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Do as I Say (Not as I Did): Putative Intellectual Property Lessons for Emerging Economies from the Not So Long Past of the Developed Nations

Llewellyn Joseph Gibbons

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DO AS I SAY (NOT AS I DID): PUTATIVE INTELLECTUAL PROPERTY LESSONS FOR EMERGING ECONOMIES FROM THE NOT SO LONG PAST OF THE DEVELOPED NATIONS

*Llewellyn Joseph Gibbons**

“Remember the poor, it costs nothing.” – Josh Billings

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I. INTRODUCTION

THIS Article speculates on one possible, albeit controversial, answer to the problem of economic development in developing countries: whether *so-called* intellectual property piracy by residents of developing countries¹ is an efficient engine of economic development and whether these unlicensed uses in the developing world should be tacitly tolerated, if not actively encouraged, by the more economically developed nations as a substitute for increased direct foreign aid or compensated-licensed technology transfer. Whether the modern-international intellectual property regime promotes innovation and economic progress in developing countries is passionately contested from differing perspectives of the ideological divide. Regardless of one's position on the role of intellectual property as an economic development issue, one must agree that economic development in developing nations is a critical concern.²

The Article starts with the generally accepted position that every country that has become a developed country did so by free riding on the intellectual property of citizens of more developed countries. This Article contends that the most useful conceptualization of unlicensed uses of intellectual property in developing countries is to value these uses at a fair market local purchasing power cost, to consider them as a form of foreign aid or as a developmental subsidy and to reject the pejorative term "piracy." Moreover, it is improbable that any direct fiscal subsidy,

1. This Article uses the term *developing country* to "describe a nation with a low level of material well-being (not to be confused with third world countries). . . . Countries with more advanced economies than other developing nations, but which have not yet fully demonstrated the signs of a developed country, are categorized under the term *newly industrialized countries*." See *Developing Country*, WIKIPEDIA, http://en.wikipedia.org/wiki/Developing_country (last updated Jan. 24, 2010). This is not a static concept. Some countries may be economically developed in one region while merely a developing country in other areas. George Sadowsky, *The Internet Society and Developing Countries*, ON THE INTERNET (November/December 1996), <http://www.isoc.org/oti/articles/1196/sadowsky.html>. Needless to say, economic development leading to a diverse industrial economy as improving the material well-being of developing nations is a normative concept.

2. See SUSAN E. RICE, ET AL., *CONFRONTING POVERTY: WEAK STATES AND U.S. NATIONAL SECURITY* 16 (2010).

such as foreign aid, can be as economically efficient as the developmental subsidy created in response to the marketplace demand for uncompensated transfers of intellectual property. This nuanced understanding of the role of intellectual property in developing countries is based on the history and experiences of now-developed, industrialized Western nations during the 19th century when they proudly and defiantly used uncompensated and unauthorized transfers of intellectual property as a tool of economic development on their road to industrialization.³ Lamentably, these same acts, which when done by currently developing nations, are now castigated as piracy.⁴

Any attempt to define the term “piracy” is problematic and should be avoided because, in the context of intellectual property law and foreign relations policy debates, the term piracy is semiotically free-floating.⁵ Further, the term piracy is often the unfortunate victim of varying definitions created to meet the rhetorical interests of each speaker.⁶ As one prominent scholar observed: “What is piracy? It is not entirely clear that we agree on the answer. An official study for the European Union once defined it rather impishly as whatever the knowledge industries said they needed protection from.”⁷ The characterization of any *unauthorized* use of intellectual property as piracy presupposes an enforceable property right that exists under national law or treaty obligations or is otherwise unexcused under the flexibilities contained in the international agreements that create the norms of international and domestic intellectual property law. Moreover, uncompensated uses in developing countries—once properly constrained to protect the utilitarian incentives that justify intellectual property protection in developed countries—are an economically efficient form of foreign aid that benefits both developed and developing countries.⁸

3. ADRIAN JOHNS, *Piracy: The Intellectual Property Wars from Gutenberg to Gates* 6–7 (2009).

4. See SANJAYA LALL, INDICATORS OF THE RELATIVE IMPORTANCE OF IPRs IN DEVELOPING COUNTRIES 9–10 (2003). Professor Lall observed that “[t]he available historical and cross-section evidence supports the presumption that the need for IPRs varies with the level of development. Many rich countries used weak IPR protection in their early stages of industrialization to develop local technological bases, increasing protection as they approached the leaders.” *Id.* at 11.

5. JOHNS, *supra* note 3, at 6.

6. Throughout this Article, the terms “uncompensated technology transfers” or “unlicensed use(s)” refer to the use of intellectual property without the authorization of the intellectual property rights holder and implies that these uses are not otherwise legally excused. Under this formulation, an unauthorized “fair use” of intellectual property is not an uncompensated transfer because it is a lawful use even without the rights holder’s consent. *Piracy* presupposes a property right, an identifiable owner, and a loss of property. So, to avoid the moral connotations of theft or illegality, this Article, calls these acts of unauthorized technology transfer by a more neutral term—*uncompensated technology transfers*. On the other hand, intellectual property rights holders may prefer the blunter semiotically loaded term of *piracy* to describe these unauthorized uses.

7. See JOHNS, *supra* note 3, at 6.

8. Even in developed countries, free-riding on intellectual property is the norm. WILLIAM J. BAUMOL, *THE FREE-MARKET INNOVATION MACHINE: ANALYZING THE GROWTH MIRACLE OF CAPITALISM* 135 (2002). William Baumol suggested that “some 80 percent of

This Article then focuses on the effects of the World Trade Organization (WTO) and the Agreement on Trade Related Aspects of Intellectual Property (TRIPS) on developing economies as effectively closing off unlicensed uses of technology as one possible avenue to economic development. This Article does not address the equally important, if not more important, bilateral free-trade agreements between developed and developing countries, in which the structural barriers to economic development identified in this Article are exacerbated. Developed countries often obtain such agreements through one-on-one negotiations with a weaker developing nation, in which they negotiate and obtain treaty terms that they cannot obtain in a multilateral forum such as the World Intellectual Property Organization (WIPO) or the WTO.⁹

These so-called TRIPS-plus agreements contain unconscionable terms presented to weaker countries on a take it or we will take our ball (and our markets) and go home basis.¹⁰ TRIPS-plus agreements do not change the fundamental analysis in this Article that as one moves from the 18th century codification of domestic intellectual property law, to the late 19th century Berne and Paris Conventions, to the global WTO-TRIPS regime, and to the more recent bilateral free-trade agreements, a developing country's ability to use intellectual property without the consent of a foreign rights holder has decreased. Consequently, the problems identified in this Article with the current WTO-TRIPS regime are aggravated with each successive post-WTO bilateral trade agreement.¹¹

