle aims to address concerns about international comity.⁹⁷

themselves invent. Lastly, it allows inventors to make and use their inventions in foreign countries for a potentially unlimited period of time before filing for a U.S. application as long as the inventions are not otherwise patented or described in a printed publication.

Bagley, *Patently Unconstitutional*, *supra* note 92, at 728.

94. Pub. L. No. 112-29, 125 Stat. 284 (2011) (codified in scattered sections of 35 U.S.C.).

95. See Berne Convention, *supra* note 79, art. 5(3) (“Protection in the country of origin is governed by domestic law.”); Paris Convention, *supra* note 78, art. 4bis(1) (“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), 43 I.L.M. 509, 511 (2004) (noting “the territorial nature of the patent rights”).

96. See Marketa Trimble, *Advancing National Intellectual Property Policies in a Transnational Context*, 74 MD. L. REV. 203, 205 (2015) (noting the two types of issues concerning the cross-border aspects of intellectual property litigation—namely, “establishing the territorial scope of substantive [intellectual property] laws on the one hand and designing and applying conflict of laws rules in [intellectual property] cases on the other”).

97. See *EEOC v. Arabian Am. Oil Co.*, 499 U.S. 244, 248 (1991) (noting that the territoriality principle “serves to protect against unintended clashes between our laws and those of other nations which could result in international discord”).

A good illustration of the territoriality principle concerns the protection of trademarks. In the United States, the protection granted is based initially on use⁹⁸ and, later, also on an intent to use.⁹⁹ As a result of the historical focus on trademark use, a trademark can be used concurrently in different parts of the country.¹⁰⁰ Even after the trademark has been registered for nationwide protection under the Lanham Act, the federal trademark statute, the senior user can still continue to use the mark based on prior use.¹⁰¹ That senior user can also extend the use within the mark's "zone of natural expansion."¹⁰²

The oft-cited historic precedent illustrating the territoriality of trademark rights is *United Drug Co. v. Theodore Rectanus Co.*,¹⁰³ a dispute between a Massachusetts plaintiff and a Kentucky

See generally Dinwoodie, *supra* note 57, at 887–88 (discussing the principle of territoriality in the trademark context).

98. *See* 15 U.S.C. § 1051 (2012) ("The owner of a trademark used in commerce may request registration of its trademark on the principal register hereby established . . ."); *see also* *Sengoku Works Ltd. v. RMC Int'l, Ltd.*, 96 F.3d 1217, 1219 (9th Cir. 1996) ("It is axiomatic in trademark law that the standard test of ownership is priority of use.").

99. *See* Trademark Law Revision Act of 1988, Pub. L. No. 100-667, 102 Stat. 3935 (codified as amended at 15 U.S.C. §§ 1051–1129 (2012)) (amending the Lanham Act by allowing anyone "who has a bona fide intention . . . to use a trademark in commerce" to apply for registration).

100. *See* 15 U.S.C. § 1052 (2012):

[C]oncurrent registrations may be issued to such persons when they have become entitled to use such marks as a result of their concurrent lawful use in commerce . . . Concurrent registrations may also be issued by the Director when a court of competent jurisdiction has finally determined that more than one person is entitled to use the same or similar marks in commerce.

101. *See Sengoku Works*, 96 F.3d at 1219 ("To acquire ownership of a trademark it is not enough to have . . . registered it first; the party claiming ownership must have been the first to actually use the mark in the sale of goods or services.").

102. *See Hanover Star Milling Co. v. Metcalf*, 240 U.S. 403, 420 (1916) (refraining from passing judgment on "a case where the junior appropriation of a trademark is occupying territory that would probably be reached by the prior user in the natural expansion of his trade"); *see also Tally-Ho, Inc. v. Coast Cmty. Coll. Dist.*, 889 F.2d 1018, 1027–29 (11th Cir. 1989) (listing the criteria for determining the "zone of natural expansion"). *But see* *beef & brew, inc. v. BEEF & BREW, INC.*, 389 F. Supp. 179, 185 (D. Or. 1974) ("[T]he zone of expansion doctrine has a more than usually unclear place in the law of unfair competition. This is so because the doctrine is more than usually imprecise and yet very powerful.").

103. 248 U.S. 90 (1918).

defendant. The former started using the mark for its medical product in Haverhill, Massachusetts in 1877 but did not sell the product in Louisville until 1912, when the case was filed.¹⁰⁴ Meanwhile, the latter and its predecessor had been using the mark for another medical product in Louisville without the knowledge of the former's mark since 1883, about three decades before the case was filed.¹⁰⁵ As the Court declared, "petitioner, being the newcomer in that market, must enter it subject to whatever rights had previously been acquired there in good faith by the Rectanus Company and its predecessor."¹⁰⁶

While the early court decisions concerning the territoriality principle focused on concurrent or conflicting use at the domestic level, the arrival of products with well-known trademarks from abroad has raised important questions about conflicting use at the international level. One of the earliest cases in this area is *Person's Co. v. Christman*,¹⁰⁷ which is included in many trademark casebooks and has continued to be taught widely in U.S. law schools.¹⁰⁸ In that case, although Christman used in commerce the mark of a Japanese senior user, the court found for the American defendant, holding that his "adoption and use of the mark [without prior knowledge that the plaintiff intended to expand into the United States] were in good faith."¹⁰⁹ As the court explained,

Christman's adoption of the mark occurred at a time when appellant had not yet entered U.S. commerce; therefore, no prior user was in place to give Christman notice of appellant's potential U.S. rights. Christman's conduct in appropriating and using appellant's mark in a market where he believed the Japanese manufacturer did not compete can hardly be considered unscrupulous commercial conduct.¹¹⁰

Taken together, *United Drug* and *Person's* illustrate well the territoriality principle that governs the protection of trademarks—

104. *Id.* at 94–95.

105. *Id.*

106. *Id.* at 101.

107. 900 F.2d 1565 (Fed. Cir. 1990).

108. *See, e.g.*, GRAEME B. DINWOODIE & MARK D. JANIS, TRADEMARKS AND UNFAIR COMPETITION: LAW AND POLICY 424–28 (4th ed. 2012) (including the case in the section on "The Territorial Nature of U.S. Trademark Rights").

109. *Person's*, 900 F.2d at 1570.

110. *Id.*

and, by extension, other forms of intellectual property rights. The courts' discussions of this principle not only cover the boundaries of the protection granted to relevant right holders, but they also highlight the complications concerning the extraterritorial protection of intellectual property rights.

B. The Doctrine of Exhaustion of Rights

Building on the territoriality principle is the debate on the international exhaustion of rights—and, by extension, the allowance of parallel importation.¹¹¹ In its essence, the doctrine of exhaustion of rights prevents an intellectual property right holder from exerting control over the future distribution of a lawfully purchased copy of the protected work.¹¹² As the United States Supreme Court reminded us a few years ago, the first-sale doctrine in U.S. copyright law can be traced back to “the common law’s refusal to permit restraints on the alienation of chattels.”¹¹³ In a recent decision, the Court also noted that “[p]atent exhaustion, too, has its roots in the antipathy toward restraints on alienation.”¹¹⁴

When international goods are involved, the debate tends to turn toward the right holder’s ability to exert control beyond the national border over the future distribution of a lawfully purchased copy. In a country allowing for international

111. “Parallel importation” refers to the importation of (often cheaper) foreign goods without the authorization of local copyright holders. For discussions of parallel imports, see generally Margreth Barrett, *The United States’ Doctrine of Exhaustion: Parallel Imports of Patented Goods*, 27 N. KY. L. REV. 911 (2000); Carl Baudenbacher, *Trademark Law and Parallel Imports in a Globalized World—Recent Developments in Europe with Special Regard to the Legal Situation in the United States*, 22 FORDHAM INT’L L.J. 645 (1999); Shubha Ghosh, *An Economic Analysis of the Common Control Exception to Gray Market Exclusion*, 15 U. PA. J. INT’L BUS. L. 373 (1994); Shubha Ghosh, *Gray Markets in Cyberspace*, 7 J. INTELL. PROP. L. 1 (1999); Seth Lipner, *Trademarked Goods and Their Gray Market Equivalents: Should Product Differences Result in the Barring of Unauthorized Goods from the U.S. Markets?*, 18 HOFSTRA L. REV. 1029 (1990).

112. See *Kirtsaeng v. John Wiley & Sons, Inc.*, 133 S. Ct. 1351, 1355 (2013) (stating that the exhaustion-of-right doctrine holds that “once a copy . . . has been lawfully sold (or its ownership otherwise lawfully transferred), the buyer of *that copy* and subsequent owners are free to dispose of it as they wish”).

113. *Id.* at 1363.

114. *Impression Prods., Inc. v. Lexmark Int’l, Inc.*, 137 S. Ct. 1523, 1527 (2017).

exhaustion—such as Israel, New Zealand, Singapore,¹¹⁵ and to some extent Australia¹¹⁶—a product can be freely distributed within the country once it has been lawfully purchased in any part of the world.¹¹⁷ By contrast, in a country allowing for only national exhaustion, the product cannot be freely distributed within the country unless a lawful purchase has been made in that country.¹¹⁸

Although the United States used to be a jurisdiction with a national-exhaustion regime,¹¹⁹ its laws have changed considerably

115. See Susy Frankel & Daniel J. Gervais, *International Intellectual Property Rules and Parallel Imports*, in RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY EXHAUSTION AND PARALLEL IMPORTS 85, 102–04 (Irene Calboli & Edward Lee eds., 2016) (discussing the international-exhaustion regimes in Israel, New Zealand, and Singapore).

116. See *id.* at 104 (“Australia generally applies a rule of national exhaustion. After much debate, restrictions on parallel imports of computer programs and sound recordings were removed to allow parallel imports, but print music and books cannot be parallel imported.”).

117. As Frederick Abbott explained,

There are three distinct geographic concepts of exhaustion and parallel importation: national, regional and international. Under a “national” exhaustion policy, the [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 [intellectual property] 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 [intellectual property right] 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.

FREDERICK M. ABBOTT, PARALLEL IMPORTATION: ECONOMIC AND SOCIAL WELFARE DIMENSIONS 5 (2007), http://www.iisd.org/pdf/2007/parallel_importation.pdf; 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 between national, international, and regional exhaustion); 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, 148–51 (2009) (discussing the three major exhaustion regimes).

118. See ABBOTT, *supra* note 117, at 5 (discussing national exhaustion).

119. See *Kirtsaeng*, 133 S. Ct. at 1373 (Ginsburg, J., dissenting) (noting that “the United States has steadfastly resisted [the movement for ‘international exhaustion’ of copyrights] on the world stage”).

in the past few years. In the 2013 case of *Kirtsaeng v. John Wiley & Sons*,¹²⁰ the United States Supreme Court confirmed the application of the first-sale doctrine in U.S. copyright law to copies of copyrighted works lawfully made within the United States and abroad.¹²¹ *Kirtsaeng* concerned the distribution within the United States of foreign-made English-language editions of U.S. textbooks, which the defendant acquired from family and friends through purchases made in Thailand.¹²² As the Court reasoned, “[b]oth historical and contemporary statutory context indicate that Congress, when writing the present version of § 109(a) [of the U.S. Copyright Act], did not have geography in mind.”¹²³

Most recently, in *Impression Products, Inc. v. Lexmark International, Inc.*,¹²⁴ the Court further extended its international exhaustion position to the patent context. *Impression Products* concerned the potential patent infringement caused by the refurbishment, resale, and importation of patent-protected printer toner cartridges that have originally been sold abroad under an express restriction on the purchaser’s right to reuse or resell the product.¹²⁵ In this case, the Court held that “a patentee’s decision to sell a product exhausts all of its patent rights in that item, regardless of any restrictions the patentee purports to impose or the location of the sale.”¹²⁶

If one is willing to go further, one will find the Court’s much earlier acceptance of international exhaustion in the trademark context in *K Mart Corp. v. Cartier, Inc.*¹²⁷ Issued in 1988, that case concerned the U.S. Customs Service’s ability to permit the importation of certain gray-market goods.¹²⁸ Under current U.S.

120. 133 S. Ct. 1351 (2013).

121. *See id.* at 1355–56 (holding that “the ‘first sale’ doctrine applies to copies of a copyrighted work lawfully made abroad”); *see also* Quality King Distribs., Inc. v. L’anza Research Int’l, Inc., 523 U.S. 135, 145 (1998) (stating that the first sale doctrine applies to copies of a copyrighted work initially manufactured in the United States and then sold abroad).

122. *See Kirtsaeng*, 133 S. Ct. at 1352.

123. *Id.* at 1360.

124. 137 S. Ct. 1523 (2017).

125. *Id.* at 1529–31.

126. *Id.* at 1529.

127. *K Mart Corp. v. Cartier, Inc.*, 486 U.S. 281, 287–88 (1988).

128. *See id.* at 285 (concerning “whether the Secretary of the Treasury’s regulation permitting the importation of certain gray-market goods is a

law, trademark owners are unable to prevent such importation unless the imported goods “are ‘materially different’ from the goods that are sold in the United States with the trademark owner’s consent.”¹²⁹

The United States’ recent completion of its transition to an international-exhaustion regime in all three main branches of intellectual property rights is important because members of the World Trade Organization (WTO) have historically disagreed over the appropriate international standard concerning the exhaustion of intellectual property rights. During the negotiations on the Agreement on Trade-Related Aspects of Intellectual Property Rights¹³⁰ (TRIPS Agreement), developed and developing countries failed to reach a consensus on this important standard. While the United States and the European Communities (now the European Union) favored national or regional exhaustion, Australia, Hong Kong, New Zealand, and Singapore preferred international exhaustion.¹³¹ In the end, as Vincent Chiappetta recounted, countries had no choice but to “agree to disagree” over the

reasonable agency interpretation of § 526 of the Tariff Act of 1930”).

129. Mary LaFrance, *A Material World: Using Trademark Law to Override Copyright’s First Sale Rule for Imported Copies*, 21 MICH. TELECOMM. & TECH. L. REV. 43, 56 (2014). As Professor LaFrance explained,

[I]f the goods in question are “materially different” from the goods that are sold in the United States with the trademark owner’s consent, consumers may be confused or misled about the nature or quality of the goods bearing the trademark. If consumers are disappointed in the goods because they do not possess the expected characteristics, consumers will blame the trademark owner for the discrepancy. Thus, the consumer’s confusion can undermine the good will associated with the trademark, thereby damaging the mark and causing injury to the trademark owner. Accordingly, materially different goods that are legitimately marked with the same designation but designed for sale in different geographic areas are considered to be non-genuine.

Id. at 56–57.

130. Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299 [hereinafter TRIPS Agreement].

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

exhaustion issue.¹³² As a result, Article 6 of the TRIPS Agreement neither mandates nor forbids international exhaustion.¹³³ Instead, it merely states that the mandatory WTO dispute settlement process will not be “used to address the issue of the exhaustion of intellectual property rights.”¹³⁴

In recent years, the debate on international exhaustion has become even more complicated with the active negotiation of bilateral, regional, and plurilateral trade agreements.¹³⁵ Often included in these agreements are provisions seeking to reduce the ability of a signatory to maintain its exhaustion regime. A case in point is Article 15.5.2 of the United States–Morocco Free Trade Agreement,¹³⁶ which 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.¹³⁷

132. See generally 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).

133. See TRIPS Agreement art. 6 (“[N]othing in this Agreement shall be used to address the issue of exhaustion of intellectual property rights.”).

134. *Id.*

135. See generally 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, *supra* note 82, at 392–400 (discussing the growing use of bilateral and regional trade agreements to push for higher intellectual property standards); INTELLECTUAL PROPERTY AND FREE TRADE AGREEMENTS (Christopher Heath & Anselm Kamperman Sanders eds., 2007) (collecting articles discussing free trade agreements (FTAs) in the intellectual-property context).

136. *Final Text*, OFF. U.S. TRADE REPRESENTATIVE, <https://ustr.gov/trade-agreements/free-trade-agreements/morocco-fta/final-text>. (last visited Dec. 6, 2017) (showing and providing links to the United States–Morocco Free Trade Agreement, U.S. Morocco, June 15, 2004) (on file with the Washington and Lee Law Review).

137. See *id.* (showing art. 15.5.2). Nevertheless, the agreement was accompanied by a side letter on Article 15.5, which provides,

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.,

Notwithstanding this ongoing development, the increasingly globalized marketplace and the multijurisdictional nature of acts involving the Internet have caused the exhaustion debate to change slowly—not just in the United States but also in other parts of the world. A few years ago, the European Commission launched the “Licences for Europe” Stakeholder Dialogue, which prioritized the “cross-border portability of subscription services.”¹³⁸ At his welcoming address at the 2013 General Assembly, Francis Gurry, the director general of the World Intellectual Property Organization (WIPO), also noted the importance of creating “a seamless global digital marketplace.”¹³⁹ Such a transborder marketplace could be quite promising for disseminating online and cloud content.¹⁴⁰

In addition, legal commentators have considered the national-exhaustion approach outdated. As William Patry wrote,

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

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 Taib Fassi Fihri, Minister Delegate for Foreign Affairs and Cooperation, to Robert B. Zoellick, U.S. Trade Rep. (June 15, 2004), https://ustr.gov/sites/default/files/uploads/agreements/fta/morocco/asset_upload_file717_3850.pdf.

138. EUR. COMM’N, LICENCES FOR EUROPE: TEN PLEDGES TO BRING MORE CONTENT ONLINE 3–4 (2013), http://ec.europa.eu/internal_market/copyright/docs/licences-for-europe/131113_ten-pledges_en.pdf.

139. 2013 Address by the Director General, WORLD INTELL. PROP. ORG., http://www.wipo.int/about-wipo/en/dgo/speeches/a_51_dg_speech.html (last visited Nov. 23, 2017) (on file with the Washington and Lee Law Review).

140. See Peter K. Yu, *A Seamless Global Digital Marketplace of Media and Entertainment Content*, in RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY IN MEDIA AND ENTERTAINMENT 265, 277–89 (Megan Richardson & Sam Ricketson eds., 2017) [hereinafter Yu, *Seamless Global Digital Marketplace*] (calling for the establishment of “a seamless global digital marketplace” of media and entertainment content); Peter K. Yu, *Towards the Seamless Global Distribution of Cloud Content*, in PRIVACY AND LEGAL ISSUES IN CLOUD COMPUTING, *supra* note 89, at 180, 199–212 [hereinafter Yu, *Towards Seamless Global Distribution*] (identifying five areas in which adjustments can be introduced to promote the seamless global distribution of cloud content).

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, especially 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 holders may bring suit and are entitled to attorney's fees and penalties.¹⁴¹

There is also a burgeoning literature exploring ways to update the exhaustion-of-right doctrine to meet the ever-evolving needs of the digital environment.¹⁴² Such updating is particularly important as we move slowly toward “a post-copy world, one where digital works exist as data flows and rarely reside in a material object for more than a transitory period of time, where copies blink into and out of existence on a nearly constant basis.”¹⁴³

C. Geographical Indications

Its name aside, geographical indication has arguably the strongest geographical link among all eight forms of intellectual property rights covered in the TRIPS Agreement.¹⁴⁴ The protection of such indication has also enjoyed growing international support, including from the nearly thirty signatories to the Lisbon Agreement for the Protection of Appellations of Origin and Their International Registration.¹⁴⁵

141. WILLIAM PATRY, *HOW TO FIX COPYRIGHT* 182 (2011).

142. For this literature, see generally AARON PERZANOWSKI & JASON SCHULTZ, *THE END OF OWNERSHIP: PERSONAL PROPERTY IN THE DIGITAL ECONOMY* (2016); Peter K. Yu, *The Copy in Copyright*, in *INTELLECTUAL PROPERTY AND ACCESS TO IM/MATERIAL GOODS* 65, 79–82 (Jessica C. Lai & Antoinette Maget Dominicé eds., 2016); Aaron Perzanowski & Jason Schultz, *Digital Exhaustion*, 58 *UCLA L. REV.* 889 (2011); Aaron Perzanowski & Jason Schultz, *Legislating Digital Exhaustion*, 29 *BERKELEY TECH. L.J.* 1535 (2015) [hereinafter Perzanowski & Schultz, *Legislating Digital Exhaustion*].

