

## Extraterritoriality in U.S. Patent Law

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## I. INTRODUCTION

The increasingly global market place has placed considerable strain on the world's intellectual property systems. Intellectual property rights are still national rights, while business transactions increasingly occur transnationally.<sup>1</sup> Differing national intellectual property laws raise transaction costs in navigating international business transactions as the rights afforded can differ from country to country. Businesses must anticipate the varying levels of protection and attempt to maximize their opportunities country-by-country.

One approach of dealing with this problem is to harmonize intellectual property laws so that they are generally uniform from country to country. This uniformity reduces the cost of evaluating the varying laws of the relevant countries. In fact, many efforts have been made to harmonize international intellectual property rights, although mostly resulting agreements have set floors of protection instead of equivalent levels of protection.<sup>2</sup>

Another way of dealing with these problems is to provide extraterritorial reach to domestic intellectual property rights. If domestic rights can reach activity outside of a given

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<sup>1</sup> There are some regional patent agreements that provide supranational procedures for a given region, such as the European Patent Convention, OAPI and ARIPO (both in Africa), and the Eurasian Patent Convention. *See, e.g.*, John Richards, *Recent Patent Law Developments in Asia*, 7 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 599, 605-08 (1997); Tshimanga Kongolo, *The African Intellectual Property Organizations: the Necessity of Adopting One Uniform System for All Africa*, 3 J. WORLD INT. PROP. 265 (2000) (discussing francophone Organisation Africaine de la Propriété Intellectuelle (OAPI) and anglophone African Regional Industrial Property Organization (ARIPO)). These agreements still result in national patents. *See, e.g.*, European Patent Convention art. 64 (noting grant of national-level rights); Harare Protocol § 3, *available at* [http://www.wipo.int/clea/docs\\_new/en/zz/zz004en.html](http://www.wipo.int/clea/docs_new/en/zz/zz004en.html) (noting grant of national patents pursuant to ARIPO); Richards, *supra*; Kongolo, *supra*.

<sup>2</sup> *See generally* Timothy R. Holbrook, *The Treaty Power and the Patent Clause: Are There Limits on The United States' Ability to Harmonize?*, 22 CARDOZO ARTS & ENT. L.J. 1, 1-3 (2004) [hereinafter Holbrook, *Treaty Power*].

state, then the right holder can coordinate activities through the use of fewer domestic rights, as opposed to assembling a portfolio of international rights. Of course, the extraterritorial application of national-based rights is strongly disfavored and risks interfering with the sovereignty of the other country into whose territory the rights holder is reaching.

Copyright and trademark law had borne the brunt of the assault on territoriality from the global market place. The advent of the internet has placed considerable stress on these forms of intellectual property protection, resulting in considerable debate about the best way to deal with these issues.<sup>3</sup> Patent law was generally regarded as the most territorially based form of intellectual property, due to the nature of the subject matter – typically physical inventions – and to the review system – patents are issued by a governmental agency after a thorough review.<sup>4</sup> Recent cases, however, are showing that patent law is now beginning to buckle under the pressure. Surprisingly, the United States Court of Appeals for the Federal Circuit is showing a willingness to extend the extraterritorial reach of U.S. patents, although these cases are confusingly inconsistent in this regard. Numerous commentators have noted this expansion by

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<sup>3</sup> See, e.g., Rochelle Dreyfuss, *The ALI Principles on Transnational Intellectual Property Disputes: Why Invite Conflicts?*, 30 BROOK. J. INT'L L. 819 (2005); Rochelle C. Dreyfuss and Jane C. Ginsburg, *Draft Convention on Jurisdiction and Recognition of Judgments in Intellectual Property Matters*, 77 CHI.-KENT L. REV. 1065 (2002); Graeme B. Dinwoodie, *A New Copyright Order: Why National Courts Should Create Global Norms*, 149 U. PA. L. REV. 469 (2000). See generally Andrew T. Guzman, *Choice of Law: New Foundations*, 90 GEO. L. J. 883, 884 (2002).

<sup>4</sup> See Timothy R. Holbrook, *Territoriality Waning? Patent Infringement for Offering in the United States to Sell an Invention Abroad*, 37 U.C. DAVIS L. REV. 701, 705 (2004) [hereinafter Holbrook, *Territoriality*]; Donald S. Chisum, *Normative and Empirical Territoriality in Intellectual Property: Lessons from Patent Law*, 37 VA. J. INT'L L. 603, 604 (1997) ("The territorial scope of patent and other intellectual property laws is no longer a problem at the periphery of intellectual property deliberations. Rather, it is an issue regularly addressed by the legislative and executive branches."); John R. Thomas, *Litigation Beyond the Technological Frontier: Comparative Approaches to Multinational Patent Enforcement*, L. & POL'Y IN INT'L BUS. 277, 278 (1996).

the courts,<sup>5</sup> although consideration of the consequences of this tact have not been fully evaluated by the court itself or by commentators. The Supreme Court is now set to enter the fray as well, agreeing to review one of the Federal Circuit's decisions regarding the extraterritorial scope of U.S. patent law.<sup>6</sup>

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<sup>5</sup> See, e.g., Denise W. DeFranco and Adrienne N. Smith, *Technology and the Global Economy: Progress Challenges the Federal Circuit to Define the Extraterritorial Scope of U.S. Patent Law*, 34 AIPLA Q.J. 373 (2006); Graeme W. Austin, *Importing Kazaa-Exporting Grokster*, 22 SANTA CLARA COMPUTER & HIGH TECH. L.J. 577, 600-01 (2006); Christopher Cotropia, *Observations on Recent Patent Decisions: The Year in Review*, 88 J. PAT. & TRADEMARK OFF. SOC'Y 46, 68 (2006); Bridget A. O'Leary Smith, Note, *NTP, Inc. v. Research in Motion, Ltd.: Losing Control and Finding the Locus of Infringing Use*, 46 JURIMETRICS 437, 438 (2006); Virginia Zaunbrecher, Note, *Eolas, AT&T, & Union Carbide: The New Extraterritoriality of U.S. Patent Law*, 21 BERK. TECH. L.J. 33 (2006); Elizabeth M. N. Morris, Comments, *Territorial Impact Factors: An Argument for Determining Patent Infringement Based upon Impact on the U.S. Market*, 22 SANTA CLARA COMPUTER & HIGH TECH. L.J. 351 (2006); John W. Osbourne, *A Rational Analytical Boundary for Determination of Infringement by Extraterritorially-Distributed Systems*, 46 IDEA 587, 588 (2006); Dan L. Burk & Mark L. Lemley, *Inherency*, 47 WM. & MARY L. REV. 371, 410 n.181 (2005); Yar Chaikovsky & Adrian Percer, *Globalization, Technology without Boundaries & the Scope of U.S. Patent Law*, 9 INTELL. PROP. L. BULL. 95, 95 (2005); Darisuh Keyhani, *U.S. Patent Law and Extraterritorial Reach*, 7 TUL. J. TECH. & INTELL. PROP. 51, 52 (2005); Mark L. Lemley, et. al., *Divided Infringement Claims*, 33 AIPLA Q.J. 255, 263 (2005); Andrew F. Knight, *Software, Components, and Bad Logic: Recent Interpretations of Section 271(f)*, 87 J. PAT. & TRADEMARK OFF. SOC'Y 493, 493 (2005); William R. Thornewell II, *Patent Infringement Prevention and the Advancement of Technology: Application of 35 U.S.C. § 271(f) to Software and "Virtual Components"*, 73 FORDHAM L. REV. 2815, 2816 (2005); Barry Sookman, *Extra-Territorial Application of Patent Law: A First Look at the NTP v. Rim Litigation*, 18 INTELL. PROP. J. 453, 453 (2005); Daniel P. Homiller, Note, *From DeepSouth to the Great White North: The Extraterritorial Reach of United States Patent Law after Research In Motion*, 2005 Duke L. & Tech. Rev. 17; Steven C. Tietsworth, Comment, *Exporting Software Components—Finding a Role for Software in 35 U.S.C. § 271(f) Extraterritorial Patent Infringement*, 42 SAN DIEGO L. REV. 405, 408 (2005); Holbrook, *Territoriality*, supra note 4, at 705-06; Alan M. Fisch & Brent H. Allen, *The Application of Domestic Patent Law to Exported Software: 35 U.S.C. § 271(f)*, 25 U. PA. J. INT'L ECON. L. 557, 584-89 (2004). Professor Dan Burk was quite prescient in his description of these potential territoriality issues. See Dan L. Burk, *Transborder Intellectual Property Issues on the Electronic Frontier*, 6 STAN. L. & POL'Y REV. 9 (1994) [hereinafter Burk, *Transborder*]; Dan L. Burk, *Patents in Cyberspace: Territoriality and Infringement on Global Computer Networks*, 68 TUL. L. REV. 1 (1993) [hereinafter Burk, *Cyberspace*].

<sup>6</sup> See *Microsoft Corp. v. AT&T Corp.*, No. 05-1056, 2006 WL 403667, at \*1 (U.S. Oct. 27, 2006) (granting writ of certiorari). For a discussion of the Federal Circuit's decision in the case, see *infra* notes 53-**Error! Bookmark not defined.** and accompanying text.

Until recently, Congress was the primary agent of change as it relates to the territorial nature of patent rights. The courts would strictly construe the territorial limits of US patent rights,<sup>7</sup> and Congress would amend the patent act to deal with these perceived loopholes.<sup>8</sup> But recent cases show that new gaps are springing leaks again for US patent holders. In these cases, the courts have been willing to extend the extraterritorial reach of US patents in ways that are shockingly different from the reticence expressed in the past. These efforts often are made to avoid gaming of the system by parties aware of the territorial limits of the patent system, but even these judicial efforts may not eliminate all such gamesmanship.<sup>9</sup>

In light of these new pressures on domestic patent laws, the time has come to make a systemic reevaluation of the territorial nature of US patent rights. Should changes be left to Congress or the courts, and, if the courts, what sort of principles should guide them in assessing whether to apply a US patent to activities outside of the US? This Article presents a comprehensive analysis of this problem and affords a variety of options for tackling this issue. It concludes that Congress does not have the dexterity to react to an every changing market place, leaving the courts in the best position to address these concerns. The courts, however, are not appropriately balancing the variety of interests in these cases and instead are myopically focusing on strict statutory interpretation without considering broader consequences of their decisions. This Article therefore articulates a conflicts-based approach to territoriality, building on previous work by the author in this regard.<sup>10</sup>

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<sup>7</sup> See *Deepsouth Packing Co. v. Laitram*, *Deepsouth Packing Co. v. Laitram*, 406 U.S. 518, 527 (1972).

<sup>8</sup> See 35 U.S.C. § 271(f); see also *Rotec Indus. v. Mitsubishi Corp.*, 215 F.3d 1246, 1252 n.2 (Fed. Cir. 2000) (acknowledging that . § 271(f) overruled *Deepsouth*, at least in part).

<sup>9</sup> Lemley et al., *supra* note 5, at 266, 269, 271, 283 (showing examples of how system can still be gamed).

<sup>10</sup> See generally Holbrook, *Territoriality*.

Section II of this article outlines the recent case law developments that have increasingly expanded the extraterritorial reach of US patents. These cases are striking for their willingness to reach outside US borders yet their failure to consider the true consequences of finding these acts subject to US liability and injunctions. Section III then articulates two possible approaches to the extraterritoriality of US patents: applying a strict territorial approach to U.S. law or using a broad, effects-based analysis to determine if infringement is appropriate. Both of these approaches are contain significant flaws that preclude there efficacy. Section IV, therefore, articulates a new approach which is absent from the case law and the literature. This section posits that courts should be willing to apply US patents to activities outside of the US but only after carefully balancing the interests of the implicated foreign countries. Patent laws and policies can vary from country to country, and these differences often are worthy of respect and deference. The Article offers a rigorous methodology for navigating these complicated issues in hopes of balancing the interests of U.S. patent holders and foreign countries. Section V then explores possible various disadvantages and potential objections to the comparative method, ultimately concluding that these concerns are unwarranted. In a era of considerable debate about the patent system, the time has come to reconsider – and reform – the territoriality principle.

## II. THE RECENT ASSAULT ON TERRITORIAL PRINCIPLES

Until recently, courts would only apply US law to extraterritorial activities reluctantly. The Supreme Court has articulated a presumption against the extraterritorial application of US laws, although it is not consistently applied. Although Congress undeniably has the authority to regulate acts outside the territorial limits of the United States, the courts generally have required a clear statement from Congress that it intended to exercise this authority for a number of reasons: the potential conflict with another nation's law, international comity, choice-of-law

concerns, congressional intent, and separation of powers.<sup>11</sup> In the context of patent law, Congress's clear statement generally has been to have strict territorial limits. The patent laws have strict territorial limits stated expressly in them. All of the infringement provisions apply only to acts within the United States. Notwithstanding such express statutory language, issues of the extraterritorial reach of U.S. patents persists and have multiplied in recent years.

#### A. *The Supreme Court's Strict Territoriality*

Section 271 prescribes what constitutes infringement of a patent. Originally, section 271(a) of the Patent Act stated that "whoever without authority makes, uses, or sells any patented invention, within the United States during the term of the patent therefore, infringes the patent." The statute therefore explicitly contains a territorial restriction: all infringing activities had to occur within the United States. Indeed, many have viewed patent law as being the most territorial form of intellectual property.<sup>12</sup>

The Supreme Court has long recognized that patent rights are territorially limited, even before the 1952 Patent Act. As far back as 1856, the Supreme Court recognized that "these acts of Congress do not, and were not intended to, operate beyond the limits of the United States; and as the patentee's right of property and exclusive use is derived from them, they cannot extend beyond the limits to which the law itself is confined."<sup>13</sup> Almost sixty years later, the Court

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<sup>11</sup> Curtis A. Bradley, *Territorial Property Rights in an Age of Globalism*, 37 Va. J. Int'l L. 505, 513-17 (1997).

<sup>12</sup> Chisum, *supra* note 5, at 605.

<sup>13</sup> *Brown v. Duchesne*, 60 U.S. 183, 195-96 (1856) (holding that use of invention on foreign vessel in US harbor was not infringement). The Court suggested that the constitutional power of Congress under the Patent Clause was also territorially limited. *Id.* at 195 ("This power thus granted is domestic in its character, and necessarily confined within the limits of the United States."). This language of course predates modern understandings of not only the Patent Clause but also the Commerce Clause. For discussions on the scope of the Congress's constitutional authority as it relates to intellectual property, see generally Carolyn T. Ngyuen, Note, *Expansive*

reaffirmed this strict view of the reach of the patent laws, denying damages for sales in Canada of a patented item because “[t]he right conferred by a patent under our law is confined to the United States and its territories and infringement of this right cannot be predicated of acts wholly done in a foreign country.”<sup>14</sup>

Congress thus unsurprisingly placed express territorial limits in the 1952 Patent Act. Notwithstanding the seemingly clear statutory language, ambiguities arose in applying this provision.<sup>15</sup> For example, the statute did not answer whether the domestic manufacture of all of the components of an invention--without actually assembling the components into the device--would constitute infringement. The Supreme Court addressed this issue, and for the first time the territorial scope of the 1952 Patent Act, in *Deepsouth Packing Co. v. Laitram*.<sup>16</sup>

The two patents in *Deepsouth* related to shrimp deveining machines.<sup>17</sup> *Deepsouth*, the accused infringer, did not practice the invention in the United States; rather, it sought "to make the parts of deveining machines, to sell them to foreign buyers, and to have the buyers assemble

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*Copyright Protection For All Time? Avoiding Article I Horizontal Limitations Through The Treaty Power*, 106 COLUM. L. REV. 1079 (2006); Kevin A. Goldman, Comment, *Limited Times: Rethinking the Bounds of Copyright Protection*, 154 U. PA. L. REV. 705 (2006); Holbrook, *Treaty Power*, *supra* note 2; Thomas B. Nachbar, *Intellectual Property and Constitutional Norms*, 104 COLUM. L. REV. 272, 361-62 (2004); Joseph C. Merschman, Note, *Anchoring Copyright Laws in the Copyright Clause: Halting the Commerce Clause End Run Around Limits on Congress's Copyright Power*, 34 CONN. L. REV. 661 (2002); Paul J. Heald & Suzanna Sherry, *Implied Limits on the Legislative Power: The Intellectual Property Clause as an Absolute Constraint on Congress*, 2000 U. ILL. L. REV. 1119.

