

# INTELLECTUAL PROPERTY BRIEF

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The IP Brief would like to recognize the following staff members for editing and cite-checking our Summer 2011 issue:

Sofia Castillo  
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# The Role of Patents in the International Framework of Clean Technology Transfer: A Discussion of Barriers and Solutions

by Mark Consilvio

## I. INTRODUCTION

Alarming average temperature increases of the Earth's surface and oceans have prompted global action to curtail the human population's impact on climate change.<sup>1</sup> Increases in global temperatures will significantly impact water resources, food security, coastal regions, biological ecosystems, and human health.<sup>2</sup> Climate fluctuations will likely increase the frequency and intensity of extreme weather phenomenon such as severe storms, floods, and droughts.<sup>3</sup> Weather and regional temperature changes could harm agricultural land and ecosystems, spread disease, and irreparably damage health and food security in many regions throughout the world.<sup>4</sup> Predictions also foretell of irreversible ice cap melting, the sea level rising, and mass flooding of coastal regions – displacing portions of the human population.<sup>5</sup>

Strong scientific evidence has determined that human production of “greenhouse gases” are the primary culprit in trapping heat, leading to global warming over the last half century.<sup>6</sup> Greenhouse gases in the atmosphere like carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O) absorb, scatter, and emit energy that would otherwise be radiated into space, resulting in a net warming of the Earth.<sup>7</sup> The large quantities of greenhouse gases emitted during human energy production, e.g., by burning coal or oil, have exacerbated this phenomenon beyond its natural

degree, despite being a normal and partially necessary process to keep the Earth habitable.<sup>8</sup> Anthropogenic warming over the last three decades has likely had a global influence on many physical and biological systems.<sup>9</sup> In response, scientists and engineers have developed “clean” technologies to significantly decrease greenhouse gas emissions. Clean technologies are designed to mitigate climate change with solutions ranging from carbon capture and energy-efficient devices to renewable energy sources and hybrid technologies.

In addition to environmental concerns, the world's governments have recognized that its current *modus operandi* of energy production is not sustainable.<sup>10</sup> The world's energy production, largely based on fossil fuels, will inevitably come to an end as the supply of those fuels dwindles. Spawned by the gas shortage of the 1970s and reinforced by the oil price spikes of the past decade, concerns over our dependence on fossil fuels has driven scientists, economists, and politicians to call for a transition to sustainable forms of energy production.<sup>11</sup> Sustainable or “renewable” energy sources include mainly solar, wind, hydro/marine, geothermal, and biomass. Renewable energy technologies are designed to harness and convert these naturally occurring forms of energy into electricity and other usable forms of power. These clean technologies have the benefit of being based on virtually limitless resources while significantly reducing environmental impact with minimal production of greenhouse gases. In addition to renewable energy technologies, adaptation and mitigation technologies can help minimize the impact from greenhouse gases generated by traditional forms of energy generation. Though mitigation and adaptation technologies are unable to prevent all climate change, they can substantially reduce the rate and magnitude of such

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1. See INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE [IPCC] PLENARY XXVII, CLIMATE CHANGE 2007: SYNTHESIS REPORT (November 2007) [hereinafter IPCC PLENARY XXVII].

2. See *id.* at 51.

3. See *id.* at 53.

4. See *id.* at 48-53. “Sea level rise is expected to exacerbate inundation, storm surge, erosion and other coastal hazards, thus threatening vital infrastructure, settlements and facilities that support the livelihood of island communities.” *Id.* at 52. “Increased risk of extreme high sea level” is predicted to be likely causing and “potential for movement of populations and infrastructure” and “migration-related health effects.” *Id.* at 53.

5. See *id.*

6. *Id.* at 39.

7. See *id.* at 36-37 (“The atmospheric concentrations of CO<sub>2</sub> and CH<sub>4</sub> in 2005 exceed by far the natural range over the last 650,000 years. Global increases in CO<sub>2</sub> concentrations are due primarily to fossil fuel use, with land-use change providing another significant but smaller contribution. It is very likely that the observed increase in CH<sub>4</sub> concentration is predominantly due to agriculture and fossil fuel use. The increase in N<sub>2</sub>O concentration is primarily due to agriculture.”).

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8. *Id.*

9. *Id.* at 41.

10. See generally Energy Independence and Security Act of 2007, Pub. L. No. 110-140, 121 Stat. 1492 (2007) (intending to increase the production of clean renewable fuels, to increase the efficiency, to promote research on and deploy greenhouse gas capture); Council Directive 2009/28, 2009 O.J. (L140) (EC) (promoting of the use of energy from renewable sources in the European Union).

11. *Id.*; See also Daniel Kammen, *Renewable Energy in U.S. Foreign Policy*, 36 GOLDEN GATE U. L. REV. 327 (2006).

change.<sup>12</sup> All of these clean technology solutions are an essential component in combating climate change.<sup>13</sup> Despite these advances and given current climate change mitigation policies and sustainable development practices, global greenhouse gas emissions will continue to grow over the next few decades.<sup>14</sup>

First, this paper will address the current intergovernmental legal framework relating to climate change and the international transfer of climate change mitigation and adaptation technologies.<sup>15</sup> Second, the paper will discuss some of the perceived barriers and possible solutions surrounding international technology transfer. Finally, the paper suggests an optimal solution based on the current international framework and evidence of technology transfer barriers. A goal of this paper is to show that the global intellectual property regime should be part of a solution and not a barrier to international technology transfer.

## II. UNITED NATION FRAMEWORK CONVENTION ON CLIMATE CHANGE

The 1992 United Nation Framework Convention on Climate Change (UNFCCC)<sup>16</sup> came into force in 1994 as a global initiative to stabilize greenhouse gas concentration in the atmosphere.<sup>17</sup> The UNFCCC has been ratified by countries representing almost all global producers of greenhouse gas emissions.<sup>18</sup> The stated objectives of the UNFCCC include: allowing the ecosystem to adapt, ensuring food production, and creating sustainable economic development.<sup>19</sup> The UNFCCC states that developed countries should bear the primary financial burden in

achieving these objectives.<sup>20</sup>

The developed country Parties and other developed Parties ... shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention.<sup>21</sup>

The U.N. Conference on Trade and Development describes the “transfer of technology” as the communication of “systematic knowledge for the manufacture of a product, for the application of a process or for the rendering of a service,” which “does not extend to the transactions involving the mere sale or mere lease of goods.”<sup>22</sup> The knowledge should include all of the “entrepreneurial expertise and professional know-how” needed to commercialize the technology.<sup>23</sup>

The third annual Conference of Parties (COP) of the UNFCCC adopted the Kyoto Protocol which, *inter alia*, set emission limits for the parties.<sup>24</sup> Subsequent to agreement on the Kyoto Protocol, the patent world saw a dramatic rise in the patenting of clean technologies.<sup>25</sup> This reaction suggests that further restrictions on carbon emissions would alter the clean technology landscape by increasing the demand for clean technologies, thereby driving innovation through the patent system.

In addition to emissions reduction goals, the UNFCCC has spawned a variety of technology transfer mechanisms. The Kyoto Protocol introduced

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12. *Id.* at 65.

13. INTERNATIONAL CENTRE FOR TRADE AND SUSTAINABLE DEVELOPMENT [ICTSD], CLIMATE CHANGE, TECHNOLOGY TRANSFER AND INTELLECTUAL PROPERTY RIGHTS: BACKGROUND PAPER 1 (August 2008) [hereinafter ICTSD BACKGROUND PAPER].

14. IPCC PLENARY XXVII, *supra* note 1, at 44.

15. This transfer of clean technologies is traditionally viewed from the perspective of developed nations – whereby developed nations are seen as inventors of clean technologies and developing nations are seen as needing those inventions as their energy production increases. Some evidence presented in this paper contradicts this paradigm – particularly regarding emerging economies.

16. The leading international treaty establishing a Secretariat to consider what can be done to reduce global warming and to cope with whatever temperature increases are inevitable.

17. U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE Art. 2, May 9, 1992, 1771 U.N.T.S. 107 [hereinafter UNFCCC].

18. See *Greenhouse Gas Inventory Data*, UNFCCC, <http://ghg.unfccc.int/index.html> (last visited Aug. 10, 2011) (containing data estimating the levels of greenhouse gas (GHG) emissions for members to the TRIPS Agreement); K.Ravi Srinivas, *Climate Change, Technology Transfer and Intellectual Property Rights* 30, Research and Information System for Developing Countries (2009).

19. *Id.*

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20. UNFCCC, *supra* note 17, at Art. 3.1, 4.3.

21. UNFCCC, *supra* note 17, at Art. 4.5.

22. U.N. CONFERENCE ON TRADE AND DEVELOPMENT [UNCTAD], UNCTAD SERIES ON ISSUES IN INTERNATIONAL INVESTMENT AGREEMENTS 5-6 (2001), *available at* <http://www.unctad.org/en/docs//psiteitd28.en.pdf>.

23. See *id.* (importing and reselling of a good in a particular country is not alone sufficient to constitute actual transfer of technology because it involves only the good and not the knowledge to create it.).

24. KYOTO PROTOCOL TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, Conference of the Parties, 3d Session, U.N. Doc. FCCC/CP/1997/L.7/Add.1 (Dec. 11, 1997) [hereinafter KYOTO PROTOCOL]; See United Nations Framework Convention on Climate Change, Conference of the Parties, Fifteenth Session, Dec. 7-19, 2009, Copenhagen, Den. U.N. Doc. FCCC/CP/2009/11/Add.1 (Mar. 30, 2010) [hereinafter COP-15].

25. U.N. ENVIRONMENT PROGRAMME, EUROPEAN PATENT OFFICE [EPO], AND ICTSD, PATENTS AND CLEAN ENERGY: BRIDGING THE GAP BETWEEN EVIDENCE AND POLICY: FINAL REPORT, 8 (2010) [hereinafter EPO REPORT].

emissions trading, establishing a “carbon market” based on emission reduction units (ERUs).<sup>26</sup> In addition to trading ERUs, a clean development mechanism and joint implementation plan enables countries to meet their emissions reduction targets, stimulate sustainable development, and encourage contributions from developing countries and the private sector.<sup>27</sup> But developing countries view these mechanisms as inadequate to fulfill the UNFCCC commitments of developed nations.<sup>28</sup>

The Kyoto Protocol is set to expire in 2012 and efforts to continue or expand its emission restrictions have largely failed.<sup>29</sup> A deadline to settle on a new emissions framework was set for the fifteenth COP session in Copenhagen, Denmark in 2009, but negotiations did not produce an agreement.<sup>30</sup> The Copenhagen Accord did establish a Technology Mechanism “to accelerate technology development and transfer in support of action on adaptation and mitigation that will be guided by a country-driven approach and be based on national circumstances and priorities.”<sup>31</sup> Many aspects of the Technology Mechanism are still unsettled, but countries might be more likely to agree on clean technology transfer mechanisms than on quantitative emissions reductions that might stimulate clean technology transfer.