Arguably, unlicensed uses of intellectual property as a developmental subsidy were implicitly recognized in the Uruguay Round of the General Agreements on Tariffs and Trade (GATT), which resulted in the creation

the benefits may plausibly have gone to persons who made no direct contribution to innovation." *Id.* He attributes these direct and indirect effects to constitute over half of the U.S. gross domestic product (GDP). *Id.*

9. See Peter K. Yu, *The Global Intellectual Property Order and Its Undetermined Future*, 1 WIPO J. 1, 6-7 (2009); PETER DRAHOS, DEVELOPING COUNTRIES AND INTERNATIONAL INTELLECTUAL PROPERTY STANDARD-SETTING 18-19 (2002), available at http://www.iprcommission.org/papers/pdfs/study_papers/sp8_drahos_study.pdf. But see Jean-Frédéric Morin, *Multilateralising TRIPS-Plus Agreements: Is the US Strategy a Failure?* 4, 19 (Université Libre de Bruxelles, Working Paper Oct. 1, 2008), available at SSRN: <http://ssrn.com/abstract=1276464> (questioning the effectiveness of these efforts in the patent context).

10. See DRAHOS, *supra* note 9, at 17-21.

11. The problems are aggravated because each new trade agreement creates a higher floor on which subsequent agreements are built, thus constituting a one way ratcheting of intellectual property rights and obligations which are then codified into domestic law. See *id.* at 21-22. In addition to the more transparent intellectual property negotiations in WIPO and the WTO, there are other more secret plurinational attempts to tighten the intellectual property regime. See, e.g., ANTI-COUNTERFEITING TRADE AGREEMENT arts. 2.6-7 (Public Predecisional/Deliberative Draft Apr. 2010) [hereinafter ACTA], available at http://trade.ec.europa.eu/doclib/docs/2010/april/tradoc_146029.pdf (ACTA is an attempt by key economic countries to establish a new anti-counterfeiting intellectual property enforcement norm).

of the WTO and TRIPS.¹² Uncompensated intellectual property transfers to countries at an early stage of economic development promote economic efficiency, further development goals, and constitute a type of foreign aid subsidy. To a developing country, the economic effect is similar whether a developed country transfers \$1 million in foreign aid, purchases a \$1 million intellectual property license for the benefit of the developing country, or tacitly permits \$1 million worth of unlicensed intellectual property use in a developing country.¹³

The first two examples, a transfer payment of \$1 million or a purchase of a \$1 million intellectual property license, represent an expense borne by the overburdened taxpayers of the developed country. Further, the economic value of such payments is often confounded with accusations of fraud, waste, and inefficiency. On the other hand, willful blindness or tacit consent to the use of unlicensed intellectual property may promote development goals more efficiently—often without any measurable cost. The first two examples are top-down, may have significant transaction costs, and are not necessarily responsive to market forces in the developing country. However, assuming that free markets are efficient in allocating intellectual property goods and services, developing countries will be able, with minimum transaction costs, to appropriate the unlicensed intellectual property that is most beneficial to their domestic economy; so, the third example of tolerated, unlicensed uses may be the superior alternative to promote economic development.

Acquiescence to unlicensed intellectual property transfers ameliorates most of these costs. If there is no expectation of robust enforcement of the legal interests of foreign intellectual property rights holders, then the domestic enforcement of intellectual property rights can be done at relatively low costs. Naturally, the other costs imposed by intellectual property protection will also decrease or be eliminated. Absent strong domestic intellectual property enforcement, the developing country will not pay higher prices for imported goods and technologies since these goods and technologies could be produced locally or imported from another developing country (one with a slightly higher level of industrializa-

12. See 1 THE PRINCETON ENCYCLOPEDIA OF THE WORLD ECONOMY 19 (Kenneth A. Reinert et al. eds., 2009). As a country moves from a least developed country, to a developing nation, and to newly industrialized country, domestic intellectual property protection becomes increasingly important. See EMMANUEL HASSAN, OHID YAQUB & STEPHANIE DIEPEVEEN, INTELLECTUAL PROPERTY AND DEVELOPING COUNTRIES: A REVIEW OF THE LITERATURE 4 (2010), available at http://www.rand.org/pubs/technical_reports/2010/RAND_TR804.pdf.

13. As will be discussed later in this Article, \$1 million worth of intellectual property piracy at developed country market prices provides more than \$1 million worth of benefits. See *infra* Section IV. This Article will assume perfect information, rational economic actors, and any other factors necessary to support this theory while assuming away transaction costs and variables (measurable or not) that will confound the preferred analysis. So in this vein, the reader should suspend disbelief, “assume a can-opener,” and let the author proceed. See BENJAMIN J. COHEN, INTERNATIONAL POLITICAL ECONOMY: AN INTELLECTUAL HISTORY 41 (2008); see also *Union Pac. R.R. v. State Tax Comm’n of Utah*, 716 F. Supp. 543, 554 n.26 (D. Utah 1988) (the can-opener reference).

tion) without paying an intellectual property premium. Industries in developing countries that produce “pirated” products for their own marketplace, or for that of other developing countries, may continue or even thrive in business by catering to the demands of other developing countries—thus expanding domestic manufacturing capability, increasing domestic research and development capability, and promoting local economic development and jobs.¹⁴

In contrast, an effective domestic intellectual property rights enforcement regime imposes significant actual and opportunity costs on a developing country without *necessarily* conveying any corresponding benefits.¹⁵ At the most obvious and measurable level are the administrative costs of creating an intellectual property enforcement system, administering the system, and then adjudicating claims that intellectual property rights have been violated.¹⁶ But there are also economic effects and opportunity or development costs. There will be higher prices for imported goods and increased fees for technology licenses. Slightly less obvious will be the closure of imitative activities (*so-called* piracy). This will result in a corresponding loss of economic activity through factory closures, loss of employment, etc. Finally, legitimate domestic production may be hindered by developed country rights holders’ threats that misuse intellectual property rights to discourage lawful but unlicensed uses of intellectual property.¹⁷ Furthermore, there may be more productive uses for the funds used to purchase intellectual property rights. For example, developing countries could use these funds to promote education, increase public health services, or create infrastructure.

At best, it is debatable whether developing countries, especially the least developed countries (LDCs), received any benefit from the Faustian bargain of trading enforceable domestic intellectual property rights for a vague, unenforceable promise of technology transfer.¹⁸ Negotiating under the threat of unilateral economic action by the United States under § 301 of the Trade Act (now called Special 301, previously called Super 301) and a reward of greater access to developed countries’ markets dur-

14. See *infra* Part IV.D (discussing limitations on this proposed “right”).

15. WILLIAM KINGSTON, BEYOND INTELLECTUAL PROPERTY: MATCHING INFORMATION PROTECTION TO INNOVATION 171–72 (2010).

16. The World Bank estimated costs of TRIPS compliance to be at least \$150 million for a developing country. Charles W. Schmidt, *Drugs as Intellectual Property*, MODERN DRUG DISCOVERY, June 2001, at 25–26, 28, available at <http://pubs.acs.org/subscribe/journals/mdd/v04/i06/html/06rules.html>. This expenditure was made by some countries where the annual public health expenditure is less than \$100 per patient. *Id.* This could be thought of as the costs of providing public health services to 1.5 million people in each of some of the poorest countries in the world.