<sup>14</sup> *Dowagiac Mfg. Co. v. Minnesota Moline Plow Co.*, 235 U.S. 641, 650 (1915) (citations omitted).

<sup>15</sup> See generally Holbrook, *Territoriality*, *supra* note 4, at 719-21; Timothy R. Holbrook, *Liability for the “Threat of a Sale”*: Assessing Patent Infringement for Offering to Sell an Invention and Implications for the On-Sale Patentability Bar and Other Forms of Infringement, 43 SANTA CLARA L. REV. 751, 756-64 (2003) (both discussing the evolution of § 271 infringement provisions) [hereinafter Holbrook, *Threat of a Sale*].

<sup>16</sup> *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518 (1972).

<sup>17</sup> *Id.* at 519-20.

the parts and use the machines abroad."<sup>18</sup> No complete infringing machine had been made, used, or sold in the United States. It was undisputed that the completed machine would have infringed if the defendant had built it in the United States.

The Court noted that "[t]he statute makes it clear that it is not an infringement to make or use a patented product outside of the United States," so the infringer could not be liable under those forms of infringement.<sup>19</sup> The key question thus was whether Deepsouth had sold the invention in the United States. The Court concluded that Deepsouth's had not made such a sale and therefore there was no infringement. The Court's opinion was consistent with its earlier, strict views of the territorial limits of a U.S. patent. The Court easily could have broadly interpreted "make" to simply mean the creation of the various components without actually putting the pieces together.<sup>20</sup> The Court also could have concluded that these acts constituted a sale of the invention even without its complete construction. But they did no such thing, however. In part due to the antipathy towards patents,<sup>21</sup> the Court construed the statute, in the absence of a "clear and certain signal from Congress," to "strictly enforce[]" the limits on the enforcement of a patent.<sup>22</sup>

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<sup>18</sup> *Id.* at 523.

<sup>19</sup> *Id.*. *But see id.* at 532-33 (Blackmun, J., dissenting) (rejecting this interpretation of "make" as too narrow).

<sup>20</sup> The four dissenting justices would have done just that. *See id.* at 532-33. The Federal Circuit also applied a broader meaning to the word "make," although in the context of assessing the temporal, not the territorial, limits of a patent. *See Paper Paper Converting Machine Co. v. Magna-Graphics Corp.*, 745 F.2d 11, 19-20 (Fed. Cir. 1984) (finding infringement because device was an "operable assembly" even though never completely assembled during the patent term).

<sup>21</sup> *Id.* at 530. *But see Holbrook, Threat of a Sale*, *supra* note 15, at 799 (arguing against such antipathy).

<sup>22</sup> *Deepsouth*, 406 U.S. at 531. *But see Holbrook, Threat of a Sale*, *supra* note 15, at 759 (arguing that Supreme Court's interpretation inappropriately conflated infringement by selling with infringement by making).

## B. *The Federal Circuit's Inconsistent Approach to Extraterritoriality*

With the creation of the Federal Circuit in 1982, subsequent development of patent law, and its extraterritorial reach, fell to the Federal Circuit. The Federal Circuit was not operating in a vacuum, however, because shortly after its creation, Congress acted twice to close perceived loopholes in the Patent Act caused by territorial limits. It enacted § 271(f) to deal with situations akin to the facts of *Deepsouth*<sup>23</sup> and § 271(g) to provide protection against parties using patented processes overseas and then importing the resulting products into the U.S.<sup>24</sup> In this slightly changed context, the Federal Circuit has begun to address the extraterritorial reach of U.S. patent law. The results have been inconsistent at best, but a general trend towards greater extraterritorial reach can be discerned. Conspicuously absent from this trend, however, is a consistent theory, method, or justification for such expansion. Instead, the court has treated these issues as isolated matters of statutory interpretation with little concern for the extraterritorial consequences of these decisions. The following section explores the Federal Circuit's evolving approach to territoriality and highlights some of the court's seeming inconsistencies.

### 1. *Extraterritorial Reach of Injunctive Relief*

Acts of infringement often implicate foreign conduct; as such, courts may need to wrestle with the appropriate scope of injunctive relief when dealing with acts that might have

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<sup>23</sup> See *infra* notes [x]-[x] and accompanying text.

<sup>24</sup> See *infra* notes [x]-[x] and accompanying text. Both § 271(f) and (g) are not purely extraterritorial provisions. Both contain a domestic nexus that triggers the act of infringement – manufacture in the U.S. of components under § 271(f) and importation into the U.S. under § 271(g). This nexus therefore means that technically the U.S. law is applying to these domestic acts. See Chisum, *supra* note 4, at 606-07 (“In this and all later instances, Congress did not extend patent rights to acts outside the United States, but rather relied on some domestic act as a hook to reach foreign-based economic activity that harms a patent owner's interest in deriving full economic advantage from the U.S. market for the patented invention.”) The reality is, however, that determinations of liability are triggered by events occurring outside of the United States. Liability, therefore, could impact these acts, providing extraterritorial reach to a U.S. patent, notwithstanding the facially territorial nature of these provisions.

implications for the U.S. patent holder. The Federal Circuit addressed the territorial reach of U.S. patent law in this context in *International Rectifier Corp. v. Samsung Electronics Co.*<sup>25</sup> Specifically, the court addressed whether an injunction against an infringer could reach activities that took place outside the United States when those acts, if occurring in the U.S., would have been contemptuous. Samsung had been previously enjoined from infringing the relevant patent, but along with a third party IXYS, performed otherwise infringing acts outside of the United States. While some of the IXYS devices could eventually end up in the United States, the court concluded that there would be no basis to attribute IXYS's potentially infringing acts to Samsung. The court, therefore, drew a strong territorial line and prohibited an injunction from reaching activity occurring wholly outside the United States. The court therefore appeared to strictly adhere to territorial principles and was loath to enjoin activities outside of the United States.

## 2. *Section 271(f) Liability for Exporting Components of a Patented Invention*

Outside of the remedy context, however, the Federal Circuit has been more willing to interpret the patent laws to reach extraterritorial conduct. Much of this expansion has occurred in the context of 35 U.S.C. § 271(f), a provision adopted by Congress to close the territorial loophole created by the Supreme Court in *Deepsouth*. Congress eventually responded to *Deepsouth* and provided the “clear and certain” signal regarding the scope of patent protection. In 1984, Congress adopted 35 U.S.C. § 271(f) statutorily abrogating *Deepsouth* and closed the loophole it created. Under § 271(f)(1), the exportation of the unassembled components of a patented invention is an infringement if the infringer actively induces the assembly of the device outside of the United States. Congress went further than even the *Deepsouth* problem, however,

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<sup>25</sup> 361 F.3d 1355 (Fed. Cir. 2004).

by enacting § 271(f)(2): now exporting a single component of an invention that is neither a staple article of commerce nor which has a substantial noninfringing use is also infringement if the exporter knows that the component's only use is in the patented device and also knows that it will be combined outside of the United States into the completed device.<sup>26</sup> Although Congress enacted § 271(f) in 1984, the Federal Circuit did not have occasion to address it substantively until 2001. Since then, its treatment of this provision has been inconsistent and lacking any theoretical or methodological underpinning.

In *Waymark Corp. v. Porta Systems Corp.*,<sup>27</sup> the court confronted § 271(f) for the first time, addressing the question of whether the patented device actually had to be assembled outside of the United States for infringement. The accused infringer had manufactured all of the components and exported them but never assembled the complete patented system.<sup>28</sup> Nevertheless, the Federal Circuit decided there could be infringement, holding that exportation of the components without assembly was in fact infringement under § 271(f)(1).<sup>29</sup> Although “infringement without a completed infringing embodiment is not the norm in patent law,” the court concluded that the failure to assemble the device did not preclude a finding of infringement.<sup>30</sup> An intent to make the combination is sufficient to trigger § 271(f)(1) liability.<sup>31</sup>

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<sup>26</sup> These two provisions track the inducement and contributory infringement provisions of §§ 271(b) and (c).

<sup>27</sup> 245 F.3d 1364 (Fed. Cir. 2001). Prior to *Waymark* the court declined to reach the issue of whether § 271(f) applied to method and process inventions because the appellant had failed to preserve the issue for appeal. *See Southwest Software, Inc. v. Harlequin Inc.*, 226 F.3d 1280, 1290 (Fed. Cir. 2000). The court also was presented with an issue regarding § 271(f) in *Rotec Ind., Inc. v. Mitsubishi Corp.*, : 215 F.3d 1246 (Fed. Cir. 2000) where the court rejected the argument that an “offer to supply” a component was sufficient to trigger liability when the infringer never actually supplied the component. *Id.* at 1258.

<sup>28</sup> *Waymark*, 245 F.3d at 1365. The accused infringer did not assemble the components as a result of the law suit. *Id.*

<sup>29</sup> *Id.* at 1368.

<sup>30</sup> *Id.*

In justifying its decision, the Federal Circuit feared that requiring overseas assemblage would “pose the appearance of ‘giving extraterritorial effect to United States patent protection.’”<sup>32</sup>

Ironically, by allowing infringement without actual assembly, the court broadened the category of infringing, providing even greater extraterritorial consequence.<sup>33</sup> Thus, the court initially took a broad view of § 271(f), giving the provision considerable scope over acts outside of the U.S.

Subsequently the court took a more restrained view of § 271(f). In *Pellegrini v. Analog Devices, Inc.*,<sup>34</sup> the accused infringer “designed [the components] within the United States” and transmitted “the instructions for their manufacture and disposition . . . from within the United States.”<sup>35</sup> The components themselves were never made in the United States, however. The Federal Circuit held that these acts did not constitute infringement under § 271(f): “there can be no liability under § 271(f)(1) unless components are shipped from the United States for assembly.”<sup>36</sup> In discussing the scope of § 271(f), the court suggested that the components must be “physically present in the United States,”<sup>37</sup> suggesting that those components could not be something intangible. The components at issue in the case were, in fact, physical ones; they simply had not been made in the United States.

The issue of whether § 271(f) could apply to intangible components would not remain unanswered for long. In *Eolas Technologies Inc. v. Microsoft Corp.*,<sup>38</sup> the accused infringer Microsoft exported “golden master disks” that contained software code for the Windows

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<sup>31</sup>

*Id.*

<sup>32</sup>

*Id.*

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See Joan E. Beckner, *Patent Infringement by Component Export: Waymark Corp. v. Porta Systems Corp. and the Extraterritorial Effect of U.S. Patent Law*, 39 Hous. L. Rev. 803, 832; see also Holbrook, *Threat of Sale*, *supra* note 15, at 819 n.386.

<sup>34</sup>

375 F.3d 1113 (Fed.Cir.2004).

<sup>35</sup>

*Id.* at 1115.

<sup>36</sup>

*Id.* at 1117.

<sup>37</sup>

*Id.* at 1117.

<sup>38</sup>

399 F.3d 1325 (Fed. Cir. 2005).

operating system. Their customer would use these disks to replicate code onto the hard drives of computers that were sold outside of the United States. The golden master disks themselves, however, never become “a physical part of the infringing product.”<sup>39</sup> The court had to address whether the code on these golden master disks could constitute a component of a patented invention under § 271(f).

Prior to this case, § 271(f) had only been applied to tangible items. The court now had to address whether something intangible, like software, could also constitute a component of a patented invention.<sup>40</sup> The court noted that nothing in the statute itself limits § 271(f) to physical components. Relying on the statute’s broad definition of invention, the court recognized that software inventions are eligible for patent protection and that “every form of invention eligible for patenting falls within the protection of section 271(f)”, including patented processes and methods that often include software inventions.<sup>41</sup> Accordingly, “every component of every form of invention deserves the protection of section 271(f).”<sup>42</sup> Thus, as part of its conclusion, the court reasoned that § 271(f) applied to the exportation of components relevant to patented processes and methods.<sup>43</sup>

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<sup>39</sup> *Id.* at 1331.

<sup>40</sup> *Id.* at 1339.

<sup>41</sup> *Id.*

<sup>42</sup> *Id.*

<sup>43</sup> The court confirmed this holding in *Union Carbide Chem. & Plastics Tech. Corp. v. Shell Oil Co.*, 425 F.3d 1366, 1378-79 (2005):

This case again questions the meaning of the phrase “any component of a patented invention” in the statute. In other words, does this phrase apply to components used in the performance of patented process/method inventions? *Eolas Techs. v. Microsoft Corp.*, 399 F.3d 1325, 1339 (Fed.Cir.2005) recently answered this question in the affirmative, holding that every component of every form of invention deserves the protection of 35 U.S.C. § 271(f); i.e., that “components” and “patented inventions” under § 271(f) are not limited to physical machines.

The court next addressed “whether the software code on the golden master disk is a ‘component’ of the computer program invention” under § 271(f).<sup>44</sup> Instead of viewing the code as merely a “prototype, mold, or detailed set of instructions” of how to make the patented software, the court concluded that the code was functionally essential to the patented software invention.<sup>45</sup> As a result, the code on the master disks constituted a component of the patented invention, triggering liability under § 271(f).

The court drew support for this conclusion from “sound patent policy” and the legislative history. Relying on the non-discrimination principle of the TRIPS Agreement,<sup>46</sup> the Federal Circuit reasoned that a conclusion of non-infringement here would result in software technology being treated unequally with other technologies.<sup>47</sup> Moreover, software and hardware can often be interchangeable in computer technologies.<sup>48</sup> The court also thought the legislative history of § 271(f) supported a broad interpretation as the purpose of the provision was to close the territorial loophole “for all forms of patented inventions.”<sup>49</sup>

Finally, the court rejected the argument that the Federal Circuit’s earlier decision in *Pellegrini*.<sup>50</sup> The *Eolas* court distinguished the language in *Pellegrini* that § 271(f) applies to the “physical supply of components, not simply to the supply of instructions or corporate

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<sup>44</sup> *Eolas*, 399 F.3d at 1339.

<sup>45</sup> *Id.*

<sup>46</sup> See TRIPS Agreement, Part II, Section 5 (1994) (proscribing differential treatment of technologies unless explicitly excepted in the Agreement). This reliance is ironic because many countries do not afford patent protection for software inventions. See European Patent Convention, art. 55, ¶ 2(c) available at <http://www.european-patent-office.org/legal/epc/e/ar52.html> (“The following in particular shall not be considered patentable ... programs for computers.”); see also *Zaubrecher*, *supra* note 5, at 52-53.

<sup>47</sup> *Eolas*, 399 F.3d at 1339.

<sup>48</sup> *Id.* Of course, that is not the situation in this case as it relates to the golden disk code.

<sup>49</sup> *Id.* at 1340. The court’s reliance on the legislative history is suspect, however, because Congress could not have foreseen the use of patents to protect software.