143. Perzanowski & Schultz, *Legislating Digital Exhaustion*, *supra* note 142, at 1539.

144. These eight forms of rights are copyrights, patents, trademarks, geographical indications, industrial designs, plant variety protection, layout designs of integrated circuits, and the protection of undisclosed information. Yu, *supra* note 37, at 930–31.

145. See Lisbon Agreement for the Protection of Appellations of Origin and Their International Registration, Oct. 31, 1958, 923 U.N.T.S. 205 (revised at Stockholm July 14, 1967); see also *WIPO-Administered Treaties Contracting Parties*, WORLD INTELL. PROP. ORG.,

Although the United States continues to oppose the expansion of geographical indications, the protection of these identifiers has received growing support from select U.S. industries. As Irene Calboli and I recounted,

Napa Valley Vintners . . . has strongly advocated for such protection on behalf of its member wineries. In 2007, this trade group successfully secured protection for “Napa Valley” as a U.S. geographical indication in the E.U.

A 2013 industry study also provided a long list of potential U.S. geographical indications. This list included not only well-known wine-producing regions, but also lesser-known regions such as Alexandria Lakes in Minnesota, the Bell Mountain in Texas, the Kanawha River Valley in West Virginia and the Old Mission Peninsula in Michigan.¹⁴⁶

Article 22.1 of the TRIPS Agreement provides, “[g]eographical indications are . . . indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.”¹⁴⁷ This form of protection emphasizes not only the good-identifying indications and their geographical origins, but also the linkage between the two.¹⁴⁸ A key condition for protecting geographical

http://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=10 (last visited Nov. 23, 2017) (listing the members of the Lisbon Agreement) (on file with the Washington and Lee Law Review).

146. Peter K. Yu & Irene Calboli, *What the US Can Learn from Champagne, Feta and Gouda*, TIME (Sept. 14, 2015), <http://time.com/4022907/ttip-geographical-indications/> (last visited Nov. 23, 2017) (on file with the Washington and Lee Law Review). See generally RICHARD MENDELSON & ZACHARY WOOD, GEOGRAPHICAL INDICATIONS IN THE UNITED STATES: DEVELOPING A PRELIMINARY LIST OF QUALIFYING PRODUCT NAMES (2013), http://www.origin-gi.com/images/stories/PDFs/English/papers/Geographical_Indications_in_the_United_States_-_Supporting_Memo_FINAL_WEB.pdf (providing the 2013 study prepared by the Organization for an International Geographical Indications Network); Press Release, Napa Valley Vintners, Napa Valley Receives Geographic Indication (GI) Status in Europe (May 24, 2007), https://napavintners.com/press/press_release_detail.asp?ID_News=117 (last visited Nov. 23, 2017) (announcing that “Napa Valley has been officially recognized with Geographic Indication . . . Status as a protected name in the European Union, the first such recognition of an American wine place name”) (on file with the Washington and Lee Law Review).

147. TRIPS Agreement, art. 22.1.

148. See *id.* (emphasizing essential attribution).

indication concerns whether “a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.”¹⁴⁹

Notwithstanding the growing protection of geographical indications through national laws, regional agreements, and international treaties, a spirited debate has emerged in three areas. First, developing countries continue to call for an expansion of the geographical-indication regime beyond the protection of wines and spirits to cover other products, such as Basmati rice, Darjeeling tea,¹⁵⁰ and products involving traditional knowledge and traditional cultural expressions.¹⁵¹ They note the vast and growing benefits of geographical indications to developing countries.¹⁵² By contrast, their opponents lament the continuing challenges of determining the appropriate geographical scope of

149. *Id.*

150. See KEITH E. MASKUS, INTELLECTUAL PROPERTY RIGHTS IN THE GLOBAL ECONOMY 239 (2000) (“[T]he evolving language in TRIPs on geographical indications remains largely . . . confined to wines and spirits, while many developing countries point to food products that could be protected to their advantage, such as Basmati rice and Darjeeling tea.”).

151. See GANGJEE, *supra* note 84, at 266–88 (exploring the use of geographical indications to protect traditional knowledge).

152. See, e.g., PHILIPPE CULLET, INTELLECTUAL PROPERTY PROTECTION AND SUSTAINABLE DEVELOPMENT 333–37 (2005) (discussing how geographical indications can serve as a tool for protecting traditional knowledge); GEOGRAPHICAL INDICATIONS AT THE CROSSROADS, *supra* note 84, at 259–435 (collecting articles discussing the promise and problems of using geographical indications to promote local and rural development); Dwijen Rangnekar, *Indications of Geographical Origin in Asia: Legal and Policy Issues to Resolve*, in INTELLECTUAL PROPERTY AND SUSTAINABLE DEVELOPMENT: DEVELOPMENT AGENDAS IN A CHANGING WORLD 273, 273 (Ricardo Melendez-Ortiz & Pedro Roffe eds., 2009) (noting that geographical indications “are increasingly being seen as useful intellectual property rights for developing countries”); IMPORTANCE OF PLACE, *supra* note 84, at 111–287 (collecting articles exploring how geographical indications can serve as tools for local and regional development); Madhavi Sunder, *The Invention of Traditional Knowledge*, 70 LAW & CONTEMP. PROBS. 97, 110 (2007) (“Mysore silk sarees . . . have had a makeover since obtaining a geographical indication, updating [their] look with trendy new (but interestingly, natural) colors . . . and ‘contemporary’ designs inspired by temple architecture and tribal jewelry.”).

new protections.¹⁵³ Basmati rice, for example, can be found in both India and Pakistan.¹⁵⁴

In addition, some commentators have noted the limited benefits of expanded protection. Instead, they suggest the use of certification and collective marks as substitutes.¹⁵⁵ Commentators, including both supporters and critics of geographical indications, have also cautioned that the holders of these newly expanded geographical indications will have to conduct “advertising activities to promote the favourable features of GIs products . . . to improve their market share and profitability.”¹⁵⁶

Second, commentators, especially those from the “New World” agriculture-producing countries,¹⁵⁷ continue to question the concept of *terroir*, which has been used to explain the appeal of the protected good and its linkage to the good’s geographical origin.¹⁵⁸

153. See GANGJEE, *supra* note 84, at 220 (“Having considered the size or scale of the region of origin, the other controversial issue concerns the basis for delimitation, which TRIPS leaves to national legislation to resolve. This is particularly problematic where the region in question straddles two countries.”).

154. See Shubha Ghosh, *Globalization, Patents, and Traditional Knowledge*, 17 COLUM. J. ASIAN L. 73, 98 (2003) (“Basmati refers to a particular class of rice, of which there are at least 400 varieties in India and Pakistan.”).

155. See Justin Hughes, *Champagne, Feta, and Bourbon: The Spirited Debate About Geographical Indications*, 58 HASTINGS L.J. 299, 305–11 (2006) (discussing the different approaches the European Union and the United States have taken to protect geographical indications and the U.S. position that the use of certification and collective marks can provide adequate protection to rights holders). For discussions of certification marks, see generally Margaret Chon, *Marks of Rectitude*, 77 FORDHAM L. REV. 2311 (2009); Jeanne C. Fromer, *The Unregulated Certification Mark(et)*, 69 STAN. L. REV. 121 (2017).

156. DAGNE, *supra* note 84, at 144; see also Dev S. Gangjee, *From Geography to History: Geographical Indications and the Reputational Link*, in GEOGRAPHICAL INDICATIONS AT THE CROSSROADS, *supra* note 84, at 36 (noting the overlooked importance of reputation as a linkage between product and place); Doris Estelle Long, *Branding the Land: Creating Global Meanings for Local Characteristics*, in TRADEMARK PROTECTION AND TERRITORIALITY CHALLENGES IN A GLOBAL ECONOMY 100, 123 (Irene Calboli & Edward Lee eds., 2014) (“[W]here adequate advertising and other informational activities are used to promote clear consumer meanings, geographic designators can serve as powerful ‘brands’ in the ‘long tail’ economy of the twenty-first century.”).

157. “The New World producers are largely an informal group of industrialized nations that typically include Japan, the U.S., Canada, Australia, and New Zealand . . . with a few wine producers from the developing world.” Hughes, *supra* note 155, at 301 n.10.

158. As James Wilson, a noted geologist trained at my university, described, Terroir has become a buzz word in English language wine literature.

Terroir, which was “originally associated with viticulture and periodically reinvented not only in France but subsequently across the [European Union],”¹⁵⁹ is one of those French words that cannot be easily translated in a foreign language.¹⁶⁰

Notwithstanding the continued emphasis on *terroir*, especially among Western European policymakers and academic experts, commentators have questioned the validity of the concept.¹⁶¹ Commentators have also noted the concept’s more recent origin despite its focus on protecting longstanding historical traditions. According to Laurence Bérard, “[t]he role of *terroir* in France is closely linked to the French nation-building project. The concept itself emerged largely as a result of human geography influences and its precise definition remains debatable.”¹⁶² In view of such a heavy influence from viticulture, Dev Gangjee understandably questioned “whether a story of wine should become a story for all [geographical indications].”¹⁶³

Finally, geographically based protection can create perverse incentives for outsiders to drive out those who currently reside in

This lighthearted use disregards reverence for the land which is a crucial, invisible element of the term. The true concept is not easily grasped but includes physical elements of the vineyard habitat—the vine, subsoil, siting, drainage, and microclimate. Beyond the measurable ecosystem, there is an additional dimension—the spiritual aspect that recognizes the joys, the heartbreaks, the pride, the sweat, and the frustrations of its history.

JAMES E. WILSON, *TERROIR: THE ROLE OF GEOLOGY, CLIMATE AND CULTURE IN THE MAKING OF FRENCH WINES* 55 (1998).

159. Dev. S. Gangjee, *Introduction: Timeless Signs or Signs of the Times?*, in *RESEARCH HANDBOOK ON GEOGRAPHICAL INDICATIONS*, *supra* note 84, at 1.

160. See Elizabeth Barham, “*Translating Terroir*” *Revisited: The Global Challenge of French AOC Labeling*, in *RESEARCH HANDBOOK ON GEOGRAPHICAL INDICATIONS*, *supra* note 84, at 46, 50 (noting that *terroir* is “a French word without a suitable English translation”); Laurence Bérard, *Terroir and the Sense of Place*, in *RESEARCH HANDBOOK ON GEOGRAPHICAL INDICATIONS*, *supra* note 84, at 72, 84–86 (discussing whether the term is untranslatable); Hughes, *supra* note 155, at 301 (noting that “[t]here is no direct English translation of ‘terroir’”).

161. See Barham, *supra* note 160, at 69 (“There are a number of research teams in Europe investigating how a *terroir* marks the taste of its products in terms of chemical composition and other factors. However, for many products, this determination is made on the basis of tasting panels.”).

162. Bérard, *supra* note 160, at 73; see also GANGJEE, *supra* note 84, at 69 (noting that the concept of *terroir* did not make its appearance in multilateral negotiations until April 1890).

163. GANGJEE, *supra* note 84, at 17.

the protected territory. For instance, if geographical indications were narrowly defined based on natural geography to the extent that they ignore relevant human factors,¹⁶⁴ such a narrow definition could lead the powerful to drive out the weak, regardless of whether the latter have resided on the land or acted as stewards for a sustained period of time. To take advantage of geographically based protection, some commercial productions, for example, may move into a territory at the expense of those indigenous stewards who have been cultivating the local products in the first place.¹⁶⁵

Indeed, the more protection one could secure through the ownership of immobile lands, the greater incentive and motivation one would have to fight for the control of those lands. The problem identified here is what Doris Long referred to as “the tyranny of land and culture.”¹⁶⁶ As she cautioned, “[w]hile territorial homelands often play a critical role in the development of indigenous culture and identity . . . reliance on territorial boundaries for protection for traditional knowledge may cause

164. See *id.* at 16 (asking to what extent the “notion of a link between product and place . . . recognize[s] people”); see also *id.* at 70 (“Wine itself was not an unmediated agricultural product and required an additional transformative human intervention.”); Delphine Marie-Vivien, *A Comparative Analysis of GIs for Handicrafts: The Link to Origin in Culture as Well as Nature?*, in RESEARCH HANDBOOK ON GEOGRAPHICAL INDICATIONS, *supra* note 84, at 292, 311 (“Most agricultural and foodstuff products are linked to their origin through both natural and human factors.”).

165. Such exploitation easily reminds us of the depressing dynamics brought about by biopiracy, which occurs when commercial productions move into bio-rich territories at the expense of developing countries, indigenous communities, and other local populations. For discussions of biopiracy, see generally MGBEOJI, *supra* note 84; VANDANA SHIVA, *BIOPIRACY: THE PLUNDER OF NATURE AND KNOWLEDGE* (1997); Keith Aoki, *Neocolonialism, Anticommons Property, and Biopiracy in the (Not-So-Brave) New World Order of International Intellectual Property Protection*, 6 IND. J. GLOBAL LEGAL STUD. 11 (1998); Peter Drahos, *Indigenous Knowledge, Intellectual Property and Biopiracy: Is a Global Bio-Collecting Society the Answer?*, 2000 EUR. INTEL. PROP. REV. 245 (2000); Paul J. Heald, *The Rhetoric of Biopiracy*, 11 CARDOZO J. INT’L & COMP. L. 519 (2003); Ikechi Mgbеoji, *Patents and Traditional Knowledge of the Uses of Plants: Is a Communal Patent Regime Part of the Solution to the Scourge of Bio Piracy?*, 9 IND. J. GLOBAL LEGAL STUD. 163 (2001); Naomi Roht-Arriaza, *Of Seeds and Shamans: The Appropriation of the Scientific and Technical Knowledge of Indigenous and Local Communities*, 17 MICH. J. INT’L L. 919 (1996).

166. Doris Estelle Long, *Trade Secrets and Traditional Knowledge: Strengthening International Protection of Indigenous Innovation*, in THE LAW AND THEORY OF TRADE SECRECY: A HANDBOOK OF CONTEMPORARY RESEARCH 495, 509 n.32 (Rochelle C. Dreyfuss & Katherine J. Strandburg eds., 2011).

unintended, and undesirable, limits on the ability to protect fully indigenous innovation.”¹⁶⁷ Likewise, Madhavi Sunder offered several justifications for allowing traditional Indian weavers in Mysore to use the same geographical indication after they move to North India or the United Kingdom:

[T]here are good reasons to prevent the alienation of the [geographical indication] from the particular geographical community. It prevents the scenario in which a large foreign corporation hires a member of that community away and then begins to produce “authentic” work elsewhere, using that [geographical indication]—and decimating the livelihoods of the traditional community left behind. At the same time, such a restriction could stifle opportunities for some individuals, as they remain within a traditional community by economic necessity, not choice. People move, intermarry, and change jobs. Culture flows with them.¹⁶⁸

D. Regional Intellectual Property Norms

The final illustration that shows the close link between intellectual property and geography concerns the ongoing development of regional intellectual property norms, usually through trade and investment agreements. Although regional approaches have been used by developed and developing countries

167. *Id.*

168. Sunder, *supra* note 152, at 115.

alike¹⁶⁹—often to varying degrees of success¹⁷⁰—the recent focus on the development of regional trade agreements has enabled developed countries to push onto foreign soils the high standards of intellectual property protection and enforcement.¹⁷¹

The Trans-Pacific Partnership (TPP) Agreement is one such regionally based plurilateral agreement that has recently garnered considerable policy, scholarly, and media attention.¹⁷² Described as

169. The following are examples of groups formed using these approaches:

African Group, ASEAN (Association of Southeast Asian Nations), APEC (Asia Pacific Economic Cooperation Forum), the Andean Community, CARICOM (Caribbean Community), CARIFORUM (Caribbean Forum of African, Caribbean and Pacific States), COMESA (Common Market for East and Southern Africa), ECOWAS (Economic Community of West African States), the European Union, GRULAC (Group of Latin American and Caribbean Countries), the Gulf Cooperation Council, . . . MERCOSUR or MERCOSUL (Southern Cone Common Market)[.] . . . the Group of N (G8, G9, G10, G20, G24, G48, and G77), the Friends of X (Friends of Development, Friends of Fish, Friends of Geographical Indications, and Friends of Services), the Cafe au Lait Group, the CAIRNS Group, the Like-Minded Group, the Group of Small and Vulnerable Economies, NATO (North Atlantic Treaty Organization), and OPEC (Organization of the Petroleum Exporting Countries).

Peter K. Yu, *Six Secret (and Now Open) Fears of ACTA*, 64 SMUL. REV. 975, 1081 (2011).

170. See AMRITA NARLIKAR, INTERNATIONAL TRADE AND DEVELOPING COUNTRIES: BARGAINING COALITIONS IN THE GATT AND WTO 176 (2003) (noting that issue-based coalitions work best for small and very specialized economies with common profiles and interests, but not as well for larger, more diverse, and often internally conflicting economies); Sonia E. Rolland, *Developing Country Coalitions at the WTO: In Search of Legal Support*, 48 HARV. INT'L L.J. 483, 510 (2007) (noting that “groups of members sharing common profiles and common interests . . . are better candidates for institutional and legal support than ad hoc issue-based coalitions”); see also Frederick Abbott, *The Future of IPRs in the Multilateral Trading System*, in TRADING IN KNOWLEDGE: DEVELOPMENT PERSPECTIVES ON TRIPS, TRADE AND SUSTAINABILITY 36, 42 (Christophe Bellmann et al. eds., 2003) (discussing the developing countries’ limited success in using coalition-building efforts to increase their bargaining leverage); Peter K. Yu, *Access to Medicines, BRICS Alliances, and Collective Action*, 34 AM. J.L. & MED. 345, 362–65 (2008) (noting the challenge of building a sustained coalition among the BRICS countries—namely, Brazil, Russia, India, China, and South Africa).

171. See *supra* note 135 (collecting sources discussing the developed countries’ active deployment of regional trade agreements to push for high intellectual property standards).

172. See *TPP Final Table of Contents*, OFF. U.S. TRADE REPRESENTATIVE, <https://ustr.gov/trade-agreements/free-trade-agreements/trans-pacific-partnership/tpp-full-text> (last visited Nov. 23, 2017) [hereinafter TPP Agreement]

“a cardinal priority and a cornerstone of the Pivot to Asia” under the Obama Administration,¹⁷³ this agreement sought to cover “40% of global GDP [gross domestic product] and some 30% of worldwide trade in both goods and services.”¹⁷⁴ After nearly six years of negotiations between Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States, and Vietnam, the TPP Agreement was finally signed in Auckland, New Zealand on February 4, 2016.¹⁷⁵

Despite Japan’s and New Zealand’s ratification of the agreement,¹⁷⁶ President Trump signed a presidential memorandum on the first day of his first full week in office directing the United States Trade Representative to withdraw the United States “as a signatory of the TPP and . . . from the TPP negotiating process.”¹⁷⁷ Other countries such as Vietnam have also suspended its ratification process.¹⁷⁸ While the TPP is now

(showing the Trans-Pacific Partnership Agreement, February 4, 2016) (on file with the Washington and Lee Law Review).