### III. AGREEMENT ON TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY

The Agreement on Trade-Related Aspects of Intellectual Property (TRIPS Agreement) created minimum standards and a moderate amount of harmonization for intellectual property (IP) laws across the globe.<sup>32</sup> The treaty ensures that the intellectual

26. Kyoto Protocol, *supra* note 24; *The Mechanisms under the Kyoto Protocol: Emissions Trading, the Clean Development Mechanism and Joint Implementation*, UNFCCC, [http://unfccc.int/kyoto\\_protocol/mechanisms/items/1673.php](http://unfccc.int/kyoto_protocol/mechanisms/items/1673.php) (last visited Aug. 10, 2011) (detailing each mechanism). See Anita M. Halvorsen, *International Law And Sustainable Development -- Tools For Addressing Climate Change*, 39 *Denv. J. Int'l L. & Pol'y* 397, 416 (2011).

27. *Id.*

28. EPO REPORT, *supra* note 25, at 19; Srinivas, *supra* note 18, at 1.

29. COP-15, *supra* note 24; Daniel Bodansky, *The Copenhagen Climate Change Conference: A Postmortem*, 104 *AM. J. INT'L L.* 230, 230 (2010). The Copenhagen Accord being only a political statement is devoid of legal force to replace or extend the Kyoto Protocol.

30. Bodansky, *supra* note 29.

31. COP-15, *supra* note 24.

32. TRIPS: AGREEMENT ON TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS 320 (1999), 1869 *U.N.T.S.* 299, 33 *I.L.M.* 1197 (1994) available

property rights (IPRs) of each member state do not favor one nation over another or favor a nation's own citizens over foreign inventors.<sup>33</sup> These requirements promote facial neutrality of IP laws, but may not address the inherent imbalance of IP power between developed and developing nations.<sup>34</sup> This imbalance may be difficult to reconcile with the objectives and principles of the TRIPS Agreement. Article 7 of the TRIPS Agreement states that IPRs “should contribute ... to the transfer and dissemination of technology” and Article 8 recommends “[a]ppropriate measures . . . to prevent the abuse of intellectual property rights by right holders or the resort to practices which . . . adversely affect the international transfer of technology.”<sup>35</sup> In particular, Article 66.2 requires developed countries to provide incentives to their local enterprises and institutions to promote and encourage technology transfer to the least-developed countries (LDCs).<sup>36</sup> However, the degree of success of any technology transfer under the TRIPS Agreement is still unclear, and concerns are growing that mechanisms designed to encourage technology transfers to LDCs have been ineffective.<sup>37</sup>

Despite the specific provisions on technology transfer, the heart of the TRIPS Agreement is the protection of IPRs.<sup>38</sup> The underlying policy is based on the perspective that IPRs are fully protected as private commercial property and technology transfer is best achieved through competitive market conditions.<sup>39</sup> Thus, the treaty actually signifies a shift from emphasizing regulation of technology transfers in the interest of the developing country towards a more open market-based model. An open market-based model encourages technology transfer to developing countries through the operation of the free market, coupled with assistance and cooperation on the part of developed countries.<sup>40</sup>

### IV. INTELLECTUAL PROPERTY DIVIDE

How IPRs function in the technology transfer process has become increasingly important.<sup>41</sup> IPRs

at [http://www.wto.org/english/tratop\\_e/trips\\_e/t\\_agm0\\_e.htm](http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm) [hereinafter TRIPS AGREEMENT].

33. *Id.* at arts. 3, 4.

34. Cynthia Cannady, *Issue Paper No. 25: Access to Climate Change Technology by Developing Countries*, ICTSD PROGRAMME ON IPRs AND SUSTAINABLE DEVELOPMENT (2009).

35. TRIPS Agreement, *supra* note 32, at arts. 7, 8.2.

36. TRIPS Agreement, *supra* note 32, at art. 66.2.

37. ICTSD BACKGROUND PAPER, *supra* note 13, at 3.

38. UNCTAD SERIES ON ISSUES IN INTERNATIONAL INVESTMENT AGREEMENTS, *supra* note 22, at 63.

39. *Id.*

40. *Id.* at 63-64.

41. EPO REPORT, *supra* note 25, at 19.

are not expressly mentioned in the UNFCCC or the Kyoto Protocol, but prior to the UNFCCC COP-13 session held in Bali, several developing countries like Cuba, India, Indonesia, Tanzania, and China stressed the need to address the role of IP in the climate change discussion.<sup>42</sup> The subsequent Bali Action Plan suggests consideration of:

Effective mechanisms and enhanced means for the removal of obstacles to, and provision of financial and other incentives for, scaling up of the development and transfer of technology to developing country Parties in order to promote access to affordable environmentally sound technologies.<sup>43</sup>

The UNFCCC parties disagree on whether IPRs are an obstacle that impede effective technology transfer and if so, what measures should be taken.<sup>44</sup> Developing countries, like China, have argued that patents are an obstacle to clean technology transfer because patents limit a country's access to clean technologies.<sup>45</sup> Conversely, the United States has expressly opposed any weakening of IPRs related to clean technologies.<sup>46</sup> The divide over IPRs has delayed agreement among UNFCCC parties concerning clean technology transfer.<sup>47</sup>

## V. PATENTS AND TECHNOLOGY TRANSFER

All IPRs, particularly patent rights, do not have equal potential to inhibit technology transfer across all developing nations.<sup>48</sup> Research by Copenhagen Economics suggests that patent filings in clean technology sectors are almost nonexistent in the least developed countries.<sup>49</sup> The research data showed that only 0.1 percent of the 215,000 patent applications for certain clean technologies were filed in LDCs.<sup>50</sup> If a particular technology is not patented in a particular

country, anyone in that country can use the disclosed technology for its benefit. Therefore, patents are unlikely to be a barrier in LDCs.

However, countries with emerging economies have significant numbers of patents in clean technology sectors. One study showed that China ranked second among leading innovators in climate-friendly cement and geothermal energy.<sup>51</sup> The Republic of Korea ranked second for patents in energy-efficient lighting and Russia ranked third for patents in carbon-capture and storage, climate-friendly cement, and geothermal energy.<sup>52</sup> Other studies mentioned in a joint report by the European Patent Office, the U.N. Environment Programme, and the International Centre for Trade and Sustainable Development, have provided similar evidence that patents are important in many emerging economies and should be considered in the clean technology transfer debate as a possible barrier.<sup>53</sup> But the existence of significant quantities of patents in emerging economies does not resolve the issue of whether patents are a barrier to clean technology transfer.

Technical information is costly to learn and absorb for endogenous commercialization.<sup>54</sup> Technology owners with IPRs may theoretically demand prices that are higher than marginal cost or may monopolize markets.<sup>55</sup> The high concentration of equivalent clean technologies found in a small number of companies<sup>56</sup> increases the risk of anti-competitive behavior.<sup>57</sup> Anti-competitive practices are always a danger in intellectual property regimes and threaten to inhibit innovation in any market – developed or developing. Some corporations could engage in patent “blocking,” a strategy whereby patent owners deter competitors from entering the market because of the costs associated with trying to invent in the neighborhood of patents.<sup>58</sup> However, the fungible nature of energy production and maturity of many

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42. ICTSD BACKGROUND PAPER, *supra* note 13, at 4.

43. United Nations Framework Convention on Climate Change, Conference of the Parties, Thirteenth Session, Dec. 3-15, 2007; COP-13 in Bali, Indon. U.N. Doc. FCCC/CP/2007/6/Add.1 (Mar. 14, 2008).

44. ICTSD BACKGROUND PAPER, *supra* note 13, at 2.

45. Lisa Larrimore Ouellette, *Addressing the Green Patent Global Deadlock through Bayh-Dole Reform*, 119 YALE L.J. 1727, 1727 (2010).

46. *Id.* at 1728.

47. *Id.*

48. Copenhagen Econ. A/S & the IPR Co. ApS, *Are IPR a Barrier to the Transfer of Climate Change Technology?* (2009) (amassing research from several independent sources) [hereinafter Copenhagen Economics].

49. *Id.*

50. EPO REPORT, *supra* note 25, at 22.

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51. *Id.*

52. *Id.*

53. *Id.* at 22-23; Srinivas, *supra* note 18.

54. Keith E. Maskus, *Issue Paper No. 7: Encouraging International Technology Transfer*, in UNCTAD-ICTSD PROJECT ON IPRs AND SUSTAINABLE DEVELOPMENT § 2.2(a) (2004).

55. *Id.* at § 2.2(c).

56. EPO REPORT, *supra* note 25, at 64.

57. Frederick M. Abbott, *Issue Paper No. 24: Innovation and Technology Transfer to Address Climate Change: Lessons from the Global Debate on Intellectual Property and Public Health*, INTELLECTUAL PROPERTY AND SUSTAINABLE DEVELOPMENT SERIES, ICTSD PROGRAMME ON IPRs AND SUSTAINABLE DEVELOPMENT § 3 (2009).

58. Benjamin K. Sovacool, *Placing a Glove on the Invisible Hand: How Intellectual Property Rights May Impede Innovation in Energy Research and Development (R&D)*, 18 ALB. L.J. SCI. & TECH. 381, 419-20.

clean technologies decrease the likelihood of a single blocking patent.<sup>59</sup> Even in the biofuel sector, where avoiding patented microorganisms may be difficult, licensing of those patents is likely and royalties would not remain high for long.<sup>60</sup> Other factors, such as lack of capital and know-how, may be larger impediments to technology transfer.<sup>61</sup>

## VI. THE SEARCH FOR BALANCE

Though true technology transfer is not necessarily based on IPRs, IPRs have the potential to make technology transfer too costly and impractical with almost any innovation. Most developing countries remain net consumers rather than donors of technology.<sup>62</sup> Developing countries have a strong interest in expanding their access to international technologies.<sup>63</sup> But not all developing countries have the same ability to learn from foreign technologies and absorb them into their domestic economy.<sup>64</sup> Emerging economies like China and Brazil have good investment potential and are likely to continue to gain technology through transfer to endogenous companies.<sup>65</sup> LDCs, on the other hand, may find little foreign direct investment without improvements to skill levels, infrastructure, IP protection/enforcement, and increases in funding for transfers.<sup>66</sup> At the international level, discussions to weaken IPRs have been recently proposed. During the UNFCCC Ad Hoc Working Group on Long-Term Cooperative Action session in June of 2009, parties included provisions specifically addressing IPRs in the negotiating text: compulsory licensing for patented environmentally-sound technologies, mandatory exclusions from patenting for climate-friendly technologies held by developed countries, pooling and sharing of publicly funded technologies, and making the technologies available in the public domain at an affordable price or royalty-free.<sup>67</sup> None of these provisions were ultimately

adopted, but they are an insight into the current discussion of IPRs in the climate change context.