<sup>50</sup> 375 F.3d 1113 (Fed.Cir.2004).

oversight”<sup>51</sup> as relating only to the source of the components (the United States) and not whether those components need be physical or intangible.<sup>52</sup>

Addressing facts very similar to *Eolas*, the court subsequently confronted the issue of “whether software replicated abroad from a master version exported from the United States—with the intent that it be replicated—may be deemed ‘supplied’ from the United States” in *AT&T v. Microsoft*.<sup>53</sup> The Federal Circuit answered that question affirmatively, noting that “supplying” software generally requires the making of a copy.<sup>54</sup> Copying is therefore subsumed in supplying software components.<sup>55</sup> Moreover, software exported via golden disks or electronic transmission both fall within the scope of § 271(f)’s proscription on supplying the components of a patented invention: “[l]iability under § 271(f) is not premised on the mode of exportation, but rather the fact of exportation.”<sup>56</sup> The court admittedly interpreted the statute broadly to effectuate the legislative intent behind the provision.<sup>57</sup>

After the one-two punch of *Eolas* and *AT&T*, the court broadened the reach of § 271(f) even further. In *Union Carbide Chemical & Plastics Technology Corp. v. Shell Oil Company*, the court concluded that infringement under § 271(f)(2) was possible for the exportation of a catalyst to be used abroad in a patented process.<sup>58</sup> Previously, the court suggested that § 271(f)

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<sup>51</sup> *Id.* at 1118.

<sup>52</sup> *Eolas*, 399 F.3d at 1341.

<sup>53</sup> 414 F.3d 1366, 1369 (Fed. Cir. 2005), *cert. granted* Microsoft Corp. v. AT&T Corp., No. 05-1056, 2006 WL 403667, at \*1 (U.S. Oct. 27, 2006)..

<sup>54</sup> *Id.* at 1370.

<sup>55</sup> *Id.*

<sup>56</sup> *Id.* at 1371.

<sup>57</sup> *Id.* Judge Rader dissented in *AT&T*, concluding that copying and supplying are different, with the former not covered by § 271(f). *See id.* at 1373 (Rader, J., dissenting). Judge Rader’s concerns with extraterritoriality are a bit perplexing, however, given that he authored both *Waymark* and *Eolas*.

<sup>58</sup> *Union Carbide Chem. & Plastics Tech. Corp. v. Shell Oil Co.*, 425 F.3d 1366, 1380 (2005).

would not apply to method claims;<sup>59</sup> nevertheless, relying on the same statutory interpretation methodology used to give expansive protection under § 271(f) in *Eolas* and *AT&T*, the court concluded that nothing in the statute excludes patented methods from protection under this provision. As such, the catalyst could be viewed as a part of the patented process, and its exportation – so long as it had no substantial non-infringing use – would trigger liability under § 271(f)(2). While some believed § 271(f) was limited to physical inventions,<sup>60</sup> the Federal Circuit has now broadly expanded this provision to cover not only intangible components but also method claims.

The Federal Circuit’s expansive treatment of § 271(f) has not gone unnoticed. The Supreme Court recently granted *certiorari* in the *AT&T* case and will address the Federal Circuit’s interpretation of both the “component” and “supplied” language under *Eolas* and *AT&T* respectively.<sup>61</sup> Congress is also aware of the Federal Circuit’s activities as recent patent form legislation has proposed the elimination of § 271(f) in its entirety.<sup>62</sup>

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<sup>59</sup> See *NTP v. Research in Motion*, 418 F.3d 1282, 1322 (Fed. Cir. 2005).

<sup>60</sup> See *Union Carbide Chem. & Plastics Tech. Corp. v. Shell Oil Co.*, 434 F.3d 1357, 1358-59 (Fed. Cir. 2005) (Lourie, J., dissenting from refusal to rehear case en banc) (“The whole tenor of that provision relates to physical inventions, *i.e.*, apparatus or compositions, not methods. . . . [T]he inventions in [*Eolas* and *AT&T*] were apparatus or systems, not methods or process. . . . A component of a process is a step in the process; it is not the physical material to be used in the process.”).

<sup>61</sup> *Microsoft Corp. v. AT&T Corp.*, No. 05-1056, 2006 WL 403667, at \*1 (U.S. Oct. 27, 2006).

<sup>62</sup> See Patent Reform Act of 2006, S. 3318, § 5(f) (“EFFECT OF EXTRATERRITORIAL INFRINGEMENT.--§ 271(f) is repealed.”). Accord See Catherine Tornabene, Note, *The Export-Import Dilemma: Inventions and Employment Abroad*, 58 HASTINGS L.J. 153, 154-176 (2006); Farrand, *supra* note 5, at 763 (arguing for repeal of § 271(f)). Farrand argues that § 271(f) simply discourages investment in domestic manufacturing facilities and encourages the flight of such facilities overseas. Farrand, *supra* note 5, at 792-93. This problem, though, is applicable to all patent protection. It is an infringement to make the devices, which also gives an incentive to take manufacturing outside of the United States. The extent to which § 271(f) significantly exacerbates this problem is empirically uncertain.

### 3. *Section 271(g) Liability for Importing Products of Patented Processes*

Aside from exportation protection under § § 271(f), Congress adopted a similar provision to prevent arbitrage of process patents due to territorial limits. In 1988, Congress passed the Process Patent Amendments Act<sup>63</sup> that provided additional extraterritorial protection by adopting § 271(g). This provision defines the importation, sale, or offer to sell in the United States a product made by a patented process as an act of infringement, even if that process is performed outside of the United States. There is no infringement, however, if the final product either “is materially changed by subsequent processes” or “becomes a trivial and nonessential component of another product.”<sup>64</sup>

Without section 271(g), a competitor could circumvent a U.S. process patent if the product of the process was not patented by performing the process outside of the United States and importing the unpatented product into the United States. Section 271(g) is Congress's response to this problem and closes, in patch-work fashion, another territorial loophole in patent protection. Affording this type of protection is also required under our international treaty obligations.<sup>65</sup>

The Federal Circuit’s interpretation of this provision has ignored or misapprehended the territorial concerns surrounding it. For example, in *Bio-Technology General Corp. v. Genentech, Inc.*,<sup>66</sup> the court interpreted the term “product” in the statute in an appeal of the grant of a preliminary injunction. The process as claimed covered the production of a plasmid that could produce a protein, but the product made by the accused infringer was just the protein. The

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<sup>63</sup> PL 100-418, 1988 HR 4848, § 9001.

<sup>64</sup> 35 U.S.C. § 271(g)(1) & (2).

<sup>65</sup> *See Agreement on Trade Related Aspects of Intellectual Property*, art. 28(1)(b).

<sup>66</sup> 80 F.3d 1553, 1560 (Fed. Cir. 1996).

court concluded there was still infringement and afforded the term “product” a broad reading<sup>67</sup> notwithstanding the differences between the final products.<sup>68</sup>

A broad reading of the statute affords greater extraterritorial reach to the U.S. patent. Such concerns counsel against broad interpretations, contrary to the reasoning of the Federal Circuit. The court failed to take into account the lessons of *Deepsouth* that statutes that risk extraterritorial consequences should be afforded a narrow reading, not a broad one. Moreover, conspicuously absent from the court’s discussion was any concern for the possible interference with foreign patent law this interpretation could create. For example, the patented process could be viewed as unpatentable in the relevant country, and allowing the use of the U.S. patent to control this activity undermines that policy choice by a foreign country.

The Federal Circuit continued down this flawed path by concluding that § 271(g) could be violated even when the use of the patented process abroad was authorized.<sup>69</sup> According to the

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<sup>67</sup> *Bio-Technology*, 80 F.3d at 1560-62

<sup>68</sup> *Bio-Technology*, 80 F.3d at 1560-62. The court has treated § 271(g) inconsistently in other ways as well. For example, in *Bio-Technology*, the court also held that the acts that trigger liability are the selling, offering to sell, or importing the product of the patented process; if these acts took place after the statutory provision came into place – even if the process had been performed *before* the date the statute was enacted – there is infringement. *Bio-Technology General Corp. v. Genentech, Inc.*, 80 F.3d 1553, 1560 (Fed. Cir. 1996).

Subsequently, however, the court held that § 271(g) does not apply to products imported during the patent term if the products were made by the patented process before the patent issued. *Mycogen Plant Science, Inc. v. Monsanto Co.*, 252 F.3d 1306, 1319 (Fed. Cir. 2001) (“We hold, therefore, that in imposing liability for selling or using products ‘made by a process patented in the United States,’ section 271(g) requires that the patent be issued and in force at the time that the process is practiced and the product is made.”), *vacated on other grounds*, 535 U.S. 1109 (2002). The Federal Circuit reasoned that the statute requires a “process patented in the United States,” and before issuance, the process is not patented. *Id.* at 1318. The court distinguished *Bio-Tech* on the grounds that the patent in that case was already in force when the process was performed, although the statute was not in effect. *Id.* at 1318. Of course, this distinction seems inappropriate given that the *Bio-Tech* court concluded that they were not applying the statute retroactively because the triggering act was the importation of the item, not the use of the method. *Bio-Tech*, 80 F.3d at 1560.

court, authorization was irrelevant; all that mattered was whether the sale, offer to sell, or importation of the *product* of the process into the United States was unauthorized.<sup>70</sup> Thus, analysis of infringement under § 271(g) is limited to (1) whether the process that was used was patented in the U.S. and (2) whether the product was sold, offered to be sold, or imported without authorization in the United States. This holding allows a U.S. patent to regulate extraterritorial behavior, even if the patentee may have already authorized and been compensated for that behavior. The court has eliminated exhaustion of the patentee’s rights if the patentee authorized the use of the process overseas, but not the importation of those results.

In contrast to the court’s gradual expansion of the scope of § 271(f), the court did act to restrict the reach of § 271(g). In *Bayer AG v. Housey Pharmaceuticals, Inc.*, the Federal Circuit addressed whether importation of intangible information alone constituted the product of a patented process, and held that it did not.<sup>71</sup> The process claims at issue covered a method of identifying substances that activated or inhibited the production of proteins in a cell. Thus, the “product” of the process was not a physical item but instead data. The patent owner asserted that using the process overseas and then relying on the information to produce the activator or inhibitor in the U.S. was importation of the “product” of the process – the information regarding the activator or inhibitor.

The court rejected this argument and narrowly construed § 271(g) to only cover the physical products of methods of manufacturing products. Using traditional statutory interpretation methodology, the court reasoned that the term “made” refers in its ordinary usage to manufacture, requiring the creation of a physical item. The statutory defense for a product that

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<sup>69</sup> See *Ajinomoto Co. v. Archer-Daniels-Midland Co.*, 228 F.3d 1338 (Fed. Cir. 2000).

<sup>70</sup> *Id.* at 1348.

<sup>71</sup> 340 F.3d 1367, 1377 (Fed. Cir. 2003).

has been materially changed suggests that the product must be physical and not merely data. Finally, the court reviewed the legislative history, concluding that Congress intended only physical products of patented processes to be covered. One purpose for adopting § 271(g) was to supplement the protections available through proceedings at the International Trade Commission, which covers “articles” imported into the United States. This legislative history suggested that Congress intended only physical products to be covered. The court has subsequently determined that the sending emails into the United States would not count as the importation of the product of a process because there is no physical construct imported.<sup>72</sup>

In a world with business method patents and other processes where the key output of the process is purely data,<sup>73</sup> this interpretation significantly narrows the reach of U.S. law. For example, clinicians could avoid infringement of a gene patent (or method claims correlating certain mutations with disease) by sending a patient’s tissue sample abroad, having it purified and analyzed there, and sending the data results back to the U.S. Sending a raw tissue sample would not implicate § 271(f), and importing the resulting data about the sequence would not be the physical importation of the product itself.

Importantly, the result in *Bayer* cannot be reconciled with the *Eolas* and *AT&T* decisions. Unlike *Eolas*, the court used the ambiguity of the term “made” and the legislative history to conclude that § 271(g) is limited to the production of physical items.<sup>74</sup> Although both statutory

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<sup>72</sup> See *NTP v. Research in Motion*, 418 F.3d 1282, 1323-24 (Fed. Cir. 2005).

<sup>73</sup> The Federal Circuit has recognized that the scope of patent eligible subject matter is not coextensive with the reach of the various infringement provisions. See *id.* at 1324 (“*AT & T*, *State Street Bank*, *Alappat*, and *Chakrabarty* do not command a different result because sections 101 and 271(g) are not coextensive in their coverage of process inventions.”).

<sup>74</sup> *Bayer*, 340 F.3d at 1374 (“Even if the legislative history did not affirmatively suggest an intent to limit coverage to manufactured ‘articles’ in accordance with section 1337, we have been directed to nothing in the legislative history suggesting that Congress was concerned that the preexisting statutory scheme failed to reach intangible information.”).

provisions were designed to close loopholes created by the territorial nature of patent rights, these two loopholes now have considerably different scope.<sup>75</sup> There seems to be no legitimate basis for treating the two provisions differently when they both address similar concerns.<sup>76</sup>

4. *Section 271(a) – Can There be Infringement “Within the United States” if Some Acts Occur Outside of the United States?*

Section 271(a) of the Patent Act contains the basic exclusive rights afforded under a patent and particularly notes that the right to exclude is limited to acts “within the United States.”<sup>77</sup> Even this seemingly strict territorial provision has created considerably ambiguity as to the extent to which a U.S. patent can reach overseas activity.

This provision originally only included the right to exclude others from making, using, or selling an invention, but Congress in 1994 added § 271 to include "offers to sell" and "importation" of an invention to satisfy the United States' obligations under TRIPS.<sup>78</sup> As a result of this new language, the courts have had to confront whether an offer made in the United States to sell a device abroad would infringe a U.S. patent.<sup>79</sup> The district courts are currently split on this issue,<sup>80</sup> and the Federal Circuit so far has avoided expressly answering the question.<sup>81</sup>

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<sup>75</sup> See Tornabene, *supra* note 62, at 154.

<sup>76</sup> Cf. Lemley, et al., *supra* note 5, at 283 (suggesting changing interpretation of § 271(g) to include “the importation of data produced abroad by a patented process.”).

<sup>77</sup> 35 U.S.C. § 271(a). This section also proscribes importation of an invention “into the United States.”

<sup>78</sup> See Holbrook, *Territoriality*, *supra* note 4, at 722.

<sup>79</sup> See generally Holbrook, *Territoriality*, *supra* note 4.

<sup>80</sup> Compare *Synaptic Pharmaceuticals Corp. v. MDS Panlabs, Inc.*, 265 F.Supp.2d 452, 462-63 (D.N.J. 2002); *Cybiotronics, Ltd. v. Golden Source Electronics, Ltd.*, 130 F. Supp. 2d 1152, 1167-71 (C.D. Cal. 2001); *Quality Tubing, Inc. v. Precision Tube Holdings Corp.*, 75 F. Supp. 2d 613, 614 (S.D. Tex. 1999); (finding no infringement if sale is outside of U.S.) *with* *SEB, S.A. v. Montgomery Ward & Co., Inc.*, 412 F.Supp.2d 336, 342 n.8 (S.D.N.Y. 2006); *Wesley Jessen Corporation v. Bausch & Lomb, Inc.*, 256 F. Supp. 2d 228, 230 (D. Del. 2003); *Fieldturf, Inc. v. Southwest Recreational Industries, Inc.*, 235 F. Supp. 2d 708 (E.D. Ky. 2002) *dismissed on standing grounds*, 357 F.3d 1266 (Fed. Cir. 2004) (allowing infringement where ultimate sale is outside U.S.).

Allowing there to be infringement when only the *offer* and nothing else has been made in the abroad would significantly afford a U.S. patent extraterritorial reach. All of the physical acts of making and using the device would occur outside the U.S., yet liability would still lie.