17. KEITH E. MASKUS, INTELLECTUAL PROPERTY RIGHTS IN THE GLOBAL ECONOMY 29 (2000).

18. See KINGSTON, *supra* note 15, at 78–79; COMMISSION ON INTELLECTUAL PROPERTY RIGHTS, INTEGRATING INTELLECTUAL PROPERTY RIGHTS AND DEVELOPMENT POLICY 15 (2002), available at http://www.iprcommission.org/papers/pdfs/final_report/ciprfullfinal.pdf; Sanjaya Lall & Manuel Albaladejo, *Indicators of the Relative Importance of IPRs in Developing Countries*, 5 (Queen Elizabeth House, Oxford University, Working Paper No. QEHWP85, Apr. 2002), available at <http://ideas.repec.org/p/qeh/qehwps/qehwps85.html>.

ing the Uruguay Round of GATT,¹⁹ developing countries agreed to enact strong domestic protection of intellectual property rights in exchange for developed countries' promotion of technology transfer and greater access to developed country markets.²⁰ In fact, if the WTO and TRIPS were beneficial as rational economic actors, developing countries should have embraced the WTO and TRIPS rather than being clubbed into submission at the bargaining table. However, it is clear that developed countries received the benefits of this Hobbesian bargain because strong intellectual property rights became the current legal and rhetorical norm.²¹ If these pre-WTO uncompensated transfers were considered a type of developmental subsidy, then as the global intellectual property rights regime tightened, these then-legal (now illegal) leaks of technology transfer should be replaced with some other subsidy—if only to restore the status quo and to place developing countries in no worse a position post-WTO than they enjoyed pre-WTO.²² Unless coerced, it would be anomalous as rational-profit-maximizing actors for the developing countries to voluntarily agree to TRIPS if they would be worse off under the TRIPS regime than they were before entering into it.

19. 19 U.S.C. §§ 2411–20 (2006); see DRAHOS, *supra* note 9, at 14 (“Breaking the resistance of these ‘hard liners’ was fundamental to achieving the outcome that the US wanted. Special 301 was swung into action in the beginning of 1989. When the USTR announced the targets of Special 301, five of the ten developing countries that were members of the hard line group in the GATT that were opposing the US agenda found themselves listed for bilateral attention. Brazil and India, the two leaders, were placed in the more serious category of Priority Watch List, while Argentina, Egypt and Yugoslavia were put on the Watch List.”).

20. See, e.g., Agreement on Trade-Related Aspects of Intellectual Property Rights art. 66.2, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299 [hereinafter TRIPS], available at http://www.wto.org/english/docs_e/legal_e/27-trips.pdf (“Developed country Members shall provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to least-developed country Members in order to enable them to create a sound and viable technological base.”); TRIPS art. 7 (“The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.”). For a précis of the background issues that led to the Uruguay Round and TRIPS as well as the negotiation positions of the developed and developing countries, see A.O. ADEDE, *THE POLITICAL ECONOMY OF THE TRIPS AGREEMENT: ORIGINS AND HISTORY OF NEGOTIATIONS* 3–10, 13–14, 15–22, 24 (2001), available at <http://www.ppl.nl/bibliographies/wto/files/1273.pdf>.

21. See generally TRIPS arts. 1–73.

22. At the beginning of the Uruguay Round, the U.S. government estimated that U.S. intellectual property owners lost \$50 billion because of global piracy. See J. Michael Finger, *The Doha Agenda and Development: A View from the Uruguay Round* 3 (Asian Dev. Bank, ERD Working Paper No. 21, Sept. 2002), available at <http://www.ppl.nl/bibliographies/wto/files/1495.pdf>. Most of this \$50 billion in intellectual property value was pirated in developing countries, so this \$50 billion could also be understood as a \$50 billion annual foreign aid contribution. Unfortunately, actual U.S. foreign aid in 1990 totaled only \$16 billion. See U.S. AGENCY FOR INT’L DEV., *U.S. FOREIGN ECONOMIC AND MILITARY AID PROGRAMS: 1970 TO 2004* tbl. 1280 (2007), available at <http://www.census.gov/compendia/statab/2007/tables/07s1280.xls>. This level of piracy, if actually prevented, theoretically constituted a net reduction of \$34 billion in economic development subsidies to the developing world.

This Article treats intellectual property as an organic whole and does not engage in a more nuanced debate as to relative degrees of protection for different forms of intellectual property in different sectors in the context of development.²³ Each developing country has a different absorptive or imitative capacity for using unlicensed technology, so this Article is agnostic as to which forms of unlicensed intellectual property have the greatest utility in developing countries. As recent scholarship demonstrates, the key to German industrial growth in the 19th century, and its ability to catch up with the United Kingdom, was not its robust patent laws, but rather Germany's lack of strong copyright protection that resulted in wide dissemination of scientific literature and practical instruction manuals.²⁴ So while it may appear that the use of patent protected intellectual property is the key to development, the reality in some developing countries may be that cheap reproduction and dissemination of copyrighted works is more significant to economic development than reproducing patented innovation.²⁵ Local market conditions will efficiently determine the demand for unlicensed products.

Part II of this Article will use the United States as an example of a developing-to-developed nation that passed through the infant piracy development stage on its road to a mature economy. Part III will discuss the birth of the modern intellectual property regime and how it increasingly plugged legal leaks or loopholes that permitted uncompensated transfers of intellectual property to developing economies. Part IV will evaluate the relative efficiency of uncompensated or piratical transfers of intellectual property or technology versus more traditional forms of developmental aid. Part V of this Article then concludes that uncompensated uses may be a more efficient method of ensuring economic development or technology transfer of intellectual property as long as there are effective measures to keep the unlicensed products, made for the developing country's economy, from being imported into a developed nation's economy.²⁶

23. Because trademark laws are designed to protect consumers from deception, it is hard for this author to posit an economic-development-based justification for a developing country not to enforce trademark laws.

24. See Frank Thadeusz, *No Copyright Law: The Real Reason for Germany's Industrial Expansion?*, DER SPIEGEL (Germany), Aug. 18, 2010, <http://www.spiegel.de/international/zeitgeist/0,1518,710976,00.html>.