## VII. EXCLUSIONS FROM PATENTABILITY

Patenting exclusions for clean technologies may be the most unlikely proposal to be adopted of all the ad hoc working group's proposals leading up to the COP-15 in Copenhagen. The provision allows countries to exclude applications for clean technology from patents and rescind patented clean technologies from patent protection.<sup>68</sup> This rather extreme solution seems to directly conflict a provision of the TRIPS Agreement. Article 27.1 of the TRIPS Agreement does not permit member states to exclude any field of technology as a whole from patentability.<sup>69</sup> However, the TRIPS Agreement does include certain "flexibilities" such as Articles 27.2 and 30. Under Article 30:

Members may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.<sup>70</sup>

A member country could argue that clean technologies are a limited exception, but this idea may be very difficult to sell to a WTO dispute settlement panel. This exception has primarily been used to allow for academic research or experimental use by parties other than a patent holder.<sup>71</sup> A more narrowly-tailored exception, such as an exception to a particular clean technology sector, might have a better chance under Article 30. An exclusion of clean technology patents under Article 27.2 of the TRIPS Agreement also appears unlikely. It states:

Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which

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59. Abbott, *supra* note 57, at § 3.

60. John H. Barton, *Issue Paper No. 2: Intellectual Property and Access to Clean Energy Technologies in Developing Countries: An Analysis of Solar Photovoltaic, Biofuel and Wind Technologies*, ICTSD PROGRAMME ON TRADE AND ENVIRONMENT (2007).

61. See Marilyn Brown et al., *U.S. Dep't of Energy, Carbon Lock-In: Barriers To Deploying Climate change Mitigation Technologies* (2007) (discussing barriers for U.S. companies) [hereinafter *Carbon Lock-In*].

62. UNCTAD SERIES ON ISSUES IN INTERNATIONAL INVESTMENT AGREEMENTS, *supra* note 22, at 7.

63. Maskus, *supra* note 54.

64. *Id.*

65. *See id.*

66. Whether this deficiency is real or just perceived in all sectors remains unclear and warrants further study. *See, e.g., Carbon Lock-in, supra* note 61.

67. U.N. Framework Convention on Climate Change, Ad

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Hoc Working Group on Long-Term Coop. Action Under the Convention, Bonn F.R.G., June 1-12, 2009, Negotiating Text, pp. 184, U.N. doc. FCCC/AWGL/2009/8 (May 19, 2009), available at <http://unfccc.int/resource/docs/2009/awglca6/eng/inf01.pdf> [hereinafter Negotiating Text].

68. *Id.*

69. TRIPS Agreement, *supra* note 32, at art. 27.1

70. TRIPS Agreement, *supra* note 32, at art. 30.

71. *See, e.g.,* Panel Report, Canada – Patent Protections of Pharmaceutical Products, WT/DS114/R (Mar. 17, 2000).

is 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, provided that such exclusion is not made merely because the exploitation is prohibited by their law.<sup>72</sup>

It would be contradictory to argue that protecting health or avoiding serious prejudice to the environment would be furthered by the prevention of commercial exploitation of clean technologies, when clean technologies would be implemented precisely to protect health or avoid serious prejudice to the environment.

At least in theory, parties to both the UNFCCC and the TRIPS Agreement could agree to concurrently amend the TRIPS Agreement, or agree not to enforce it in this regard, permitting abolishment of IPRs in clean technology sectors, but the risk of modifying the TRIPS Agreement should not be taken lightly.<sup>73</sup> Given the breadth of clean technology sectors, the indefiniteness of what is encompassed by clean technology, and the current divisiveness on the issue, such a one-sided change seems far-fetched.<sup>74</sup> Beyond the express unwillingness of developed nations to weaken patent protections, the lack of IPRs in the clean technology sectors might discourage clean technology transfer and impose a new barrier.

#### VIII. COMPULSORY LICENSING<sup>75</sup>

Along with the ad hoc working group's proposed negotiating language, some non-governmental organizations have advocated for compulsory licensing.<sup>76</sup> The recipient country would issue a compulsory license by removing any royalty fees that an IPR holder might desire to charge.<sup>77</sup> Instead of weakening IPRs across all clean technology sectors, a single invention could be licensed on its individual merits. Such a policy seeks to prevent anti-competitive practices of IPR holders like hoarding.<sup>78</sup> Compulsory licensing is available under Article 31 of the TRIPS Agreement<sup>79</sup> and has been used in the past, such as in

72. TRIPS Agreement, *supra* note 32, at art. 27.2.

73. ICTSD BACKGROUND PAPER, *supra* note 13, at 7.

74. Abbott, *supra* note 57, at § 6(c).

75. A compulsory licensing is a license a government grants to someone other than the patent owner to produce the patented product or process without the consent of the patent owner.

76. EPO REPORT, *supra* note 25, at 14a.

77. ICTSD BACKGROUND PAPER, *supra* note 13, at 6.

78. UNCTAD SERIES ON ISSUES IN INTERNATIONAL INVESTMENT AGREEMENTS, *supra* note 22, at 38.

79. TRIPS Agreement, *supra* note 32, at art. 31; ICTSD-UNCTAD Capacity Building Project on IPRs and Sustainable Development, *Resource Book on TRIPS and Development: An*

the pharmaceutical context.<sup>80</sup>

However, the pharmaceutical sector is quite different from clean technology sectors. A patented pharmaceutical is likely to be the exclusive solution to a particular need. Since there are usually no market alternatives to a patented pharmaceutical, the IPRs holder is able to charge large royalty fees. Developing nations may not be able to afford the pharmaceutical, even if the country is in great need of it.

Market competition in the area of clean technologies also differs in several ways from competition in the pharmaceuticals industry. First, a study by John Barton demonstrates that a fair amount of competition exists in the studied clean technology sectors, keeping pricing to a minimum.<sup>81</sup> This competition exists across multiple alternative energy sectors.<sup>82</sup> Also, many of the fundamental clean technological solutions have long been off-patent.<sup>83</sup>

Second, though compulsory licensing is permitted under the TRIPS Agreement, other bilateral or multilateral agreements may restrict the licensing of clean technologies, except in cases of national emergency. Also, compulsory licensing could potentially create an economic backlash.<sup>84</sup> Therefore, compulsory licensing may not be desirable for every developing nation because of overarching consequences.

Finally, a license to a patented technology does not necessarily equate to a transfer of technology. Unlike a pharmaceutical patent, where disclosure of a chemical formula may be sufficient to produce the product, a clean technology patent may not disclose enough information to actually commercialize the technology.<sup>85</sup> Trade secrets or technical know-how might be required and would be beyond the disclosure of the patent. In the pharmaceutical sector, a chemical formula may be sufficient for a manufacturer in a developing nation to produce a drug, and a compulsory license might be sufficient knowledge to permit manufacture. But in clean technology sectors, the inventions may require more skill or knowledge to

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*authoritative and practical guide to the TRIPS Agreement*, at 461, available at: <http://www.iprsonline.org/unctadictsd/ResourceBookIndex.htm> (June 1, 2005) [hereinafter Book on TRIPS].

80. William W. Fisher III & Dr. Cyrill P. Rigamonti, Harvard Law School, *The South Africa AIDS Controversy A Case Study in Patent Law and Policy* 12-13 (2005), available at <http://cyber.law.harvard.edu/people/ffisher/South%20Africa.pdf>.

81. Barton, *supra* note 60.

82. *Id.*

83. *Id.* The term "off-patent" refers to technologies which have out-lived their patent terms.

84. Robert Fair, *Does Climate Change Justify Compulsory Licensing of Green Technology?*, 6 B.Y.U. INT'L L. & MGMT. REV. 21, 25 (2009).

85. Srinivas, *supra* note 18, at 16-17, 27.

produce.

For example, a solar photovoltaic (PV) cell might be protected by multiple patents and trade secrets. The particular compositions of the layers of a p-n junction might be patented, but the method of obtaining the desired precision engineering of those layers might be a trade secret. Without the ability to precisely produce those layers, the true efficiency gain of the cell might never be realized. Therefore, a compulsory license may be insufficient for actual transfer of the clean technology, since it would only disclose part of the technology.<sup>86</sup> Additional components, perhaps covered by other patents and possibly owned by other companies, may be necessary for implementation of the PV cell. A compulsory license to one component of the PV cell may not be useful without the other components. Finally, it should be noted that developing countries present other barriers that may be greater obstacles than IPRs. Absence of a sufficient technological infrastructure, an underdeveloped domestic industry and R&D base, or poor access to production materials will undermine any gains of the compulsory license.

## IX. PATENT POOLS

Another proposed technology transfer mechanism involves patent pooling, the sharing of clean technology at “affordable prices” or possibly “royalty-free.”<sup>87</sup> It is unclear from the Ad Hoc Working Group negotiating text whether this sharing of clean technology is voluntary or mandatory. If voluntary, it may be similar to the current Eco-Patent Commons.<sup>88</sup> The Eco-Patent Commons has made some inroads into sharing technology, but the only significant incentive for a business to submit patents to the Commons is for a business to improve how the public perceives it. This incentive is not strong enough for inventors to share their best or complete technological advances.<sup>89</sup>

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86. Additionally, PV cells supply direct current and require converters to switch to an alternating current to use the electricity from a home. Further, PV cells are dependent on direct sunlight and must be coupled to batteries or allow for connection to a traditional power grid during low light hours.

87. Negotiating Text, *supra* note 67.

88. The Eco-Patent Commons was launched by IBM, Nokia, Pitney Bowes and Sony in partnership with the World Business Council for Sustainable Development (WBCSD) and was founded on the commitment that anyone who wants to bring environmental benefits to market can use these patents to protect the environment and enable collaboration between businesses that foster new innovations. WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT (WBCSD), <http://www.wbcd.org> (last visited Aug. 10, 2011).

89. Cannady, *supra* note 34, at 11 (addressing the limits of patent pools); *But see* Andrew Boynton, *Eco-Patent Commons: A Donation Approach Encouraging Innovation Within The Patent*

If submission to a patent pool were mandatory, disputes might arise over remuneration because of the inherent difficulty of assessing what might be “affordable,” or assessing the worth of individual components of a device. For example, if the manufacture of a solar panel involved multiple patents with different assignees, would remuneration be split equally among the assignees or split according to some determined percentage of contribution?

Despite the problems associated with pooling patents, packaging IP rights together with the know-how to implement an invention may be necessary in the LDCs and in emerging economies. A portion of the negotiating text does address “associated trade secrets and know-how on environmentally sound technologies and enable them to be accessed.”<sup>90</sup> Hence, the patent pooling provision actually has an advantage over compulsory licensing in that it is more closely linked to transfer of technology and not just circumvention of IPRs. Also, developing nations would gain a better sense of the total cost of manufacture with a decreased risk of some unknown element impeding commercialization.