More recently, and famously, the Federal Circuit addressed the extraterritorial bounds of § 271(a) in *NTP, Inc. v. Research in Motion*,<sup>82</sup> otherwise known as the Blackberry case. The invention at issue was a remote email system that was integrated into the user's computer-based email system.<sup>83</sup> The relevant patents contain both system and method claims.<sup>84</sup> The accused infringer Research in Motion (RIM) offers the Blackberry system to users in the United States even though part of the system, the relay, is physically located in Canada.<sup>85</sup>

The Federal Circuit concluded that there was infringement.<sup>86</sup> In analyzing the patent at issue, the court drew a distinction between the method and system claims, addressing both the use and sale of these types of claims. The court noted that § 271(a) is ambiguous as to “how the territoriality requirement limits direct infringement where the location of at least a part of the ‘patented invention’ is not the same as the location of the infringing act.”<sup>87</sup> The court provided a more nuanced analysis of § 271(a) in terms of the various acts of infringement in § 271(a) – making, using, selling, or offering to sell – and the nature of claims at issue – a system or method.

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<sup>81</sup> See *Rotec Industries, Inc. v. Mitsubishi Corp.*, 215 F.3d 1246 (Fed. Cir. 2000). Judge Newman would have concluded that offers in the U.S. to sell abroad cannot constitute infringement of a U.S. patent. See *id.* at 1258 (Newman, J., concurring).

<sup>82</sup> 418 F.3d 1282 (Fed. Cir. 2005), *superseding* 392 F.3d 1336 (Fed. Cir. 2004).

<sup>83</sup> 418 F.3d at 1289.

<sup>84</sup> *Id.* at 1317-18.

<sup>85</sup> *Id.* at 1290.

<sup>86</sup> The reasoning of the court in its opinion after granting the petition for rehearing shifted slightly from its original opinion. The court originally did not rely upon the system-method dichotomy central to its second decision. See 392 F.3d 1336 (Fed. Cir. 2004).

<sup>87</sup> *NTP v. Research in Motion*, 418 F.3d 1282, 1315 (Fed. Cir. 2005).

The court concluded that here there had been an infringing use of the patented system. Relying on precedent from the Court of Claims, *Decca Ltd. v. United States*<sup>88</sup>, the court held that the use of an invention occurs in “the place at which the system as a whole is put into service, *i.e.*, the place where control of the system is exercised and beneficial use of the system obtained.”<sup>89</sup> In contrast to the use of a system, however, the court held that “a process cannot be used ‘within’ the United States as required by section 271(a) unless each of the steps is performed within this country.”<sup>90</sup> Because one of the steps in this case was performed in Canada, there was no use of the patented method and thus no infringement.<sup>91</sup>

The *NTP* decision is striking on a number of levels. As a matter of statutory construction, its differential application of § 271(a)’s provisions to method and system claims runs contrary to the clear language of the statute. Section 271(a) provides protection for inventions generally, and inventions are defined as being any process, machine, manufacture, or composition of matter.<sup>92</sup> Nothing in the statute suggests that method claims should be treated differently from

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<sup>88</sup> 544 F.2d 1070, 1074 (Ct. Cl. 1976).

<sup>89</sup> *NTP*, 418 F.3d at 1317.

<sup>90</sup> *Id.* at 1318.

<sup>91</sup> The court further reasoned that there were no sales or offers to sell the patented method, either, but not on the basis of territorial limits. Instead the court concluded that Congress did not intend inventions for methods to be infringed by sales or offers to sell. *Id.* at 1319-20. Although the court declined to adopt a bright-line rule that method claims could *never* be infringed by sales or offers to sell, the court reasoned that there was no infringement in the present case:

We need not and do not hold that method claims may not be infringed under the "sells" and "offers to sell" prongs of section 271(a). Rather, we conclude only that RIM's performance of at least some of the recited steps of the asserted method claims as a service for its customers cannot be considered to be selling or offering to sell the invention covered by the asserted method claims. The sale or offer to sell handheld devices is not, in and of itself, enough. Thus, we conclude as a matter of law that RIM did not sell or offer to sell the invention covered by NTP's method claims within the United States.

*Id.* at 1319-20.

<sup>92</sup> 35 U.S.C. § 101.

other types of claims for the purposes of infringement.<sup>93</sup> Resort to the legislative history is only appropriate when the statutory language is ambiguous, which it is not in this occasion. The infringement provisions apply to inventions, and as defined by the statute, inventions include methods. Indeed the courts methodology in interpreting § 271(a) is utterly inconsistent with its approach to § 271(f).<sup>94</sup>

Similarly, the bifurcated approach to explaining the “use” of an invention belies the clear statutory structure. There is no reason that “use” of a method should be viewed as different than the “use” of a system. Under a traditional, strict territorial reading of patent rights, the court should have concluded that, as all of the limitations of the claim were not met within in the United States – be they method or systems limitations – there should not have been infringement.<sup>95</sup>

This decision marks a sea change in Federal Circuit law. The court, not Congress, acted to expand the extraterritorial reach of a patent. *Decca*, unlike *NTP*, involved the US government and could be justified on the unique circumstances of the federal government being an infringer of an invention that necessitated extraterritorial aspects in order to function. At a minimum, this case demonstrates, as has already been seen in copyright and trademark law, that the traditional

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<sup>93</sup> Indeed, the court noted that there is no such distinction in the on-sale bar validity context for methods and other claims, although some offers to sell methods might more appropriately be viewed as licenses rather than invalidating offers to sell. Timothy R. Holbrook, *The Risks of Early Commercialization of an Invention: The On-Sale Bar to Patentability*, in INTELLECTUAL PROPERTY AND INFORMATION WEALTH (P. Yu ed., Praeger Publishers, forthcoming 2006).

<sup>94</sup> See *supra* notes [x]-[x] and accompanying text, discussing *Eolas Techs. Inc. v. Microsoft Corp.*, 399 F.3d 1325, 1338-40 (Fed. Cir. 2005). The court in *Eolas* recognized the broad definition of the term “invention” and noted that § 271(f) in no way modifies this definition. Whether the outcome in *Eolas* is correct or not does not undermine the fact that the court’s approach to interpreting the statute in the two cases is irreconcilable.

<sup>95</sup> Cf. *Deepsouth*, 406 U.S. at 524 (finding no infringement even though all of the components were manufactured in the U.S., the completed device was never entirely built in the United States). Congress overturned *Deepsouth* statutorily. See 35 U.S.C. § 271(f); see generally Holbrook, *supra* note **Error! Bookmark not defined.**, at 720-21.

territorial principles of patent law are beginning to erode in an increasingly global marketplace. Indeed, the Federal Circuit is currently considering whether U.S. courts can properly adjudicate assertions of infringement of *foreign* patents.<sup>96</sup>

### III. OPTIONS TO ADDRESS TERRITORIAL CONCERNS IN A GLOBAL MARKET PLACE

The discussion of these cases demonstrates that the patent system is currently under strain due to the territorial nature of patent rights. A variety of loopholes that have developed in the patent law as a result: enforcement of injunctions to acts outside the United States, offers made in the U.S. that contemplate foreign sales, exportation of unpatented components of inventions, importation of products of patented processes, and transnational systems. What is missing is a consistent approach to addressing these loopholes that inevitably develop.

The time has come for the courts or Congress to embrace a uniform approach to these territorial issues, instead of the haphazard approach that the above cases have taken. A uniform, consistent means of addressing territorial concerns will provide greater certainty and fairness to litigants. This Section explores the various approaches that have been or could have been used by the courts in these cases and evaluates the pros and cons of these various approaches. Specifically, the courts could embrace a strict territorial approach that leaves expansion to Congress. This approach can be seen in the *Deepsouth* approach and the resulting adoption of § 271(f) by Congress. Moreover, in response to an expansive interpretation of that provision, Congress now is considering eliminating that provision altogether.<sup>97</sup> Alternatively, the courts could embrace a broad, expansionist view that focuses on the effects – either economic or

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<sup>96</sup> See *Voda v. Cordiss Corp.*, No. 05-1238; see also *Voda v. Cordiss Corp.*, 122 Fed.Appx. 515, 515 (Fed. Cir. 2005) (granting interlocutory appeal on issue of jurisdiction foreign patent infringement claims). Argument was held in January 2006.

<sup>97</sup> Patent Reform Act of 2006, 5(f).

technical – in the United States of infringement in a manner akin to antitrust law or trademark law. The Federal Circuit’s “beneficial use” standard is akin to this “affects” approach. A third option – which heretofore has been ignored by the courts and most commentators – would be a comparative, balancing approach, where the interests of the country affected by the decision would also enter into the calculus. If liability would create a conflict with foreign law, then there should not be infringement. While simple in its articulation, such a balancing approach has numerous complications. The following section evaluates all of these potential options for dealing with issues of extraterritoriality.

*A. Strict Territoriality – One Part Outside of the United States Results in No Infringement*

The simplest, cleanest approach to dealing with territoriality issues is to strictly limit patent infringement to acts entirely within the United States, much like the Supreme Court did in *Deepsouth*. If any part of the patented invention exists or is performed outside of the United States, then there is no infringement. A strict adherence to the territoriality principle would make it much easier to predict whether there should be infringement. For example, the decision in *NTP* would have gone the other way – the presence of one aspect of the invention outside of the U.S. would preclude any infringement. Various loopholes in the enforcement of a U.S. patent would arise. For example, if *NTP* had gone the other way, infringers could avoid liability by dividing a system between U.S. and a foreign location or locations.

The pattern of the past, however, can then repeat itself: Congress remains the primary source of means to close these various loopholes, as demonstrated by the adoption of §§ 271(f) and (g). If Congress concluded that the interest in the U.S. patent is sufficient, then it could adopt legislation to close any other loopholes that may develop as a result of the courts’

adherence to territoriality. This approach would be consistent with the Supreme Court's insistence for clear signals from Congress that it intends to extend the reach of U.S. law outside the territorial U.S.<sup>98</sup> The primacy of Congress in establishing the scope of patent rights would be retained.

This colloquy between the courts and Congress does have significant downsides. Congress must react to the courts' overtures, which can take time. For instance, *Deepsouth* was decided in 1972, and Congress did not overrule it with § 271(f) until 1984. Such delays could be costly to the affected patent holders, particularly for those whose patent terms expire during the period of delay. Moreover, Congressional action will always be piecemeal and reactive; it is unlikely that Congress would be able to anticipate various ways that companies would arbitrage the system to take advantage of the rules of territoriality. Instead, a problem would develop and Congress would respond. In contrast, the courts will be the first to confront these scenarios and would be better situated to address them up-front.

The position of the courts on the "front lines" of these issues highlights another problem with adhering to territoriality. Faced with these scenarios where a seeming injustice is being perpetrated against a patent holder, a court may engage in arguably tortured statutory constructions to combat the situation. Instead of waiting for Congress, the courts may try to address the problem on their own, resulting in odd and disingenuous statutory interpretations

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<sup>98</sup> *Deepsouth*, 406 U.S. at 531; see also *E.E.O.C. v. Arabian Am. Oil. Co.*, 499 U.S. 244, 248 (1991) ("We assume that Congress legislates against the backdrop of the presumption against extraterritoriality. Therefore, unless there is 'the affirmative intention of the Congress clearly expressed,' we must presume it 'is primarily concerned with domestic conditions.'" (citations omitted)); *Benz v. Compania Naviera Hidalgo, S.A.*, 353 U.S. 138, 147 (1957) ("For us to run interference in such a delicate field of international relations there must be present the affirmative intention of the Congress clearly expressed. It alone has the facilities necessary to make fairly such an important policy decision where the possibilities of international discord are so evident and retaliative action so certain. We, therefore, conclude that any such appeal should be directed to the Congress rather than the courts.").

like the *Eolas*, *AT&T*, and *NTP* cases.<sup>99</sup> Such strained interpretations undermine the territorial approach, subvert Congress' role in the process, and serve only to create uncertainty. Congress response, such as deleting § 271(f) as is currently proposed, only risks greater uncertainty in the state of the law.

Moreover, given the courts' failures to consider the intellectual property law and policies of the implicated foreign jurisdictions, these statutory interpretations risk violating the rules of comity and complicate our international posture with these other countries. The complete absence of balancing potential competing policy interests in these interpretations is rather stark and unfortunate in terms of creating a greater dialogue on patent law and policy. A strict territorial approach, therefore, does not in fact guarantee that those limits will in fact be enforced.

*B. Effects-Based Approaches—Does the Conduct Affect the United States?*

Instead of a strict territorial approach, courts could the enforcement of a U.S. patent to any activities that have an affect on the United States. This approach is similar to that used in trademark, antitrust, and securities law. In antitrust law, for example, U.S. law “applies to foreign conduct that was meant to produce and did in fact produce some substantial effect in the United States.”<sup>100</sup> Securities law operates similarly: U.S. law applies if there is an intent to produce harm in the United States and an actual harm in the United States results from those foreign acts. , and actual production of, detrimental effects within the United States.<sup>101</sup> The Supreme Court has used a slightly narrow, but still effects-based methodology in trademark law,

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<sup>99</sup> See *supra* notes [x]-[x] and accompanying text (discussing flaws in reasoning of these decisions).

<sup>100</sup> *Hartford Fire Ins. Co. v. California*, 509 U.S. 764, 796 (1993). Antitrust law, unlike patent law, requires there to be an intent and an actual harm.

<sup>101</sup> See, e.g., *Bersch v. Drexel Firestone, Inc.*, 519 F.2d 974, 988-89 (2d Cir. 1975); *Schoenbaum v. Firstbrook*, 405 F.2d 200, 208-09 (2d Cir. 1968), overruled on other grounds, 405 F.2d 215 (2d Cir. 1968) (en banc).

to determine whether there is jurisdiction under the Lanham Act. The Court identified three key factors: the effect on U.S. commerce, the citizenship of the offender, and the existence of conflicts between U.S. and foreign law.<sup>102</sup>

A similar approach could be used for patent law. If foreign activities in some way impact the market for the patented invention domestically, then U.S. patent law should reach those activities. Suggestions along these lines have been made, and generally they have taken two forms. One is an economically-based effects test: if the foreign activity affects the domestic market in some way, then U.S. law should apply. A second set of approaches is more technologically based: if there is some aspect of the device or technology that is in the United States, without a focus on the economic impact, then U.S. law should apply. I explore the advantages and disadvantages of these two approaches.

### *1. Economically-based Effects Test*

Commentators have suggested that the focus in deciding whether to apply U.S. patents to foreign activities should depend on the economic impact on the United States.<sup>103</sup> In a global marketplace, however, relying only upon the economic impact of the foreign activities risks bringing considerable extraterritorial reach to U.S. patent law. Many U.S. patent holders operate on a transnational level, so seemingly any activity abroad could have implications for the U.S. market. The Blackberry case demonstrates the modern reality of activities crossing borders –

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<sup>102</sup> Steele et al. v. Bulova Watch Co., 344 U.S. 280, 286-87 (1952). Different than the approaches by the courts for patents, the trademark jurisprudence does account, on a limited basis, the potential for a conflict of laws.

<sup>103</sup> See Chisum, *supra* note 4, at 608-09. Morris, *supra* note 5, has suggested the use of “territorial impact factors” as proxies for assessing the economic impact on the United States. These factors are: (1) control (2) beneficial use, and (3) ownership. *Id.* at 352. These factors, though, are not economic. As these are not purely economic considerations (such as impact on prices or quantity of sales in the U.S. market), I view this as more akin to a “technical” effects test, discussed *infra* at notes [x].

sales of the patented system and method undeniably impacted the market in the United States. Concerns over drug re-importation plans and gray market goods highlights that all markets are quite porous, and activities outside of the U.S. market could easily impact the U.S. market itself. If sales outside of the United States result in the patent holder being forced to reduce prices in the United States, then there has been an effect on the United States. With global markets, sales anywhere in the world could have an effect on the United States, providing very broad extraterritorial protection.