25. See MAURICE BOISSIERE, THE WORLD BANK OPERATIONS EVALUATION DEPARTMENT, RATIONALE FOR PUBLIC INVESTMENTS IN PRIMARY EDUCATION IN DEVELOPING COUNTRIES: BACKGROUND PAPER FOR THE EVALUATION OF THE WORLD BANK'S SUPPORT FOR PRIMARY EDUCATION 2-10 (2004), available at http://www.worldbank.org/oed/education/documents/education_primary_rationale_paper.pdf (discussing the role of education in economic development).

26. In its analysis, this Article focuses solely on the utilitarian justification for intellectual property rights in its analysis, and completely ignores in its analysis other common justifications, such as those based on Hegel or Locke, because those are topics for another article or another special law review volume and because the utilitarian justification is the dominant philosophical justification for intellectual property. See Peter S. Menell, *Intellectual Property: General Theories*, in ENCYCLOPEDIA OF LAW AND ECONOMICS 129, 130 (2000), available at <http://www.dklevine.org/archive/ittheory.pdf> ("Not surprisingly, the

II. THE TRADITION—UNCOMPENSATED TRANSFERS—NOW KNOWN AS PIRACY

While it has not been conclusively proven that the piracy stage of economic development is a *necessary prerequisite* to industrialization (development), it is generally accepted that all of today's developed nations, including the so-called newly industrialized nations passed through at least one uncompensated transfer phase.²⁷ This section will discuss the three stages that each successfully developed nation passed through on its journey to economic development: the dissemination stage, the absorption stage, and the innovation stage that marks full economic development. Then, this section will discuss a fourth stage, where excessive intellectual property in developed countries begins to hinder knowledge-based industries. This discussion will focus on proving this rule by using the example of the United States, with tangential observations about the experiences of other developed countries. Next, this section will address whether Brazil, Russia, India, and China—the so-called BRIC countries—are the exceptions that prove the rule. A careful analysis of the modern experience of BRIC countries shows that they are merely the most recent example that uncompensated, unlicensed transfers are a critical ingredient to economic success.²⁸ This section concludes that free-riding on the intellectual property of more developed nations by lesser developed nations is quite common in the process of maturing into a developed economy.

A. STAGES OF DEVELOPMENT AND PIRACY

Nations on the road to economic development spend a period of time appropriating the intellectual property of more developed nations without providing adequate (if any) compensation.²⁹ Over time, developing nations slowly develop a comprehensive intellectual property portfolio, and in the fullness of time, they reach a stage where all forms of generally recognized intellectual property (patent, trade secrets and know-how, copyright, and trademarks) are zealously protected.³⁰ Even those developing countries that do not have broad intellectual property portfolios may have a substantial investment in one form of intellectual property. So, in order to obtain international protection over those intellectual

principal philosophical theory applied to the protection of utilitarian works - that is, technological inventions - has been utilitarianism.”); D.B. Resnik, *A Pluralistic Account of Intellectual Property*, 46 J. BUS. ETHICS 319, 324–25 (2003); cf. ROBERT P. MERGES, PETER S. MENELL & MARK A. LEMLEY, *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE* 2–8 (3d ed. 2003) (overview of various philosophies behind intellectual property).

27. See MASKUS, *supra* note 17, at 15–16.

28. See Robert C. Bird & Daniel R. Cahoy, *The Emerging BRIC Economies: Lessons from Intellectual Property Negotiation and Enforcement*, 5 NW. J. TECH. & INTELL. PROP. 400, 403–11 (2007), available at <http://www.law.northwestern.edu/journals/njtip/v5/n3/1>.

29. HASSAN, YAQUB & DIEPEVEEN, *supra* note 12, at xv.

30. See OFFICE OF INT’L AFFAIRS NAT’L RESEARCH COUNCIL, *GLOBAL DIMENSIONS OF INTELLECTUAL PROPERTY RIGHTS IN SCIENCE AND TECHNOLOGY* 66 (Michael B. Wallerstein et al. eds., 1993).

property assets, they are prepared to grant expansive protection to other forms of intellectual property. This section will briefly discuss four putative stages of development and intellectual property.

The capacity of [developing] countries to copy advanced technologies is in fact very weak, but is subjectively over-estimated. People . . . may think that all that is stopping them is western-owned intellectual property. In fact, successful imitation requires much more in terms of human and social capital than simply freedom to imitate.³¹

In stage one, arguably the earliest stage or lowest level of economic development, foreign direct investment is rare and usually limited to specialized sectors—often relating to the exploitation of natural resources or developing franchise service industries like a major international brand bottling company.³² At this stage, foreign direct investment is critical. Often, developing countries at this stage of development have only natural resources or unskilled, cheap labor to offer foreign direct investors.³³ Foreign businesses must create the necessary infrastructure and establish a solid foundation on which to build the eventual capacity to absorb technology.³⁴ Most critical at this stage is investment in human capital. Developing countries must invest in the training of skilled workers and junior managers so that they eventually have the skills to develop an independent, productive workforce.³⁵ Successfully developing a skilled workforce is a prerequisite to entering stage two.

In stage two, the developing nation's economy is now able to absorb technology, to imitate technology at some level, and to contribute minor improvements to the transferred technology or intellectual property used in the domestic economy.³⁶ Absorptive capacity is "the ability to identify, assimilate, and exploit knowledge from the environment."³⁷ There are two methods of measuring absorptive capacity.³⁸ Some scholars use "investment in R&D, provision of formal training and workforce education" while others use "the total factor productivity gap" method to measure absorptive capacity.³⁹ Critical to the absorptive stage is human

31. See William Kingston, *Removing Some Harm from the World Trade Organization*, 32 OXFORD DEV. STUDIES 309, 319 (2004), available at <http://www.tara.tcd.ie/bitstream/2262/8696/1/Removing%20some%20harm.pdf>.

32. See JOHN H. DUNNING & RAJNEESH NARULA, *MULTINATIONALS AND INDUSTRIAL COMPETITIVENESS: A NEW AGENDA* 45, 48–50 (2004). This Article uses a simplified version of the model of industrial development and foreign direct investment and is derived from the Dunning/Narula model.

33. *Id.* at 50.

34. *Id.* at 45.

35. *Id.* at 45, 49.

36. *Id.* at 45.

37. Richard Kneller et al., *Does Absorptive Capacity Affect who Benefits from International Technology Transfer?* 8 (Aug. 2010) (unpublished manuscript), available at <http://www.etsg.org/ETSG2010/papers/Pantea.pdf> (emphasis removed) (quoting Wesley M. Cohen & Daniel A. Levinthal, *Innovation and Learning: The Two Faces of R & D*, 99 ECON. J. 569, 569 (Sept. 1989)).

38. *Id.* at 5.