## X. A PROPOSED SOLUTION

The role of IPRs in the climate change context is both complex and controversial. As noted above, clean technologies encompass a wide variety of technologies – each with unique market conditions.<sup>91</sup> While virtually all nations might agree that climate change is a serious problem, the views of individual nations on intellectual property and climate change diverge.<sup>92</sup> These divergent positions may be irreconcilable if each country does not see an economic benefit to compromise. The fear of global warming and the recognition of an unsustainable energy policy may not be compelling enough to evoke a change to the IP system at the international level.

### A. Green Technology Packages

A successful mechanism to promote IP in developing countries will require a multi-level approach – technology packages and coordination on an international level, as well as incentives and removal of barriers at the national level. At the international level, the idea of new Patent Commons by the Japan Intellectual Property Association or “green technology packages”<sup>93</sup> by Honda show the kind of promise lacking

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*System*, 35 WM. & MARY ENVTL. L. & POL’Y REV. 659, 676 (2011).

90. Negotiating Text, *supra* note 67.

91. *See infra* Part V.

92. *See infra* Part IV.

93. A “package” would comprise sets of patents,

from the earlier altruistic treaties bent on combating climate change.<sup>94</sup>

A green technology package can gather knowledge beyond the information contained in a patent's specification – knowledge which may be necessary for true technology transfer. A patent is granted to an inventor as an exclusive right, in exchange for the inventor's public disclosure of how to make or use the invention. U.S. patent law requires a written description of the invention sufficient to teach one of ordinary skill in the art of how to make or use the invention.<sup>95</sup> In practice, this public disclosure may not provide the necessary know-how to efficiently commercialize the invention. The ability to make a single product does not necessarily equate to the ability manufacture a sufficient quantity to be commercially viable. Also, a patent application is written for "one of ordinary skill in the art."<sup>96</sup> So those wishing to make or use the invention may need to gain substantial knowledge in the field of endeavor. Additionally, the patent examination process has no physical means of determining whether the disclosure is, in fact, adequate to make the invention.<sup>97</sup> As a result, there is no guarantee that even one of ordinary skill in the art will have sufficient knowledge to make or use the invention.<sup>98</sup> Further, patent applications can be drawn to individual components or aspects of a product or process, and the law does not require that all elements be disclosed so long as the claimed invention is substantially useful.<sup>99</sup> Instead of protecting the entire invention under one patent, companies may protect different aspects of an invention as trade secrets or under separate patents. All this has the effect to decoupling the knowledge disclosed by a patent and the knowledge needed for transfer of technology.

As noted above with patent pools, green technology packages have a distinct advantage over compulsory licensing because they are able to provide the knowledge necessary to commercialize an invention. The green technology package can include additional knowledge beyond the scope of a patent, such as technical information, human resource plans, and skills training. The green technology package can

group multiple patents together so that the potential licensee does not need to negotiate separate licenses. For example, a PV cell, converter, and battery might be grouped together under this green technology package. This grouping would alleviate the difficulty of shopping for each component, which may be a significant undertaking if the potential licensee is unfamiliar with the technology. Also, the potential licensee would be able to project a more accurate business model, since the package provides a one-stop shop.

Another advantage of green technology packages is that pricing can be easily compared to among packages. Newly patented technologies must still compete with older, off-patent technologies. A green technology package allows flexible pricing to adjust to the demand and position of each technology area. Wind, PV, and biofuel all have a small number of market members, but high levels of competition. Analysis shows that strong competition among wind, PV, and biofuel manufacturers has kept licensing prices down.<sup>100</sup> For example, a Chinese firm, Goldwind, licensed wind technology from a German firm for a 1% royalty.<sup>101</sup> Presumably a green technology package would also be competitively priced to attract developing nations.<sup>102</sup>

Based on an EPO licensing survey, there is little overall out-licensing to developing countries in clean technology sectors, which is on par with other industries.<sup>103</sup> This suggests that current clean technology transfer mechanisms have failed to appreciably promote out-licensing. One possible reason for the under-licensing is the failure of licensors to communicate with potential licensees. Based on the submissions by developing countries of their technology needs assessments (TNAs) to the Global Environment Facility (GEF), developing countries may not be aware of the technical solutions available throughout the world.<sup>104</sup> The EPO has added a new classification scheme to enhance global awareness of patented and non-patented solutions in clean technology sectors.<sup>105</sup> But perhaps there is an opportunity to match the needs of developing countries (identified by the TNAs) and the actual patent owners – or better yet green technology package owners.

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documentation, and other IP and non-IP knowledge gathered together to facilitate commercialization.

94. Cannady, *supra* note 34, at 19.

95. 35 U.S.C. § 112 (2006).

96. *Id.*

97. For over a century the U.S. Patent and Trademark Office has not required a working model an invention to grant a patent.

98. Srinivas, *supra* note 18, at 26. However, a patent may be invalidated by a U.S. federal court on the grounds practicing the invention requires knowledge beyond the level of one of ordinary skill in the art.

99. See 35 U.S.C. § 101 (2006).

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100. Barton, *supra* note 60, at 4.

101. *Id.* (Wind, having the lowest competition of the three sectors, would normally have the highest royalties).

102. Developing countries may also be able to draw from public funds.

103. EPO REPORT, *supra* note 25, at 64.

104. Handbook for Conducting Technology Needs Assessment for Climate Change 20, 21 (Sarwat Chowdhury et al. eds., 2010) (directing countries implementing a technology needs assessment to ClimateTechWiki designed to inform them about different technology options).

105. EPO REPORT, *supra* note 25, at 65.

A recent draft by the Expert Group on Technology Transfer concerning the Technology Mechanism of the Copenhagen Accord envisions a Climate Technology Centre (CTC) that would function as network hub and facilitator, technical advisor and consultant, matchmaker, catalyst, broker, and technology accelerator.<sup>106</sup> A body such as the CTC might be used to link a demand in developing nations for a particular clean technology to a provider of such technology, bridging the gap between the two entities. Such a body would be in a position to alleviate legal issues in licensing by pre-negotiating and funding issues through the UNFCCC's financial mechanisms. The CTC would be in a unique position to not only determine suitable matches for technology transfer but also to drive innovation by informing technology developers of the needs of potential developing country customers.

### B. National Incentives

But even if a technology is available for license, complete with know-how and a business model matched to a developing country, that country may lack the infrastructure or economic disposition necessary for implementation. For example, a wind turbine design might be licensed with all the knowledge necessary for manufacturing the turbine, but if the developing country's local power grid cannot handle the fluctuation in energy production inherent to the fluctuation of the winds themselves, the technology may be worthless. Similarly, national subsidies for fossil fuels may provide an insurmountable barrier to a moderately priced solar field. Therefore, a national level of transfer mechanisms will be required to counteract such internal barriers.

Research companies in developed countries need to coordinate with their governments in order to spur sufficient competition and keep pricing low for green technology packages. Since most clean technology research is publicly funded, submission of a green technology package for each commercialized clean technology could be a requirement to receive public funds. At the very least, countries like the United States may have to modify existing laws such as the Bayh-Dole Act, which favors licensing to firms that manufacture primarily in the United

States.<sup>107</sup> An exception in the Bayh-Dole Act for clean technologies will benefit clean technology patent owners in the United States by permitting outsourced labor and production to reduce the overall cost of commercialization of a technology. Given current U.S. unemployment rates, it will be politically unpopular to suggest that manufacturing jobs of clean technologies should be moved to a developing country. But developed nations like the United States would be better served focusing on jobs creation in the areas of clean technology research and development, rather than manufacturing. The United States' advantage over many other nations lies in the exportation of intellectual property knowledge, not exportation of manufactured goods.

Incentives have been successfully used in the past to spark innovation in underdeveloped technologies, or to give a competitive advantage to areas already developed. Ethanol subsidies in the U.S., and petroleum subsidies in Venezuela and Russia, are examples of ways to reduce pricing in a particular technological area. Prizes, like the X Prize for space flight, can inspire and mobilize technology innovators.<sup>108</sup> Public funds and grants for research and development such as the California Public Utilities Commission Solar Initiative and Sustainable Energy USA awards can help grow a technology sector.<sup>109</sup> Developing nations can implement similar incentives to help growth in the clean technology sectors.

In addition to incentives to develop endogenous technology, developing nations should use national incentives to encourage investment in clean technology transfer. Both positive incentives, such as prizes or subsidies, and negative incentives, such as carbon taxes, can tip the balance in favor of clean technologies. Without such monetary incentives, the gap with fossil fuels in competitive pricing will only be reduced by innovation. This will lead to long delays in the adoption of clean technologies on a large scale, while further harm is done to the environment. If a successful exchange of technology can take place, the benefits can simulate the advantages of foreign direct investment: a developing country gains improved clean technology sectors and the knowledge and skills for their own future development. In the long term, the level of competition and global market demand will increase and the developing nation can use the global IP system to strengthen its own economy.

Incentives can also be linked to the green technology packages. An incentive would help

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106. United Nations Framework Convention on Climate Change, *Preparing for the Implementation of the Proposed Technology Mechanism* (Expert Group on Technology Transfer, Working Paper EGTT/2010/13, Nov. 4, 2010), available at [http://unfccc.int/tcclear/jsp/EGTTDoc/EGTT\\_Modality\\_draft\\_working\\_paper\\_4%20November.pdf](http://unfccc.int/tcclear/jsp/EGTTDoc/EGTT_Modality_draft_working_paper_4%20November.pdf). See United Nations Framework Convention on Climate Change, Subsidiary Body for Scientific & Technological Advice, U.N. Doc. FCCC/SBSTA/2002/L.9 (June 12, 2002) (establishing the Expert Group on Technology Transfer).

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107. See Bayh-Dole Patent and Trademark Laws Amendment Act, Pub. L. No. 96-517, 94 Stat. 3015 (1980).

108. Kammen, *supra* note 11, at 343 (calling for a sustainable energy award in the U.S.).

109. *Id.*

subsidize the purchase of a green technology package by a developing nation or work cooperatively to provide any necessary infrastructure improvements. For example, a guaranteed update to a developing nation's local power grid might be offered to a firm licensing the technology to build a wind or solar field. Developed nations could also make public funds contingent on the formation of green technology packages. Hence, if a firm receives research dollars from the government and that research leads to patenting and commercialization, the firm could be required to offer a green technology package at a competitive price. If a developing nation desires a green technology package, the IP rights holder would still receive a royalty on the license and a public image boost for the spread of green technology.