The proposals fail to provide a metric for discerning how much impact is sufficient to apply U.S. law. For example, the courts could use a threshold or a cost-benefit approach. For a threshold approach, to trigger U.S. law, some minimum threshold level of impact that must be crossed, regardless of what the countervailing impact on the foreign jurisdiction the activity currently has or might result if liability is found. Of course, defining how much is “enough” could be difficult, if the threshold must be some non-trivial level.<sup>104</sup> Alternatively, courts could balance the economic impact in the U.S. against the economic consequences of the foreign jurisdiction, declining to apply U.S. law if the impact is greater outside of the United States. The tests offered in the antitrust and securities context, however, suggest that courts using effects methodology use the former, threshold approach. This greatly extends the extraterritorial reach of U.S. laws.

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<sup>104</sup><sup>104</sup> The regional circuit courts are split on this issue as it relates to trademark law. Some courts, such as the Second Circuit, require a “substantial” effect on U.S. commerce, mirroring the test used to distinguish interstate from intrastate commerce. *Vanity Fair*, 243 F.2d at 642. The Ninth Circuit instead requires only an effect because the “substantial effect” test is irrelevant to the Foreign Commerce Clause. *Wells Fargo & Co. v. Wells Fargo Express Co.*, 556 F.2d 406, 428 (9th Cir. 1977). The First Circuit requires a substantial effect only if the accused infringer is not a U.S. citizen; because Congress can regulate the acts of U.S. citizens abroad, the substantial effect test does not apply if the infringer is a U.S. citizen. *McBee v. Delica Co.*, 417 F.3d 107, 110 (1st Cir. 2005).

More importantly, focusing exclusively on the impact on U.S. markets ignores the intellectual policies that the foreign countries may have in place. Although TRIPS has afforded a certain level of harmonization, it still grants flexibility for countries to afford higher protection or to exclude protection for certain inventions. Allowing the mere effect on U.S. markets to generate liability for acts that would be view as non-infringing within that country would undermine those policies and that nation's sovereignty. Thus, a true economically driven effects test would extend the reach of a U.S. patent to the four corners of the globe, undermining the various policies in place in other countries and providing considerable – and inappropriate – reach to a U.S. patent.

## *2. Technology-Based Effects Test*

Other proposed effects-based tests do not rely on the economic impact on the U.S. market directly but instead focus on the nature of the invention. In essence, a court is to determine the locus of the infringement based on the use or characteristics of the patented invention. Under these proposals, aspects of control and the location of components factor heavily on whether U.S. law should govern. The technological focus can act as a proxy, in some regards, from pure economic considerations. Because of the focus on the technology itself, as opposed to markets, I categorize these as “technology-based” effects test. At present, courts and commentators have offered two variants of the technology-based effects tests: Control and Beneficial Use and Point of Novelty tests.

### *a) Control and Beneficial Use*

One way of gauging whether a U.S. patent should cover activities outside of the United States is to ascertain the location of the infringing activity. The Federal Circuit used such an

approach in *NTP v. Research in Motion*.<sup>105</sup> The focus under such an approach is not necessarily where the economic impact of the use takes place but instead a technical assessment of where and by whom the invention is controlled and used.

A key problem with the “control and beneficial” use is that there is no limiting principle. The test gives no guidance as to how much of the system must be in the U.S. versus a foreign country to satisfy the amorphous standard articulated, nor to whom the useful benefit must run.<sup>106</sup> Similarly, the control aspect of the test lacks any certainty: it does not explain whether the control must be by the customer, provider, or both. In other words, it is unclear whether the beneficial use and control by the direct infringer key or if there is a broader set of actors who could satisfy the test, such as the customer or the provider of the goods or services. The answer to this question is quite ambiguous. In *NTP*, the court implicitly argued that the control and beneficial use by the *customer* was key, but control and beneficial use could implicate a variety of actors, and the answer to the infringement question becomes unclear.

For example, imagine a computer system for streaming videos where the owner of the webpage uploads the movies only, and customers can purchase the right to stream the movie. Assume that the owner of the page uploads all of the videos in Hungary, but U.S. users can join the service and stream movies. If the owner of a patent that covers this system attempted to assert infringement, there could be difficulty in identifying the locus of control. The users could be viewed as exercising control, as per the *NTP* decision, because they access the system and determine which movies they will watch. The webpage owner, however, exercises control by

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<sup>105</sup> See *NTP Inc. v. Research in Motion*, 418 F.3d 1282, 1317 (Fed. Cir. 2005).

<sup>106</sup> See O’Leary Smith, *supra* note 5, at 458 (noting ambiguity of “beneficial use test”). O’Leary Smith nevertheless advocates elimination of the “control” aspect of the Federal Circuit’s test, which would result in even greater extraterritorial scope to U.S. patents. She recognizes that such an expansion could risk problems of comity, but again nothing in her analysis suggests when such comity concerns should, if ever, enter a court’s analysis. *See id.*

providing the various movies. The users cannot upload anything, so, the webpage owner exercises control in a different way. Thus, the idea of control is quite ambiguous.

Moreover, the extent to which the “control” must be in the United States is unclear. Is it a balancing test, or an absolute requirement. One could view *NTP* as requiring *all* control and beneficial use to lie within the United States, so this hypothetical would be non-infringing, or *NTP* could be viewed as an exercise in balancing the various interests of the relevant countries. The absence of any consideration of Canadian interests in the case, however, suggests that the court is focusing exclusively on acts within the United States. The court did not use a balancing test of any sort.

The same problem arises for the “beneficial use” aspect of the test. It begs the question of whether *all* beneficial use must lie within the United States, merely some, or if a balancing test is being used implicitly. In the above movie streaming hypothetical, users could be spread throughout the world. Some of the beneficial use would be within the United States, but the test does not answer if that use alone is or whether use outside of the United States would also be relevant. The court does not explain its approach, although the conspicuous failure to assess interests outside of the United States again suggests that the former is all that would be required, and uses outside the United States would not be relevant in the court’s calculus. Moreover, the owner of the web page benefits economically by receiving income from his customers. It is unclear whether the benefit to the webpage owner would be “beneficial use” and how the tests accounts for dynamic.

Most importantly, the court failed to take into account the Canadian government’s potential interest in the acts occurring within its territory. The Canadian government filed

amicus briefs at the Federal Circuit decrying this oversight taking the Federal Circuit to task for this failure:

The reissued panel opinion lacks any acknowledgement or discussion of the effect of, or the effect upon, long established-international understandings and agreements regarding national jurisdiction over intellectual property. . . .Explicit articulation of such principles will not merely facilitate the evolution of international intellectual property law, nor simply satisfy the Supreme Court’s admonition in *F. Hoffman-LaRoche, Ltd. V. Empagran, S.A.*, 542 U.S. 155 (2004), to address such matters in statutory construction analyses when potential issues of extraterritoriality are implicated, but also avoid what otherwise could appear to some as a unilateral assertion of patent infringement jurisdiction, justified solely in terms of national law, over the technology of a trans-national system.<sup>107</sup>

The Canadian government therefore recognized the conspicuous absence of any thought as to the international dimension of the case. The government carefully did not say that the decision was wrong, instead emphasizing that the court’s failure to explicitly consider Canada’s interest was methodologically infirm.

The Federal Circuit’s reasoning is also inconsistent with the decision upon which it is based, the decision by the Court of Claims in *Decca v. United States*. The Court of Claims expressly noted that application of a U.S. patent in that case, unlike in *Deepsouth*, did not create “a probable conflict with the patent laws of other counties.”<sup>108</sup> Although the court did not perform a rigorous evaluation of Norway’s interest in the system – which was negligible – the Court of Claims did acknowledge the need to consider possible conflicts with foreign laws. This reality escaped the Federal Circuit.

The *NTP* decision is a Solomonian effort to apply a strict territorial rule in one regard for method claims, yet to apply a technology-based effects test in the other for systems claims,

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<sup>107</sup> NTP, Inc. v. Research in Motion, Ltd., No. 03-1615, Brief for Amicus Curiae Government of Canada in Support of the Petition of Research in Motion, Ltd. for Rehearing *En Banc*, 2005 WL 4798095, at \*3-4 (Aug. 19, 2005).

<sup>108</sup> *Decca*, 544 F.2d at 1074.

basing infringement on the use of the system, not the construction of the system itself. In both regards, the opinion generally fails in its efforts by offering both an overly tortured interpretation of § 271(a) and by relying on a boundless “control and beneficial use” test.

*b) “Point of Novelty” Test*

One commentator has suggested a different technology-based effects test that looks at the geographic location of the “patentably distinct” aspects of the patented invention.<sup>109</sup> For transnational systems, the location of the parts of the invention that are patentably distinct from the prior art controls whose law applies.<sup>110</sup> If those aspects are in the U.S., then U.S. law applies; if in Canada, then Canadian law applies. This commentator reaches this approach by interpreting *Decca* differently than the Federal Circuit in *NTP*.<sup>111</sup>

While seemingly a simple solution to the issue of extraterritoriality, the commentator never defines “patentably distinct.” This term is ambiguous. The author offers no suggestion as to how to discern what this feature would be. The author also fails to explain the contours of relevant evidence to make this determination. Is it the aspect of the invention that provides novelty or non-obviousness? Is the patentee bound by representations made to the patent office even if later proven false, or only to arguments proffered by the examiner? Can expert testimony be used to counter the public record? All of these open doors that belie the test’s facial simplicity.

There could be multiple aspects of the invention that distinguish it from the prior art. This test provides no answer to which law governs if those two aspects are in different countries.

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<sup>109</sup> See, Osborne, *supra* note 5, at 611.

<sup>110</sup> *Id.*

<sup>111</sup> *Id.* at 610-11. The opinion in *Decca* never expressly articulates this test and eschews the use of any bright-line tests. See *Decca v. United States*, 544 F.2d 1070, (“This conclusion does not rest on any one factor but on the combination of circumstances here present.”).

Indeed, the genius of an invention may be the actual combination of previously known components. For example, the creation Post-It Notes® involved the use of two known elements – an adhesive and paper. When the combination is key to the invention, the system as a whole would be the “patentably distinct” aspect of the invention, and there would be no single geographic location for the patentably distinctive part. The proposed test would not provide an answer. The entire concept of a particular “patentably distinct” aspect of an invention harkens back to the rejected concept of the “heart” or “gist” of the invention.<sup>112</sup> There need not be a singular, defining feature of an invention that is key to its patentability rendering this test difficult, if not impossible, to apply.

*C. All of These Approaches are Unsatisfactory*

Neither a strict territorial approach nor a broad “effects” test are satisfying. These approaches to extraterritoriality contain significant flaws. A strict territorial approach is true to the presumption against applying U.S. laws outside the territorial U.S., thus facilitating comity and reducing the risk of an affront to the sovereignty of another country. Of course, the strict approach means that either Congress will have to act retrospectively to close a hole in the laws – which means necessarily protection for some patents will already have slipped – or the courts will be forced to articulate strained interpretations of statutory provisions as in *Eolas*, *AT&T*, and *NTP*. The focus is entirely on the United States. The same is true of §§ 271(f) and (g): under a plain reading of those statutes and as interpreted by the Federal Circuit, courts give no consideration of potential countervailing interests of the countries in which the relevant activities occur. Instead, the focus is myopically on the United States only.

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<sup>112</sup> See *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 345 (1961) (“[T]here is no legally recognizable or protected ‘essential’ element, ‘gist’ or ‘heart’ of the invention in a combination patent.”); see also *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1333 (Fed. Cir. 2003).

An effects approach allows the tailoring of patent law to protect US inventors, but it ignores the implication of such holdings on activities in foreign countries. The US-centric approach undermines the policies and sovereignty of foreign countries who may not provide protection to an inventor for a variety of legitimate reasons. There is little to no consideration of the interest or concerns of those other countries. These proposals are in sharp contrast to another area of intellectual property, trademark law, where the Supreme Court and regional circuits consider potential conflicts of law as relevant in assessing whether there is jurisdiction over the cause of action.<sup>113</sup>

The failure to consider the interests of the relevant foreign countries is universal to all of the above approaches, and all the approaches suggested by commentators. Section IV explores this oversight and proffers a unique, previously unarticulated approach that explicitly balances the interest of the U.S. with those of the country that is implicated by the infringing activity.

#### IV. A COMPARATIVE APPROACH—BALANCING COMPETING FOREIGN PATENT LAW

A third option, absent from the case law or the literature, is an approach that balances the interest of the US patent holder and the interests of the affected country, particularly as they relate to variances in U.S. and foreign patent laws. In a climate of patent reform, the issue of extraterritorial reach has particular salience. Section 271(f) is currently in the sights of recent

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<sup>113</sup> *Steele v. Bulova Watch*, 344 U.S. 280 (1952); *Wells Fargo & Co. v. Wells Fargo Express Co.*, 556 F.2d 406, 428 (9th Cir. 1977) (adopting a jurisdictional rule of reason that considers comity and conflict of laws); *Vanity Fair Mills, Inc. v. T. Eaton Co., Ltd.*, 234 F.2d 633, 642-43 (2d Cir. 1956). The First Circuit treats issues of comity not as necessary to the jurisdictional analysis but instead as pertinent only to “questions of whether a court should, in its discretion, decline to exercise subject matter jurisdiction that it already possesses.” *McBee v. Delica Co.*, 417 F.3d 107, 110 (1st Cir. 2005).

proposals.<sup>114</sup> This novel approach could be used in lieu of further modifications for Congress or, more narrowly, it could be used as an implementation of the extraterritorial reach of § 271(a).<sup>115</sup>

The comparative approach affords a general method that courts could use, in lieu of requiring Congressional modification to close various loopholes. This method is flexible and accords due respect to the variances that exist among nations regarding patent law. Countries can differ significantly on these issues. For example, while the U.S. has taken a broad view of eligible subject matter for patents, others have not been as receptive, denying patents on higher-order living animals,<sup>116</sup> computer software,<sup>117</sup> and business methods.<sup>118</sup> Other countries provide more rigorous protection for parties who begin to use an invention before the patent issues.<sup>119</sup> An approach to extraterritoriality that ignores this substantial differences creates significant conflicts of law and potentially can undermine the sovereignty of countries whose views of

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<sup>114</sup> See Patent Reform Act of 2006, S. 3818, § 5(f) (proposing deletion of § 271(f)).

<sup>115</sup> Section 271(g)'s protection for process patents is mandated by our obligations under the TRIPS Agreement. See TRIPS, art. 28, 1(b). TRIPS also requires a shift in the burden of proof for products of patented processes. If the product new or "if there is a substantial likelihood that the identical product was made by the process and the owner of the patent has been unable through reasonable efforts to determine the process actually used," then the burden shifts to the defendant to show that the product was not made by the patented process. TRIPS art. 34; see also 35 U.S.C. § 295 (implementing this presumption) .

This provision could be left intact under the law or, as will be explained, the protection against the importation of the products of patented processes can be seen as a scenario in which the various factors identified under this method inescapably point towards the application of U.S. patent law. This provision also shows that overlapping of protection is plausible under international law because the US patent holder could also have a patent in the country where the patented process is being performed.