39. *Id.*

capital. A well-educated workforce is more readily adapted to absorb new technology and incorporate it into the domestic economy than a less well-educated workforce.⁴⁰ Some studies demonstrate that a 1% increase in the average level of human capital results in up to 17% growth of the GDP over a generation.⁴¹ While human capital is critical at all levels of development, it plays different roles at different levels of development. At the absorptive phase, human capital permits the developing country to use new technology while at the innovative newly industrialized stage, it facilitates innovation in the economy.⁴² Research and development are also significant economic factors, but at this stage, domestic research efforts are primarily facilitative or associated with technology transfer.⁴³ As a developing country moves towards the more developed-nation stage, it gradually focuses its research and development efforts on more innovative projects.⁴⁴

In stage three, the developing nation is now newly industrialized and is producing its own intellectual property.⁴⁵ Innovation-friendly countries tend to be more industrialized, or at least have a higher material standard of living, than countries that are less friendly towards innovation.⁴⁶ During this stage, developing nations are very selective as to which intellectual property rights they zealously protect and which rights they encourage misappropriation of.⁴⁷ As developing countries create intellectual property, the amount of intellectual property to zealously protect continually grows—until these countries reach a tipping point and intellectual property protection becomes the new dominant mantra.⁴⁸ This is the tipping point where a country moves from developing or newly industrialized to a mature, developed economy and assumes its role as a “mature” or “responsible” player in the global intellectual property regime.

In stage four, the now fully developed, industrialized country has a robust, innovative economy built on strong intellectual property rights. In the fourth stage, post-industrial economy nations may need a rebalancing of intellectual property rights in light of first principles.⁴⁹ The stage four developed, post-industrial-revolution nation’s further economic development may need to be characterized by an incremental increase in fair uses

40. *Id.* at 12.

41. *Id.*

42. *Id.*

43. See Dunning & Narula, *supra* note 32, at 45.

44. See *id.*

45. See *id.*

46. See Bruce Einhorn, *The World’s Most Innovative Countries: The 30 Most Innovative-Friendly Countries*, BUS. WEEK, http://images.businessweek.com/ss/09/03/0312_innovative_countries/1.htm (last visited Mar. 30, 2011).

47. Cf. CHRISTOPH ANTONS, *Harmonization and Selective Adaptation as Intellectual Property Policies in Asia*, in INTELLECTUAL PROPERTY HARMONISATION WITHIN ASEAN AND APEC 109–118, 121 (Christopher Antons et al. eds., 2004) (Discussing selective adaptation of IP laws in ASEAN and APEC countries).

48. See WORLD BANK, *GLOBAL ECONOMIC PROSPECTS AND THE DEVELOPING COUNTRIES* 2002, 130–132 (2001).

49. See PETER DRAHOS & JOHN BRAITHWAITE, *INFORMATION FEUDALISM: WHO OWNS THE KNOWLEDGE ECONOMY?* 27–29 (2002).

and not by feared-use (or fear-to-use use).⁵⁰ Surprisingly, especially as the economy moves from an industrial economy to an information economy, there may be a change in the marginal utility of additional increases in intellectual property law protection.⁵¹

So far in the knowledge-based economies, the dominant engine of economic change is the Internet, which was developed by adding value through fair use and the absence of intellectual property rights protecting its core infrastructure.⁵² The new dominant industries in this economy may be characterized by companies like Google, Inc., whose business model thrives on copyright fair use by finding new uses of copyrighted content that add value to both the consumer and the copyright owner.⁵³ An excessively developed body of intellectual property rights may result in the development of legal barriers or anti-commons that hinders innovation and the creation of new works. Over-patenting and bad patents may result in an anti-common of patent thickets, which may hinder rather than promote innovation.⁵⁴ Intellectual property owners increasingly strive to control all possible uses through technology, law, licensing, or threats of litigation.⁵⁵ This includes attempts to control productive, non-competitive uses in developing countries. Moreover, established industries use their intellectual property rights to hinder competitive nonintellectual property changes in the marketplace and other forms of rent-seeking.⁵⁶ As all innovation and creativity builds on the work of others, these new upstart technologies are labeled as parasitic or piratical, and they unnecessarily face robust legal challenges. In this final stage, the truly creative and innovative activities that should be encouraged are threatened by an excess of intellectual property protection.

50. Cf. Christophe Geiger, *Promoting Creativity Through Copyright Limitations: Reflections on the Concept of Exclusivity in Copyright Law*, 12 VAND. J. ENT. & TECH. L. 515, 526 n.42 (2010) (“[f]air use dependent industries grew at a faster pace than the overall economy, were more productive, and were responsible for an estimated [\$]194 billion in exports in 2006” (alterations in original) (quoting another source)); Martin Senftleben, *Overprotection and Protection Overlaps in Intellectual Property Law—the Need for Horizontal Fair Use Defences* 30 (VU University Amsterdam, Working Paper, Apr. 16, 2010), available at <http://ssrn.com/abstract=159713>.

51. See EVA HEMMUNGS WIRTÉN, *TERMS OF USE: NEGOTIATING THE JUNGLE OF THE INTELLECTUAL COMMONS* 136–37 (2008).

52. See, e.g., Markus Müller, *Who Owns The Internet? Ownership as a Legal Basis for American Control of the Internet*, 15 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 709, 728–31, 744 (2005) (noting that “nobody has ever filed patent applications for TCP/IP or the DNS”).

53. See Geiger, *supra* note 50, at 526.

54. See generally Ian Ayres & Gideon Parchomovsky, *Tradable Patent Rights*, 60 STAN. L. REV. 863, 863–67 (2007); Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1576–80 (2003); Rebecca S. Eisenberg, *Noncompliance, Nonenforcement, Nonproblem? Rethinking The Anticommons In Biomedical Research*, 45 HOUS. L. REV. 1059, 1060–63 (2008).

55. See Mark A. Lemley, *Property Intellectual Property, and Free Riding*, 73 STAN. L.W. 34, 34–35 (2005), available at http://www.law.stanford.edu/publications/stanford_lawyer/issues/73/sl73_Property.pdf.

56. See WILLIAM PATRY, *MORAL PANICS AND THE COPYRIGHT WARS* 1–42 (2009).

B. IT MATTERS WHOSE OX IS BEING GORED—NEW STRIDENT VOICES DEFENDING INTELLECTUAL PROPERTY

At a certain point in national economic development, developing countries become developed. At this point, they realize that they are net exporters of intellectual property and that their economies are being built on strong intellectual property rights.⁵⁷ As one commentator observed:

In less advanced economies, technology absorption can drive economic growth because countries at the forefront of technology act as a driver for growth by expanding the stock of scientific and technological knowledge, pulling other countries through a 'catch-up' effect. However, the strength of this 'catch-up' effect at the technology frontier decreases with the level of technological development, to the benefit of technology creation. Indeed, technology creation by domestic firms becomes progressively more important as a country moves closer to the technology frontier, because catching up with the frontier translates into increasingly smaller technological improvement.⁵⁸

To put it more bluntly, countries protect intellectual property when they are more likely to be the victims of intellectual property theft rather than the thieves or beneficiaries of the violation of intellectual property rights. Two recent examples of developing-to-developed countries are South Korea and Singapore, both of which now have significant, valuable intellectual property assets to protect.⁵⁹ Years ago, Singapore and South Korea were well-known for their production and trade in questionable, pirated goods.⁶⁰ Today, they are well-known for their legitimate industries and the quality of their exports.⁶¹ It seems that, as a natural part of economic development, countries reach a point where, in their own self-interest, they begin to *demand* strong intellectual property rights protection.⁶² Local innovative industries will demand strong intellectual property protection—for use as a sword to protect their own innovation against domestic pirates unfairly competing against them the

57. See generally HA-JOON CHANG, *KICKING AWAY THE LADDER: DEVELOPMENT STRATEGY IN HISTORICAL PERSPECTIVE* (2002); KINGSTON, *supra* note 15.