173. KURT M. CAMPBELL, *THE PIVOT: THE FUTURE OF AMERICAN STATECRAFT IN ASIA* 268 (2016).

174. David A. Gantz, *The TPP and RCEP: Mega-Trade Agreements for the Pacific Rim*, 33 *ARIZ. J. INT’L & COMP. L.* 57, 59 (2016).

175. See Press Release, Office of the U.S. Trade Representative, Trans-Pacific Partnership Ministers’ Statement (Feb. 4, 2016), <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2016/February/TPP-Ministers-Statement> (last visited Nov. 23, 2017) (announcing the signing of the agreement) (on file with the Washington and Lee Law Review).

176. See Kaori Kaneko & Yoshifumi Takemoto, *Japan Ratifies TPP Trade Pact to Fly the Flag for Free Trade*, REUTERS (Dec 9, 2016, 12:55 AM), <http://www.reuters.com/article/us-japan-tpp-idUSKBN13Y0CU> (last visited Nov. 23, 2017) (reporting Japan’s ratification) (on file with the Washington and Lee Law Review); *NZ Govt Ratifies TPP Despite US Rejection*, RADIO N.Z. (May 11, 2017, 2:59 PM), <http://www.radionz.co.nz/news/political/330574/nz-govt-ratifies-tpp-despite-us-rejection> (last visited Nov. 23, 2017) (reporting New Zealand’s ratification) (on file with the Washington and Lee Law Review).

177. *Presidential Memorandum Regarding Withdrawal of the United States from the Trans-Pacific Partnership Negotiations and Agreement*, WHITE HOUSE (Jan. 23, 2017), <https://www.whitehouse.gov/the-press-office/2017/01/23/presidential-memorandum-regarding-withdrawal-united-states-trans-pacific> (last visited Dec. 6, 2017) (on file with the Washington and Lee Law Review).

178. See Ho Binh Minh, *Vietnam PM Backs Off from U.S.-Led TPP, Emphasizes Independent Foreign Policy*, REUTERS (Nov. 16, 2016, 9:32 PM), <http://www.reuters.com/article/us-vietnam-economy-tpp-idUSKBN13C06V> (last visited Nov. 23, 2017) (reporting that “Vietnam will shelve ratification of a U.S.-led Pacific trade accord due to political changes ahead in the United States”)

arguably “on life support” and its future remains highly uncertain,¹⁷⁹ important insights can be gleaned by comparing this partnership with another similar regional pact, the Regional Comprehensive Economic Partnership (RCEP).¹⁸⁰

Like the TPP, the RCEP is a regional initiative in the Asia-Pacific region.¹⁸¹ Unlike the TPP, however, the parties negotiating the RCEP make more geographical sense. The latter negotiations currently include Australia, China, India, Japan, New Zealand, South Korea, and the ten members of the Association of Southeast Asian Nations (ASEAN), which negotiate as a bloc.¹⁸² Launched in November 2012 under the ASEAN+6 framework, the RCEP negotiations built on past trade and non-trade discussions between ASEAN and its six major Asia-Pacific neighbors.¹⁸³ Although ASEAN includes both developed and developing countries, all ten ASEAN members are included in the RCEP negotiations.¹⁸⁴

(on file with the Washington and Lee Law Review).

179. See Yu, *Thinking About TPP*, *supra* note 88 (manuscript at 2) (discussing the United States’ withdrawal from the TPP). Since the United States’ withdrawal, efforts have been made to resuscitate the agreement. These efforts, however, have not borne fruit. At the time of writing, no country is actively pursuing the agreement’s ratification. Nevertheless, at a May 2017 APEC meeting in Hanoi, Vietnam, these countries, along with the remaining TPP partners, reaffirmed their commitment and agreed to explore the development of a process to move the agreement forward even without the United States’ participation. Associated Press, *Pacific Ministers Commit to Move Ahead with Pact Without US*, U.S. NEWS & WORLD REP. (May 21, 2017, 6:11 AM), <https://www.usnews.com/news/business/articles/2017-05-21/pacific-ministers-commit-to-move-ahead-with-pact-without-us> (last visited Nov. 23, 2017) (on file with the Washington and Lee Law Review).

180. For discussions of the RCEP, see generally Peter K. Yu, *The RCEP and Trans-Pacific Intellectual Property Norms*, 50 VAND. J. TRANSNAT’L L. 673 (2017) (discussing the RCEP); Yu, *TPP, RCEP and Copyright Normsetting*, *supra* note 88; Yu, *TPP, RCEP and Crossvergence*, *supra* note 88.

181. See Yu, *supra* note 180, at 675 (discussing both the TPP and the RCEP as “important regional pact[s]”).

182. See JOINT DECLARATION ON THE LAUNCH OF NEGOTIATIONS FOR THE REGIONAL COMPREHENSIVE ECONOMIC PARTNERSHIP, <http://dfat.gov.au/trade/agreements/rcep/news/Documents/joint-declaration-on-the-launch-of-negotiations-for-the-regional-comprehensive-economic-partnership.pdf> (declaring the formal launch of the RCEP negotiations).

183. See generally Yu, *supra* note 180, at 678–85 (discussing the historical origin of the RCEP negotiations).

184. The ten current ASEAN members are Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and

The inclusiveness of the RCEP negotiations stands in sharp contrast to the arbitrary selections made during the TPP negotiations.¹⁸⁵ Indeed, the invitations to the latter negotiations did not make much sense in terms of either political or economic geography.¹⁸⁶ In terms of the former, the TPP negotiations included select countries from the Asia-Pacific region.¹⁸⁷ Yet, they did not include China, India, Indonesia, the Philippines, South Korea, and Thailand—all crucial members of the Asian economy.¹⁸⁸ The twelve-member (and now eleven-member) TPP also differs significantly from its predecessor, the Trans-Pacific Strategic Economic Partnership Agreement,¹⁸⁹ which was commonly referred to as “P4” or the “Pacific Four.”¹⁹⁰ P4 began as a negotiation among three small economies with highly liberalized trade sectors—namely, Chile, New Zealand, and Singapore.¹⁹¹ Geographically, these countries were well-positioned to enable the

Vietnam. *ASEAN Member Countries*, ASS'N SOUTHEAST ASIAN NATIONS, <http://asean.org/asean/asean-member-states/> (last visited Nov. 23, 2017) (on file with the Washington and Lee Law Review).

185. See Yu, *TPP and Trans-Pacific Perplexities*, *supra* note 88, at 1157 (“From the current list of twelve countries, it is indeed hard to divine the logic behind the countries chosen to negotiate the TPP, other than historical legacy and the self-interested preferences of the more powerful negotiating parties.”).

186. The RCEP negotiations will make better sense in terms of political geography, due to their inclusiveness. They will, however, remain problematic in terms of economic geography, due to the highly uneven economic developments in the Asia-Pacific region.

187. See *supra* note 175 and accompanying text (listing the twelve Asia-Pacific countries involved in the TPP negotiations).

188. See Yu, *TPP and Trans-Pacific Perplexities*, *supra* note 88, at 1132–63 (discussing the exclusion of China and India from the TPP negotiations); *id.* at 1156 (noting that the TPP negotiations have excluded “other large developing countries in [Asia], such as Indonesia, the Philippines, Thailand, and South Korea”).

189. Trans-Pacific Strategic Economic Partnership Agreement, Brunei-Chile-N.Z.-Sing., July 18, 2005, 2592 U.N.T.S. 225.

190. See Meredith Kolsky Lewis, *Expanding the P-4 Trade Agreement into a Broader Trans-Pacific Partnership: Implications, Risks and Opportunities*, 4 *ASIAN J. WTO & INT'L HEALTH L. & POL'Y* 401, 403 (2009) (referring to the agreement as the “P-4 Agreement”).

191. See *id.* at 403 (“[The TPP negotiations were initially] launched by Chile, New Zealand and Singapore at the APEC leaders’ summit in 2002. These original negotiations contemplated an agreement amongst the three participating countries, to be known as the Pacific Three Closer Economic Partnership (P3 CEP).”).

resulting partnership to provide entry points into three regional trading networks.¹⁹²

In terms of economic geography, the composition of the TPP membership is even more perplexing. While P4 focused on initially three, and later four, small economies—with Brunei Darussalam joining Chile, New Zealand, and Singapore¹⁹³—the TPP does not follow similar logic. When the P4 negotiations were launched in 2002, Chile, New Zealand, and Singapore had a GDP of 70, 67, and 92 billion, respectively.¹⁹⁴ By contrast, when the TPP negotiations were concluded in 2015, Japan and the United States enjoyed a GDP of 4.38 and 18.04 trillion, respectively (see Table 1). Meanwhile, the equivalent figures for Brunei Darussalam, Peru, and Vietnam were only 13, 189, and 193 billion, respectively.

192. As I explained in an earlier article,

Strategically, FTAs and [economic partnership agreements] provide important entry points into other regional or plurilateral networks. In doing so, they allow developed countries to explore interstate relationships with a smaller number of countries. Such an arrangement helps reduce the complexity and high costs of negotiation with a large number of parties or a complex regional body. The negotiation of the agreements also helps countries test the feasibility of applying specific models to a particular region. In fact, because the agreements involve self-selected parties, they allow parties to avoid negotiation of issues that would require them to make concessions that are important to their domestic constituencies. The exclusion of issues will also quicken the negotiation process, as those issues tend to slow down, if not derail, the negotiations.

Peter K. Yu, *Sinic Trade Agreements*, 44 U.C. DAVIS L. REV. 953, 970–71 (2011); see also Sidney Weintraub, *Lessons from the Chile and Singapore Free Trade Agreements*, in *FREE TRADE AGREEMENTS: US STRATEGIES AND PRIORITIES* 79, 79 (Jeffrey J. Schott ed., 2004) (noting that the U.S. FTAs with Chile and Singapore were “intended to be bellwethers for future FTAs in both regions, some bilateral and others plurilateral, as well as to set the substantive parameters for the hemispherewide Free Trade Area of the Americas”).

193. See Lewis, *supra* note 190, at 403–04 (“Brunei attended a number of rounds as an observer, and ultimately joined the Agreement as a ‘founding member’. The Agreement was signed by New Zealand, Chile and Singapore on July 18, 2005 and by Brunei on August 2, 2005, following the conclusion of negotiations in June 2005.”).

194. *Data: GDP (Current US\$)*, WORLD BANK, <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?end=2002> (last visited Nov. 23, 2017) (on file with the Washington and Lee Law Review).

**Table 1. GDP and GDP per Capita of the
TPP Negotiating Parties in 2015**

Negotiating Party	GDP (US\$M)¹⁹⁵	GDP per capita (US\$)¹⁹⁶
Australia	1,345,383.14	56,554.0
Brunei Darussalam	12,930.39	30,967.9
Canada	1,552,807.65	43,315.7
Chile	242,517.91	13,653.2
Japan	4,383,076.30	34,474.1
Malaysia	296,283.19	9,643.6
Mexico	1,151,037.12	9,143.1
New Zealand	175,564.43	38,201.9
Peru	189,212.10	6,030.3
Singapore	296,840.70	53,629.7
United States	18,036,648.00	56,207.0
Vietnam	193,241.11	2,107.0

To be certain, one could argue that the TPP partners have been carefully selected to ensure that the participating countries can meet strong “twenty-first-century” trade and investment standards.¹⁹⁷ The RCEP, by contrast, had to include special and

195. *Id.*

196. *Data: GDP per Capita (Current US\$)*, WORLD BANK, <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?end=2015> (last visited Nov. 23, 2017) (on file with the Washington and Lee Law Review).

197. *See USTR Begins TPP Talks in Australia*, OFF. U.S. TRADE REPRESENTATIVE (Mar. 15, 2010), <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2010/march/ustr-begins-tpp-talks-australia> (last visited Nov. 23, 2017) (“Trans-Pacific Partnership negotiations offer a unique opportunity to shape a high-standard, broad-based regional pact Our . . . negotiators will be working to set a new standard for 21st century trade pacts.”) (on file with the Washington and Lee Law Review). As Lim Chin Leng, Deborah Elms, and Patrick Low observed,

One of the unusual elements of the TPP is the fact that members of the TPP represent a range of economic development, from the world’s largest economy to a lower middle income economy. While members have been clear that the TPP will not have any sort of “two speed” or explicit special and differential . . . treatment for developing country members, it is true that the final Agreement will need to have some provisions to account for the developmental aspects of some members.

C.L. Lim et al., *What Is “High-Quality, Twenty-First Century” Anyway?*, in *THE TRANS-PACIFIC PARTNERSHIP: A QUEST FOR A TWENTY-FIRST CENTURY TRADE AGREEMENT* 3, 12 (C.L. Lim et al. eds., 2012); *see also* Shujiro Urata, *A Stages Approach to Regional Economic Integration in Asia Pacific: The RCEP, TPP, and*

differential treatment to accommodate the needs, interests, conditions, and priorities of the least developed ASEAN members—namely, Cambodia, Laos, and Myanmar.¹⁹⁸ Nevertheless, the TPP partners' reluctance to provide special and differential treatment to their poorer neighbors does not explain the exclusion of some major Asian economies, such as China, India, Indonesia, the Philippines, South Korea, and Thailand. Instead, such exclusion seems to be best attributed to geopolitics. As Shintaro Hamanaka noted,

[T]he formation of regional integration and cooperation frameworks can be best understood as a dominant state's attempt to create its own regional framework where it can exercise some exclusive influence. . . . For an economy that wants to increase its influence [such as the United States], establishing a regional group where it can be the most powerful state—dominating other members in terms of material capacity—is convenient. The most powerful state is likely to be influential in the group because it can easily assume so-called “structural leadership,” which is based on material resources By assuming leadership, an economy can set a favorable agenda and establish convenient rules. In addition, the most powerful state can increase influence through prestige and asymmetric economic interdependence with others.¹⁹⁹

One could further defend the TPP by observing that the pact will eventually be opened up to all members of the Asia-Pacific region.²⁰⁰ In the view of these defenders, when the TPP partners

FTAAP, in *NEW DIRECTIONS IN ASIA-PACIFIC ECONOMIC INTEGRATION* 119, 127 (Tang Guoqiang & Peter A. Petri eds., 2014) (“One of the main differences between the TPP and the RCEP is the treatment of least-developed economies.”).

198. See Urata, *supra* note 197, at 127 (discussing the RCEP negotiating parties' willingness to provide special and differential treatment to least developed countries); see also Barry Desker, *ASEAN Integration Remains an Illusion*, E. ASIA F. (Apr. 2, 2015), <http://www.eastasiaforum.org/2015/04/02/asean-integration-remains-an-illusion/> (last visited Nov. 23, 2017) (“There is a real worry that a ‘two-stage’ ASEAN is emerging. The six earlier members plus Vietnam are leading the way while Myanmar, Cambodia and Laos remain mired in their least-developed country status.”) (on file with the Washington and Lee Law Review).

199. SHINTARO HAMANAKA, *TRANS-PACIFIC PARTNERSHIP VERSUS REGIONAL COMPREHENSIVE ECONOMIC PARTNERSHIP: CONTROL OF MEMBERSHIP AND AGENDA SETTING 1–2* (Asian Dev. Bank, Working Paper Series on Reg'l Econ. Integration No. 146, 2014), https://aric.adb.org/pdf/workingpaper/WP146_Hamanaka_Trans-Pacific_Partnership.pdf (footnote and citations omitted).

200. Article 30.4.1 of the TPP Agreement specifically states that the

selected negotiating partners, they merely embraced a building-block approach, focusing on gateway markets in select regions.²⁰¹ The United States used that approach to develop free trade agreements with Australia, Singapore, and Morocco.²⁰²

Agreement

is open to accession by:

(a) any State or separate customs territory that is a member of APEC;
and

(b) any other State or separate customs territory as the Parties may agree,

that is prepared to comply with the obligations in this Agreement

TPP Agreement, *supra* note 172, art. 30.4.1; *see also* CAMPBELL, *supra* note 173, at 269:

[I]f and when the TPP is passed, the United States should work to encourage and assist in China's movement toward the realization of the TPP's lofty entry requirements, with an aim of ultimately welcoming China into the agreement. Because the TPP is aspirational rather than invitational, the United States should make it clear that China's entry will be welcomed as long as it can meet the agreement's standards.

Ann Capling & John Ravenhill, *The TPP: Multilateralizing Regionalism or the Securitization of Trade Policy?*, in *THE TRANS-PACIFIC PARTNERSHIP: A QUEST FOR A TWENTY-FIRST CENTURY TRADE AGREEMENT*, *supra* note 197, at 279, 292 (“Obama identified the TPP as a ‘potential model’ for the entire region, thus melding together US business interests and foreign policy interests to put pressure on China and others.”); JEFFREY J. SCHOTT ET AL., *UNDERSTANDING THE TRANS-PACIFIC PARTNERSHIP* 58 (2012) (“We see little evidence to support the notion that China is being excluded as part of a broader containment strategy.”).

201. As I explained in an earlier article,

Strategically, FTAs and [economic partnership agreements] provide important entry points into other regional or plurilateral networks. In doing so, they allow developed countries to explore interstate relationships with a smaller number of countries. Such an arrangement helps reduce the complexity and high costs of negotiation with a large number of parties or a complex regional body. The negotiation of the agreements also helps countries test the feasibility of applying specific models to a particular region. In fact, because the agreements involve self-selected parties, they allow parties to avoid negotiation of issues that would require them to make concessions that are important to their domestic constituencies. The exclusion of issues will also quicken the negotiation process, as those issues tend to slow down, if not derail, the negotiations.

Yu, *supra* note 192, at 970–71.

202. *See* Jason Kearns, *United States–Morocco Free Trade Agreement*, in *BILATERAL AND REGIONAL TRADE AGREEMENTS: CASE STUDIES* 144, 146 (Simon Lester & Bryan Mercurio eds., 2009) (noting that the United States–Morocco Free Trade Agreement reflected “a ‘building block’ approach: first ensuring that

China, a TPP outsider, also used that approach to develop free trade agreements with Chile, Iceland, and New Zealand.²⁰³

Nevertheless, if the building-block approach was the one chosen to set new international norms for trade, intellectual property, and investment, those analyses that treat the TPP as a *plurilateral* partnership,²⁰⁴ as opposed to a *regional* pact, will be more insightful. After all, with the involvement of developed countries and their likeminded partners, commentators have already widely discussed the TPP as a “country club.”²⁰⁵ While club-based agreements may have a regional focus, they do not always behave like traditional regional trade agreements.

By ignoring a large number of Asian countries—both significant and relatively insignificant—the TPP Agreement also fails to tackle a key challenge to improving intellectual property protection and enforcement in Asia. Because the levels of protection and enforcement in Asia continue to vary from country to country,²⁰⁶ pirated and counterfeit goods will continue to flow

countries accede to the WTO, then negotiating trade and investment agreements with individual countries in the region . . . and finally reaching a comprehensive United States–Middle East Free Trade Area”); Weintraub, *supra* note 192, at 79 (noting that the U.S. FTAs with Chile and Singapore were “intended to be bellwethers for future FTAs in both regions, some bilateral and others plurilateral, as well as to set the substantive parameters for the hemispherewide Free Trade Area of the Americas”).

203. See Henry Gao, *The RTA Strategy of China: A Critical Visit*, in CHALLENGES TO MULTILATERAL TRADE: THE IMPACT OF BILATERAL, PREFERENTIAL AND REGIONAL AGREEMENTS 53, 60 (Ross Buckley et al. eds., 2008) (discussing China’s focus on negotiations with those who are already members of other regional trade agreements); Yu, *supra* note 192, at 1001 (noting that Chile, New Zealand, and Iceland were the first in their respective region to sign a free trade agreement with China).