<sup>116</sup> See, e.g., *Harvard Coll. v. Canada (Commissioner of Patents)*, [2002] SCC 76, 219 D.L.R. (4th) 577, at para. 155; see generally Margo A. Bagley, *Patent First, Ask Questions Later: Morality and Biotechnology in Patent Law*, 45 WM. & MARY L. REV. 469, 528-30 (2003).

<sup>117</sup> See, e.g., European Patent Convention, art. 52(2)(c).

<sup>118</sup> *Id.*

<sup>119</sup> See Mark A. Lemley & Colleen V. Chien, *Are the U.S. Patent Priority Rules Really Necessary*, 54 HASTINGS L.J. 1299, 1302 (2003). At present, the U.S. provides prior user rights only for business method patents. See 35 U.S.C. § 273.

patent law differ from the United States. By explicitly contemplating these differences, the comparative approach guards against creating such conflicts and preserving these distinctions.

The comparative method also facilitates a greater dialogue on patent law and standards between various countries. This dialogue has the potential to lead to the development of international patent law norms; it could also serve to identify points of considerable disagreement between countries which may need to be the source of future, political negotiations. Given the generally slow process of treaty negotiations and their inability to adapt to ever-evolving technologies, use of a judicial colloquy could help establish international norms that could reduce the transaction costs for international actors.<sup>120</sup> This private law lever could act as an important and powerful supplement to the public law mechanisms.

Of course, taken too far, a balancing approach could swallow all possible predictability in intellectual property law. One approach under the auspices of a balancing methodology would be to take all relevant national policies, international treaties, and other potential norms into account in a “totality of the circumstances” approach. A court could then articulate an outcome that balances and best effectuates these various policies. Of course, the resulting rule could be one that is not present in any given states’ patent laws. Moreover, predicting the outcome of such an approach would be difficult. The uncertainty that attends such an approach would be detrimental to the business community, which dislikes risks and prefers certainty in planning. Indeed, it would undermine the perceived benefits of providing a more concise means for these businesses to operate in a global marketplace. Finally, if confronted with such a myriad of sources, U.S. courts may be tempted to stick with the familiar – U.S. law – and thus outcomes may be skewed towards U.S.-driven outcomes as opposed to a careful consideration of

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<sup>120</sup> Dinwoodie, *supra* note 3, at 492-93.

international and foreign laws. This bias would risk undermining the benefit of this balancing approach.<sup>121</sup>

As such, I eschew that variant of the comparative approach and articulates particular factors that would be relevant in assessing the application of U.S. patent law. These factors could be viewed as presumptions, in a softer version of this method, or as absolute requirements, acting a bit harshly but providing somewhat more certainty.<sup>122</sup> The approach I articulate here is the hard version – that satisfaction of the various conditions are necessary for extraterritorial application of a U.S. patent.

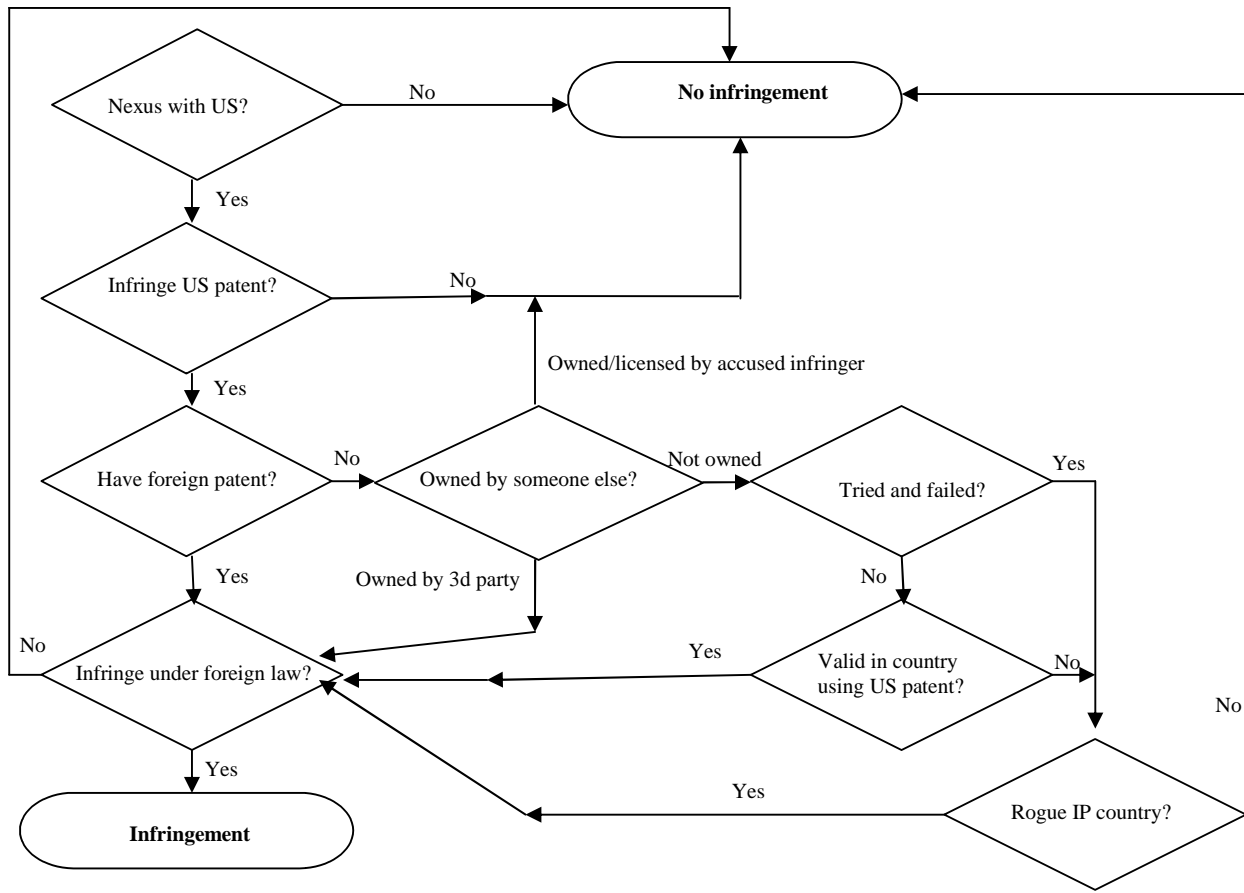
The following analysis provides a structured methodology for courts to follow when deciding whether to apply a U.S. patent to foreign conduct. The basic premise is, for there to be infringement of the U.S. patent, there would also have to a legitimate argument that there could be infringement in the foreign jurisdiction as well. If that is the case, then the harm from enforcing the U.S. patent against the foreign conduct is minimized. On the other hand, if there is some reason that infringement would not be found in the foreign country, then infringement

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<sup>121</sup> In the copyright context, Professor Graeme Dinwoodie as argued for this type of approach. *See generally id.* Professor Dinwoodie has recognized that courts, in applying his approach, could use a substantive legal rule that exists in no country at all but instead is the result of balancing of a variety of concerns. *See id.* at 542-43 (“[A] court faced with an international copyright dispute would not necessarily apply the copyright law of a single state to the contested issues. Instead, it would consider whether the international dimension implicated policies of other states or the international copyright system, and develop (and apply) a substantive rule of copyright that best effectuates this range of policies.”). I have previously criticized this approach in relation to patent law. *See Holbrook, Territoriality, supra* note 4, at 752 & 757-58 (noting uncertainty and risk for domestic court, faced with such uncertainty, taking a bias towards applying U.S.-centric views). These criticisms are equally appropriate here.

<sup>122</sup> *Cf.* Timothy R. Holbrook, *Substantive Versus Process-Based Formalism in Claim Construction*, 9 LEWIS & CLARK L. REV. 123, 132 (2005); *see also* Carolyn Shapiro, *The Limits of the Olympian Court: Common Law Judging Versus Error Correction in the Supreme Court*, 63 WASH. & LEE L. REV. 271, 325 n.215 (2006) (“And indeed, creating presumptions is another mechanism that the Court might use to provide more guidance to the lower courts in standard-governed areas of law.”).

should not be found under U.S. law. The following steps help a court determine whether application of U.S. law would be appropriate. Figure 1 shows a flowchart of these steps, demonstrating how they interrelate.



**Figure 1**

A. *Is There Some Nexus to the United States?*

Minimally, there must be some sort of connection between the foreign conduct and the United States. These foreign acts be tethered in some way to the United States. One can view patent infringement as an attempt by the infringer to appropriate the invention, either physically or commercially.<sup>123</sup> This prong of the test would therefore inquire as to whether there was an attempt to appropriate the invention within the United States in some way, physically or commercially. Generally, the case law and statute already have identified acts that would qualify: importation, exportation, offers to sell in the United States where the completed sale will be outside of the United States, and uses of part of a system in the United States with part outside of the United States. Importantly, this list is not exhaustive – the courts are free to identify other situations where there is a sufficient nexus to the United States. Uses of a patented system within the United States by U.S. citizens would be sufficient to satisfy this condition, such as the hypothetical scenarios posed in criticizing the *NTP* standard.<sup>124</sup> If there is an arguable attempt to appropriate the invention with some connection to the United States – either commercial or physical – then this factor should be satisfied.

This condition, however, is not an “effects test” by another name. The nexus must be greater than merely an impact on the market. There must be a physical or commercial attempt to appropriate the invention with a tie to the United States. Mere impacts on price within the United States, for example, would not be sufficient. The focus is on the invention, not the market.

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<sup>123</sup> See Holbrook, *Threat of a Sale*, *supra* note 16, at 805.

<sup>124</sup> See *supra* notes 106-107 and accompanying text.

This factor is not alone a sufficient condition for applying U.S. law, however, in sharp contrast to the effects-based approaches articulated above. This factor is merely a threshold determination necessary to determine whether the court should even consider applying U.S. law.

*B. Ignoring Territorial Lines, Would the U.S. Patent Be Infringed?*

If there is some sort of domestic nexus, then the U.S. patent holder would have to demonstrate that, ignoring territorial limits, the accused device would infringe the U.S. patent. For example, in the *NTP* case, the patent holder would have had to demonstrate that, ignoring the fact that part of the system was in Canada, that the accused device would infringe the system and method claims of the U.S. patent. If there is no infringement of the U.S. patent in this context, then there is no reason to consider extending the rights of the patents outside of the territorial United States.

Such an approach is not at all unprecedented. Courts perform this precise analysis when applying §§ 271(f) and (g). In both of those provisions, the patent claim must read on the accused device or process, but the accused device in both cases is outside of the United States. For § 271(f), the potential assembly of the completed device is outside of the United States, and for § 271(g) the process is being performed outside of the United States. For there to be infringement, however, these external activities must contain each and every limitation of the claimed invention, notwithstanding their use or existence outside of the United States.

Also contained within this analysis would be an analysis of whether the U.S. patent is valid and enforceable under U.S. law. If the patent is invalid or unenforceable, then the case is over – there would be no infringement. If there would be infringement of the valid and enforceable patent, however, then the court must move to consider the various comity and conflict of laws considerations that follow.

### *C. Does the U.S. Patentee Have a Patent in the Relevant Country?*

As the primary consideration is whether the conduct would also be viewed as infringing in the foreign country, a key factor is whether the patentee has a patent covering the invention at issue in the relevant country or countries. The basic idea is to determine whether the activities would also be viewed as infringing in the impacted country. In order to do so, the balancing of issues will vary if the U.S. patent holder does or does not have a patent in that country. Having or not having a foreign patent will not preclude application of U.S. law, but it does affect the nature of the balancing to be done. In essence, this question represents a split in the analytical chain to be used here.

#### *1. The Patentee Has Patents in All Relevant Countries*

If the patentee has patents in the relevant countries that cover the accused device,<sup>125</sup> than concerns about usurping the law and policy of those countries are mitigated to a great extent. Generally, if the patent has issued, there will not be large policy conflicts in the litigation. While any individual patent may be invalid, the existence of patents reduces the risk that the country has a sweeping policy against patenting certain advances, such as business methods, software, or human genes.

An issue could arise under this assessment when the U.S. patent holder possesses an intellectual property right akin to a U.S. patent but which is not truly a “patent” as we think of them in the United States or under our international obligations. For example, some countries provide intellectual property rights to protect industrial designs and for less significant

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<sup>125</sup> Problems could arise if the patent claims different slightly or of a different variety. This concern would be subsumed in the infringement analysis where the court would assess whether the invention would infringe the foreign patent as well. *See infra* notes [x]-[x] and accompanying text.

technological advances.<sup>126</sup> One option would be for the court to conclude that such intellectual property protection does not count as a “patent,” and the analysis would continue as if the U.S. patent holder did not have a patent in the relevant countries. Alternatively the court could perform a functional analysis to determine whether the rights provided in the foreign country are sufficiently similar to a patent to allow application of this methodology. If the court finds the rights are sufficiently analogous, then the court would proceed as if the U.S. patent holder has rights in the foreign country. This latter approach, however, would create some uncertainty and difficulty in comparing the nature of the rights afforded these various intellectual properties. As such, I would have the courts simply conclude that the presence of non-patent protection is as if the U.S. patent holder did not have patent protection in the relevant country. Because failure to have foreign patent protection is not fatal to an infringement suit under this proposed methodology, the U.S. patent holder may yet be granted protection and the difficulty in assessing the relatedness of the various types of protection would be avoided.

Of course, having patents in all of the relevant countries also means that the patent owner could sue in those other countries. One advantage of the proposed approach, however, is that it mitigates the need for piecemeal litigation for patent holders. Requiring patentees to sue in each and every country to enforce their patent is costly and incredibly difficult. Moreover, even having patents in all relevant countries may not eliminate territoriality concerns, particularly if the system crosses national boundaries. It would be possible for such divided claims to still evade the patent system of both countries if those countries generally use a strict territorial

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<sup>126</sup> See, e.g., TRIPS art. 25-26 (discussing industrial designs); *In re Carlson*, 983 F.2d 1032, 1036-38 (Fed. Cir. 1992) (discussing design-like protection under German *Geschmacksmusters*); [http://www.ipaustralia.gov.au/patents/what\\_innovation.shtml](http://www.ipaustralia.gov.au/patents/what_innovation.shtml) (discussing Australia’s “innovation patents” for inventions “that are not sufficiently inventive to meet the inventive threshold required for standard patents.”).

approach to patent law. Thus, even owning patents in all of the countries relevant in the dispute does not guarantee that the patent owner will be able to bring suit within a given country. For example, suppose that the Blackberry system had components in both Canada and Mexico. Likely, the patent holder could not successfully sue in Canada or Mexico because the system straddles multiple jurisdictions. The infringer would be immunized from liability in any country.

With patents in both countries, the courts should respect the validity of the foreign patents. While a court can obviously invalidate the U.S. patent (which would preclude any infringement at all and thus would still act as a complete defense), the courts generally should be hesitant to assess the validity of a foreign patent. Patents, as grants from national governments, are vested with a considerable amount of sovereignty from the granting nation. U.S. courts assessing the validity of the patent thus risks undermining the authority of a different country. In essence, a U.S. court would be telling the foreign patent office that it did not know how to apply its own law. Therefore, I propose a strong form of this factor: that the foreign patent is treated as valid.