58. HASSAN, YAQUB & DIEPEVEEN, *supra* note 12, at xv.

59. See INT'L CHAMBER OF COM. COMM'N ON INTELL. PROP., *MAKING INTELLECTUAL PROPERTY WORK FOR DEVELOPING COUNTRIES* 3–4 (2005) (policy statement), available at http://www.iccwbo.org/uploadedFiles/ICC/policy/intellectual_property/Statements/Making_IPworkfordevelopingcountries19July05.pdf ("Korea is now the fourth largest producer[] of industrial property rights in the world and has seen a notable increase in domestic patent applications (51.3% in 1992 to 75.6% in 2004) and trademark applications (73.5% in 1992 to 84.8% in 2004) Licensing revenue from patents and new technologies developed in Singapore increased from Sing\$55.17 million to Sing\$132.37 million between 2001–2003, and Singapore is currently Asia's top location for legal CD and DVD content replication.").

60. See MEIR PEREZ PUGATCH, *THE INTERNATIONAL POLITICAL ECONOMY OF INTELLECTUAL PROPERTY RIGHTS* 58 (2004).

61. See DAVID DRAKAKIS-SMITH, *PACIFIC ASIA* 142–46 (1992).

62. See WORLD BANK, *supra* note 48, at 130–32; Keith E. Maskus, *Intellectual Property Rights And Economic Development*, 32 CASE W. RES. J. INT'L L. 471, 476 (2000).

marketplace.⁶³

Imagine a small, local adhesive strip manufacturer. It must pay for its own research and development and brand development and thus, it cannot compete in terms of price in the marketplace with counterfeit adhesive strips bearing internationally-known brand labels. If the local company is to succeed, it will have to drive the pirates out of the marketplace. Local innovative companies will also use intellectual property rights as a shield against the claims of foreign intellectual property rights holders and to prevent foreign competitors from appropriating locally-developed innovation. Consequently, over time, as countries move from least developed to newly industrialized, they will move from intellectual property scofflaws to reputable members of the intellectual property community. As a result, the quantity or quality of the uncompensated intellectual property technology transfers will decrease, and as these countries develop a vibrant middle class, they will be converted into new markets for developed countries and become nations that promote innovation and creativity through the enforcement of strong intellectual property laws.

C. THE UNITED STATES AS A MODEL OF A DEVELOPED ECONOMY

The title of this Article, "Do As I Say (Not As I Did)," comes from the historical experience of the United States as it transitioned from an agricultural, developing nation into a fully-developed, mature industrial economy and the subsequent post-industrial revolution phase of development, where the creation of information and services rather than the production of goods drives the economy.⁶⁴ As the United States' economy evolved, its relationship to intellectual property, especially the protection of the intellectual property of others nations, also changed to reflect national interests. The United States is not alone in that it constantly adjusted its level of intellectual property protection to achieve its developmental goals.⁶⁵ One could make similar observations about a practical, rather than principled, approach to intellectual property rights by examining the economic histories of some member states of the European Union.⁶⁶ Similar arguments could also be made drawing on the more recent intellectual property policies of countries such as Japan, Korea, and China.⁶⁷ However, this section will use the United States as the paradigm to prove the claim that intellectual property piracy (or at least uncompensated use) is a well-trodden road to economic development. These piratical activities were not undertaken solely by private parties for

63. DUNCAN MATTHEWS, GLOBALISING INTELLECTUAL PROPERTY RIGHTS: THE TRIPS AGREEMENT 110-11 (2001).

64. Cf. Keith E. Maskus, *Intellectual Property Challenges for Developing Countries: An Economic Perspective*, 2001 U. ILL. L. REV. 457, 460-61 (2001).

65. See KINGSTON, *supra* note 15.

66. See *id.*

67. See MASKUS, *supra* note 17, at 92 (discussing development experiences in Japan, Korea, Taiwan, and China).

their own personal enrichment but also as part of an official governmental policy to promote technology transfer.⁶⁸

The United States enacted its first patent law in 1790 that restricted patent protection exclusively to original inventors. The 1790 Patent Act also provided that prior use anywhere automatically invalidated the patent.⁶⁹ Alas, this principled commitment to absolute patent novelty had little to do with reality. “Smuggling technology from Europe and claiming the privileges of invention was quite common and most of the political and intellectual elite of the revolutionary and early national generation were directly or indirectly involved in technology piracy. . . . Americans had welcomed such practices since the early days of European colonization.”⁷⁰

The post-American Revolution rhetoric was devoid of any “[a]mbivalence about the morality of appropriating the fruits of the intellectual efforts of foreigners,” and the refrain was “the new republic’s right to ‘borrow of Europe their inventions.’”⁷¹ The United States also enacted internal structural barriers for non-U.S. citizens seeking the protection of U.S. law. For example, in the early days of the republic, the patent filing fee for a U.S. citizen was \$30, for a subject of Great Britain it was \$500, and for other non-U.S. citizens it was \$300.⁷² American patent law “sanctioned technology piracy as long as imported technology was not restricted exclusively to any particular individual introducer.”⁷³ When asked for his approval for an act of piracy, President Washington declined because of the “dignity of the United States” rather than the immorality of the act.⁷⁴ He then encouraged the Governor of Virginia to proceed with the project and offered all possible assistance consistent with the dignity of the United States.⁷⁵ While these transfers may not have violated international norms, they did violate the laws of the country from which the technology transfer or intellectual property flowed. Had the same transfer taken place in the United States—for example, between citizens of different states rather than different countries—it would have been illegal.⁷⁶

68. DORON S. BEN-ATAR, *TRADE SECRETS: INTELLECTUAL PIRACY AND THE ORIGINS OF AMERICAN INDUSTRIAL POWER* 145 (2004) (discussing then-Secretary of the Treasury Alexander Hamilton’s analysis of U.S. industries and his “call for an aggressive policy of technology piracy”).