204. See Simon Lester & Bryan Mercurio, *Introduction* to BILATERAL AND REGIONAL TRADE AGREEMENTS: CASE STUDIES, *supra* note 202, at 1, 2 (defining “‘loose’ regional trade agreements” as “plurilateral agreements among countries which may or may not be in somewhat close proximity to each other, but do not necessarily include all countries from that area”).

205. For discussions of this approach, see generally Daniel Gervais, *Country Clubs, Empiricism, Blogs and Innovation: The Future of International Intellectual Property Norm Making in the Wake of ACTA*, in TRADE GOVERNANCE IN THE DIGITAL AGE: WORLD TRADE FORUM 323 (Mira Burri & Thomas Cottier eds., 2012); Peter K. Yu, *The ACTA/TPP Country Clubs*, in ACCESS TO INFORMATION AND KNOWLEDGE: 21ST CENTURY CHALLENGES IN INTELLECTUAL PROPERTY AND KNOWLEDGE GOVERNANCE 258 (Dana Beldiman ed., 2014).

206. See MARK BEESON, INSTITUTIONS OF THE ASIA-PACIFIC: ASEAN, APEC AND

from high-protectionist jurisdictions to their low-protectionist counterparts. That many low-protectionist countries enjoy geographical proximity to TPP partners has made the spillover problem especially difficult to address. One therefore cannot help but wonder the TPP Agreement's effectiveness in providing a regional solution to the thorny piracy and counterfeiting problems in Asia.

IV. Geographical Complexities²⁰⁷

The previous Part has underscored the close link between intellectual property and geography. This link is longstanding and can be traced back to the origin of federal intellectual property protection in the United States and the development of the international intellectual property regime, among others. Part III has also noted some of the challenging intellectual property issues that can benefit from greater geographical insights and spatial analysis.

While it is lamentable that geographical methodologies are not used more widely in an area that continues to be heavily influenced by distance and borders, this Part highlights a key challenge in the intellectual property field: even if policymakers, judges, and commentators are willing to consider geographical factors, they subscribe to a rather narrow view of geography. As a result, their overly simplistic spatial analysis often privileges political

BEYOND 17–55, 74–101 (2009)

In the Asia-Pacific, . . . there is a far greater range of potential members in terms of their respective levels of economic development and organization, political practices and structures of government, and even in their respective cultural traditions and backgrounds, something that reduces the ability to act in concert as a consequence.

Peter K. Yu, *Clusters and Links in Asian Intellectual Property Law and Policy*, in ROUTLEDGE HANDBOOK OF ASIAN LAW 147, 148 (Christoph Antons ed., 2017) (“The intellectual property developments in Asia are dynamic, distinct and diverse. These developments have also been highly uneven, not to mention changing rapidly. What we see today consists of largely works in progress.”).

207. Drawing on three sets of examples I have explored in some depth in the past, this Part, along with Part V.B.1, includes materials that have been updated and expanded from my earlier works. See generally Yu, *Seamless Global Digital Marketplace*, *supra* note 140; Yu, *Cultural Relics*, *supra* note 85; Peter K. Yu, *Intellectual Property Geographies*, 6 WIPO J. 1 (2014).

geography²⁰⁸—geography of those in power²⁰⁹—over other equally important forms of geography, such as social, economic, and cultural geography.²¹⁰

Overlooking these different geographical sub-fields not only weakens spatial analysis but also takes away a valuable opportunity to improve the development of intellectual property law and policy. To highlight the need for a more geographically informed approach to law- and policy-making, this Part identifies the geographical complexities in three sets of issues: those occurring (1) inside the border (national);²¹¹ (2) across the border (international);²¹² and (3) beyond the border (global).²¹³

208. See PARAG KHANNA, *CONNECTOGRAPHY: MAPPING THE FUTURE OF GLOBAL CIVILIZATION* 14 (2016) (“We should never confuse geography, which is paramount, with *political* geography, which is transient. Unfortunately, maps today present natural or political geography—or both—as permanent constraints.”); see also Chon, *supra* note 65, at 17 (“A map is at best a model of a moment in time rather than a rigid constraint on future possibilities.”).

209. See Michel Foucault, *The Eye of Power*, in *POWER/KNOWLEDGE: SELECTED INTERVIEWS AND OTHER WRITINGS, 1972–1977*, at 146, 149 (Colin Gordon ed., 1980) (“A whole history remains to be written of *spaces*—which would at the same time be the history of *powers* . . .”). *But cf.* KHANNA, *supra* note 208, at 45 (“The biggest mistake our traditional maps make is to portray countries as unified wholes, equating political geography with sovereign authority—as if having a country means you actually control it. Instead of mapping de jure sovereignty, we should be mapping de facto authority.”).

210. See DE BLIJ, *supra* note 22, at 8 (“Geography is a discipline of diversity, under whose ‘spatial’ umbrella we study and analyze processes, systems, behaviors, and countless other phenomena that have spatial expression.”); Holder & Harrison, *supra* note 57, at 5 (“Geography embraces physical, social, economic, and cultural geography and a host of sub-categories in between, and studies are conducted on a range of spatial scales.”). For collections of articles on economic geography, see generally *THE OXFORD HANDBOOK OF ECONOMIC GEOGRAPHY*, *supra* note 6, at 49; *THE SAGE HANDBOOK OF ECONOMIC GEOGRAPHY* (Andrew Leyshon & Roger Lee eds., 2011). For collections of articles on social, cultural, or human geography, see generally *HANDBOOK OF CULTURAL GEOGRAPHY* (Kay Anderson & Mona Domosh eds., 2002); *THE SAGE HANDBOOK OF HUMAN GEOGRAPHY* (Roger Lee & Noel Castree eds., 2d ed. 2014); *THE SAGE HANDBOOK OF SOCIAL GEOGRAPHIES* (Susan J. Smith & Rachel Pain eds., 2009).

211. *Infra* Part III.A.

212. *Infra* Part III.B.

213. *Infra* Part III.C.

A. *Inside the Border*

The first set of issues occurs inside the border. Because sovereign states remain the predominant source of law and policy,²¹⁴ intellectual property law and policy tends to be developed at the national level before adjustments trickle down to the lower levels.²¹⁵ In the United States, for instance, federal protection exists for copyright, patent, and trademark laws.²¹⁶ Such protection preempts state laws in the event of a conflict between the two sets of laws.²¹⁷ Although preemption works well for the

214. See RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 402 (1)–(2) (1987):

[A] state has jurisdiction to prescribe law with respect to (1) (a) conduct that, wholly or in substantial part, takes place within its territory; (b) the status of persons, or interests in things, present within its territory; . . . (2) the activities, interests, status, or relations of its nationals . . . within its territory

See also Aoki, *supra* note 65, at 1318 (“[T]he sovereign nation-state was seen as having jurisdiction backed up by force over clearly delimited and generally continuous spatial areas as against other nation-states, as well as autonomy with regard to the citizens within its boundaries.”); David Delaney, *Introduction: Globalization and Law*, in LEGAL GEOGRAPHIES READER, *supra* note 54, at 252 (“According to a conventional, and still prominent, interpretation of the spatiality of law, the space of law is the space of the nation-state, and the boundaries of the territorially defined state provide the boundaries to law.”).

215. See *National IP Strategies*, WORLD INTELL. PROP. ORG., <http://www.wipo.int/ipstrategies/en/> (last visited Nov. 23, 2017) (outlining the development of national intellectual property strategies in different parts of the world) (on file with the Washington and Lee Law Review).

216. See Copyright Act of 1976, 17 U.S.C. §§ 101–1332 (2012) (providing federal copyright protection); Lanham Act of 1946, 15 U.S.C. §§ 1051–1141n (2012) (providing federal trademark protection); Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (codified as amended in scattered sections of 35 U.S.C.) (providing federal patent protection).

217. See 17 U.S.C. § 301 (providing federal copyright preemption of state rights); see also *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 151 (1989) (“To a limited extent, the federal patent laws must determine not only what is protected, but also what is free for all to use.”); *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 491–92 (1974) (“[S]ince there is no real possibility that trade secret law will conflict with the federal policy favoring disclosure of clearly patentable inventions partial pre-emption is inappropriate.”); *Compco Corp. v. Day-Brite Lighting, Inc.*, 376 U.S. 234, 237 (1964) (“[W]hen an article is unprotected by a patent or a copyright, state law may not forbid others to copy that article. To forbid copying would interfere with the federal policy . . . of allowing free access to copy whatever the federal patent and copyright laws leave in the public domain.”); *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 232–33 (1964) (“[A] state may not, when the article is unpatented and uncopyrighted, prohibit the

U.S. intellectual property system, not all countries adopt a federalist approach.²¹⁸ Nor do they use similar conflict-resolution techniques.²¹⁹

Regardless of how a country resolves conflicts between the national and the subnational, however, there is an inherent mismatch between the protection based on territorial borders as defined by the nation-state concept on the one hand and innovation and industrial production at the subnational level on the other. While the former is based on political geography, the latter is based on economic geography.²²⁰

As I noted in recent articles, one of the major challenges concerning large developing countries is the rapidly expanding divide between economically and technologically developed regions and their less-developed counterparts.²²¹ While it is nothing new for developing countries to have highly uneven development,²²²

copying of the article itself or award damages for such copying.”); Peter K. Yu, Note, *Fictional Persona Test: Copyright Preemption in Human Audiovisual Characters*, 20 CARDOZO L. REV. 355, 367–75 (1998) (discussing federal copyright preemption of state right of publicity laws).

218. See YASH GHAI, HONG KONG’S NEW CONSTITUTIONAL ORDER: THE RESUMPTION OF CHINESE SOVEREIGNTY AND THE BASIC LAW 442–49 (1997) (discussing how other countries resolve the state-federal issues).

219. Cf. Peter K. Yu, *The Anatomy of the Human Rights Framework for Intellectual Property*, 69 SMU L. REV. 37, 78–79 (2016) (discussing the different ways to resolve conflicts between competing rights).

220. As Paul Krugman reminded us,

A nation is not a region or a single location. That is, when we talk about the external economies that I have argued drive both localization and the emergence of core-periphery patterns, there is no reason to suppose that political boundaries define the relevant unit over which those external economies apply.

KRUGMAN, GEOGRAPHY AND TRADE, *supra* note 6, at 70.

221. See Peter K. Yu, *Intellectual Property and Asian Values*, 16 MARQ. INTELL. PROP. L. REV. 329, 395–96 (2012) [hereinafter Yu, *Intellectual Property and Asian Values*] (discussing the uneven economic and technological developments in Asia); Peter K. Yu, *The Middle Intellectual Property Powers*, in LAW AND DEVELOPMENT IN MIDDLE-INCOME COUNTRIES: AVOIDING THE MIDDLE-INCOME TRAP 84, 98–99 (Randall Peerenboom & Tom Ginsburg eds., 2014) (discussing the uneven developments and internal tensions within the middle intellectual property powers).

222. See Yu, *Intellectual Property and Asian Values*, *supra* note 221, at 395–96 (discussing the uneven intellectual property developments in Asia); see also *infra* text accompanying notes 235–236 (discussing the uneven economic developments in India and Brazil).

such development could pose a serious challenge to the existing intellectual property system—both domestic and international alike.

Since the adoption of the TRIPS Agreement in 1994, international intellectual property literature has been filled with critiques of the “one size fits all”—or, more precisely, “supersize fits all”—approach to intellectual property normsetting.²²³ Yet these critiques tend to end at the national border, with the trust and expectation that a sovereign government will ultimately strike the appropriate balance for its country. Few, if any, articles or book chapters have problematized the “one size fits all” approach to intellectual property normsetting within an individual country.²²⁴

When one adjusts the scale of the map to zoom in on the economic and technological developments in large developing countries, one cannot help but notice the alarming unevenness of these developments. Take China for an example. The economic and technological developments in its major cities and coastal regions far exceed those in the inner and rural areas.²²⁵ Based on the 2016

223. See Shamnad Basheer & Annalisa Primi, *The WIPO Development Agenda: Factoring in the “Technologically Proficient” Developing Countries*, in IMPLEMENTING THE WORLD INTELLECTUAL PROPERTY ORGANIZATION’S DEVELOPMENT AGENDA 100, 110 (Jeremy de Beer ed., 2009) [hereinafter IMPLEMENTING WIPO’S DEVELOPMENT AGENDA] (alluding to the “one ‘super-size’-fits-all model”); Jeremy de Beer, *Defining WIPO’s Development Agenda*, in IMPLEMENTING WIPO’S DEVELOPMENT AGENDA, *supra*, 1, 3 (referring to “a one-size, especially a supersize, model of global [intellectual property] law”); James Boyle, *A Manifesto on WIPO and the Future of Intellectual Property*, 2004 DUKE L. & TECH. REV. No. 9, at 4 (“One size fits all. And it is ‘extra large.’”); Peter K. Yu, *The Global Intellectual Property Order and Its Undetermined Future*, 1 WIPO J. 1, 9 (2009) (noting the problems with a “super-size-fits-all model”).

224. Interestingly, Keith Aoki discussed the issue in the opposite direction:

If . . . globalization is heterogeneous, lumpy, incomplete, and uneven, and bypasses large regions of the world, then a “one-size-fits-all” approach towards international intellectual property protection may reproduce on a global scale the problematic and sharp inequalities of access and information that currently characterize development on the regional or national scales.

Aoki, *supra* note 65, at 1344. The late Professor Aoki was aware of the problem at both the national and regional levels, yet his pioneering article focused on the challenge when the problem was extended to the global level.

225. As I noted in an earlier book chapter,

The goods that are in high demand in the inland and rural areas are often very different from those in the major cities and the coastal areas. Because of these differing market conditions, local people in the less

figures on invention patents provided by the State Intellectual Property Office of China, Jiangsu, Guangdong, and Anhui provinces—the provinces with the three largest volumes of applications—had a total of 184,632, 155,581, and 95,963, respectively.²²⁶ Meanwhile, Yunnan, Jilin, and Gansu provinces had a total of only 7,907, 7,537, and 6,114, respectively.²²⁷ The latter figures were less than one-tenth of the figures in the more developed provinces. If one includes provinces and autonomous regions with fewer than 4,000 patent applications, such as Xinjiang, Inner Mongolia, Ningxia, Qinghai, Hainan, and Tibet, the statistical contrasts between the two groups will become even starker (see Table 2).

developed parts of China understandably are less aware of the importance of intellectual property protection. Nor do they have much need for it. Those places are also likely to present greater structural problems for intellectual property enforcement, such as inefficient administration, low penalties, shortage of funds, local protectionism, and severe conflicts of interests. Meanwhile, the limited economic and technological developments in these areas have heavily constrained the local resources devoted to research and development efforts.

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, 203 (Daniel J. Gervais ed., 1st ed. 2007) (footnote omitted).

226. *Table 2 Distribution of [Applications for] Inventions Received from Home 2016*, ST. INTELL. PROP. OFF. PEOPLE'S REPUBLIC OF CHINA (Apr. 7, 2017), http://english.sipo.gov.cn/statistics/2016/12/201704/t20170407_1309326.html (last visited Nov. 23, 2017) (on file with the Washington and Lee Law Review).

227. *Id.*

Table 2. Volume of Applications and Grants for Invention Patents in Mainland China in 2016²²⁸

Province	Volume of Patent Applications ²²⁹	Volume of Patent Grants ²³⁰	Patent Grant Rate (%)
Jiangsu	184,632	40,952	22.18
Guangdong	155,581	38,626	24.83
Anhui	95,963	15,292	15.94
Zhejiang	93,254	26,576	28.50
Shandong	88,359	19,404	21.96
Sichuan	54,277	10,350	19.07
Hubei	43,789	8,517	19.45
Guangxi	43,078	5,159	11.98
Henan	28,582	6,811	23.83
Fujian	27,041	7,170	26.52
Liaoning	25,561	6,731	26.33
Hunan	25,524	6,967	27.30
Shaanxi	22,565	7,503	33.25
Hebei	14,141	4,247	30.03
Heilongjiang	13,177	4,345	32.97
Guizhou	10,953	2,036	18.59
Shanxi	8,208	2,411	29.37
Jiangxi	8,202	1,914	23.34
Yunnan	7,907	2,125	26.87
Jilin	7,537	2,428	32.21
Gansu	6,114	1,308	21.39
Xinjiang	3,598	910	25.29
Inner Mongolia	2,878	871	30.26
Ningxia	2,510	560	22.31
Qinghai	1,381	271	19.62
Hainan	1,278	383	29.97
Tibet	176	33	18.75

228. This table focuses on only mainland China and excludes Hong Kong, Macau, and Taiwan. It also omits municipalities such as Beijing, Chongqing, Shanghai, and Tianjin.

229. See *id.* (listing the yearly total patent applications for 2016).

230. See *Table 5 Distribution of Grants for Inventions Received from Home 2016*, ST. INTELL. PROP. OFF. PEOPLE'S REPUBLIC OF CHINA (Apr. 7, 2017), http://english.sipo.gov.cn/statistics/2016/12/201704/t20170407_1309322.html (last visited Nov. 23, 2017) (listing the yearly total patent grants for 2016) (on file with the Washington and Lee Law Review).

From the standpoint of intellectual property development, having highly uneven subnational development could create major challenges for policymakers, especially in relation to the establishment of a national intellectual property strategy, such as the one the State Council of China launched in June 2008.²³¹ If the relevant government leaders seek to tailor protection to the divergent economic and technological conditions in different regions, they likely will have to come up with a “schizophrenic” nationwide intellectual property policy.²³² Under such a policy, protection will be tighter in fast-growing and technologically proficient regions but much weaker in their less-developed counterparts.²³³

By contrast, if the leaders embrace uniform nationwide protection and decline to tailor protection to the country’s divergent conditions, they will have to develop a system that is either too strong or too weak for some regions. Even worse, they may end up with a system that is unsuitable for all regions—for instance, when the system grants compromise-induced mid-level protection that would be too low for fast-growing regions yet too high for their less-developed counterparts.

To be certain, the adoption of a national intellectual property strategy could still generate net economic gains for the whole country, especially when that strategy is carefully designed and implemented. Nevertheless, these gains will not be fairly distributed unless a well-functioning transfer mechanism exists to allow fast-growing regions to share new benefits with the

231. See *Outline of the National Intellectual Property Strategy*, ST. COUNCIL PEOPLE’S REPUBLIC OF CHINA (June 5, 2008), http://www.gov.cn/english/2008-06/21/content_1023471.htm (last visited Nov. 23, 2017) (providing an English translation of the *Outline of the National Intellectual Property Strategy*) (on file with the Washington and Lee Law Review); see also Peter K. Yu, *The Rise and Decline of the Intellectual Property Powers*, 34 CAMPBELL L. REV. 525, 530–32 (2012) (discussing the National Intellectual Property Strategy).

232. See Peter K. Yu, *International Enclosure, the Regime Complex, and Intellectual Property Schizophrenia*, 2007 MICH. ST. L. REV. 1, 24–25 (explaining why the intellectual property developments in China should not be analyzed as if the country were homogeneous).

233. See *id.* at 25 (“[B]ased on existing developments, China is likely to prefer stronger protection of intellectual property rights in entertainment, software, semiconductors, and selected areas of biotechnology to increased protection in areas concerning pharmaceuticals, chemicals, fertilizers, seeds, and foodstuffs.”).

less-developed regions.²³⁴ Thus, unless the central government is willing to step in to transfer these benefits, those regions with unsuitable levels of intellectual property protection are likely to remain losers in the system. As time goes by, the gap between the fast-growing and less-developed regions can only expand.