A weaker form would allow a challenge to the foreign patent (although the effect would not be to truly invalidate the patent itself because U.S. courts lack that authority). Consideration of the validity of the foreign patent under foreign law is entirely possible under this methodology. Such an analysis is essential to this proposal in circumstances where the foreign patent office has not spoken as to this precise invention.<sup>127</sup> Consideration of foreign law does greatly complicate the litigation. Not only would the validity of the U.S. patent be in dispute but also that of the foreign patent, creating multiple invalidity issues. In order to assess the validity of the foreign patent, the court would have to know the standards for validity in the various countries and the standards for prior art, which could differ. Countries may have varying

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<sup>127</sup> See *infra* notes [x]-[x] and accompanying text.

degrees of grace periods for applicants or may adhere to a strict view of first-to-file novelty and inventive step. Allowing collateral challenges to the foreign patent would therefore increase the complexity of the domestic litigation. While there is reason to believe that U.S. courts should not have significant difficulty in interpreting foreign law,<sup>128</sup> the resulting complexity, coupled with the direct assault on the sovereign act of a foreign country, counsels against allowing a challenge to the foreign patent. Instead, it is preferable to assume that the foreign patents are valid.

## 2. *The Patentee Does Not Have Patents in All Relevant Countries*

In the circumstance that the U.S. patent holder does not have patents in every relevant country, then the analysis becomes more complicated. Possessing a patent in all the countries of interest would not be a prerequisite to applying U.S. law extraterritorially. Given that patent rights are still territorially based, obtaining a patent in every country could be prohibitively costly. Moreover, if infringers are in fact using the territorial limits of patents to arbitrage the system, they could readily choose jurisdictions where patent holders are unlikely to file because the *ex ante* potential for return from that market may not justify expending the resources to obtain patent protection. Thus, this approach affords a level of fairness to the patentee in an increasingly global marketplace.

This does mean, of course, that there may be infringement for acts taking place in a “patent free” zone, but the requirement for some nexus to the United States limits the extension of U.S. law to some extent. Moreover, if there is a state-based policy reason for the “patent free zone,” as opposed to simply the failure of the patent holder to obtain patent protection in the relevant country, then that situation is afforded different treatment in an effort to respect the

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<sup>128</sup> See *infra* notes [x]-[x] and accompanying text.

policy choice of the impacted country. Particularly, if the U.S. patent owner *tried* to obtain a patent in the relevant country and failed to do so, then there would be a strong suggestion that the country has some objection to this invention that must be taken into account. A necessary threshold evaluation to make, however, is *why* does the U.S. patent holder does not have a patent in the relevant countries.

a) *U.S. Patent Holder Does Not Have Patent Because a Someone Else Does*

One reason the U.S. patentee may not have protection in the relevant country is that someone else may already have obtained a patent there. Rules determining who is entitled to a patent vary from country to country. Particularly, the U.S.’s unique “first to invent” system could create variations in patent ownership in contrast to every other foreign system’s “first to file” system.

If the patent in the foreign country is owned by someone other than the infringer, than there is no real conflict between the two patent owners. For the accused infringer, though, there is the possibility of double liability – the infringer could be infringing both the foreign patent and U.S. patent.<sup>129</sup> This potential, though, need not be a reason not to find liability; it could be relevant in assessing the appropriate remedy in terms of both injunctive relief and damages. This circumstance will be treated as if the patentee *does* have a patent in the relevant country because the existence of the patent confirms that the country does not have a public policy against this type of invention.

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<sup>129</sup> If the nature of the infringement was transnational, such as in the *NTP* case, then there may not be infringement of the foreign patent and there would be no risk of being liable for infringing both.

If, however, the patent is owned by the actual accused infringer, or the accused infringer is a licensee of the patent owner in the relevant country, then there is a conflict between the laws of the foreign country and the application of U.S. patent law to the infringing acts. The accused infringer has the right to practice the invention in that country. This situation would be even stronger than an accused infringer having a personal defense in the country, such as prior user rights. If the accused infringer is in fact the patent owner in the relevant country, then U.S. patent law should not apply extraterritorially.<sup>130</sup>

*b) The U.S. Patent Holder Tried and Failed to Procure Patent Protection in the Countries in Question*

The equities of the situation differ significantly if the U.S. patentee tried and failed to obtain a patent in the countries of interest. A country's rejection of the patent strongly suggests that there is a policy reason to deny protection in that country. As such, it would be highly problematic as a matter of comity to allow the extraterritorial enforcement of the U.S. patent in such a circumstance, although it still may be possible if the country in question is a rogue intellectual property nation who has intentionally created a system to undermine patent right regimes elsewhere.<sup>131</sup> Thus, attempting and failing will not per se disqualify the patent holder from protection.

The situation differs slightly if the patent owner simply abandoned the application. In that case, there would be no definitive statement by relevant government concerning the validity of the patent. One could argue that an estoppel-like approach could be used: because the patent

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<sup>130</sup> In the less stringent approach to this method, the existence of the conflict would simply be one factor that could be considered relevant in assessing whether to apply U.S. patent law extraterritorially. This would be more in line with Dinwoodie's approach and that of the Ninth Circuit in the trademark context, where a totality of the circumstances, rule of reason approach is used. *See supra* notes [x].

<sup>131</sup> This factor is discussed rigorously *infra* notes [x]- [x] and accompanying text.

owner abandoned the application, she should not be able to use an extraterritorial application of a U.S. to close the self-created loophole. This approach would be harsh, though, and would put the patent owner in a worse position than if they never made efforts to obtain protection in the relevant country. This proposal is not intended to create disincentives to using foreign patent offices and procedures. As such, abandonment of an application will be treated as if the patent holder simply did not have patent protection in the relevant country.<sup>132</sup>

*c) Patent Holder Simply Does Not Have a Patent, Nor Does Anyone Else*

The final situation is that there simply could be no one with a patent in the relevant country. In this context, we have nothing to guide the analysis – no rejection by a patent office to inform whether a patent would not be eligible for patent protection and no patent owned by someone else. In this context, the proposed method must attempt to discern what would the relevant country do if presented with a given patent.

In making this assessment, a court should use the U.S. patent as a proxy for a foreign patent. Such an assumption is not a stretch. Given the coordination of patent application through the Patent Cooperation Treaty process, patent applications often are very similar in form from country to country. The court would then assess whether the U.S. patent holder would have been able to obtain patent protection in the relevant country.

A threshold issue would be the appropriate date to use for assessing the validity of the patent. One reason that a country's patent office could deny protection is because the invention is not new or lacks inventive step (i.e. is non-obvious using the U.S. standard). In this method,

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<sup>132</sup> The courts could inquire as to the reasons for the abandonment. A financial decision not to pursue the application, for lack of a market or for lack of adequate patent scope, would not suggest much about the validity of the patent. But the patent owner might have believed the invention was not eligible. Attempting to divine the motivation of the applicant though would unnecessarily increase the complexity and difficulty of this method. In the interest of keeping this approach as simple as possible, I would not recommend engaging in this analysis.

the priority date for the U.S. patent should be used. This may be the U.S. filing date, but it may also be a priority date based on the Paris Convention or the PCT. Given the rights or priority afforded by international treaties, the use of the U.S. priority date is not unfair or unjust in any way.

A court would then assess whether the claimed invention in the patent would be eligible for patent protection under the laws of the relevant country. The basis could be any legitimate basis under the relevant laws, such as lack of novelty, inventive step, eligible subject matter, or the application of permissible exclusions from patent protection.<sup>133</sup> Given that there is likely overlap between the prior art used in evaluating the validity of the U.S. patent, the court may not have to reinvent the wheel to make this determination.

One problem under this branch of the analysis is that the U.S. court would be required to apply foreign law, with which it likely is not familiar.<sup>134</sup> While this will add complexity and

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<sup>133</sup> See TRIPS art. 5, ¶ 1 (“[P]atents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application”); *id.* art. 5, ¶ 2 (allowing exclusion of patent protection if “necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment”); *id.* art. 5, ¶ 3 (allowing exclusion of patent protection for “diagnostic, therapeutic and surgical methods for the treatment of humans or animals” and “plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes.”).

<sup>134</sup> See *Mars Inc. v. Kabushiki-Kaisha Nippon Conlux*, 24 F.3d 1368, 1376 (Fed. Cir. 1994) (noting adjudicating Japanese patent infringement claim would “require the court to resolve complex issues of Japanese procedural and substantive law, a task further complicated by ‘having to agree on the proper translation of laws, documents and other communications,’” and implicating “international comity” by exercising jurisdiction “over a matter involving a Japanese patent, Japanese law, and acts of a Japanese defendant in Japan.”); *In re Kathawala*, 9 F.3d 942, 945 (Fed. Cir. 1993) (rejecting argument that court should look to Greek law regarding validity because it “would place an ‘unrealistic burden’ on the courts and PTO to resolve ‘esoteric legal questions which may arise under the patent laws of numerous foreign countries.’”). *Cf.* *Vanity Fair Mills, Inc. v. T. Eaton Co.*, 234 F.2d 633, 647 (2d. Cir. 1956) (“But we do not think it the province of United States district courts to determine the validity of trade-marks which officials

difficulty to the analysis, it is surmountable. Although courts, and particularly the Federal Circuit, has questioned the competency of a U.S. court to assess foreign law, there is no reason to suspect that the courts would be unable to do so. To begin, while principals of patentability vary widely across the globe, many of the fundamental concepts that underlie patent protection have reached a certain level of coherence. So the courts would have a baseline familiarity with the concepts of the law.<sup>135</sup> As such, the law should seem less “foreign” to the courts than other domestic issues a federal court might encounter pursuant to its supplemental jurisdiction.<sup>136</sup>

Moreover, the parties in the litigation have every incentive to educate the court as to the relevant law. The accused infringer necessarily has a presence in the relevant country and should have some familiarity with the law there. The U.S. patent holder may be at a disadvantage in this regard because there is no reason for the U.S. patent holder to be familiar with the laws of the particular country at issue. For those that believe extraterritorial application of a U.S. patent should be exceptional in nature, this pragmatic disadvantage should be of no concern. It would mean that proving an infringement case would simply be more difficult for the U.S. patent holder. The patent holder, though, would generally bring the suit and, knowing of this proposed

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of foreign countries have seen fit to grant. To do so would be to welcome conflicts with the administrative and judicial officers of the Dominion of Canada.”)

<sup>135</sup> Chisum, *supra* note 4, at 610-11 (“In fact, such difficulties [in assessing the validity of a foreign patent] will not often arise. The patentability requirements in other countries are usually more straightforward and less dependent on historic fact than those in the United States.”).

<sup>136</sup> For example, the Federal Circuit has been presented with state law claims involving contracts, unfair competition, interference with business relationships, trademark infringement, and copyright infringement. *See, e.g.*, *State Contracting & Engineering Corp. v. Condotte America, Inc.*, Nos. 05-1423, 1528, 2006 WL 2045782, at \*2 (Fed. Cir. July 24, 2006) (dealing with charging lien); *Arlaine & Gina Rockey, Inc. v. Cordis Corp.*, 175 Fed. Appx. 329, 331 (Fed. Cir. 2006) (state law contract claims); *Crater Corp. v. Lucent Technologies, Inc.*, 423 F.3d 1260, 1267-69 (Fed. Cir. 2005) (state trade secret and contract claims); *On-Line Tech. v. Bodenseewerk Perkin-Elmer*, 386 F.3d 1133, 1140-41 (Fed. Cir. 2004) (state trade secret claims); *Silent Drive, Inc. v. Strong Industries, Inc.*, 326 F.3d 1194, 1206 (Fed. Cir. 2003) (state tortious interference claim).

methodology would govern the case, she would have a strong incentive to learn about the law of the relevant jurisdictions prior to bringing the suit. Admittedly, a case could arise where the patent holder is not aware of the extraterritorial or transnational nature of the case until discovery has begun,<sup>137</sup> but it would seem that those cases would be the exception. Courts as generalists are quite adapt at educating themselves about new law, and the laws at issue here would at least have some sense of familiarity to courts in patent infringement cases. The Federal Circuit in particular should not fear applying foreign patent law given its expertise in the area of patent law.

**The problem of rogue countries.** There is one significant problem with giving absolute deference to the decision of a foreign country in denying patent protection or in assessing whether the country would have granted a patent. The relevant country may have decided, contrary to international norms, to ignore the protection of intellectual property rights, becoming an infringement safe-haven.<sup>138</sup> Such countries would allow uses of intellectual property rights here in contravention of international norms. In those circumstances, infringement under the U.S. patent would not be precluded because it would undermine even the accepted minimum levels of intellectual property protection that that has been established internationally.

Discerning whether a country is such a rogue intellectual property country may be difficult to assess, but there are various sources of evidence that may suggest that a country is

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<sup>137</sup> For example, the patent holder in the *NTP* case conceivably may not have known that the Relay component was in Canada until discovery surrounding the system was permitted. Similarly, a patent holder may only be aware that someone has made an offer to sell the patented invention within the United States without knowing that the ultimate sale is to take place outside of the U.S. These scenarios seem rather unlikely and the patent holder likely would be aware of the nature of the case it is about to bring and would therefore know to investigate the law of the relevant country.

<sup>138</sup> See, e.g., Burk, *Transborder*, *supra* note 5, at 11 (“Consequently, these offshore havens could provide information services which, if offered within the borders of the United States, would violate traditional intellectual property laws.”).

failing to live up to international expectations. For example, the United States Trade Representative (USTR) performs annual reviews the adequacy of other countries' protection of intellectual property under the Special 301 power.<sup>139</sup> The analysis in these reports could serve as sound evidence that a given country should be considered a rogue one.

Secondary references, such as articles in the media, could also be used to support the argument that the country is acting intentionally to free ride on intellectual property rights. If a country is in the business of violating intellectual property rights, then likely the businesses interacting with the country or encountering problems with a country will let their grievances be known publicly. Finally, a court could also review the country's patent laws directly to determine whether a country should be viewed as a rogue.

This category of rogue intellectual property nations would not include those developing and least developing countries that have joined the World Trade Organization and have been given grace periods for implementing certain intellectual property protection.<sup>140</sup> If the relevant country is justified in its denial of patent protection under these phase-in provisions, then that policy should be respected and the country will not be viewed as rogue.

Another possibility would be to consider the intent of the accused infringer. If the primary purpose for placing the various activities in the relevant country was to avoid infringement, then such bad faith would suggest there should be infringement. Consideration of

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<sup>139</sup> See Omnibus Trade and Competitiveness Act of 1988, 19 U.S.C. §§2901-06 (2000).; see also Cynthia M. Ho, *Biopiracy and Beyond: A Consideration of Socio-Cultural Conflicts with Global Patent Policies*, 39 U. MICH. J.L. REFORM 433, 484-85 (2006). More detail on Special 301 is available at [http://www.ustr.gov/Trade\\_Sectors/Intellectual\\_Property/Section\\_Index.html](http://www.ustr.gov/Trade_Sectors/Intellectual_Property/Section_Index.html).

<sup>140</sup> See TRIPS, art. 66 ¶ 1; Declaration on the TRIPS Agreement and Public Health, 41 I.L.M. 755 (2002) (“We also agree that the least-developed country members will not be obliged, with respect to pharmaceutical products, to implement or apply Sections 5 and 7 of Part II of the TRIPS Agreement or to enforce rights provided for under these Sections until 1 January 2016, without prejudice to the right of least-developed country members to seek other extensions of the transition periods as provided for in Article 66.1 of the TRIPS Agreement.”).

the intent of the infringer might give some insight into the standards of the country in question, and thus may be relevant, such subjective assessment by the infringer would not be terribly probative. Moreover, creating factors in this methodology that are dependent on intent makes predictability even more difficult as the patent holder would be unable *ex ante* to assess that intent. As such, the intent of the infringer to game the system would not be necessary in this analysis.