One problem with incentives is the balance of technologies. Since incentives are designed to disturb the natural balance, care should be used in deciding which clean technologies will receive benefits. Developing nations should choose only the most efficient green technology package based on the nation's local constraints. A loss of efficiency results in waste and misplaced incentives to green technology package providers. Appropriate time limitations on subsidies would also help to ensure that the choice of technologies is flexible and to prevent dependence on a single technology.

Another issue to consider is the role of IP in light of green technology packages and national incentives. The stability and strength of an IP legal system could affect the relative pricing of a developing nation consumer. Some nations may appear riskier than others based on weak IP enforcement or unfavorable national IP laws. China, for example, has a reputation of being a risky country to invest in because of favoritism towards its citizens.<sup>110</sup> In China, unlike many other countries, the licensor may have no rights to any improvements made by a licensee.<sup>111</sup> A green technology package to China may be more expensive as a result of this favoritism. This may, in turn, encourage China to establish a more balanced IP system for foreigners.

## XI. CONCLUSION

The most significant aspect of green technology packages is the quid pro quo – climate change adaptation and mitigation technologies in exchange for potential profits for IPR holders and innovators. The global IP regime can be used as a resource in gathering information and facilitating licensing. The

international community should direct efforts toward reducing the barriers that impede these transactions and work to develop a strong clean technology market. Groups like the CTC can help identify potential developing nation consumers and pair them with clean technology providers. Governments can limit domestic barriers that impede transfer of clean technologies and incentivize development of clean technologies. Though economic conditions or political pressures may galvanize a united movement toward alternative energy solutions, appeals to nations through profit may be more effective than an appeal to a sense of the public welfare. Green technology packages and corresponding incentives can appeal to both and, therefore, make promising mechanisms for promoting environmentally sound technologies in the developing world.

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110. See Mei Gechlik, *Making Transfer of Clean Technology Work: Lessons of the Clean Development Mechanism*, 11 SAN DIEGO INT'L L.J. 227, 263 (2009).

111. Copenhagen Economics, *supra* note 48, at §4.1.28.

# *Markman Pro Publico:* Friending the Courts on Patent Claim Interpretation Issues

by Charles Lee Thomason<sup>1</sup>

## I. INTRODUCTION

In *Markman* claim term disputes, the paramount interest of the public in patents and in the public domain is unrepresented, even though “patent rights are ‘issues of great moment to the public.’”<sup>2</sup> What delineates the outer bounds of the patent claim interpretation inquiry are the “private interests of the litigants.”<sup>3</sup> The public interest is set aside.

Neither the courts nor the litigants are well positioned to address the “underlying policy of the patent system” or to ask pointedly whether the patent claims, unless properly construed, have enough “worth to the public” to “outweigh the restrictive effect of the limited patent monopoly.”<sup>4</sup> The public interest in how inventions are described in issued patents is a precise but flexible construct that confines the granted rights within legal limits, disagrees with claims being read so expansively that information is taken back from the public domain, and urges objective interpretations that favor neither litigants’ infringement nor invalidity strategies.

*Amicus* groups could define zones of interest when certain patent claims are interpreted and move to represent the public interest in the *Markman* proceedings. A public interest advocacy group consisting of law students who have completed a patent law course could be formed to identify cases that involve patent claims that affect segments of commerce important to the public. Through an admitted attorney and local counsel, such a group would enter an appearance for the limited purpose of participating as *amicus* in the claim interpretation proceedings.

This article argues first that *amici* could protect the public domain and enforce the public notice function of patent claims. Then it argues in Section Three that having the litigants restrict the range of interpretations a court may consider leaves the public interest aspects out of the decision-making process. Next, Section Four of the article further contrasts the

litigation-driven interpretations and the objective rules of construction. The final section examines whether an *amicus* group representing the public interest might be excluded from claim interpretation proceedings.

## II. SEEKING PUBLIC NOTICE AND GUARDING THE PUBLIC DOMAIN

The most fundamental policy behind the Patent Clause is enrichment of the public domain.<sup>5</sup> Neither a Court nor Congress can endow patents with rights that “remove existent knowledge from the public domain.”<sup>6</sup> The *quid pro quo* for a patent grant is putting “the public in possession of” the invention described and claimed so that “the public is informed, not only of what has been patented, but of what still remains common as before.”<sup>7</sup>

Starting with the Patent Act of 1793, every inventor and patent has been required to employ “such full, clear, and exact terms, as to distinguish the same from all other things before known.”<sup>8</sup>

“Otherwise, a ‘zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims would discourage invention only a little less than unequivocal foreclosure of the field,’ and ‘[t]he public [would] be deprived of rights supposed to belong to it, without being clearly told what it is that limits these rights.’”<sup>9</sup>

Thus, clarity, notice, and preservation of the public

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2. *Precision Instrument Mfg., Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 815 (1944).

3. *Id.*

4. *Bilski v. Kappos*, 130 S. Ct. 3218, 3258 (2010) (Breyer, J., concurring) (quoting *Graham v. John Deere Co.*, 383 U.S. 1, 10-11 (1966)).

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5. *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989) (“The Patent Clause itself reflects a balance between the need to encourage innovation and the avoidance of monopolies which stifle competition without any concomitant advance in the ‘Progress of Science and useful Arts’.”).

6. *Graham*, 383 U.S. at 6 (noting that a patentable invention must “add to the sum of useful knowledge”).

7. *Evans v. Eaton*, 20 U.S. 356, 413, 446 (1822).

8. Patent Act of 1793, §3 Ch. 11, 21 Stat. 318, 321, set out in *Evans*, 20 U.S. at 380-81.

9. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996) (quoting *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 236 (1942) and *Merrill v. Yeomans*, 94 U.S. 568, 573 (1876)). See also *Mahm v. Harwood*, 112 U.S. 354, 361 (1884) (“The public has the undoubted right to use, and it is to be presumed to us, what is not specifically claimed in the patent.”).

domain are public interest factors that deserve no less attention than is given to the litigation goals that parties have grounded on pliable passages in the patent application.<sup>10</sup>

An *amicus* group could serve the public interest by advocating for patent claim interpretations that take nothing away from the public domain, do not capture the prior art, and do not expand patent claim scope through equivalence.<sup>11</sup> Enforcing the requirements of public notice, describing and enabling the invention in “full, clear, concise, and exact terms,” and “particularly pointing out and distinctly claiming” the invention would ensure that the public interest is represented when patent claims are interpreted.<sup>12</sup>

### III. LITIGANTS ESTABLISH THE PERIMETER AROUND THE INTERPRETATION ISSUES

In patent claim term disputes, the litigants select which claim limitations they will urge be interpreted and which terms will be strategically avoided. Each litigant’s self-interest becomes the sole determinant for inclusion or exclusion of a claim limitation or term in the *Markman* presentations to the district judge.

Each litigant’s decisions about whether to battle over a particular claim term involve strategic interplay with which interpretations most likely will prove or avoid infringement or sustain validity or invalidity. The strategic goal of the patentee is to dispute just enough of the claim terms to win on infringement without going so far as to risk invalidation. An accused infringer may put all of its resources into invalidating the patent and almost none toward interpretations essential to non-infringement of the claims. Some defendants in patent infringement actions will urge that practically every claim term limitation be construed, while their motive is unconnected to pursuing an interpretation that is outcome determinative of any issue.<sup>13</sup>

Once the litigants have set the bounds for their claims interpretation dispute, all the other claims and limitations are ignored. In districts with local patent rules, only those “asserted” claims designated by the parties will be construed.<sup>14</sup> “[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.”<sup>15</sup> An *amicus* group that urges a widened inquiry into the patent claims might be ruled out of bounds by the court or be deemed unwelcome by the litigants.

The common concerns with participation by *amici* are an expansion of the issues framed by the litigants, a lack of stake in the actual controversy, and added work for the judiciary. One can advocate that the overarching public interest in patent claims being construed fairly deserves more weight than the judicial efficiency perceived to result from the dispute being confined to those claim term arguments that the litigants prefer be considered.

“It is true that, in ordinary private litigation, courts sometimes confine their decisions narrowly, and, if one point is sufficient to support a decision, other points are not discussed. Even if that could be said to be the usual practice, it loses much of its pertinence in patent cases. A patent is a ‘public franchise,’ a legalized monopoly. To allow a patent to remain apparently valid when the issue of invalidity is raised and the court sees that the patent is invalid, is to ignore the paramount public interest. Because no representative of the public may institute a suit to have a patent held invalid, and because the courts have no staff of independent experts to aid them in patent suits, the courts must, in most cases, rely on the litigants....”<sup>16</sup>

Rather than have district courts rely on the

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10. Proper claim interpretation will limit any patent that “withdraws what is already known into the field of its monopoly and diminishes the resources available to skillful men.” *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007).

11. See *Howe Mach. Co. v. Nat’l Needle Co.*, 134 U.S. 388, 394 (1890) (quoting *White v. Dunbar*, 119 U.S. 47, 52 (1886) (“The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is, and it is unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.”)).

12. 35 U.S.C. §112 (2006); *Johnson & Johnston Assocs. Inc. v. R.E. Serv. Co., Inc.*, 285 F.3d 1046 1052, 1052 (Fed. Cir. 2002) (“The claims give notice . . . to the public at large, including potential competitors, after the patent has issued.”).

13. See Peter S. Menell, Matthew D. Powers & Steven C. Carlson, *Patent Claim Construction: A Modern Synthesis and Structured Framework*, 25 BERKELEY TECH. L.J. 711, 731 (2010) (“It

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is all too common for the parties to propose differing construction but be unable to articulate why the differences matter.”). See too, Comment to Northern District of Illinois Local Patent Rule 4.1, the “limitation to ten claim terms to be presented for construction is intended to require the parties to focus upon outcome-determinative or otherwise significant disputes.”

14. See, e.g., Local Patent Rules 4-3(c)2, N.D. Ill. available at <http://www.ilnd.uscourts.gov/home/LocalRules.aspx?rtab=patentrules>, Local Patent Rule 4.1, N.D. Cal, available at <http://www.cand.uscourts.gov/filelibrary/184/Local%20Rules%206.2.11%20with%20Cross%20Refs.pdf>; *infra* note 43.

15. *Vivid Tech., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

16. *Aero Spark Plug Co. v. B. G. Corp.*, 130 F.2d 290, 293 (2d Cir. 1942), (Frank, J., concurring) (footnotes omitted).

litigants exclusively in *Markman* proceedings, *amicus* groups could undertake the role of representing “the paramount public interest” in patents being construed properly.<sup>17</sup> It is to be questioned whether the deliberative and litigious adversarial process can accommodate an *amicus* group to represent the public interest and advocate for the patent in suit to be interpreted more objectively.<sup>18</sup>

The evaluative and objective process begins with the *amicus* group: (i) identifying ongoing patent suits with terms that, when interpreted, will affect some significant sector of commerce, innovation, or widespread public consumption, and (ii) appearing as *amicus* to aid in claim interpretation. Once an appropriate *Markman* matter is identified, the *amicus* group must move, with or without the consent of the litigants, to appear in the case and brief the claim construction issues.