Although my past research focuses primarily on China, uneven subnational development is not limited to this country. Instead, such uneven development can be found in many similarly situated countries. As Fareed Zakaria reminded us, India “might have several Silicon Valleys, but it also has three Nigerias within it—that is, more than 300 million people living on less than a dollar a day.”²³⁵ Nobel Laureate Michael Spence also wrote about the “dual economy” in Brazil, which consists of “a relatively rich one whose growth is constrained by the normal forces that constrain the growth of relatively advanced economies, and a poor one where the early-stage growth dynamics . . . just didn’t start, owing to its separation from the modern domestic economy and the global economy.”²³⁶

234. As Frederick Abbott reminded us in relation to cross-sectoral bargains made in bilateral and regional trade agreements,

The problem with . . . using net economic gains or losses as the developing country benchmark is that gains for a developing country’s textile or agricultural producers do not directly translate into higher public or private health expenditures. Salaries for part of the workforce may increase and government tax revenues may rise, and this may indirectly help offset pharmaceutical price increases. However, in order for the health sector not to be adversely affected, there must be some type of transfer payment, whether in the form of increased public health expenditures on pharmaceuticals, by providing health insurance benefits, or other affirmative acts. In a world of economic scarcity, the prospect that governments will act to offset increases in medicines prices with increased public health expenditures is uncertain.

Frederick M. Abbott, *The Cycle of Action and Reaction: Developments and Trends in Intellectual Property and Health*, in *NEGOTIATING HEALTH: INTELLECTUAL PROPERTY AND ACCESS TO MEDICINES* 27, 33 (Pedro Roffe et al. eds., 2006) (citation omitted).

235. FAREED ZAKARIA, *THE POST-AMERICAN WORLD* 133 (2008); *see also* VINAY RAI & WILLIAM L. SIMON, *THINK INDIA: THE RISE OF THE WORLD’S NEXT SUPERPOWER AND WHAT IT MEANS FOR EVERY AMERICAN* 211 (2007) (“One India wants. The Other India hopes. One India leads. The Other India follows.” (emphasis omitted)).

236. MICHAEL SPENCE, *THE NEXT CONVERGENCE: THE FUTURE OF ECONOMIC GROWTH IN A MULTISPEED WORLD* 204 (2011).

Even in the developed world, uneven economic and technological developments at the subnational level are quite common. As Annalisa Primi pointed out in an essay published in the report on the 2013 Global Innovation Index,

In the USA and in Germany, the top R&D investing regions—California and Baden-Württemberg—account, respectively, for 21% and 25% of total country investments in R&D. In Finland and the Republic of Korea, the top regions—Etela-Suomi and the Korean Capital Region—account for 55% and 63% of total R&D expenditures.²³⁷

At the global level, “[t]he top 20 patenting regions account for more than 50% of total world patent applications.”²³⁸ Nine of these regions are in the United States, four in Japan, three in Germany, one each in France and the Netherlands, and, of course, none in the developing world.²³⁹ According to Primi, “[t]he geography of innovation is not flat. Certain places, whether regions, cities, or local clusters tend to agglomerate specific competences, including scientific and technical knowledge as well as entrepreneurial capabilities and finance; these stand out as the world’s top innovation hotspots.”²⁴⁰

Her observations dovetail with the growing volume of research on the development of high-technology innovation clusters,²⁴¹ which range from the pioneering work of Alfred Marshall²⁴² to the widely cited research of Michael Porter.²⁴³ Although discussions of innovation clusters in the United States tend to focus on Silicon

237. Annalisa Primi, *The Evolving Geography of Innovation: A Territorial Perspective*, in THE GLOBAL INNOVATION INDEX 2013: THE LOCAL DYNAMICS OF INNOVATION 69, 70 (2013), http://www.wipo.int/edocs/pubdocs/en/economics/gii/gii_2013.pdf.

238. *Id.*

239. *Id.* at 70–71.

240. *Id.* at 70.

241. See *supra* note 87 (collecting sources discussing the development of high-technology innovation clusters).

242. See generally ALFRED MARSHALL, PRINCIPLES OF ECONOMICS: AN INTRODUCTORY VOLUME (8th ed. 1920) (1890) (providing the seminal text on neoclassical economics).

243. See generally MICHAEL E. PORTER, THE COMPETITIVE ADVANTAGE OF NATIONS (1990) (providing a study of international competitiveness based on ten leading trading nations); MICHAEL E. PORTER, ON COMPETITION (1998) (collecting Professor Porter’s articles on competitive strategy).

Valley and Route 128,²⁴⁴ clusters can be found in many other sectors, such as carpet producers around Dalton, Georgia; jewelry producers around Providence, Rhode Island; financial services in New York; the old shoe industry in Massachusetts; and the rubber industry in Akron, Ohio.²⁴⁵

Indeed, as Paul Krugman concisely noted in the early 1990s, “economic regions do not respect state boundaries.”²⁴⁶ As he continued,

Only a few years ago it was common for economic analyses of increasing returns and trade to assume that external economies applied at the level of a nation and to assert as their main result that big countries tend to export goods characterized by economies of scale. The result may still be true—but it will be true because national policies make it so, not because there is anything of inherent economic importance in drawing a line on the ground and calling the land on either side two different countries.

All of which leads us to the real reason why national boundaries matter and to the proper notion of a nation for our analysis. Nations matter—they exist in a modeling sense—because they have governments, whose policies affect the movements of goods and factors. In particular, national boundaries often act as barriers to trade and factor mobility. Every modern nation has restrictions on labor mobility. Many nations place restrictions on the movement of capital, or at least threaten to do so. And actual or potential limits on trade are pervasive, in spite of the best efforts of trade negotiators.²⁴⁷

Thus, even though critiques of the “one size fits all” approach to intellectual property normsetting tend to stop at the national border, due in large part to the general respect for national sovereignty,²⁴⁸ it is important to develop a deeper appreciation of

244. See generally SAXENIAN, *supra* note 87 (discussing innovation clusters in the United States such as Silicon Valley and Route 128); Anupam Chander, *How Law Made Silicon Valley*, 63 EMORY L.J. 639 (2014) (discussing the law’s significant role in the rise of Silicon Valley as a global trader).

245. See KRUGMAN, GEOGRAPHY AND TRADE, *supra* note 6, at 53 (listing the different innovation clusters).

246. *Id.* at 57; see also FUJITA, KRUGMAN & VENABLES, *supra* note 6, at 239 (“A national boundary is . . . a point at which political jurisdictions change. But we have not put government into our models and will not introduce it here.”).

247. KRUGMAN, GEOGRAPHY AND TRADE, *supra* note 6, at 71–72.

248. *Cf.* *Vanity Fair Mills, Inc. v. T. Eaton Co.*, 234 F.2d 633, 639 (2d Cir.

the mismatch between state-based territorial borders and economic and technological developments at the subnational level. Such appreciation would lead us to rethink our design of both the domestic and international intellectual property systems. It would also compel us to question whether countries should have the same level of domestic protection throughout, especially when some regions are clearly more economically and technologically developed than the others.

B. Across the Border

The second set of issues occurs across the border. The protection of traditional knowledge and traditional cultural expressions has been explored for more than two decades even if one does not go back to the Tunis Model Law on Copyright,²⁴⁹ or even further to the African Study Conference on Copyright in Brazzaville in August 1963.²⁵⁰ In September 2000, the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) was established at WIPO.²⁵¹ This intergovernmental committee aimed to explore “the development of an international legal instrument for the effective protection of [traditional knowledge] and [traditional cultural expressions], and to address the [intellectual property] aspects of access to and benefit-sharing of [genetic resources].”²⁵²

1956) (underscoring the importance of “considerations of international comity and respect for national integrity”).

249. TUNIS MODEL LAW ON COPYRIGHT (1976), *reprinted in* 12 COPYRIGHT: MONTHLY REV. WORLD INTELL. PROP. ORG. 165 (1976); *see also* Paul Kuruk, *Protecting Folklore Under Modern Intellectual Property Regimes: A Reappraisal of the Tensions Between Individual and Communal Rights in Africa and the United States*, 48 AM. U. L. REV. 769, 813–17 (1999) (discussing the Tunis Model Law on Copyright).

250. *See* Monika Dommann, *Lost in Tradition? Reconsidering the History of Folklore and Its Legal Protection Since 1800*, in INTELLECTUAL PROPERTY AND TRADITIONAL CULTURAL EXPRESSIONS IN A DIGITAL ENVIRONMENT, *supra* note 85, at 3, 9–11 (tracing the protection of folklore back to the African Study Conference on Copyright in Brazzaville in August 1963); *see also* Peter K. Yu, *A Tale of Two Development Agendas*, 35 OHIO N. U. L. REV. 465, 472–73 (2009) (discussing the Brazzaville Conference).

251. Yu, *Traditional Knowledge*, *supra* note 85, at 239.

252. *A New Dawn for Custodians of TK in Africa*, WIPO MAG. (Dec. 2010),

One oft-debated question in this area concerns who should have power to decide on what materials to protect and how they should be protected.²⁵³ Although this question was once hotly debated, today's prevailing—and, most definitely, politically correct—view is that traditional communities should decide for themselves. As Erica-Irene Daes, the Special Rapporteur of the U.N. Sub-Commission on Prevention of Discrimination and Protection of Minorities and the chair of its Working Group on Indigenous Populations, explained,

Indigenous peoples have always had their own laws and procedures for protecting their heritage and for determining when and with whom their heritage can be shared. The rules can be complex and they vary greatly among different indigenous peoples. To describe these rules thoroughly would be an almost impossible task; in any case, each indigenous people must remain free to interpret its own system of laws, as it understands them.²⁵⁴

Likewise, Angela Riley observed, “[f]or a tribe, determining the destiny of collective property, particularly that which is sacred and intended solely for use and practice within the collective, is a crucial element of self-determination.”²⁵⁵ Rebecca Tsosie also noted that “indigenous self-determination is best served through an intercultural framework that acknowledges the autonomy rights of native peoples.”²⁵⁶

http://www.wipo.int/wipo_magazine/en/2010/06/article_0008.html (last visited Dec. 6, 2017) (on file with the Washington and Lee Law Review).

253. See Yu, *Cultural Relics*, *supra* note 85, at 484–99 (discussing implementation challenges relating to the mode of protection, the power to define, the means of identification, and the justifiability of international intervention).

254. See U.N. ECON. & SOC. COUNCIL, SUB-COMM'N ON PREVENTION OF DISCRIMINATION & PROT. OF MINORITIES, DISCRIMINATION AGAINST INDIGENOUS PEOPLES: STUDY ON THE PROTECTION OF THE CULTURAL AND INTELLECTUAL PROPERTY OF INDIGENOUS PEOPLES 9 (July 28, 1993) (stating that it was prepared by Erica-Irene Daes, Special Rapporteur and Chairperson of the Working Group on Indigenous Populations), <http://www.refworld.org/docid/3b00f4380.html>; see also Brendan Tobin, *Traditional Knowledge Sovereignty: The Fundamental Role of Customary Law in Protection of Traditional Knowledge*, in INDIGENOUS INTELLECTUAL PROPERTY, *supra* note 85, at 565 (discussing the fundamental role of customary law in protecting traditional knowledge).

255. Angela R. Riley, *Recovering Collectivity: Group Rights to Intellectual Property in Indigenous Communities*, 18 CARDOZO ARTS & ENT. L.J. 175, 204–05 (2000).

256. Rebecca Tsosie, *International Trade in Indigenous Cultural Heritage: An*

The views of these commentators are consistent with those drafting the United Nations Declaration on the Rights of Indigenous Peoples. Article 3 of the Declaration states, “[i]ndigenous peoples have the right to self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development.”²⁵⁷ Article 11(1) further provides, “[i]ndigenous peoples have the right to practise and revitalize their cultural traditions and customs. This includes the right to maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites, artefacts, designs, ceremonies, technologies and visual and performing arts and literature.”²⁵⁸ With respect to traditional knowledge and traditional cultural expressions, Article 31(1) declares,

Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.²⁵⁹

In short, indigenous people and traditional communities are in the best position to decide for themselves what to protect and how to protect. Nevertheless, even if we could all agree with this proposition, difficult questions would still arise when the dispute involved more than one traditional community. To begin with, due to reasons ranging from past colonial control to civil wars to natural calamities, territorial borders do not always match cultural geography. The former colonies in Africa provide the most

Argument for Indigenous Governance of Cultural Property, in INTERNATIONAL TRADE IN INDIGENOUS CULTURAL HERITAGE: LEGAL AND POLICY ISSUES 221, 236 (Christoph B. Graber et al. eds., 2012).

257. G.A. Res. 61/295, United Nations Declaration on the Rights of Indigenous Peoples art. 3 (Sept. 13, 2007).

258. *Id.* art. 11(1).

259. *Id.* art. 31(1).

notorious examples. As Harm de Blij observed, “[t]o facilitate acquisition [of these colonies, European colonial powers] drew their boundaries point-to-point, often along parallels and meridians, and not just across deserts, as witness the United States–Canadian border west of the Great Lakes.”²⁶⁰ Another oft-cited example concerns the Iroquois (Haudenosaunee) in North America, whose members “live in two countries, the United States and Canada, due to an historical division of territory in which the Iroquois had no voice.”²⁶¹

Even when one ignores involuntary developments, voluntary actions could cause a traditional community to split into two or more groups along geographical lines. For instance, there could be “family feuds” within a community—such as when the youngsters disagreed with their elders.²⁶² (The reverse situation—where the elders disagreed with the youngsters—happens often and is generally not as troublesome, because tribal law tends to grant decision-making power to the elders).²⁶³ There could also be internal disagreement within a community, in which the majority prevails over the minority, or vice versa.²⁶⁴

To complicate matters, there could be more than one traditional community within a geographical region. There is a tendency for people to focus on the binary between traditional and

260. DE BLIJ, *supra* note 22, at 108.

261. Long, *supra* note 156, at 107.

262. See Ronald Sackville, *Legal Protection of Indigenous Culture in Australia*, 11 CARDOZO J. INT’L & COMP. L. 711, 739–40 (2003) (explaining, through the example of the Australian \$10 bank note that reproduced an Aboriginal artist’s design, that some decisions can only be made by the elders).

263. See OGUAMANAM, *supra* note 85, at 128 (“In most of Africa, old age is a synonym for wisdom, an indication of deep spirituality and closeness to the ancestors.”). *But see* JARED DIAMOND, *THE WORLD UNTIL YESTERDAY: WHAT CAN WE LEARN FROM TRADITIONAL SOCIETIES?* 210–40 (2012) (discussing the diverse treatments of the elderly in traditional societies).

264. See Yu, *Cultural Relics*, *supra* note 85, at 458 (“[T]here may not always be consensus within a community . . . as to what is or is not acceptable use of culturally significant images in works intended for commercial sale.” (quoting WAYNE SHINYA, COPYRIGHT POLICY BRANCH, DEP’T OF CANADIAN HERITAGE, PROTECTING TRADITIONAL CULTURAL EXPRESSIONS: POLICY ISSUES AND CONSIDERATIONS FROM A COPYRIGHT PERSPECTIVE 35 (2004))); *see also* DRAHOS, *supra* note 85, at 24 (noting the problems and complications for minority groups when countries in South East Asia or South Asia, such as India, Indonesia, and Malaysia, “attempted to characterize their respective populations at large as indigenous”).

nontraditional communities, or between indigenous and nonindigenous communities, assuming that all of those communities speak with unitary voices. However, this assumption is not always valid. As Professor Riley reminded us,

[A]lthough many indigenous creations follow the pattern of oral, inter-generational works, this is not the only model. Many tribes may, in fact, recognize property interests that are considered to be more reflective of a “Western” view than an “indigenous one.” The ways in which indigenous peoples characterize and define property are as varied as the peoples themselves, and Westerners must resist the urge to narrow and define the “indigenous perspective.”²⁶⁵

In addition, “a source community may include dissenting voices, and a grant of legal protection to those who speak on behalf of the community may silence those voices—always an issue when rights are vested in a group rather than an individual.”²⁶⁶

Because traditional knowledge and traditional cultural expressions often involve intangible materials, “more than one community [could have made] similar use of the same resources, sometimes even using the same processes.”²⁶⁷ There have indeed been disputes among indigenous communities over lineage and heritage. For example, conflict arose in 1999 “when the National Park Service concluded that Navajos have a legitimate ‘cultural affiliation’ with the Anasazi culture of Chaco Canyon National Monument in northwestern New Mexico.”²⁶⁸ As Michael Brown explained,

The Anasazi—a name now rejected by Pueblo tribes in favor of “Ancestral Puebloans”—constructed magnificent cliff dwellings and multi-storied stone structures that draw thousands of tourists to Chaco Canyon, Mesa Verde, and other national parks in the Southwest. Ancestral Puebloans are said to have vanished in the thirteenth century A.D., but the preponderance of scientific evidence, which in this case generally agrees with Pueblo oral history, supports the view that the cliff dwellers

265. Angela R. Riley, *Indigenous Peoples and the Promise of Globalization: An Essay on Rights and Responsibilities*, 14 KAN. J.L. & PUB. POL’Y 155, 161 (2004) (footnote omitted).

266. SUSAN SCAFIDI, WHO OWNS CULTURE?: APPROPRIATION AND AUTHENTICITY IN AMERICAN LAW xii (2005).

267. Roht-Arriaza, *supra* note 165, at 957.

268. BROWN, *supra* note 85, at 20.

scattered throughout the region to found the communities today identified as Pueblo. Contemporary Pueblo people react to the assertion that Navajos have a “cultural affiliation” with the Anasazi about the same way the Irish would respond to an English claim of affiliation with pre-sixteenth-century cultural remains in Ireland.²⁶⁹

To complicate matters, there have been disputes over the origin of practices and beliefs as well as to whom the sacred places belong. The Hopis, for instance, have “publicly complained about non-Hopi (especially Navajo) artists creating what is otherwise traditionally Hopi art as well as such commercial ventures as a liquor company decanter in the form of a kachina and a comic book featuring kachina characters.”²⁷⁰ As an employee of the Hopi Cultural Preservation Office complained,

The Navajos are taking Hopi qualities, saying that they came into the fourth world and that they have four sacred colors for the directions. But those ideas came from us. Now they are involved in eagle gathering, which is a Hopi practice. We Hopis don't talk first in public gatherings anymore. Now we're afraid that if we say something, the Navajos will say that it's theirs too.²⁷¹

As if these situations were not complicated enough, the traditional communities involved could be making competing claims over something that was actually created by or derived from a third community, which has yet to be identified, no longer exists, or chooses to stay neutral.²⁷² A case in point is a sacred bundle held by the American Museum of Natural History.²⁷³ For this bundle, “Montana, Saskatchewan, and Manitoba Crees are all

269. *Id.*

270. James D. Nason, *Native American Intellectual Property Rights: Issues in the Control of Esoteric Knowledge*, in *BORROWED POWER: ESSAYS ON CULTURAL APPROPRIATION* 237, 248 (Bruce Ziff & Pratima V. Rao eds., 1997).

271. BROWN, *supra* note 85, at 18–19 (internal quotation marks omitted).

272. See Marion P. Forsyth, *International Cultural Property Trusts: One Response to Burden of Proof Challenges in Stolen Antiquities Litigation*, 8 *CHI. J. INT'L L.* 197, 198 (2007) (noting “the need for a unified claim in American courts by modern states that share ancient cultural boundaries”).