69. Patent Act of 1790, ch. 7, § 1, 1 Stat. 109–12 (1790) (repealed 1793).

70. BEN-ATAR, *supra* note 68, at xv; *see also id.* at 169.

71. *Id.* at 86.

72. PETER DRAHOS, *THE GLOBAL GOVERNANCE OF KNOWLEDGE: PATENT OFFICES AND THEIR CLIENTS* 102 (2010). A rough conversion \$30 in 1790 is worth \$715 in 2010 and \$500 is worth \$11,900 in 2010. *See* Samuel H. Williamson, *Seven Ways to Compute the Relative Value of a U.S. Dollar Amount—1774 to Present*, MEASURING WORTH (March 2011), www.measuringworth.com/uscompare/ (using the GDP deflator index).

73. BEN-ATAR, *supra* note 68, at 169–70.

74. *Id.* at 171–72.

75. *Id.* at 172–73.

76. *Cf.* ROBERT C. KAHRL, *PATENT CLAIM CONSTRUCTION* § 2:03(A)–(B) (2008) (discussing colonial era patent acts); WILLIAM F. PATRY, 1 *Patry on Copyright* § 1:17 (2010) (discussing state copyright protection in the 18th century).

These anti-foreign intellectual property rights policies continued into the 19th, 20th, and 21st centuries. The United States continued to adopt and adapt its intellectual property laws to maximize its economic and developmental advantages vis-à-vis other developed and developing economies.⁷⁷ The United States protected non-U.S. patents, trademarks, and other forms of industrial property early on because the United States was a leader in technology innovation in the 19th century.⁷⁸ Four years after the drafting of the Paris Convention for the Protection of Industrial Property, the Paris Convention entered into force in the United States.⁷⁹ In contrast, perhaps still stinging from Sydney Smith's jibe that "[i]n the four quarters of the globe, who reads an American book? or goes to an American play? or looks at an American picture or statue?[,]"⁸⁰ the United States did not partake in the Berne Convention for the Protection of Literary and Artistic Works until 1988.⁸¹ Even today, some prominent commentators contend that because of its lack of (or extremely weak) moral-rights protections, the United States is still not completely in conformity with its obligations under the Berne Convention.⁸² Still others may question its adherence to the Paris Convention and TRIPS.⁸³

77. See KINGSTON, *supra* note 15; see also Vivian Muñoz Tellez, *The Changing Global Governance of Intellectual Property Enforcement: A New Challenge for Developing Countries*, in INTELLECTUAL PROPERTY ENFORCEMENT: INTERNATIONAL PERSPECTIVES 4–5 (Xuan Li & Carlos Maria Correa eds., 2009).

78. B. ZORINA KHAN, *THE DEMOCRATIZATION OF INVENTION: PATENTS AND COPYRIGHTS IN AMERICAN ECONOMIC DEVELOPMENT, 1790–1920* 298–301 (2005).

79. See World Intellectual Prop. Org., *About WIPO: Treaties and Contracting Parties*, WIPO.INT, http://www.wipo.int/treaties/en/SearchForm.jsp?search_what=C (select "United States of America" as the Contracting Party, "Paris Convention" as the Treaty, and click "Search") (last visited Mar. 27, 2011) (listing the Paris Convention as entering into force in the U.S. on May 30, 1887).

80. Sydney Smith, Book Review, 33 EDINBURGH REV. 69, 79–80 (1820) (reviewing ADAM SEYBERT, *STATISTICAL ANNALS OF THE UNITED STATES OF AMERICA* (1818)) ("In the four quarters of the globe, who reads an American book? or goes to an American play? or looks at an American picture or statue? What does the world yet owe to American physicians or surgeons? What new substances have their chemists discovered? or what old ones have they analyzed? What new constellations have been discovered by the telescopes of Americans?—what have they done in the mathematics? Who drinks out of American glasses? or eats from American plates? or wears American coats or gowns? or sleeps in American blankets?—Finally, under which of the old tyrannical governments of Europe is every sixth man a Slave, whom his fellow-creatures may buy and sell and torture?"). This sounds like a clarion call for strong, high-barrier intellectual property protection accompanied by significant investment in pure science research as well as commercial research and development.

81. Berne Convention Implementation Act of 1988, Pub. L. No. 100-568, 102 Stat. 2853 (1988).

82. See, e.g., WILLIAM F. PATRY, 5 PATRY ON COPYRIGHT § 16:3 (2010); Graeme W. Austin, *The Berne Convention as a Canon of Construction: Moral Rights After Dastar*, 61 N.Y.U. ANN. SURV. AM. L. 111, 116–18 (2005). See generally, H.R. REP. NO. 101-514 (1990), *reprinted in* 1990 U.S.C.C.A.N. 6915 (legislative history of the Visual Artists Rights Act of 1990).

83. As a member of the Paris Convention, the Madrid Union, the TRIPS Agreement, and NAFTA, the United States is obligated to protect well-known marks. See Andrew Cook, Comment, *Do as We Say, Not as We Do: A Study of the Well-Known Marks Doctrine in the United States*, 8 J. MARSHALL REV. INTELL. PROP. L. 412, 416–18 (2009). Yet, there is a difference of opinion among U.S. courts of appeals as to whether the laws of the United States protect well-known marks. *Id.* at 417–18. Compare Grupo Gigante SA De

At first, the United States excluded foreign-authored works from U.S. copyright protection. Later, it required that works by foreign authors seeking U.S. copyright protection be simultaneously published in the United States.⁸⁴ Simultaneous publication benefited the United States because if the United States had to protect foreign authors then at the very least, foreign copyright owners should pay for this protection by promoting the domestic production, manufacture, and printing of copyrighted works.⁸⁵ The United States' copyright law had numerous formalities (traps) that made protection of works in the United States problematic for foreign authors accustomed to the formality-free copyright regime of the Berne Convention.⁸⁶ The copyright laws and policies of the United States ensured that long after the Industrial Revolution and after the United States achieved its status as a developed, industrialized country, school children, researchers, and others in the United States could enjoy the fruits of the intellectual labors of the citizens of the British Empire without paying a copyright royalty.⁸⁷ While the subject of this

CV v. Dallo & Co., 391 F.3d 1088, 1099–1100 (9th Cir. 2004) (stating that the well-known marks doctrine applies), *with* ITC Ltd. v. Punchgini, Inc., 482 F.3d 135, 163 (2d Cir. 2007) (“We do not ourselves discern in the plain language of sections 44(b) and (h) a clear congressional intent to incorporate a famous marks exception into federal unfair competition law.”).

84. International Copyright Act, ch. 565, 26 Stat. 1106 (1891); *Harper & Bros. v. M.A. Donohue & Co.*, 144 F. 491, 492–93 (C.C.N.D. Ill. 1905).