It is recognized in patent jurisprudence that the “public interest here is not in the fate of these litigants[;] . . . the interest is in the way this judge made law affects technologic innovation and competition.”<sup>19</sup> Even properly construed patents “serve as a barrier to competition for the type of subject matter that is patented.”<sup>20</sup> The litigants’ dominant role and self-interest in patent claim interpretation proceedings would be tempered if the public interest were urged as a worthy component of the *Markman* determination. In practice however, the litigants and the district court may prefer that a public interest advocacy group not be permitted to serve the role of *amicus* and present claim interpretation arguments.

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17. *Precision Instrument Mfg., Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 816 (1944).

18. See *Arlington Indus., Inc. v. Bridgeport Fittings, Inc.*, 632 F.3d 1246, 1257-58 (Fed. Cir. 2011) (Lourie, J., concurring in part, dissenting in part) (“Unfortunately, the nature of our adversary system often causes those patents to be asserted against someone engaged in activity not contemplated by the inventors . . . and litigation counsel attempt to fit a square peg into a round hole, or, in other words, to fit into the claim language what the inventors never contemplated as part of their invention.”). *Amici* have argued claim construction issues to the Federal Circuit, see e.g., *Orion IP, LLC v. Hyundai Motor America*, 605 F.3d 967 (Fed. Cir. 2010) (“The court’s finding of nonobviousness is even more surprising in light of its construction of the claim term ‘a computerized method.’” Brief of Washington Legal Foundation, 2009 WL1900190).

19. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 344 F.3d 1359, 1379 (Fed. Cir. 2003) (Newman, J., concurring in part, dissenting in part).

20. *Bilski v. Kappos*, 130 S.Ct. 3218, 3257 (2010) (Stevens, J., concurring).

#### IV. EVALUATIVE, OBJECTIVE ADVOCACY FOR THE PUBLIC INTEREST IN PATENT INTERPRETATION

Considerable *dicta* pronounces that patents and the scope of the exclusive patent rights enforceable by law are imbued with the “public interest.”<sup>21</sup> Such pronouncements attach to patents that are invalid or unenforceable and against overbroad or unbounded patent claims.<sup>22</sup> Yet, that “public interest” is of no interest to an accused infringer, and is of minimal concern to a patentee seeking to enforce its rights against infringement.<sup>23</sup>

While the representation of the public interest in patent litigation is still actively debated, the discussion ultimately leads to specific case examples, *infra*. However, it is not the purpose of this writer to critique specific patents, litigants, or strategies. With due respect for the exceptional work of litigating patent attorneys and those district courts where most of the cases are venued, some examples are offered for discussion.

Consider cases where the same claim terms were construed more than once and differently by different judges. Might objective advocacy from an *amicus* group representing the public interest have assisted in achieving a more efficient and correct result? Many courts have construed the claim terms “database” or “memory” device, albeit in the context of various patents.<sup>24</sup> The results of the separate *Markman*

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21. *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 344 (1971) (“The patent is a privilege . . . which is conditioned by a public purpose . . . [and] results from invention and is limited to the invention which it defines.”); *Lear, Inc. v. Adkins*, 395 U.S. 653, 670 (1969) (holding that there is an “important public interest in permitting full and free competition in the use of ideas which are in reality a part of the public domain.”); *Application of Prater*, 415 F.2d 1393, 1405 n.31 (C.C.P.A. 1969) (stating that during prosecution an applicant “may then amend his claims” to make it less likely a patentee will argue the claims should be “interpreted as giving broader coverage than is justified,” because “[t]his thought, in ‘the public interest, is deemed to be paramount to an applicant’s interest.”).

22. See, e.g., *Precision Instrument Mfg., Co.* 324 U.S. 806; One recalls the claim of Samuel F.B. Morse to every “use of the motive power of the electric or galvanic current, which I call electro-magnetism, however developed for marking or printing intelligible characters, signs, or letters, at any distances,” which was ruled invalid. *O’Reilly v. Morse*, 56 U.S. 62, 112 (1853).

23. An exception being when a patentee seeks an injunction. See *Roche Products, Inc. v. Bolar Pharm. Co., Inc.*, 733 F.2d 858, 865-66 (Fed. Cir. 1984) (“the standards of the public interest, not the requirements of private litigation, measure the propriety and need for injunctive relief in these cases”) (quoting *Hecht Co. v. Bowles*, 321 U.S. 321, 331 (1944)) (remanding case “for further proceedings to consider what this interest is”), *cert. den’d*, 469 U.S. 856 (1984).

24. Recent examples of *Markman* proceedings to construe “database” include *Vasudevan Software, Inc. v. IBM Corp.*, No. C 09-05897 RS, 2011 WL 196884, at \*2-3 (N.D. Cal. Jan. 20,

rulings regarding those terms ended up at the Federal Circuit, which then a standard for review of conflicting constructions of the same claim term.<sup>25</sup>

The *Finisar* appeal panel consulted two separate district courts' interpretations of "information database" from the same patent.<sup>26</sup> The Eastern District of Texas construed "information database" to mean "a collection of computerized information which can be accessed."<sup>27</sup> The Northern District of California construed it as "a dynamic, structured collection of digitized data capable of being held in computer storage."<sup>28</sup> Neither reading of "information database" by these courts was adopted on appeal, even though the same objective rules of claim interpretation were applied. The Federal Circuit construed "information database" as used in the patent to be "a collection of computerized information which can be accessed and searched, and from which selected information can be retrieved, and where the search and retrieval capabilities are at least as specific as those of the hierarchically arranged set of indices."<sup>29</sup>

In all three proceedings the interpretations urged were a product of the litigants' self-interest and, to an extent, how the "information database" was construed had an impact on the public domain. The Eastern District of Texas' definition is the broadest, and would capture most any database in the public domain. When the Federal Circuit found that access, search, and retrieval capabilities were defining limitations, the claimed information database was narrowed to correspond more to the specific invention, distinct from the broader domain of prior art databases. Reading a claim term broadly tends to increase the likelihood that infringement can be proven, but at the risk that the broad definition also will read on invalidating prior art. Litigants try to drive the *Markman* process into the definitional confines outlined by their commercial interests. An *amicus* group that advocates the public interest would urge an objective reading of patent claims and that the definitional process be driven by

clarity, conformity with the disclosure in the public record, and protection of the public domain.

In selected cases, *amici* representing the public interest could offer a wholly objective construction of the claim terms based on the intrinsic record that gave notice to the public.<sup>30</sup> The claims would be "construed objectively and without reference to the accused device."<sup>31</sup> An objective interpretation by public interest *amici* would be uninfluenced by whether it captures features in the accused device or in the prior art.

Interpreting a claim to have greater breadth may take more away from the public domain, but that added breadth will also make the claim read on more prior art.<sup>32</sup> The corollary is that broadly construed claim terms are more likely to be infringed.<sup>33</sup> Indeed, adding breadth to claims will expand what might infringe by equivalence.<sup>34</sup> This suggests that the public interest is antithetical to overbroad or invalid claims that may result in undeserved monopolies, and further that the public interest may tend to favor construing claims narrowly and interpreting art in the public domain broadly.<sup>35</sup>

The zones of interest to be represented by *amici* who advocate for the public interest would include adherence to the intrinsic evidence and

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2011), *MySpace, Inc. v. Graphon Corp.*, 756 F. Supp. 2d 1218, 1227 (N.D. Cal. 2010), *Civix-DDI v. Hotels.Com*, No. 05 C 06869, 2010 WL 4386475, at \*7-8 (N.D. Ill. Oct. 25, 2010), and *Jardin v. Datallegro, Inc.*, No. 08-CV-1462-IEG (RBB), 2010 WL 3910481, at \*3-4 (S.D. Cal. Oct. 4, 2010).

25. *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1329 (Fed. Cir. 2008) ("In the interest of uniformity and correctness, this court consults the claim analysis of different district courts on the identical terms in the context of the same patent.").

26. See U.S. Patent No. 5,404,505 claim 16 (filed Nov. 1, 1991).

27. *Finisar*, 416 F. Supp. 2d at 517 (E.D. Tex. 2006).

28. *Comcast Cable Commc'ns Corp. v. Finisar Corp.*, No. C 06-04206 WHA, 2007 WL 1052821, at \*6 (N.D. Cal. April 6, 2007).

29. *Finisar*, 523 F.3d at 1331.

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30. See *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 373 (1996) (a "patent must describe the exact scope of an invention . . . to 'secure to [the patentee] all to which he is entitled, [and] to apprise the public of what is still open to them.") (quoting *McClain v. Ortmyer*, 141 U.S. 419, 424 (1891)).

31. *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

32. In *Finisar*, the disclosure in the prior art was read broadly, which protected the available public domain of technology. 523 F.3d at 1336 ("Thus, one of skill would interpret the passage broadly to present many varied options for each of the tiers under consideration.").

33. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1384 (Fed. Cir. 2001) ("The jurisprudence of claim construction reflects the difficult balance between a patentee's exhortation that courts should read the claims broadly and unlimited to the specific embodiments shown in the specification . . . [and in] counterpoint, an accused infringer often argues, as in this case, that if the claims are read sufficiently broadly as to reach the accused device, the claims also read on the prior art and are invalid.").

34. *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1323 (Fed. Cir. 1999) (the "jury found infringement under the doctrine of equivalents . . . [and] because the jury found infringement under the trial court's more restricted reading of the claims, this court need not remand for a[literal] infringement determination according to this court's broader claim interpretation.").

35. *Edward Katzinger Co. v. Chicago Metallic Mfg. Co.*, 329 U.S. 394, 401 (1947) ("[Court's] solicitude for the interest of the public fostered by freedom from invalid patents . . . has been manifest by the line of decisions . . ."); *Warner-Jenkinson Co., Inc. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29 (1997) ("There can be no denying that the doctrine of equivalents, when applied broadly, conflicts with the definitional and public-notice functions of the statutory claiming requirement.").

objective interpretation of claim limitations, without undue regard for the accused subject matter, but with an appropriate regard for relevant art in the public domain. Review of the case law indicates how often the Circuit court changes the claim term definitions presented by litigants in district court *Markman* hearings. On balance, public interest representation in *Markman* proceedings would aid district courts in reaching an objective result, with the claims of the patent defined more objectively and the process driven less by choices grounded upon the litigants' commercial objectives.