273. See Sarah Harding, *Justifying Repatriation of Native American Cultural Property*, 72 *IND. L.J.* 723, 724 (1997) (“[A] calico-wrapped sacred bundle that belonged to Plains Cree Chief Big Bear until his death. The sacred bundle was given to the institution fifty years ago by an unnamed native with the instructions ‘keep it well.’”).

independently claiming ownership as is the adopted great-great-grandson of Plains Cree Chief Big Bear. Determining who owned the bundle after Big Bear's death, and thus whether the transfer was legitimate, will not be an easy task."²⁷⁴

Given these many complications, the challenge of figuring out who can decide on the treatment of traditional knowledge and traditional cultural expressions in a geographical region can be quite daunting. As important as it is, determining whether we should defer to the choices of traditional communities is only the beginning of the inquiry, not the end. In a dispute involving two or more traditional communities, invoking the right to self-determination is unlikely to result in a satisfactory resolution. As Richard Ford explained,

[W]hy should area *X* be the relevant community, when area *X* plus *Y* might provide an equally or more valid definition of community? The answer cannot appeal to the right of community self-determination: if the people in area *Y* claim to be part of a larger community, *X* plus *Y*, then should their opinion not be considered as well as that of the people in area *X*?²⁷⁵

Consider the early example concerning the disagreement between two groups within a traditional community.²⁷⁶ Although strong claims can be made to ensure that the group in the original geographical location determines for the community, it is hard to ignore the important countervailing interests of the departing group—either because they do not have the numbers to prevail in a majority contest or because they have chosen to leave. To some extent, this departing group—either as prior users or continuing innovators—deserves some form of protection (such as “the continuation of bona fide prior use”).²⁷⁷

274. *Id.*

275. Richard T. Ford, *The Boundaries of Race: Political Geography in Legal Analysis*, 107 HARV. L. REV. 1843, 1860 (1994).

276. *See supra* notes 261–266 and accompanying text.

277. *See* Antony Taubman, *Saving the Village: Conserving Jurisprudential Diversity in the International Protection of Traditional Knowledge*, in INTERNATIONAL PUBLIC GOODS AND TRANSFER OF TECHNOLOGY UNDER A GLOBALIZED INTELLECTUAL PROPERTY REGIME 521, 545 (Keith E. Maskus & Jerome H. Reichman eds., 2005) (providing for an exception “for the continuation of bona fide prior use” in the traditional knowledge regime).

Moreover, if this departing group continues to maintain a traditional lifestyle,²⁷⁸ the use of traditional materials will remain important to its members, regardless of the overall group size. In addition, the heritage of the community (before the split) will always remain part of the departing group's cultural heritage. Just because the group is no longer part of the community does not mean that the group members should also give up their heritage.

In sum, the mismatch between political and cultural geography has generated many challenging questions. It is therefore no surprise that after more than a decade and a half, the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore still has not been able to develop formal instruments on genetic resources, traditional knowledge, and traditional cultural expressions.²⁷⁹ Although leaders from developing countries, indigenous peoples, and traditional communities have often complained about the lack of political will on the part of developed countries to reach international consensus,²⁸⁰ the standard-setting challenges in this rather controversial area should not be underestimated.

278. See generally DIAMOND, *supra* note 263 (examining and reflecting on the different ways of life in traditional societies).

279. See Catherine Saez, *Revised Articles Protecting Folklore Head to WIPO General Assembly, for Better or Worse*, INTELLECTUAL PROP. WATCH (June 19, 2017), <https://www.ip-watch.org/2017/06/19/revised-articles-protecting-folklore-head-wipo-general-assembly-better-worse/> (last visited Nov. 23, 2017) (reporting the 34th IGC session in Geneva on June 12–16, 2017) (on file with the Washington and Lee Law Review); see generally Intergovernmental Comm. on Intellectual Prop. & Genetic Resources, Traditional Knowledge & Folklore, World Intellectual Prop. Org. [IGC], *Consolidated Document Relating to Intellectual Property and Genetic Resources*, WIPO Doc. WIPO/GRTKF/IC/34/4 (Mar. 15, 2017) (providing a consolidated document regarding a potential international instrument on genetic resources); IGC, *The Protection of Traditional Cultural Expressions: Draft Articles*, WIPO Doc. WIPO/GRTKF/IC/34/8 (June 15, 2017) (providing the draft text of a potential international instrument on traditional cultural expressions); IGC, *The Protection of Traditional Knowledge: Draft Articles*, WIPO Doc. WIPO/GRTKF/IC/34/5 (Mar. 15, 2017) (providing the draft text of a potential international instrument on traditional knowledge).

280. As Professor Coombe noted,

Although indigenous peoples are now recognized as key actors in this global dialogue, it will need to be expanded to encompass a wider range of principles and priorities, which will eventually encompass political commitments to indigenous peoples' rights of self-determination. Only when indigenous peoples are full partners in this dialogue, with full juridical standing and only when . . . their cultural world views,

Even if nationwide solutions are developed through international treaties, the complications caused by uneven subnational developments, as discussed in the previous Subpart,²⁸¹ may still arise. After all, the protection of traditional knowledge and traditional cultural expressions is one area in which the minority needs protection even without the support of the majority. That many countries have suffered from colonization has made the protection of indigenous and traditional communities especially important. After all, these communities are unlikely to have considerable political power within their own country.²⁸² Moreover, political geography changes with time even when cultural development does not always respect the territorial boundaries set arbitrarily by powerful political actors.²⁸³

customary laws, and ecological practices are recognized as fundamental contributions to resolving local social justice concerns will we be engaged in anything we can genuinely call a dialogue.

Rosemary J. Coombe, *The Recognition of Indigenous Peoples' and Community Traditional Knowledge in International Law*, 14 ST. THOMAS L. REV. 275, 284–85 (2001); see also SARA BANNERMAN, INTERNATIONAL COPYRIGHT AND ACCESS TO KNOWLEDGE 187 (2015) (noting “[t]he long absence of indigenous peoples’ voices from international norm-setting”); Tom Greaves, *IPR, A Current Survey*, in INTELLECTUAL PROPERTY RIGHTS FOR INDIGENOUS PEOPLES, A SOURCEBOOK 1, 14 (Tom Greaves ed., 1994) (“In most African states . . . the larger tribal societies see[] themselves as rightful elements of the nation’s government. Owning their cultural knowledge is not the issue, owning a share of the central government is.”); Dean B. Suagee, *The Cultural Heritage of American Indian Tribes and the Preservation of Biological Diversity*, 31 ARIZ. ST. L.J. 483, 488 (1999) (noting that “the most effective way to make use of their traditional ecological knowledge is to recognize the rights of indigenous peoples to govern their own territories”).

281. *Supra* Part IV.A.

282. See KEITH AOKI, SEED WARS: CONTROVERSIES AND CASES ON PLANT GENETIC RESOURCES AND INTELLECTUAL PROPERTY 92 (2008) (noting that it is not difficult to “imagine situations where the interests of subnational groups, communities or tribes are at loggerheads with state interests”); see also Alexander A. Bauer, *New Ways of Thinking About Cultural Property: A Critical Appraisal of the Antiquities Trade Debates*, 31 FORDHAM INT’L L.J. 690, 703 (2008) (noting that “many countries contain minority communities whose interests are not always served by their national governments”).

283. See Penny English, *Space and Time: The Genius Loci of Ancient Places*, in LAW AND GEOGRAPHY, *supra* note 57, at 465, 467 (“Not only are people dislocated from place in modern Western society but a parallel dislocation from time has also taken place, resulting in a world which is characterized by disconnection from fixed temporal as well as spatial certainties.”); Paul Street, *Spaces of Diversity in Diverse Spaces*, in LAW AND GEOGRAPHY, *supra* note 57, at 323, 340

[P]eople’s physical proximity to one another does not mean that they

C. Beyond the Border

The final set of issues occurs at the global level. These issues happen not only across the border, but often both across and beyond the border. They are global, as opposed to international. Although law is territorial in nature and scope, its protection has now gone beyond territorial borders, thanks to the rise of transnational corporations and their active deployment of contracts and technological measures.²⁸⁴

The example I use repeatedly to illustrate the challenge of matching legal protection to political geography is region-lockout codes.²⁸⁵ Although DVD region codes have provided a textbook illustration of the use of geographical restrictions to protect copyrighted content, region-based restrictions can be found on many other consumer products, including those developed before the digital age (such as power plugs and sockets).²⁸⁶ Today, region codes have been widely used to protect not only movies and television shows, but also music, computer software, online games, and, surprisingly, even printer toner cartridges.²⁸⁷ When keyed to

will inherently either all share the same knowledge about their locality, or perceive of their locality in the same way, for each inhabitant of a given place is also at the intersection of multiple diasporic communities, communities that have their own bodies of local knowledge, though not necessarily local to place. In other words, while we may write of local knowledge as that which shares the same vernacular, this cannot and should not be equated with geophysical localities or places.

284. See Peter K. Yu, *Five Disharmonizing Trends in the International Intellectual Property Regime*, in 4 *INTELLECTUAL PROPERTY AND INFORMATION WEALTH: ISSUES AND PRACTICES IN THE DIGITAL AGE* 73, 91–96 (Peter K. Yu ed., 2007) (discussing the trend of rights holders using mass-market contracts and technological protection measures).

285. See Peter K. Yu, *Region Codes and the Territorial Mess*, 30 *CARDOZO ARTS & ENT. L.J.* 187 (2012) (discussing region-based lockout codes, with a focus on DVD region codes).

286. See *International Standardization of Electrical Plugs and Sockets for Domestic Use*, INT'L ELEC. COMM'N, <http://www.iec.ch/worldplugs/history.htm> (last visited Nov. 23, 2017) (describing the history of electrical sockets around the world) (on file with the Washington and Lee Law Review).

287. See 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 (Eberhard Becker et al. eds., 2003) (stating that regional playback control “can be found in Sony’s PlayStation game consoles and in various software

local wireless providers, lockout codes have also been successfully deployed in cell phones to provide geographical restrictions, even though these codes technically do not have the same design and functionality as DVD region codes.²⁸⁸

More recently, a growing number of YouTube accounts have imposed geographical restrictions to prevent viewers from having access to all content, thereby taking away YouTube's earlier strength as a region-free platform for disseminating and viewing content.²⁸⁹ Apple's iTunes Store "has [also] established different pricing structures for different countries; their [digital rights management] 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."²⁹⁰ In addition, to meet user needs and to ensure data retention in a contracted-for location, providers of cloud computing services have begun to introduce the so-called regional cloud, or cloud services within a "regional zone."²⁹¹ In short,

applications" (footnote omitted)); Vinelli, *supra* note 117, at 137;

Familiar examples abound in our technology-orientated world: 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) Even ink-jet printers and ink cartridges have been subject to region coding technology.

(footnote omitted). Michelle Griffin, *Forced on to the Internet*, AGE (Melbourne), Jan. 8, 2011, at 20 (noting that "the sluggish distribution deals of local record companies ensure that Australians can't enjoy legal music streaming sites such as Spotify and Pandora").

288. See Vinelli, *supra* note 117, 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).

289. See Yu, *supra* note 285, at 257 ("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.").

290. TARLETON GILLESPIE, WIRED SHUT: COPYRIGHT AND THE SHAPE OF DIGITAL CULTURE 267 (2007).

291. See Simon Bradshaw et al., *Standard Contracts for Cloud Services*, in CLOUD COMPUTING LAW, *supra* note 89, at 55 ("Some major cloud providers, such as Amazon, offer 'regional zones' in which a customer may be assured that data

geographical restrictions are now ubiquitous; they can be found in not only consumer goods but also streaming platforms and cloud services.

The rationale for recreating territorial boundaries—or “reterritorialization”²⁹²—through the use of technology is not hard to understand. The introduction of the Internet and other new communications technologies has greatly eroded—or “deterritorialized”²⁹³—the traditional boundaries used to protect intellectual property rights. As Sir Robin Jacob, a former Lord Justice of Appeal, declared in the early 2000s, “as time goes on, . . . the world will realize that at least for intellectual property the days of the nation-state are over.”²⁹⁴

To be certain, there are many justifications for reterritorialization through the use of technology, contracts, and other legal or quasi-legal tools. For instance, geographically based restrictions facilitate the sequential distribution of entertainment and media products.²⁹⁵ Due to geography—or the “tyranny of distance”²⁹⁶—actors, directors, and producers cannot promote entertainment projects around the world at the same time.²⁹⁷ Because the northern hemisphere enjoys summer when the

will remain.”); W. Kuan Hon & Christopher Millard, *How Do Restrictions on International Transfers of Personal Data Work in Clouds?*, in CLOUD COMPUTING LAW, *supra* note 89, at 254, 274–75 (discussing “regional clouds”).

292. DAVID DELANEY, TERRITORY: A SHORT INTRODUCTION 2 (2008).

293. *Id.* at 15.

294. Justice Jacob, *International Intellectual Property Litigation in the Next Millennium*, 32 CASE W. RES. J. INT’L L. 507, 516 (2000).

295. See Yu, *Towards Seamless Global Distribution*, *supra* note 140, at 188–89 (discussing the application of geographically based restrictions to facilitate sequential media distribution).

296. GEOFFREY BLAINEY, THE TYRANNY OF DISTANCE: HOW DISTANCE SHAPED AUSTRALIA’S HISTORY (1966).

297. See Claude E. Barfield & Mark A. Groombridge, *The Economic Case for Copyright Owner Control over Parallel Imports*, 1 J. WORLD INTELL. PROP. 903, 929 (1998) (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); Brian Hu, *Closed Borders and Open Secrets: Regional Lockout, the Film Industry, and Code-Free DVD Players*, MEDIASCAPE, <http://www.tft.ucla.edu/mediascape/archive/volume01/number02/reviews/hu.htm> (last visited Dec. 6, 2017) (“Actors cannot be everywhere at once to publicize a new film.”) (on file with the Washington and Lee Law Review); Yu, *supra* note 285, at 201 (“[D]irectors, actors, and writers need to travel from one region to another to promote the movie.”).

southern hemisphere experiences winter, producers may also need to select different release times to match viewer experience and thereby maximize profits.²⁹⁸

In addition, geographical restrictions allow rights holders to undertake the practice of price discrimination,²⁹⁹ which enables them to “charge[] a high price to high valuation users and a low price to low valuation users.”³⁰⁰ These restrictions also facilitate distribution and licensing arrangements, which may vary across the world or from region to region.³⁰¹ Even better, geographical restrictions respond to the considerably diverse international regulatory standards³⁰² while at the same time helping to address piracy and counterfeiting problems in certain parts of the world, most notably China and Southeast Asia.³⁰³

298. See Yu, *supra* note 285, at 201 (“[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.”).

299. See HAROLD L. VOGEL, ENTERTAINMENT INDUSTRY ECONOMICS: A GUIDE FOR FINANCIAL ANALYSIS 126 (8th ed. 2011) (“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.”); Rostam J. Neuwirth, *The Fragmentation of the Global Market: The Case of Digital Versatile Discs (DVDs)*, 27 CARDOZO ARTS & ENT. L.J. 409, 422–23 (2009) (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”); Peter K. Yu, *Anticircumvention and Anti-Anticircumvention*, 84 DENV. U. L. REV. 13, 75 (2006) (noting that DVD region codes “facilitate price discrimination”).

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

301. See JIM TAYLOR ET AL., DVD DEMYSTIFIED 5–19 (3d ed. 2006) (“The primary reason for regional management is to preserve exclusive distribution arrangements with local distributors.”); see also Yu, *supra* note 285, at 209–13 (discussing the different international distribution and licensing arrangements made by movie studios).

302. See Neuwirth, *supra* note 299, at 426 (“Since 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.”); Yu, *supra* note 285, at 213 (noting “the practical needs created by the considerable divergences in film ratings and regulatory standards across the world”); Caitlin Fitzsimmons, *Restricting DVDs “Illegal” Warns ACCC*, AUSTRALIAN IT, Mar. 27, 2001, at 33 (explaining how DVD region codes enable movie producers to comply with national censorship ratings).

303. See Fitzsimmons, *supra* note 302, at 33 (“South-East Asia and China

Notwithstanding these justifications, questions arise when one takes a deeper look at the underlying geographical conditions. Those questions are particularly obvious when different geographical locations are lumped together under arbitrary regions such as those recognized through DVD region codes, as opposed to geographical proxies of a finer grain, such as Internet Protocol addresses now used in many online platforms.³⁰⁴

Consider, for example, the countries included in Region 4 as recognized through DVD region codes, which covers “Australia, New Zealand, and Latin America (including Mexico).”³⁰⁵ Included in this region are Argentina, Australia, Brazil, and Haiti.³⁰⁶ Despite their being lumped together for content protection, cultural geography has revealed very limited similarities between them. In fact, the linguistic contrasts between them cannot be starker. The majority of Argentines, Australians, Brazilians, and Haitians speak Spanish, English, Portuguese, and French, respectively.³⁰⁷

Even if we ignore the countries’ cultural and linguistic differences, it is hard to imagine how grouping these highly divergent economies together under one region-based lockout code would promote effective price discrimination. Australia is a member of the Organisation for Economic Co-operation and Development.³⁰⁸ According to the 2015 World Bank indicators, its

each had their own regions because of rampant piracy.”).

304. See Derek E. Bambauer, *Pangloss’s Copyright*, 30 *CARDOZO ARTS & ENT. L.J.* 265, 267 (2012) (“Services such as Hulu and Spotify use a consumer’s Internet Protocol . . . address as a proxy for geographic location. They will refuse to stream content to a location where the content owner has not authorized distribution.”); Yu, *supra* note 285, at 258–59 (noting “the potential for using finer-grained technology [than DVD region codes] to provide the benefits of region-based restrictions” but questioning the effectiveness of such technology).

305. Yu, *supra* note 285, at 194.

306. See *id.* (listing Argentina, Australia, Brazil, and Haiti within Region 4).

307. See *The World Factbook*, CENT. INTELLIGENCE AGENCY, <https://www.cia.gov/library/publications/the-world-factbook/fields/2098.html> (last visited Nov. 23, 2017) (listing countries’ spoken languages by percentage) (on file with the Washington and Lee Law Review).

308. See *List of OECD Member Countries—Ratification of the Convention on the OECD, ORG. ECON. CO-OPERATION & DEV.*, <http://www.oecd.org/about/membersandpartners/list-oecd-member-countries.htm> (last visited Nov. 23, 2017) (listing Australia as an OECD member) (on file with the Washington and Lee Law Review).

GDP amounted to over \$1.34 trillion.³⁰⁹ By contrast, Haiti, another country in Region 4, had a GDP of only \$8.77 billion, less than one percent of Australia's GDP.³¹⁰ Given the significant difference in economic power between these two countries, there is a very strong likelihood that many Haitians cannot afford those DVDs that Australian consumers find appealing.

When one focuses on Region 5, which covers "Eastern Europe, Russia, India, and Africa (except Egypt and South Africa),"³¹¹ the geographically based problems with DVD region codes become even more blatant. This region includes not only two BRICS countries³¹² (India and Russia), but also some members of the European Union. Except for Egypt and South Africa, the region also covers all countries in Africa.³¹³ In terms of political, economic, or cultural geography, the group of countries included in Region 5 simply makes no sense. To put it bluntly, this region seems to be the "grab bag" region about which Hollywood simply does not care much. To a large extent, it reflects the same problematic mentality many U.S. entertainment lawyers have over the term "R.O.W."³¹⁴ As noted music lawyer Donald Passman observed, in his usual tongue-in-cheek style, "R.O.W. stands for *rest of world* and means the grab bag of countries left over, which I'll leave to you and Google Maps to name."³¹⁵

309. See *Data: GDP (Current US\$)*, WORLD BANK, <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD?end=2015> (last visited Nov. 23, 2017) (listing GDP by country in current U.S. dollars) (on file with the Washington and Lee Law Review).