*C. Would the Infringer's Activities Infringe in the Foreign Country?*

The ultimate step in this analysis – using either the procured foreign patent or the U.S. patent – would be to assess whether there would be infringement in the relevant country, ignoring territorial lines. To determine whether there is infringement, the court would then look at either the relevant foreign patents (if in existence) or the U.S. patent. The court would then assess whether the individual patents would be infringed, ignoring any territorial limits. For example, in the *NTP* case (assuming that there was a Canadian patent), the court would evaluate whether the accused system infringed the Canadian patent as if the entire system was in the Canada. Similarly, courts would determine whether the device assembled overseas would infringe under that country's patent law (akin to § 271(f)) or whether the method being performed would infringe under that country's patent law (akin to § 271(g)). Under current law, of course, courts do not make this assessment under either § 271(f) or (g).

If there would be no infringement under foreign law. Included in the infringement analysis would be personal defenses available to the infringer in the relevant country, such as prior user rights. If the personal defense would apply in the relevant foreign country, then there would be no infringement and ultimately no liability under the U.S. patent. Moreover, the United States provides greater protection than many other countries by permitting infringement

under the doctrine of equivalents. Many foreign jurisdictions do not have such a doctrine and require the accused device be identical to what is claimed in the United States. Therefore, differences in the scope of protection may result in variances between U.S. and foreign law.

If the case, in reaching this determination, also passed through the “rogue country” analysis, or if there is some other reason to believe that the relevant country is protecting patent rights at a level below the minimal standards expected by TRIPS for that country, then a court would have the discretion to still enforce the U.S. patent. Just as lack of patent protection in a rogue country would not preclude enforcement under this method, the failure to enforce patents within the country would allow enforcement under the U.S. patent if all other conditions are satisfied.

#### V. IS THE COMPARATIVE METHOD DESIRABLE? THE PROS AND CONS

This approach would apply in other circumstances, such as those conditions now governed by 271(f), but the focus would shift on what takes place in the foreign country as opposed to the nature of the purely domestic acts and the intent/knowledge requirements currently required by that provision. Section 271(g) situations similarly could be explained by this methodology.

The proposed method attempts to balance both the benefits and disadvantages of either a pure affects test and a strict territorial approach. Of course, trying to find a middle ground may simply exacerbate the negatives and eliminate the positives of the basic two approaches. This Section will evaluate the benefits and criticisms of the proposed approach.

### *C. The Advantages of the Proposed Methodology*

#### *1. The Comparative Approach Minimizes Conflicts of Law*

The primary benefit of the comparative method proposed in this Article is that it affords greater respect to foreign country's policies regarding patent law. The status quo completely ignores these differences, focusing only on U.S. law. Similarly, the various proposed effects tests utterly ignore the potential for conflicts with foreign law. Differences are permissible under our international treaties, and indeed they can be good in acting as a laboratory for creating different and innovative solutions to different innovation policy issues. Respecting the policies of foreign sovereigns is also of great importance. Admittedly, this process does not provide as much respect as a strict territorial approach, but that approach has proven to be insufficient to keep the extraterritorial reach of U.S. patents in check.

#### *2. Consideration of Foreign Law Can Create Dialogue and Help Develop International Norms of Patent Law*

An important aspect of the proposed methodology is that it brings into formal consideration the laws of the country where some of the acts take place. This lack of consideration was Canada's primary concern with the *NTP* case,<sup>141</sup> not the ultimate conclusion of liability.<sup>142</sup> Now, foreign law will be considered explicitly and transparently when determining whether to apply a U.S. patent to activities outside of the United States.

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<sup>141</sup> Brief for Amicus Curiae the Government of Canada in Support of the Petition of Research in Motion, Ltd. for Rehearing En Banc, No. 03-1615, 2005 WL 4798095, at \*4-6 (Aug. 19, 2005) (discussing need for comity and consideration of foreign and international law); *see also* Sookman, *supra* note 5, at 465 (“Canada is also concerned that the potential implications of the panel’s interpretation described above would negatively impact the integrity of the operation of Canadian intellectual property laws.”) (quoting brief of Government of Canada in support of rehearing of the first decision in the *NTP* case).

<sup>142</sup> *Id.* at \*3-4 (“The Government of Canada acknowledges that national jurisdiction over trans-border technology may be justifiable under internationally accepted theories of national jurisdiction. However, it is respectfully suggested that these principles should be applied

Moreover, this express consideration of foreign law will have the added benefit of creating dialogue between U.S. courts and foreign jurisdictions, particularly between the Federal Circuit and other patent-like courts. By analyzing the foreign law, the judges can reach a greater understanding of the various intellectual property norms that exist in the world, and indeed may be able to identify situations where these norms have converged into an international standard.

This dialogue, however, also respects those circumstances where the laws of a foreign country may differ. Litigants and foreign countries alike will know that the U.S. court will not disrupt the expectations generally of parties in relevant countries and will respect policy differences between countries, so long as that difference is not merely an effort by a country to be an intellectual property piracy haven. Our courts can only benefit from considering the varying policies of foreign countries that may lead to levels of protection that vary from those within the United States. Particularly, exploration of the varying grounds for validity in foreign systems would inform the courts' views of our own system. Similarly, varying methods of assessing the scope of the right to exclude via infringement analysis could provide useful tools and approaches to U.S. courts who must wrestle with uncertainty surrounding claim construction and the application of the doctrine of equivalents. To the extent that the courts, and particularly the Federal Circuit, are implementing patent and innovation policy, better that such decisions be informed through a comparative lens, particularly in light of the increasingly international nature of intellectual property law.

Such dialogue need not be limited to the courts. Likely decisions by the courts relying on the USTR's investigations could serve as confirmation or contradiction of the conclusions found in the Special 301 reports. Having a court comparing the patent laws of a foreign country could

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explicitly when applicable and justified by a specific set of facts giving rise to that application of national law.”).

represent a more objective assessment of those standards, uncolored by possible trade or other interests unrelated to innovation policy. The court's reasoning therefore could complement or contradict the USTR report, facilitating greater discussion of these issues.

Congress could also benefit from these explorations of foreign law by U.S. courts. The decisions by U.S. courts may provide reasoning that would help Congress assess whether to make amendments to the patent act, particularly if Congress is attempting to implement legislation in the name of harmonization. Having a court's reasoned analysis about the manner in which foreign jurisdictions deal with various patent issues would be a useful source of information for legislators who are attempting to fine tune, if not completely overhaul, U.S. patent law.

If this approach is also adopted as "the" approach for territoriality, then the various controversial extraterritorial provisions could be removed from the Patent Act, making the statute for simpler. But this approach need not supplant all of the Patent Act and instead it could be used as the appropriate backdrop for considering all of the various provisions under § 271.<sup>143</sup>

### *B. Problems with the Comparative Approach*

Of course, no proposal is perfect and all have their downsides. This section will discuss what are the potential negative consequences of adopting this, or similar, approaches

#### *1. Are Courts Institutionally Competent to Address These Issues?*

This proposal assumes that court's would be the ones to apply the proposed methodology, but one could argue that institutionally they should not be put in the position of applying and interpreting foreign law. These issues could be addressed at the international level by bilateral or

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<sup>143</sup> One exception could be the application of § 271(e), given it is mandated by TRIPS and, under TRIPS, does not require consideration of foreign law.

multi-lateral agreements or by international institutions who consider these issues. As Graeme Dinwoodie has persuasively argued in the copyright context, however, these institutions are incredibly slow moving and do not react timely to changes in technology.<sup>144</sup> The transnational nature of business and technology will bring these issues to the forefront well before these international actors can react. Of course, having an international agreement that adopts the proposed methodology would be helpful in its implementation, but because the courts will likely encounter these problems in the first instance, it is reasonable to provide them with tools to address these concerns.

One could also argue that, within the United States, it is the executive branch – not the judicial branch – that should be making these determinations. The executive, particularly the USTR, have expertise in dealing not only with intellectual property but also with other trade-related international issues. My proposal is flexible enough, however to accommodate the USTR. The proposal specifically recognizes the importance of Special 301 power and reports. Easily, the proposal could be altered to either permit the USTR to join into a case as an intervenor or, more dramatically, to require USTR permission to allow the case to go forward. Providing the USTR such a veto would allow the executive branch to maintain control over a particular situation where there may be other issues of concern to the United States that are intertwined with a given litigation. I would prefer a permissive role, as opposed to providing veto power, but in either event, the interest and expertise of the Executive branch could easily be accommodated by the proposed methodology.

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<sup>144</sup> Dinwoodie, *supra* note 3, at 489-520.

## 2. *Is this Method Consistent with TRIPS?*

One potential approach with the proposed analytical framework is whether it is consistent with our obligations under our international obligations, such as the Paris Convention and the TRIPS Agreement. Embodied in those treaties is a commitment to national intellectual property rights by providing guarantees of equal treatment to foreign applicants and rights of priority in filing in the United States.<sup>145</sup> Implicitly this could mean that the scope of the exclusive rights afforded by a patent should also be so limited.

The Paris Convention, however, deals exclusively with the application process; it is silent as to the scope of patent protection as it relates to infringement. TRIPS, in contrast, does contain substantive requirements for the enforcement of patent rights,<sup>146</sup> but nothing in it suggests that extraterritorial application of a U.S. patent is precluded. The availability of extraterritorial application of a U.S. patent would be available to foreign patent holders as well, so there would be no violation of the national treatment principle. In essence this approach affords greater protection than required under the TRIPS agreement. Such protection is generally permissible because TRIPS only provides “minimum standards.”<sup>147</sup> Indeed, this approach provides a better respect for foreign intellectual property laws than those currently in place under U.S. law. As a result, this approach would not contravene the TRIPS agreement.

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<sup>145</sup> See Paris Convention art. 4; TRIPS art. 1.

<sup>146</sup> TRIPS arts. 28 & 34.

<sup>147</sup> TRIPS art. 1 (“Members may, but shall not be obliged to, implement in their law more extensive protection than is required by this Agreement, provided that such protection does not contravene the provisions of this Agreement.”).

### 3. *Reduction in Ex Ante Certainty and Predictability*

Another potential problem with the proposed methodology is a potential reduction in certainty and predictability for patentees and infringers alike.<sup>148</sup> In contrast to a pure effects test, this seems highly unpersuasive: this approach gives clear guidelines as to what activities will and will not be subject to a U.S. patent. In contrast to a strict territorial approach, however, this criticism may have some bite.

But that bite is rather toothless. To begin, even in the instances where courts were arguably applying a strict territorial approach, they also offer tortured interpretations of the statute to accommodate changing economic circumstances, such as in *NTP* and *AT&T*. Thus, even in a strictly territorial system, there may be little predictability.

The proposed method also provides greater certainty than a purely totality of the circumstances approach that could be used in this context, evaluating all relevant sources for assessing whether there should be infringement. Strict application of the proposed method would guide not only the courts but also patent holders and potential infringers in making the assessment of whether there may be liability for various transnational acts. Some of the various factors in this analysis may be uncertain, such as whether a country is rogue or whether a given country would have issued a patent, as evaluated by a U.S. patent. But this uncertainty is not any greater than most patent law issues. By using this framework, parties should be able to make a better informed conclusion about the risk of liability. Moreover, over time, the courts may develop clearer rules or make clear what the laws in various countries actually are, particularly if there are “repeat” countries as players in this analysis. Undeniably, there may be some greater

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<sup>148</sup> See Austin, *supra* note 5, at 610-11.

uncertainty in this approach, but it seems a small price to pay for greater protection in the international marketplace.

#### 4. *The Loss of Legal Diversity*

One potential criticism of this approach, as cogently articulated by Professor Graeme Austin, is that these approaches (1) would rely “substantive outcomes [that] might not resemble any that might be dictated by the domestic laws that could be applied under conventional private international law principles.” Professor Austin further questions “whether this is an appropriate judicial task, and whether it is really feasible to identify intellectual property policies divorced from broader societal concerns in diverse areas such as technological development, education and literacy, agriculture, and so on.”<sup>149</sup> Elsewhere, Professor Austin has emphasized the importance of maintaining diversity at the national level in our intellectual property regimes.<sup>150</sup> There may be reasons that a national government chooses to have a different standard for intellectual property, reflecting value choices and social concerns that may differ from the United States or other developed countries.

I agree that local variations in intellectual property regimes can be good. Aside from respecting cultural values in a given country, such variety may also provide laboratories for more efficient intellectual property laws, in much the same way as the federal system works within the United States. Global harmonization insists that the best approach is “one-size-fits-all,” even if

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*Id.*

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Graeme W. Austin, *Valuing "Domestic Self-Determination" in International Intellectual Property Jurisprudence*, 77 CHI.-KENT L. REV. 1155 (2002); Graeme W. Austin, *Social Policy Choices and Choice of Law for Copyright Infringement in Cyberspace*, 79 OR. L. REV. 575 (2000); Graeme W. Austin, *Domestic Laws and Foreign Rights: Choice of Law in Transnational Copyright Infringement Litigation*, 23 COLUM.-VLA J.L. & ARTS 1, 8-11 (1999).

that one-size may not necessarily be the best size. As such, harmonization can come at an all-too-often underappreciated price.

That being said, the methodology proposed here provides a method of balancing the concerns articulated by Professor Austin. To begin, the courts would not be applying a substantive rule of law not in the domestic law of a given country: the balancing here would require application of that country's law, preserving the diversity within the law and affording respect to the cultural and social values that may underlie those laws.<sup>151</sup> The approach espoused in this Article is an attempt to grant some extraterritorial protection to U.S. patent holders in response to an increasingly global economic environment, while at the same time affording respect and deference to competing policy and social values that may be in place in other countries. My approach is an effort to balance the concerns of Professor Austin while affording a potential remedy to patent holders against those that may play the territorial game with patent rights.

The advantages of the comparative approach articulated outweigh the potential criticisms and disadvantages. The method is designed to balance these competing interests in a structured, relatively predictable way.

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<sup>151</sup> Indeed, Professor Austin's criticisms of my earlier proposal highlighted only the broader version of that proposal. My preferred approach in that article was to require courts to consider and apply the laws of the foreign country, a view point that is more concretely recognized in this proposal. A broader rule could be utilized, more along the line of Professor Dinwoodie's proposal for copyright law, *see* Dinwoodie, *supra* note 3. Because of these concerns, I prefer the stricter approach that these factors be necessary conditions. A court could also use a presumption approach, where each part of the decision tree creates a presumption of application or non-application, subject to rebuttal by later factors or by a weighing of all of the factors together.

## VII. CONCLUSION

It is beyond cavil that the world is a smaller place. Globalization has made traditional territorial borders break down. With respect to intellectual property, this development was first realized in the copyright and trademark areas. Patents must now face the reality of the erosion of national borders. The Federal Circuit has failed to articulate a coherent, predictable approach to these problems, issuing opinions that represent a myopic focus on statutory interpretation and a failure to articulate a consistent jurisprudential viewpoint on the territoriality of patent rights.

The consideration of foreign law is conspicuously absent from the current approaches to dealing with extraterritoriality in U.S. patent law. This short-sightedness ignores the fact that patents and patent laws are necessarily infected with the social values of a given country.<sup>152</sup> An overly broad approach to territoriality of patent laws would undermine those value choices made by a given country in the name of providing protection to a single, private patent holder. Such an unbalanced approach undermines the sovereignty of the country in which the relevant activity is taking place. The proposal in this Article presents a coherent, balanced way to address these issues that acknowledges our increasingly global world, a world where balancing the interest of other nations may also be increasingly important. It is my hope to afford some level of protection to U.S. patent holders while simultaneously respecting the differences in values reflected in another country's patent statutes. I believe this proposal can accomplish that objective.

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<sup>152</sup> See generally Timothy R. Holbrook, *The Expressive Impact of Patents*, 84 WASH. U. L. REV. --- (forthcoming 2007) (discussing the role of morality in patent protection).