#### V. THE INTERESTS OF THE PUBLIC WILL NOT BE INVITED IN *MARKMAN* PROCEEDINGS

*Amici* could validate the “objective test” on which the rules for patent claim interpretation are grounded.<sup>36</sup> The pursuit of uniformity in how claims are interpreted should accommodate the public interest in patents. Indeed, the standards for claim construction redound to the public “notice” function and to how “persons of skill,” *i.e.*, an informed public, would understand the claim terms and the prior art.<sup>37</sup> Moreover, *Markman* spawned a formulaic set of rules intended to be applied objectively and to produce uniform results.<sup>38</sup> The rules for patent claim interpretation and those for construing contract terms objectively share many tenets.<sup>39</sup> However, all patents and few contracts implicate the public interest. *Amici* are as able as the litigants and the courts to divine meaning from the art and specification and to apply well-established rules to interpret the claims.

In *Markman* proceedings, *amici* could advocate for the rule of law, the intrinsic record, the public domain, and the public interest.<sup>40</sup>

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36. *Markman, v. Westview Instruments, Inc.*, 52 F.3d 967, 986. (Fed. Cir. 1995).

37. See generally, *Gen. Elec. Co. v. Wabash Appl. Corp.*, 304 U.S. 364, 369 (1938) (“The limits of a patent must be known for the protection of the patentee, the encouragement of the inventive genius of others, and the assurance that the subject of the patent will be dedicated ultimately to the public.”).

38. “[W]e see the importance of uniformity in the treatment of a given patent as an independent reason to allocate all issues of construction to the court.” *Markman*, 517 U.S. 370 at 390 (1996) (*affg* 52 F.3d 967, 986 (Fed. Cir. 1995) (en banc) (“[T]he objective test [is] what one of ordinary skill in the art at the time of the invention would have understood the term to mean.”).

39. See *Markman*, 52 F.3d at 986 (“[T]he focus in construing disputed terms in claim language is not the subjective intent of the parties to the patent contract when they used a particular term [but] rather is on the objective test of what one of ordinary skill in the art at the time of the invention would have understood the term to mean”); *id.* at 987 (“[T]he more appropriate analogy for interpreting patent claims is the statutory interpretation analogy.”).

40. See *Markman*, 517 U.S. at 390 (quoting Merrill v. Yeomans, 94 U.S. 568, 573 (1877) ([Absent clarity, t]he public

“Historically, then, an amicus curiae is an impartial individual who suggests the interpretation and status of the law, gives information concerning it, and whose function is to advise in order that justice may be done, rather than to advocate a point of view so that a cause may be won by one party or another.”<sup>41</sup>

On *Markman* issues, *amici* can serve that historic role by representing the public interest impartially and without regard to whether one litigant’s strategy or another is served.

*Amici* representing the public interest may urge that claims be interpreted in ways that favor neither litigant. When the district court considers the arguments for interpreting claims one way or the other, amici can present an objective view more consonant with the rules of construction that the reviewing court will apply.

The litigants are expected to press for claim interpretations that embody the wording needed to win, or to not lose their case. However, when a patentee and the accused infringer fail to get claims interpreted broadly enough to prove infringement or invalidity, the result is a wash-out. That too may be an outcome that results from the advocacy of *amici* for the public interest.

In practice, neither party may desire for *amici* to participate, and the court may decline to consider claim interpretation issues beyond those presented by the litigants. Exclusion of *amici* representing the public interest might be based on limits in Article III to actual controversies between litigants, or on a theory that *amici* lack standing or that when *amici* are not excluded, they must not go beyond the issues framed by the litigants. “Amici are allowed to participate . . . to assist the court in achieving a just resolution of issues raised by the parties [but not] to interject into a case issues which the litigants, whatever their reasons might be, have chosen to ignore.”<sup>42</sup> Still, case management orders typically can accommodate complexities that may arise from the participation of *amicus* or nominal parties.<sup>43</sup> Those tools, joined with

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[would] be deprived of rights supposed to belong to it . . .”).

41. *Leigh v. Engle*, 535 F. Supp. 2d 418, 420 (N.D. Ill. 1982).

42. *Lane v. First Nat. Bank of Boston*, 871 F.2d 166, 175 (1st Cir. 1989); See also *San Juan Cnty., Utah v. United States*, 503 F.3d 1163, 1210 (10th Cir. 2007) (Kelly, J., concurring) (“The principal difference between party and amicus status is that only parties ordinarily have the right to raise new issues . . .”). The better view is that of Judge Frank. *Aero Spark Plug Co. v. B.G. Corp.*, 130 F.2d 290, 293 (2nd Cir. 1942) (Frank, J., concurring).

43. Review of local rules databases did not disclose district courts having rules governing the participation of *amici* in civil cases, and so, it is presumed that case management orders serve that

the typical timetables in Local Patent Rules, provide more than adequate means to permit *amici* to appear and represent the public interest.<sup>44</sup>

The appropriate instance for *amici* to represent the public interest would not have the issue of infringement or validity turn upon how a single term in the claims was interpreted. Instead, the preferable case would entail a broader examination of interrelated claim terms, some of which are commonly used in many patents, and a claimed invention that affects the public interest. Examples may be cases that could affect access to the internet or to generic drugs, or cases regarding emerging, still-developing technologies.<sup>45</sup> The public interest concerns regarding notice, possession of the invention, the public domain, and restrictions on further innovation are more readily identified by *amici* in such cases.

## VI. CONCLUSION

In conclusion, *amici* can serve a useful purpose in *Markman* claim interpretation proceedings by representing the public interest factors identified in numerous, important decisions about patents and in the policies that the Patent Clause should advance. A patent, and are specifically its claims to a disclosed invention, grants exclusive rights as against the public. Invoking judicial power to ascertain the breadth or limits of patent claims is as much a public interest proceeding as a First Amendment case where prior restraints affect public speech. The record supporting the patent is public, and the rules of claim construction work in service of the public's understanding of which exclusive rights were granted and what knowledge remains in the public domain.

Fifteen years later, the *Markman* procedures are still works in progress. An opportunity is presented for *amicus* groups to elevate the public interests in patents from mere *dicta*, and to advocate that public interest concerns with the fair interpretation of patent claims should be a decisional element worthy of consideration in *Markman* briefs and hearings.

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purpose.

44. Local district court rules and best practices permit the threshold claim terms to be interpreted earlier than those that may be non-dispositive. See, e.g., N.D. Cal. Patent L.R. Local Rules 4-3(c) (requiring parties to identify claim "terms whose construction will be most significant to the resolution of the case.").

45. *Evans v. Eaton*, 20 U.S. 356, 438 (1822) (it([It] is enough, and the public interest is sufficiently guarded, if care be taken that it [the patent] shall not be extended to create a monopoly in any other machine, which may or may not be mentioned in the patent . . .").

# Taking a Bite Out of the Apple: “Appstore” Trademark Infringement Update

by Amer Raja

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*Editor’s Note: The following blog post was published on [www.ipbrief.net](http://www.ipbrief.net) on May 23rd, 2011.*

Earlier this year the IPBrief covered two stories on trademark claims by Apple for the “Appstore” title. In the first story, Microsoft was challenging Apple’s efforts to acquire a trademark on “Appstore.” The second story covered Apple’s trademark infringement claim against Amazon.com for using the phrase “Appstore” to sell Android applications. The trademark lawsuit has since developed into an amalgam of both stories of sorts. Microsoft’s arguments against Apple’s trademark claims have become increasingly relevant for Amazon as it defends itself.

Apple and Amazon haven’t always seen eye to eye, especially in light of Amazon’s recent expansions into selling music downloads. Apple has viewed Amazon’s expansion as incursions into its market and consequently Apple has attempted to restrict Amazon’s growth as much as possible. For Apple this also means getting mired in legal disputes and trying every avenue possible to limit its competitors’ growth. The March 18th complaint is a great example of Apple desperately trying to restrict the growth of the Android market and Amazon’s one-stop shop aims.

In an effort to defend itself from Apple’s trademark infringement claim, Amazon answered the March complaint with the contention that “Appstore” is a generic term. A generic term, under trademark law cannot be protected because it conveys limited, if any, information to the consumer regarding the quality of the product. The other three categories a term or phrase could fall under are “arbitrary/fanciful,” “suggestive,” and “merely descriptive.” Apple’s best shot at winning this case would be if it could prove that “Appstore” is suggestive or arbitrary. Unfortunately for Apple, proving that “Appstore” is arbitrary would be a near impossible task since the term “Appstore” clearly relates to the products being sold. However, Apple’s claims that “Appstore” is suggestive, may be better received by the court depending on the breadth of evidence submitted to the court.

Earlier this week Apple took its first step in asserting that “Appstore” is suggestive and should therefore be protected by trademark. Apple filed additional court documents this week to deny Amazon’s allegations that “Appstore” is a generic term. Apple claimed in these documents that “based on their common meaning, the words ‘app store’ together [do not] denote a store for apps.” Apple will need to show more than a simple denial that the common meanings

of app and store were not the reasons they coined the term “Appstore,” which may prove to be extremely difficult.

Although the term “app” has been in usage for many years prior to Apple’s release of the “Appstore” in 2008, Apple claims that this usage is independent of the term they coined to sell Apple OS specific software. In addition to this contention, Apple indicates that they even filed an application with the U.S. Patent and Trademark Office to trademark “Appstore” prior to this lawsuit. Apple aims to use both of these arguments in protecting its rights over exclusively using “Appstore,” and to effectively reduce the ripple effect of Amazon’s latest expansion.

Despite Apple’s direct response to Amazon’s claims, Amazon may have the upper hand in this lawsuit. Apple knowingly used the term “app” to describe the bits of software that consumers can purchase in the “Appstore.” The term “Appstore” does not operate in the same manner as iTunes or any other trademark since it may be difficult to prove that consumers think of Apple when they hear the term “Appstore.” Apple’s Steve Jobs has even used the term, “app store” to describe the “Appstore,” which according to Amazon could show that the term “app store” is generic.

Of course, market research and statistics may be used to bolster Apple’s claims that “Appstore” should be a protected term, but it is unclear how well Apple controls the market for “apps” and whether it should be afforded with trademark protection. Both Amazon and Apple’s filings in preparation for this lawsuit may very well be dispositive of the outcome of this case, so be sure to keep an eye on this case. The result of this case has the potential to greatly affect trademark protection in markets across the board and the threshold that businesses must cross in order to avoid being deemed to use a generic term. Regardless of how the Court comes out in this case, the verdict will likely set a strong precedent for future trademark infringement claims.

# DC Comics Sues Gotham Garage Over Replica Batmobiles

by Jeff Kettle

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*Editor's Note: The following blog post was published on [www.ipbrief.net](http://www.ipbrief.net) on June 27th, 2011.*

Batman: "Better put five cents in the meter."

Robin: "No policeman's going to give the Batmobile a ticket."

Batman: "This money goes to building better roads. We all must do our part."