310. *Id.*

311. Yu, *supra* note 285, at 194.

312. The BRICS countries include Brazil, Russia, India, China, and South Africa. For discussions of these countries, see generally BRICS AND DEVELOPMENT ALTERNATIVES: INNOVATION SYSTEMS AND POLICIES (Jose Cassiolato & Virginia Vitorino eds., 2011); ANDREW F. COOPER, THE BRICS: A VERY SHORT INTRODUCTION (2016); JIM O'NEILL, THE GROWTH MAP: ECONOMIC OPPORTUNITY IN THE BRICS AND BEYOND (2011); Peter K. Yu, *Intellectual Property Negotiations, the BRICS Factor and the Changing North-South Debate*, in THE BRICS-LAWYERS' GUIDE TO GLOBAL COOPERATION 148 (Rostam Neuwirth et al. eds., 2017); Yu, *supra* note 170.

313. Yu, *supra* note 285, at 194.

314. See DONALD S. PASSMAN, ALL YOU NEED TO KNOW ABOUT THE MUSIC BUSINESS 142 (9th ed. 2015) (discussing the term).

315. *Id.*

As if these problems were not bad enough, DVD region codes ignore the continued geographical flow of people caused and accelerated by globalization, improved transportation, increased travel, and enhanced communication.³¹⁶ As a result, these arbitrarily set region-based restrictions have created considerable inconvenience for tourists, business travelers, expatriate workers, and foreign students.³¹⁷ They have also posed insensitive barriers to immigrant families and foreign students who seek to use DVDs to teach or learn foreign languages.³¹⁸

There are additional questions concerning whether geographical restrictions have become obsolete in an environment where a growing number of movies and television shows are now being released worldwide on the same day.³¹⁹ Known commonly as “day and date” release, this distribution practice was introduced to address the problems brought by massive digital piracy³²⁰ and the inevitable availability of photos, spoilers, and reviews on websites and social media.³²¹ Although “day and date” release started with

316. See Yu, *supra* note 285, at 217 (“With increased globalization and frequent consumer travel, a model that conditions the enjoyment of digital content on the place of purchase is seriously outdated.”).

317. See *id.* (discussing how DVD region codes have inconvenienced tourists, business travelers, expatriate workers, and foreign students).

318. See *id.* at 227–28 (discussing how DVD region codes affect not only foreign students and immigrant families, but also domestic students who are eager to learn foreign languages).

319. See Bruce Orwall & Evan Ramstad, *Web’s Reach Forces Hollywood to Rethink America-First Policy*, WALL ST. J., <http://online.wsj.com/article/SB96076055497278634.html> (last updated June 12, 2000) (last visited Nov. 23, 2017) (on file with the Washington and Lee Law Review)

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.

320. See Hu, *supra* note 297, at 4 (“Studios 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 [video compact discs] or download bootlegged films online.”).

321. See Yu, *Seamless Global Digital Marketplace*, *supra* note 140, at 269 (“[A]fter the content has been shown anywhere in the world, photos, spoilers and reviews will inevitably appear on websites and social media. The disclosure of such content is particularly harmful to those movies and TV programs that depend on witty dialogues, plot twists or surprise elements.”); Emily Dunt et al.,

blockbuster movies,³²² it has since been expanded to other types of works and across Internet platforms from around the world.³²³ As Jim Taylor, an expert on DVD region codes, presciently observed, “[a]s 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.”³²⁴

In sum, the design of legal protection can benefit from greater geographical insights and spatial analysis. Today, people are no longer content with just watching programs on television or listening to CDs at home. Instead, they listen to music stored in the cloud when they travel, watch foreign television shows recommended by distant friends, and generate mash-ups of worldwide digital content. Any laws that fail to accommodate these geographically dispersed activities and the related consumer expectations will quickly become obsolete.

The Economic Consequences of DVD Regional Restrictions, ECON. PAPERS: J. APPLIED ECON. & POL’Y, Mar. 2002, at 32, 40 (“The rise of news and marketing over the Internet compromises the effective execution of staggered marketing campaigns for films across the globe.”); Neuwirth, *supra* note 299, at 422 (“The 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.”); Yu, *supra* note 285, at 205 (“[T]he 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. This is particularly true for those movies that include witty dialogues, plot twists, and surprise elements.”); Orwall & Ramstad, *supra* note 319

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

322. See Hu, *supra* note 297, at 4 (noting in the mid-2000s that “only the most high-profile films (*Lord of the Rings*, *Harry Potter*) are released day-and-date around the world”).

323. See, e.g., *Fox Sets Simultaneous Global Launch for Marvel’s “The Gifted,”* VARIETY (Oct. 2, 2017, 5:00 AM), <http://variety.com/2017/tv/news/the-gifted-marvel-fox-day-and-date-global-launch-1202577491/> (last visited Dec. 6, 2017) (reporting that Marvel’s *The Gifted* “is rolling out virtually day-and-date in 183 countries across 21st Century Fox’s vast collection of Fox-branded international channels”) (on file with the Washington and Lee Law Review).

324. TAYLOR ET AL., *supra* note 301, at 12–20.

V. A Two-Way Dialogue

The previous Part has highlighted the geographical complexities in issues occurring inside the border, across the border, and beyond the border. Indirectly, it has also shown how a more geographically informed analysis can improve the development of intellectual property law and policy. Although it is almost impossible to outline all the different ways to inject geographical insights and spatial analysis into intellectual property law and policy, this Part underscores the importance of engaging in a two-way dialogue between intellectual property and geography.³²⁵

To help facilitate this dialogue, this Part utilizes what Nicholas Blomley, a founding father of critical legal geography, has described as “legalizing space” and “spatializing law.”³²⁶ As Jean Carmalt elaborated, “[t]he difference between the two terms is important: the first focuses on the way that law plays a role in producing space and spatial relationships, while the second provides a critical analysis of the assumptions about space, spatial relationships, and geography that are embedded in law and legal practice.”³²⁷

This Part begins by discussing how law can be spatialized, that is, how “we can question, critique, and hopefully rewrite spatial assumptions that are built into specific laws.”³²⁸ It then discusses the different tools and devices that can be used to help provide legal recognition or regulation of spaces, or spatial interests, in the intellectual property arena. For illustrative purposes, this discussion will focus on those three sets of issues Part IV has explored—those occurring inside the border, across the

325. See Braverman et al., *supra* note 60, at 1 (noting “the interconnections between law and spatiality, and especially their reciprocal construction” and the “aspects of the social that are analytically identified as either legal or spatial are conjoined and co-constituted”); Gordon L. Clark, *Foreword* to LEGAL GEOGRAPHIES READER, *supra* note 54, at x, xi (“[T]o a geographical analyst, the link between legal principles and local circumstance is hardly a one-way street.”).

326. Nicholas Blomley, *From “What” to “So What”: Law and Geography in Retrospect*, in LAW AND GEOGRAPHY, *supra* note 57, at 17, 24, 27.

327. Jean Carmalt, *International Law as Process: Human Rights in Context: International Law and Spatial Injustice in New Orleans, Louisiana*, 63 STUD. L., POL. & SOC’Y 147, 149 (2014).

328. *Id.*

border, and beyond the border. By bringing together these two approaches, this Part aims to demonstrate that the interaction between the two interconnected fields of intellectual property and geography should be conducted as a two-way dialogue, not a monologue.

A. Spatializing Law

As intellectual property laws and policies continue to develop, we will need to acquire a better understanding of the principle of territoriality. There is no denying that intellectual property rights have been territorial in nature and scope.³²⁹ Yet, it remains highly debatable as to how territoriality is defined.

When territoriality questions arise, there is an immediate tendency to recall the independence-of-right doctrine.³³⁰ Under this doctrine, rights holders do not have unitary protection throughout the world.³³¹ Instead, they obtain nation-based rights in countries such as Australia, Brazil, or China.³³² What type of rights they obtain, how strong these rights will be, and whether these rights are to be effectively enforced depend largely on the intellectual property system each country has put in place.³³³

Thus far, the continued national divergences in laws, policies, and institutions have created a “territorial mess” that greatly hinders the global protection of intellectual property rights.³³⁴ This

329. See *supra* Part III.A (discussing the territorial nature and scope of intellectual property rights).

330. See Yu, *supra* note 285, at 188 (“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.”).

331. See *id.* (noting that the scope and extent of protection will “depend largely on the intellectual property system each individual country has put in place”).

332. See *ITC Ltd. v. Punchgini, Inc.*, 482 F.3d 135, 155 (2d Cir. 2007)

Precisely because a trademark has a separate legal existence under each country’s laws, ownership of a mark in one country does not automatically confer upon the owner the exclusive right to use that mark in another country. Rather, a mark owner must take the proper steps to ensure that its rights to that mark are recognized in any country in which it seeks to assert them.

333. See Yu, *supra* note 285, at 188.

334. See *id.* (noting that “copyright holders seeking to protect their works in

mess is further exacerbated by additional differences in market capacities and consumer expectations.³³⁵ To address this ongoing challenge, countries have worked hard to harmonize their laws through the development of international intellectual property agreements, including the Paris and Berne Conventions, the TRIPS Agreement, and WIPO-administered treaties.³³⁶ Article 5(2) of the Berne Convention, for instance, expressly states,

The enjoyment and the exercise of these rights . . . shall be independent of the existence of protection in the country of origin of the work. Consequently, apart from the provisions of this Convention, the extent of protection, as well as the means of redress afforded to the author to protect his rights, shall be governed exclusively by the laws of the country where protection is claimed.³³⁷

While the need and vitality of the independence-of-right doctrine seems obvious, due to the fact that state sovereignty is the source of national laws and policies,³³⁸ there is a different set of territoriality questions that can benefit from greater geographical insights and spatial analysis.³³⁹ This latter set covers the

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”); *see also* Yu, *supra* note 37, at 943 (noting “the ‘messiness’ of international intellectual property law”).

335. *See* Graeme W. Austin, *The Inevitability of “Territoriality Challenges” in Trademark Law*, in TRADEMARK PROTECTION AND TERRITORIALITY CHALLENGES IN A GLOBAL ECONOMY, *supra* note 156, at 1, 1 (“Because the sources that shape the human consciousness do not begin and end at a nation’s borders, tensions will inevitably arise between trademark law’s territoriality principle and the realities of consumer perceptions and behaviors.”).

336. *See, e.g.*, WIPO Copyright Treaty, Dec. 20, 1996, S. Treaty Doc. No. 105-17, at v (1997) (providing international minimum standards for copyright protection in the digital environment); WIPO Performances and Phonograms Treaty, Dec. 20, 1996, S. Treaty Doc. No. 105-17, at 18 (1997) (providing international minimum standards for the protection of performances and phonograms in the digital environment).

337. Berne Convention, *supra* note 79, art. 5(2).

338. *See supra* note 214 (collecting sources discussing state sovereignty as the predominant source of national laws and policies).

339. *See* 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 independence of intellectual property); Yu, *Towards Seamless Global Distribution*, *supra* note 140, at 184–86 (calling for

territorial reach of the prescriptive jurisdiction and the scope of the relevant laws.³⁴⁰ Both issues are usually resolved at the discretion of nation-based institutions, such as the legislature or the judiciary. Under U.S. case law, for example, federal statutes are not to be construed to apply to conduct abroad absent clear congressional intent to that effect.³⁴¹ Thus, courts are generally reluctant to apply intellectual property laws to infringing activities outside the United States unless there is direct infringement within the country.³⁴²

The seminal case in this area is the 1994 case of *Subafilms, Ltd. v. MGM-Pathe Communications Co.*³⁴³ In this case, Subafilms and Hearst Corporation sued MGM/UA for the unauthorized foreign distribution of *Yellow Submarine*, an animated film

greater distinction between these two different sets of territoriality questions); *see also* Dinwoodie, *supra* note 57, at 887–88 (“Disaggregating the ‘principle of territoriality’ into its component parts, and separately analyzing the doctrines that implement the principle, enables a more nuanced assessment of the ways in which the principle might be modified in an era of global trade.”).

340. *See* Trimble, *supra* note 96, at 205 (“The increasing interest in cross-border aspects of [intellectual property] litigation, observable in recent years, has focused on two types of issues: establishing the territorial scope of substantive [intellectual property] laws on the one hand and designing and applying conflict of laws rules in [intellectual property] cases on the other.”).

341. As the United States Supreme Court declared in *Equal Employment Opportunity Commission v. Arabian American Oil Co.*:

It is a longstanding principle of American law “that legislation of Congress, unless a contrary intent appears, is meant to apply only within the territorial jurisdiction of the United States.” This “canon of construction . . . is a valid approach whereby unexpressed congressional intent may be ascertained.” It serves to protect against unintended clashes between our laws and those of other nations which could result in international discord.

499 U.S. 244, 248 (1991) (quoting *Foley Bros. v. Filardo*, 336 U.S. 281, 285 (1949)); *see also* *Am. Banana Co. v. United Fruit Co.*, 213 U.S. 347, 357 (1909) (stating that a federal statute should be constructed in a way that is “confined in its operation and effect to the territorial limits over which the lawmaker has general and legitimate power”); Curtis A. Bradley, *Territorial Intellectual Property Rights in an Age of Globalism*, 37 VA. J. INT’L L. 505, 510–19 (1997) (discussing the courts’ general presumption against the extraterritorial application of U.S. law).

342. *See* *Subafilms, Ltd. v. MGM-Pathe Commc’ns Co.*, 24 F.3d 1088, 1097 (9th Cir. 1994) (noting that “[t]he application of American copyright law to acts of infringement that occur entirely overseas clearly could have th[e] effect [of disrupting Congress’s efforts to secure a more stable international intellectual property regime]”).

343. 24 F.3d 1088 (9th Cir. 1994).

inspired by the Beatles.³⁴⁴ Interpreting the U.S. Copyright Act as conferring rights no further than the national border, the United States Court of Appeals for the Ninth Circuit held that authorizing within the United States acts that occur entirely abroad did not violate domestic copyright law.³⁴⁵

After *Subafilms*, however, several courts declined to follow the Ninth Circuit's decision, maintaining that the court had ignored changing economic reality, technological conditions, and consumer expectations.³⁴⁶ Instead, they sought to justify the application of

344. *Id.* at 1089.

345. *See id.* at 1099 (holding that "the mere authorization of acts of infringement that are not cognizable under the United States copyright laws because they occur entirely outside of the United States does not state a claim for infringement under the Copyright Act").

346. As the United States District Court for the Middle District of Tennessee declared:

[P]iracy has changed since the Barbary days. Today, the raider need not grab the bounty with his own hands; he need only transmit his go-ahead by wire or telefax to start the presses in a distant land. *Subafilms* ignores this economic reality, and the economic incentives underpinning the Copyright Clause designed to encourage creation of new works, and transforms infringement of the authorization right into a requirement of domestic presence by a primary infringer. Under this view, a phone call to Nebraska results in liability; the same phone call to France results in riches. In a global marketplace, it is literally a distinction without a difference.

A better view, one supported by the text, the precedents, and, ironically enough, the legislative history to which the *Subafilms* court cited, would be to hold that domestic violation of the authorization right is an infringement, sanctionable under the Copyright Act, whenever the authorizee has committed an act that would violate the copyright owner's § 106 rights.

Curb v. MCA Records, Inc., 898 F. Supp. 586, 595 (M.D. Tenn. 1995); *see also* *Expeditors Int'l v. Direct Line Cargo Mgmt. Servs., Inc.*, 995 F. Supp. 468, 477 (D.N.J. 1998) ("To allow an entity to curtail [copyright] by merely directing its foreign agent to do its 'dirty work' would be to hinder the deterrent effect of the statute and to thwart its underlying purpose."). Similarly, Jane Ginsburg lamented:

When foreign users log onto the U.S. site and download copies to their computers outside the United States, these acts could be characterized as further reproductions made from the illicit master copy on the U.S. website, and thus within the scope of U.S. law, as the Second Circuit has articulated the law's reach. Alternatively, applying the Ninth Circuit's approach, one might view the website as an invitation ("authorization") to all Internet users to access the document and produce copies. U.S. downloads would be governed by U.S. law (that would be true were the server located in the United Kingdom as well),

U.S. law by identifying some connection between the infringing act and the U.S. territory.³⁴⁷ In doing so, they not only strengthened the protection of U.S. copyrighted works abroad, but also removed what they considered the territoriality-based barrier to copyright protection.

Like the first set of questions about the independence-of-right doctrine, this second set covers important issues about the territoriality of rights. Unlike the former, however, the latter depends less on political geography and allows for greater utilization of geographical insights and spatial analysis. In fact, if we are to fully determine the territorial scope of intellectual property rights, we will need to know more than the country from which these rights originate. We may also need to think more deeply about the relationship between space and time,³⁴⁸ including changes in economic conditions, technological capabilities, and

but foreign downloads, since they “culminate” off shore, would be subject to the law of the place of receipt.

Jane C. Ginsburg, *Copyright Without Borders? Choice of Forum and Choice of Law for Copyright Infringement in Cyberspace*, 15 CARDOZO ARTS & ENT. L.J. 153, 171 (1997).

347. See *Curb*, 898 F. Supp. at 596 (“Because . . . issues of fact remain with regard to domestic infringement and authorization, the Court need not reach the question of whether domestic or foreign law may be applied to ultimately resolve the question of infringement.”).

348. See generally English, *supra* note 283 (exploring the relationship between space and time). As Franz and Keebet von Benda-Beckmann explained:

All notions of space and time are social constructions, whether defined by social, economic, or political relations and units or by reference to physical (e.g., ecological, hydrological) characteristics. There is no unique, theoretically superior substantive definition. Any primacy given to a particular type of time and space reflects the pragmatic political or theoretical and methodological purposes for which they are selected. The choice of a certain spatiotemporality is not innocent with respect to the social relations that are thereby highlighted or rendered invisible (e.g., the spatiotemporality of many women’s lives, colonized subjects, and the like). Natural and physical scientists tend to define space in terms of physical criteria whereby, for example, territorial, property, or administrative spaces and scales become secondary, subject to definition of space in terms of physical characteristics. For social scientists, social, political, or administrative demarcations of space tend to be the point of departure.

Franz von Benda-Beckmann & Keebet von Benda-Beckmann, *Places That Come and Go: A Legal Anthropological Perspective on the Temporalities of Space in Plural Legal Orders*, in EXPANDING SPACES OF LAW, *supra* note 54, at 30, 32 (footnote omitted).

consumer expectations. In doing so, we can be put in a better position to locate geographically related factors to “question, critique, and hopefully rewrite spatial assumptions that are built into” intellectual property law and policy.³⁴⁹

B. Legalizing Space

Apart from closely examining the spatial assumptions that have been built into intellectual property law and policy, it will be worthwhile to think more deeply about the different legal tools and devices that can be introduced to address problems lying at the intersection of intellectual property and geography. These tools and devices could also help provide what Andreas Philippopoulos-Mihalopoulos has referred to as “spatial justice.”³⁵⁰ Although this Subpart returns to the three sets of issues explored in Part IV, it only separates those occurring inside the border from those occurring across and beyond the border. After all, the legal solutions to problems occurring across and beyond the border tend to overlap somewhat.

1. Inside the Border

Although Subpart IV.A begins with the usual critique of the “one size fits all” or “supersize fits all” approach to intellectual property normsetting *within the international community*, it goes further to call for these critiques to be extended to the “one size fits all” approach to intellectual property normsetting *within an individual country*. If this approach is to be avoided, differentiated intellectual property standards will have to be developed at the subnational level.

A proposal calling for the development of subnational standards will inevitably raise concerns about potential inconsistencies with the TRIPS Agreement. As much as policymakers and commentators have noted how globalization,

349. Carmalt, *supra* note 327, at 149.

350. See Andreas Philippopoulos-Mihalopoulos, *Law's Spatial Turn: Geography, Justice and a Certain Fear of Space*, 7 LAW, CULTURE & HUMAN. 187, 196–202 (2010) (discussing spatial justice).

trade liberalization, and regional agreements have weakened the nation-state concept, this concept still remains the foundation of the WTO system. Except for a few customs territories, such as Chinese Taipei,³⁵¹ Hong Kong, and Macao, all the 160-plus WTO members are nation-states.³⁵²

Furthermore, as far as patentable inventions are concerned, Article 27.1 of the TRIPS Agreement states that “patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced.”³⁵³ Although most of the discussions on this provision have focused on discrimination based on either the field of technology or the distinction between product and process patents, this provision includes an express prohibition against discrimination based on “the place of invention.”³⁵⁴

Upon reflection, however, the analysis is likely to be less straightforward, especially when the region-based differentiated arrangements respect national treatment—that is, when they do not discriminate against foreign patent holders.³⁵⁵ Indeed, one could offer three arguably strong arguments to support greater tailoring of intellectual property standards to the divergent economic and technological conditions at the subnational level.

First, if the proposed arrangements offer the same protection to all inventions within the region, regardless of “the place of invention, the field of technology and whether products are imported or locally produced,”³⁵⁶ they should not present any Article 27.1 problem. Moreover, the WTO panel made clear in *Canada—Patent Protection of Pharmaceutical Products*³⁵⁷ that

351. Chinese Taipei is formally called the “Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu.” *Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu (Chinese Taipei) and the WTO*, WORLD TRADE ORG., https://www.wto.org/english/thewto_e/countries_e/chinese_taipei_e.htm (last visited Nov. 23, 2017) (on file with the Washington and Lee Law Review).

352. See *Members and Observers*, WORLD TRADE ORG., https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm (last visited Nov. 23, 2017) (listing the WTO members) (on file with the Washington and Lee Law Review).

353. TRIPS Agreement, art. 27.1.

354. *Id.*

355. See *id.* art. 3 (requiring the national treatment of foreign rights holders).

356. *Id.* art. 27.1.

357. See generally Panel Report, *Canada—Patent Protection of*

“differentiation” does not always amount to “discrimination.”³⁵⁸ As the panel observed,

The primary TRIPS provisions that deal with discrimination, such as the national treatment and most-favoured-nation provisions of Articles 3 and 4, do not use the term “discrimination”. They speak in more precise terms. The ordinary meaning of the word “discriminate” is potentially broader than these more specific definitions. It certainly extends beyond the concept of differential treatment. It is a normative term, pejorative in connotation, referring to results of the unjustified imposition of differentially disadvantageous treatment.³⁵⁹

During the panel process concerning this dispute, the United States made a third-party intervention stating that “differential treatment did not necessarily mean discriminatory treatment because different technologies might require different treatment to restore ‘parity of enjoyment.’”³⁶⁰ Cited as support for its position is the technology-specific Bolar exception,³⁶¹ which already existed during the TRIPS negotiations and applied to only pharmaceuticals and, later, medical devices.³⁶² Similarly, Australia, another third-party intervener, “stated that differential treatment did not necessarily amount to discrimination, and . . . cited patent term extension as a means of ‘restoring the balance of interests.’”³⁶³

Pharmaceutical Products, WTO Doc. WT/DS114/R (adopted in Mar. 17, 2000) [hereinafter WTO Panel Report].

358. *Id.* ¶ 7.94.

359. *Id.*

360. *Id.* ¶ 4.36.

361. See Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No. 98-417, 98 Stat. 1585 (codified as amended at 21 U.S.C. § 355 (2000)) (creating the Bolar exception); see also COMM’N ON INTELLECTUAL PROP. RIGHTS, INTEGRATING INTELLECTUAL PROPERTY RIGHTS AND DEVELOPMENT POLICY: REPORT OF THE COMMISSION ON INTELLECTUAL PROPERTY RIGHTS 50 (2002), http://www.iprcommission.org/papers/pdfs/final_report/ciprfullfinal.pdf (discussing the importance of the Bolar exception, which “makes it legal for a generic producer to import, manufacture and test a patented product prior to the expiry of the patent in order that it may fulfill the regulatory requirements imposed by particular countries as necessary for marketing as a generic”).

362. See *Eli Lilly & Co. v. Medtronic, Inc.*, 496 U.S. 661, 669–74 (1990) (extending the Bolar exception to medical devices—namely, implantable cardiac defibrillators).

363. WTO Panel Report, *supra* note 357, ¶ 4.36.

Second, although countries tend to have national standards on the books, a geographical examination of the actual protection on the ground shows varying levels of protection throughout many of these countries. In the United States, for instance, courts in different appellate circuits continue to disagree over the protection of intellectual property rights, resulting in what is generally referred to as “circuit splits.”³⁶⁴ A case in point is the protection offered by national trademark and unfair competition laws. Although the standards may be the same on paper—that is, based on the federal Lanham Act³⁶⁵—they differ at times in reality, not to mention the different levels of protection offered by state unfair competition laws.³⁶⁶

Finally, there is a growing trend for developing countries to establish “free trade zones,” “customs free zones,” or “export processing free zones.”³⁶⁷ These free zones tend to offer “relaxed regulations, limited taxes[,] . . . reduced oversight . . . [and] softened Customs control”—features that are different from those in other parts of the country.³⁶⁸ Although intellectual property

364. See Graeme B. Dinwoodie, *International Intellectual Property Litigation: A Vehicle for Resurgent Comparativist Thought*, 49 AM. J. COMP. L. 429, 430 (2001)

The United States is a large and diverse country comprising many autonomous political sub-units that enjoy adjudicatory and prescriptive authority. As commerce, culture, and communication became more national in nature, conflicts between different states within the United States were sufficiently plentiful to provide grist for the mills of both courts and conflicts scholars.

365. Lanham Act of 1946, 15 U.S.C. §§ 1051–1141n (2012).

366. See Peter S. Menell, *Regulating “Spyware”: The Limitations of State “Laboratories” and the Case for Federal Preemption of State Unfair Competition Laws*, 20 BERKELEY TECH. L.J. 1363, 1380–95 (2005) (discussing the landscape of federal and state unfair competition laws in the United States).

367. See Susan Tiefenbrun, *U.S. Foreign Trade Zones, Tax-Free Trade Zones of the World, and Their Impact on the U.S. Economy*, 12 J. INT’L BUS. & L. 149, 167–80 (2013) (comparing the foreign free trade zones in the United States with those in other parts of the world).

368. BUS. ACTION TO STOP COUNTERFEITING & PIRACY, INT’L CHAMBER OF COMMERCE, CONTROLLING THE ZONE: BALANCING FACILITATION AND CONTROL TO COMBAT ILLICIT TRADE IN THE WORLD’S FREE TRADE ZONES 1 (2013), <https://cdn.iccwbo.org/content/uploads/sites/3/2016/11/Combating-illicit-trade-in-FTZs-1.pdf>. As Franz von Benda-Beckmann, Keebet von Benda-Beckmann, and Anne Griffiths observed,

Law is . . . used for creating spaces for more specific purposes with special legal regimes that are superimposed on this general geographical political and administrative grid, such as economic

industries remain concerned about the problem of piracy and counterfeiting brought about by these free zones and sought to push for higher standards such as those in the Anti-Counterfeiting Trade Agreement,³⁶⁹ the existence of these free zones within the WTO framework does suggest that WTO rules may allow for differentiation in limited circumstances.

In sum, although the analysis in this Section is admittedly preliminary by nature, it illustrates the benefits of greater geographical insights and spatial analysis. The discussion here also invites us to think more deeply about the possibility of redesigning the intellectual property system in a way that better responds to the uneven economic and technological developments within a country. Because this type of uneven development is found more often in large developing countries than in their developed counterparts, it is very likely that new innovative solutions will come from the former rather than the latter.³⁷⁰ Having solutions emerging from developing countries is both exciting and refreshing. After all, the transplant of intellectual property standards tends to go in the opposite direction—from developed to developing countries.³⁷¹

zones Within one legal system there may be a multiplicity of different constructions of legally relevant space that may coexist and compete The measure of abstraction largely depends on the consequences lawmakers aim at when selecting specific characteristics while abstracting from and leaving other characteristics legally irrelevant.

Franz von Benda-Beckmann et al., *Space and Legal Pluralism: An Introduction*, in SPATIALIZING LAW, *supra* note 59, at 1, 5–6.

369. Anti-Counterfeiting Trade Agreement, *opened for signature* May 1, 2011, 50 I.L.M. 243. For the Author's discussion of the Anti-Counterfeiting Trade Agreement, see generally Peter K. Yu, *ACTA and Its Complex Politics*, 3 WIPO J. 1 (2011); Peter K. Yu, *The ACTA Committee*, in THE ACTA AND THE PLURILATERAL ENFORCEMENT AGENDA: GENESIS AND AFTERMATH 143 (Pedro Roffe & Xavier Seuba eds., 2014); Yu, *supra* note 205; Yu, *Alphabet Soup*, *supra* note 88, at 18–24; Peter K. Yu, *Enforcement, Enforcement, What Enforcement?*, 52 IDEA 239 (2012); Yu, *supra* note 169.

370. See Yu, *Intellectual Property and Asian Values*, *supra* note 221, at 396 (“Given the complexity of the various economies in Chindiasean [China, India, and ASEAN], the group may be able to draw on their own experience and problems to develop solutions that address the uneven development problems.”).

371. See generally Paul E. Geller, *Legal Transplants in International Copyright: Some Problems of Method*, 13 UCLA PAC. BASIN L.J. 199 (1994) (discussing legal transplant in the international copyright area); Peter K. Yu, *Can the Canadian UGC Exception Be Transplanted Abroad?*, 26 INTELL. PROP. J. 175

2. Across and Beyond the Border

Subpart IV.B focuses on the protection of traditional knowledge and traditional cultural expressions. It shows that even if we could all agree that traditional communities should decide for themselves what to protect and how to protect, difficult questions would still arise when the dispute involved more than one traditional community. When this dispute involved several communities both inside and outside a country, new legal solutions would have to be developed.

Subpart IV.C examines the challenges posed by the intellectual property rights holders' use of legal and technological tools—and often, “technolegal” tools³⁷²—to protect assets and facilitate exploitation. While the rights holders' eagerness to protect intellectual property is easy to understand, the eventual outcomes, such as those involving region-based restrictions, do not always make sense in terms of political, economic, social, or cultural geography.

When Subparts IV.B and IV.C are taken together, the two sets of issues discussed call for the development of new legal tools and devices. This Section offers three suggestions.

The first suggestion is to establish a transborder trust, which enables countries or communities to share the responsibility for and the benefits of their shared cultural heritage. This suggestion draws inspiration from the “international cultural property trust” that commentators have proposed to address the problem in *Peru v. Johnson*,³⁷³ a case involving pre-Columbian artifacts seized by the United States Customs Service, of which the Government of

(2014) (exploring the feasibility of transplanting the Canadian copyright exception for user-generated content abroad); Peter K. Yu, *Digital Copyright Reform and Legal Transplants in Hong Kong*, 48 U. LOUISVILLE L. REV. 693 (2010) (discussing efforts to transplant digital copyright laws to Hong Kong from abroad); Peter K. Yu, *The Transplant and Transformation of Intellectual Property Laws in China*, in GOVERNANCE OF INTELLECTUAL PROPERTY RIGHTS IN CHINA AND EUROPE 20 (Nari Lee et al. eds., 2016) (discussing the transplant of intellectual property laws in China from Western developed countries).

372. See Yu, *supra* note 37, at 939 (“The protection offered by these self-help measures is not only legal or technological per se, but constitutes a combination of both—which I have described as the technolegal. While technology helps reinforce or supplement the existing legal protection, law further prohibits the circumvention of technology.” (footnote omitted)).

373. 720 F. Supp. 810 (C.D. Cal. 1989).

Peru claimed to be the legal owner.³⁷⁴ In that case, the court rejected Peru's claims based on the fact that the contested artifacts could also be identified with those found in either Bolivia or Ecuador.³⁷⁵ To remedy this identification problem, the proposed transborder trust aims to eliminate the geographical border. This type of trust could be especially valuable in areas where benefit-sharing is mandated by international agreements, such as the Convention on Biological Diversity³⁷⁶ and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity.³⁷⁷

The second suggestion covers efforts to shape norms that would apply extraterritorially to cover the entire dispute at issue. Even better, these norms are designed in a way that would be recognized by all the jurisdictions involved—for example, through the skillful use of choice-of-law principles.³⁷⁸ If such recognition is possible, the courts at issue may even be able to draw on existing legal concepts, such as concurrent ownership, joint authorship, and derivative works.³⁷⁹ The use of these concepts is attractive

374. *Id.* at 811.

375. *See id.* at 812 (stating that the Government of Peru “ha[d] no direct evidence that any of the subject items came from Peru,” as opposed to the two other countries).

376. *See* Convention on Biological Diversity art. 8(j), June 5, 1992, 1760 U.N.T.S. 79 (requiring member states to “encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices”).

377. *See* UNITED NATIONS, NAGOYA PROTOCOL ON ACCESS TO GENETIC RESOURCES AND THE FAIR AND EQUITABLE SHARING OF BENEFITS ARISING FROM THEIR UTILIZATION TO THE CONVENTION ON BIOLOGICAL DIVERSITY 4 (2010), <http://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf>

The objective of this Protocol is the fair and equitable sharing of the benefits arising from the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding, thereby contributing to the conservation of biological diversity and the sustainable use of its components.

378. *See* Yu, *Towards Seamless Global Distribution*, *supra* note 140, at 204–06 (discussing the use of choice-of-law principles); *see also* Graeme B. Dinwoodie, *A New Copyright Order: Why National Courts Should Create Global Norms*, 149 U. PA. L. REV. 469, 476 (2000) (calling for courts to “decide international copyright cases not by choosing an applicable law, but by devising an applicable solution”).

379. *See* SCAFIDI, *supra* note 266, at 161–62 (discussing concurrent ownership

because they have already been widely used in the intellectual property field.³⁸⁰ Such use will therefore promote certainty and predictability.

The third suggestion relates to the development of new modes of protection that provide recognition across or beyond the border.³⁸¹ Examples of protections that go across the border are those facilitated by regional initiatives, such as the European Union trade mark, the community design system, and the European Union's unitary patent system.³⁸² For illustrative purposes, the European Union trade mark came into existence as the Community trade mark following the adoption of the Council Regulation on the Community Trade Mark³⁸³ in December 1993 and the establishment of the Office for Harmonization in the Internal Market (now the European Union Intellectual Property Office).³⁸⁴ Instead of having national trademarks in the then twelve, and now twenty-eight, members of the European Union,³⁸⁵

of property). The concept of joint authorship could nevertheless present some problems. As Silke von Lewinski stated, “[b]ecause of the lack of individual authorship in expressions of folklore, applying the concept of co-authorship does not remedy the situation, because co-authors are still individual authors who have decided to create a work together and according to a common plan.” Silke von Lewinski, *The Protection of Folklore*, 11 CARDOZO J. INT’L & COMP. L. 747, 758 (2003).

380. See, e.g., 15 U.S.C. § 1052 (2012) (allowing for concurrent registration of trademarks); 17 U.S.C. § 106(2) (providing for the right “to prepare derivative works based upon the copyrighted work”); *id.* § 201(a) (“The authors of a joint work are coowners of copyright in the work.”); 35 U.S.C. § 116 (“When an invention is made by two or more persons jointly, they shall apply for patent jointly . . .”).

381. See von Benda-Beckmann et al., *supra* note 368, at 5 (“[S]paces extending beyond state boundaries may acquire legal validity through multinational agreements created by transnational entities, such as the European Union.”).

382. See Yu, *Towards Seamless Global Distribution*, *supra* note 140, at 200–01 (discussing these regional initiatives).

383. Council Regulation 40/941 of 20 December 1993 on the Community Trade Mark, 1994 O.J. (L 11) 1 (EC) [hereinafter Council Regulation 40/941].

384. See *The Office*, EUR. UNION INTELL. PROP. OFF., <https://euipo.europa.eu/ohimportal/en/the-office> (last updated June 27, 2016) (last visited Nov. 23, 2017) (describing the European Union Intellectual Property Office) (on file with the Washington and Lee Law Review).

385. See *Countries*, EUR. UNION, https://europa.eu/european-union/about-eu/countries_en (last visited Nov. 23, 2017) (providing a list of EU members) (on file with the Washington and Lee Law Review).

rights holders enjoy the protection of a single region-wide unitary trademark throughout the European Union.³⁸⁶

Examples of those protections that go beyond the border are those found at the global level.³⁸⁷ Although commentators have explored the need for unitary global protection,³⁸⁸ such protection has yet to exist in the intellectual property field. Nevertheless, the “cross-border exchange” mechanism facilitated by the recently adopted Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired, or Otherwise Print Disabled³⁸⁹ has paved the way for such protection. Article 5(1) specifically allows an accessible format copy made under the permitted conditions in one country to be distributed or made available under similar conditions in another.³⁹⁰ Even though the arrangement is not universal, the cross-border exchange could make these accessible format copies widely available at the global level.

In sum, there are a wide variety of legal tools and devices that could be used to address the intellectual property challenges lying across and beyond the border. How well these tools and devices respond to the geographical challenges will depend on whether they can fully address the geographical complexities involved.

386. See Council Regulation 40/941, *supra* note 383, art. 1(2) (“A Community trade mark [now a European Union trade mark] shall have a unitary character. It shall have equal effect throughout the Community . . .”).

387. See von Benda-Beckmann et al., *supra* note 368, at 5 (“[F]or some types of law, such as human rights law, global or cosmopolitan validity is claimed, while traditional legal and regional legal orders often define the validity of their law independently from any spatial demarcation, as is the case, for instance, with Islamic law.”).

388. See generally John H. Barton, *Issues Posed by a World Patent System*, 7 J. INT’L ECON. L. 341 (2004) (discussing the standards appropriate to a reasonable global patent, taking the developing country perspective); Yu, *Seamless Global Digital Marketplace*, *supra* note 140, at 277–89 (calling for the establishment of “a seamless global digital marketplace” of media and entertainment content).

389. Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled, June 27, 2013, 52 I.L.M. 1312. This treaty provides individuals with print disabilities with easy or ready access to copyright publications.

390. See *id.* art. 5(1) (“Contracting Parties shall provide that if an accessible format copy is made under a limitation or exception or pursuant to operation of law, that accessible format copy may be distributed or made available by an authorized entity to a beneficiary person or an authorized entity in another Contracting Party.”).

VI. Conclusion

Spatial analysis and critique is not yet a common approach to assessing the strengths and weaknesses of intellectual property laws and policies. Yet, the discussion of geographical indications, traditional knowledge, traditional cultural expressions, climate change, high-technology innovation clusters, regional and plurilateral trade agreements, cloud-based distribution platforms, geolocation tools, and GPS navigation have raised important questions that would require a deeper and more thorough understanding of geography and the interrelationship between intellectual property and geography.

Although it is too early to tell whether a theoretical or “methodological turn” toward greater geographical understanding and spatial analysis of intellectual property law and policy will eventually emerge,³⁹¹ it is my hope that the spatial critique provided in this Article will promote a deeper appreciation of the connections between intellectual property and geography. This Article also seeks to provide the much-needed groundwork for a two-way dialogue between these two undeniably connected fields.

391. See Irus Braverman, *Who's Afraid of Methodology: Advocating a Methodological Turn in Legal Geography*, in EXPANDING SPACES OF LAW, *supra* note 54, at 120 (alluding to the “methodological turn”); see also Philippopoulos-Mihalopoulos, *supra* note 350, 196–202 (criticizing the current literature on law and geography for under-theorizing the concept of space); Mariana Valverde, “Time Thickens, Takes on Flesh”: *Spatiotemporal Dynamics in Law*, in EXPANDING SPACES OF LAW, *supra* note 54, at 53, 56 (discussing the “spatial turn in sociolegal studies”).