Last month, DC Comics, owner of the "Batman" brand, sued Orange County, CA based Gotham Garage for the "willful manufacture, promotion, display, distribution, offer for sale and sale of unlicensed and counterfeit products bearing the DC comics' copyrights and trademarks" for "producing, selling, offering for sale, renting and distributing unlicensed and counterfeit . . . BATMOBILE vehicles . . . ."

Apparently Gotham Garage has been creating replica Batmobiles for a while, which look almost identical to the cars from the TV shows and movies, and bear the logos and marks of Batman and the Batmobile. There has been some chatter about whether or not DC Comics can claim infringement over the Batmobile when, in fact, the Batmobile was created by George Barris by modifying a 1955 Lincoln Futura. In support of this argument, some have brought up a trademark infringement suit between Carrol Shelby, the designer of the "Cobra," and a replica manufacturer "Factory Five" in which Shelby claimed that the replicas being sold infringed on his ownership of the Cobra design. The court ruled against Shelby's trademark claim, stating that the Cobra design was not his property and that because he did not have an active role in the marketplace, his proper method of protection should have been a design patent or copyright.

The Shelby case can clearly be distinguished from the current case. First off, DC Comics is very much a market participant, and bringing a trademark claim makes sense for their business interests. Additionally, DC Comics also has many copyrights and trademarks that are applicable to the claimed infringement. Finally, the court in the Shelby case claimed that there was no actual confusion between Shelby's Cobra and the replicas because the population did not associate Shelby with the Cobra. Here, there is clear confusion between Gotham Garage's exact replicas

of the Batmobile and the Batmobile interests owned by DC Comics.

Nevertheless, this issue goes beyond an exact replica of a vehicle used in a movie. Even if it can be argued DC cannot protect the replication of the 60s Batmobile deriving from the Lincoln Futura, the vehicle itself clearly contains several registered trademarks. Additionally, trade dress has been used in the past to protect the overall design of a vehicle, as in the case of the FERRARI 365 GTB/4, which was protected against duplication in the form of a toy car.

Looking at the requirements for a trademark claim, DC Comics has used their marks in interstate commerce, the marks are clearly distinctive with well-established secondary meaning, and the marks were blatantly used by Gotham Garage which would no doubt cause costumer confusion using the Sleekcraft elements for consumer confusion. It seems that at a minimum the replica cars would have to be produced without the registered marks.

The use of copyright can assist in this matter. Because copyright cannot have a utility element, it can only cover the expressive qualities of the object. Thus with copyright alone, DC Comics cannot prevent the entire reproduction of a working car, but only the sculptural or expressive elements that can be separated from the useful elements. The interesting question here is how much of these non-useful design elements actually belong to DC, and how much belong to the original Lincoln Futura? If DC Comics can prove that the expressive elements are separate from the functional characteristics, and they are independent of the Lincoln Futura, it will be much easier to prove infringement using copyright.

It seems, from a non-legal standpoint, that DC Comics should be able to fully protect its creations. But which IP protections will be used? And to what extent will the cars be protected? Tune in for future updates: same bat-time, same bat-channel!

# Digestion and Re-innovation: A Lesson Learned from China's High-Speed Rail Technology-Transfer Agreements

by Joe Massie

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*Editor's Note: The following blog post was published on [www.ipbrief.net](http://www.ipbrief.net) on August 7th, 2011.*

Capitalizing on the eagerness of multinational firms to tap China's enormous market, the Chinese government has promoted a development strategy based on joint ventures between foreign companies and state-owned enterprises. Such partnerships may appear to be a small price to pay for foreign companies, considering the potential financial rewards of entering the Chinese market. However, closer scrutiny reveals that companies agreeing to joint ventures with Chinese enterprises may be falling victim to a myopic focus on short-term profits, overlooking the long-term threat posed by such arrangements. The recent experience of European and Japanese high-speed rail manufacturers highlights the potential pitfalls of entering into joint ventures with Chinese state-owned enterprises.

Keen to modernize its aging transport network, the Chinese government began to consider the construction of a high-speed rail system in the early 1990's. In 2002, the Chinese government unveiled a high-speed rail system produced by Chinese companies, using only state-controlled manufacturers and Chinese intellectual property. However, the government soon recognized that the rail system suffered from poor reliability and that the project would have to be scrapped in favor of a rail system based on foreign know-how. In 2004, work on the original high-speed rail line was abandoned as the Chinese government solicited bids from abroad to help in the construction of hundreds of trains capable of traveling at speeds in excess of 200 mph.

Japanese and European companies had pioneered the construction of high-speed rail. While local demand for their expertise had stagnated, China appeared to be a booming new market. Therefore, an offer by the Chinese government offering access to its rail market in return for the transfer of the companies' technology proved enticing. Bids were soon submitted by the world's principle rail manufacturers: Alstom (France), Siemens (Germany), Bombardier (Canada), and Kawasaki (Japan).

As part of the business arrangement, the foreign companies had to set up production facilities within China and assemble the trains through local joint ventures with Chinese manufacturers. While helping to develop the local supply chain for train components, the companies also had to train Chinese

engineers, sharing their entire know-how and catalogue of technologies. One joint venture partner, Kawasaki, even brought Chinese engineers to its Japanese manufacturing facilities for training.

By insisting on such close cooperation with foreign manufacturers, the Chinese government was implementing a "digestion and re-innovation" program aimed at learning, adopting, and tweaking foreign technology. Although some industry insiders questioned the prudence of the arrangements, companies were spurred by the contracts that were being offered and a fear that they would be left behind by their competitors if they chose not to participate. What the foreign rail manufacturers did not expect was that once their technology had been shared, they would slowly be phased out of the Chinese rail industry, to be replaced by domestic manufacturers, and that former Chinese clients would soon become their global competitors.

In 2007, China first introduced its locally assembled high-speed trains based on foreign technology platforms. Today, the newest Chinese trains contain amenities not found in competitors' trains and, according to their Chinese manufacturers, are more technologically advanced than their foreign counterparts. Based on the knowledge they have gained over the past decade, Chinese rail manufacturers have now turned their attention to markets abroad, participating in high-speed rail projects in Venezuela and Turkey, and bidding on contracts in Brazil, Russia, and even the United States. While the Chinese government is quick to claim that its advances in rail technology were achieved independently through Chinese ingenuity and innovation, some industry insiders have characterized such claims as mere propaganda.

Foreign rail manufacturers have been reluctant to criticize China's actions publicly for fear of being locked out of the Chinese market, but privately many have acknowledged that they have been the victims of forced technology transfers and patent infringement. Prompted by Chinese attempts to file 21 high-speed rail patents, Kawasaki issued a statement condemning China's actions and questioning the provenance of supposed Chinese innovations. The Japanese train producer claims that much of the

technology is actually foreign technology that has been dressed-up and that the Chinese manufacturers have violated the technology-transfer contracts by ignoring clauses stipulating that the technology was only to be used in products intended for the Chinese domestic market. The company has also vowed to take legal action to protect its patents. While publicly dismissing the claims made by Kawasaki, the Chinese rail ministry is currently investigating the industry's exposure to intellectual property suits should Chinese manufacturers begin selling trains abroad.

The experience of foreign rail manufacturers in China should provide a lesson for other industries seeking entry into the Chinese market. Technology-transfer schemes, whereby Chinese state-owned or semi-private enterprises seek to partner with foreign companies in joint ventures in return for access to the Chinese market, may initially appear highly lucrative. However, such deals could possibly result in the creation of Chinese competitors, who have access to all the patented technologies and know-how of their foreign counterparts, but are able to offer their products and services at a far lower cost. Furthermore, foreign firms risk having their technologies stolen, "digested," "re-innovated," and then patented by their Chinese partners. Considering the potential long-term repercussions of such arrangements, foreign enterprises may want to reconsider entering into technology-transfer agreements.

# Best Buy vs. NewEgg: Who Owns “Geek”?

by Seth Dennis

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There was a time when the term “geek” was used as an insult, but those times are long gone. Today, businesses involved in selling technology and electronics have embraced the geek as a shepherd of the masses, here to guide you into the digital age. Today’s geek has upgraded to contacts and ditched the pocket protector.

Last week, Best Buy issued a cease and desist letter to the online electronics retailer NewEgg.com over NewEgg’s use of the word “geek” in its advertising campaign. Best Buy stated that it had offered electronics service “under the ‘Geek Squad’ mark and orange-and-black Geek Squad trade dress since 1994.” Further, Best Buy stated that it “used its Geek Squad mark in connection with a power button design with a necktie forming the vertical line.”

NewEgg’s offense that led to the C&D was using the phrase “Geek On” with a power button symbol replacing the “O.” NewEgg’s ad also occurs in a black and orange font. Best Buy’s C&D letter also referenced a recent television ad by NewEgg that features a customer asking questions to a befuddled store employee that bears a striking resemblance to a Best Buy employee, only to receive no answer. My guess is that NewEgg’s jab at Best Buy was the real impetus for the C&D.

In support of its claim, Best Buy states that it has spent a significant amount of time and money building up the goodwill associated with its Geek Squad service. I do find goodwill to be an odd way of characterizing the Geek Squad service, though. Perhaps some may find it useful, but the only thing I know their service for is when it comes up in the news for stealing data and personal information from its customers’ electronic devices, or charging consumers to perform ridiculous tasks, such \$150 to “set-up” 3D glasses (hint: the only set-up needed for 3D glasses is turning them on).

At any rate, Best Buy claims that NewEgg’s use of the word “geek” with an orange and black color scheme will confuse consumers and dilute the distinctive quality of the mark. As a result, Best Buy is demanding that NewEgg stop using the Geek On logo and refrain from using any mark combined with the word “geek” in an orange color scheme or a power button design. Best Buy would also like NewEgg to remove its mocking advertisement.

So who owns “Geek”? Obviously, this battle isn’t over just the word “geek,” but the word when combined with another word in an orange font or a power button logo. My initial inclination is to think this will be an uphill battle for Best Buy. In the digital age, “geek” is likely to be considered a descriptive term that may refer to somebody skilled with technology, and consumers seeing that term associated with a business are likely to think that the business is somehow related to technology. There are many companies out there today that use the term “geek” in this manner, either by itself or more commonly combined with another word, to signal to consumers that their business relates to technology. Geek has become used in the electronics industry as “burgers” are used in the food industry. Similarly, the power button symbol has become an increasingly ubiquitous and generic representation for anything associated with electronics or technology. My guess is that if this ever ends up in court, Best Buy is going to have a difficult time showing that combining something with the word “geek” in an orange font or with a power button somehow dilutes its brand. The dilution of those terms and symbols occurred 20 years ago. Best Buy will need to demonstrate secondary meaning, and I think the claim of “Geek combined with any other word in orange font” is just too broad to be capable of secondary meaning. The best that Best Buy can hope for probably is getting NewEgg to change its color scheme, but since NewEgg’s colors have been orange and white for as long as I’ve known, even this may prove to be a challenging task.