85. See International Copyright Act, *supra* note 84, at § 4956; 17 U.S.C. § 15 (1909). In 1876, the United States was importing \$940,000 worth of books from the United Kingdom while exporting only \$93,000. Marjorie McCannon, *The Manufacturing Clause of the U.S. Copyright Law*, reprinted in 2 STUD. ON COPYRIGHT 1123, 1128 (Arthur Fisher Memorial ed. 1963). There was a 25% tariff on printed books. *Id.* at 1129. There were several purported justifications for this policy. Congress was concerned that lower priced foreign books might flood the United States with “alien philosophies, politics, and religion.” *Id.* U.S. authors desired to keep pirated editions of their own works from seeping into the United States, and there was a general desire to protect the U.S. printing industry from foreign competition. *Id.* at 1129. Over time, as domestic manufacture of books increased, the relative significance of imports decreased, and the U.S. print industries entered the fray with low-priced paperback books, and the U.S. granted greater protection to foreign English language works. *Id.* at 1176–77, 1183–84. By the mid-1950s, the U.S. publishing industries were sufficiently established, so the United States ultimately eliminated the domestic manufacture requirements when the United States became a signatory to the Universal Copyright Convention. See Universal Copyright Convention art. 2, Sept. 6, 1952, available at http://portal.unesco.org/en/ev.php-URL_ID=15381&URL_DO=DO_TOPIC&URL_SECTION=201.html.

86. See Eric Schuler, *Why Not International Copyright? A Consideration of the Reasons for America's Conspicuous Absence from the International Copyright Union*, AUTHORS' LEAGUE BULL., Jan. 1919, at 6.

87. Philip V. Allingham, *Nineteenth-Century British and American Copyright Law*, THE VICTORIAN WEB, <http://www.victorianweb.org/authors/dickens/pva/pva74.html> (last modified Jan. 5, 2001) (“Thus, although the Berne Convention greatly simplified the copyright process among European nations, numerous unauthorized American re-prints continued to appear until 1891, when the United States finally agreed to discontinue sanctioning literary piracy.”). The 1891 Chace Act has been severely criticized as ineffective. The 1891 Chace Act “had enough loopholes, one scholar has noted, to ‘make the extension of copyright protection to foreigners illusory.’” JOE KARAGANIS, MEDIA PIRACY IN EMERGING ECONOMIES 409 (2011). Of course, the saga continues. For example, the Sonny Bono Fairness in Music Licensing Act, 17 U.S.C. § 110(5), is arguably a transfer or subsidy by European and foreign musical artists to the U.S. restaurant, entertainment, and other industries

(im)morality tale is the United States, a similar section could have been written about other developed countries.⁸⁸

D. BRAZIL, RUSSIA, INDIA, AND CHINA (BRIC) COUNTRIES AS A *Sui Generis* Model of Development

The BRIC countries may be used as an exemplar to test the rule that piracy is one stage on the road to economic development, but not the principle that the WTO and the TRIPS Agreement have barred this historic route to development. BRIC countries are outside the trade-intellectual property subsidy paradigm discussed in this Article for several reasons. First, they are pre-WTO, newly-industrialized countries rather than developing countries. The BRIC countries have moved beyond the diffusion phase and are at the absorptive or innovative phase of economic development.⁸⁹ The absorptive phase is the point of development where intellectual property protection becomes critical to continued foreign direct investment.⁹⁰ At this point, there is an increased reliance on domestic production of new knowledge as a tool of development.

Second, while their economies continue on the road to developed-nation status, the BRIC countries became newly industrialized nations during the pre-WTO era.⁹¹ Both China and Russia had a significant industrial base prior to entry into the capitalist marketplace.⁹² Until re-

that publicly perform the copyrighted music of foreign artists without paying a licensing fee. See generally Panel Report, *United States—Section 110(5) of US Copyright Act*, WT/DS160/R (June 15, 2000), available at http://www.wto.org/english/tratop_e/dispu_e/dispu_e1234da.pdf. Despite the WTO panel ruling, the U.S. remains an international scofflaw—the United States sporadically pays the European Union an appropriate sum and continues to permit domestic U.S. businesses to use foreign authored musical works in derogation of U.S. treaty obligations under TRIPS and Berne. See Dispute Settlement Body, *Minutes of Meeting Held in the Centre William Rappard on 18 May 2010*, WT/DSB/M/283 (July 23, 2010), available at <http://www.worldtradelaw.net/dsbminutes/m283.pdf>.

88. See, e.g., CHANG, *supra* note 57, at 2, 57; Drahos & Braithwaite, *supra* note 49, at 27–28; Jacques H. J. Bourgeois, *Post Cancún WTO TRIPs—A Bumpy Road*, in *AT THE CROSSROADS: THE WORLD TRADING SYSTEM AND THE DOHA ROAD* 388 n.4 (2008), available at <http://www.springerlink.com/content/v36227208wr55v70/fulltext.pdf> (“interesting Dutch example with the Netherlands suspending patent law protection from 1869 until 1910”). Austria required foreign inventions to be made in Austria. DRAHOS & BRAITHWAITE, *supra* note 49, at 34; ROD FALVEY & NEIL FOSTER, *THE ROLE OF INTELLECTUAL PROPERTY RIGHTS IN TECHNOLOGY TRANSFER AND ECONOMIC GROWTH: THEORY AND EVIDENCE* 49 (2006), available at http://www.unido.org/fileadmin/import/60030_05_IPR_rights_in_technology_transfer.pdf (“Both anecdotal evidence and the case study evidence reviewed above, indicates that many current innovators operated lax IPR systems in the past, designed to encourage technology diffusion through imitation, as well as incremental innovation through utility models.”).

89. See generally INT’L CHAMBER OF COM. COMM’N ON INTELL. PROP., *supra* note 59.

90. HASSAN, YAQUB & DIEPEVEEN, *supra* note 12, at xv (“The empirical literature also shows that stronger IPRs can encourage domestic innovation, at least in emerging industrialised economies.”); see also *id.* at 6.

91. See generally JIM O’NEILL, GOLDMAN SACHS GLOBAL ECONOMICS PAPER No. 66: BUILDING BETTER GLOBAL ECONOMIC BRICS (Nov. 30, 2001), available at <http://www2.goldmansachs.com/ideas/brics/building-better.html>.

92. A. AKOPIAN, *INDUSTRIAL POTENTIAL OF RUSSIA: ANALYTICAL STUDY BASED ON FIXED ASSETS, STATISTICS TO 1992*, at 41–43 (1992); NICHOLAS R. LARDY, *FOREIGN TRADE AND ECONOMIC REFORM IN CHINA, 1978–1990*, at 33–36 (1992).

cently the developmental goals of Brazil and India were to be self-sufficient and to develop local capacity to meet all their internal needs.⁹³ The BRIC countries were already on a trajectory to development. Recent events and better domestic policies merely increased the rate at which they are achieving their developmental goals.

Third, the BRIC countries are *sui generis*. They are geographically large, control significant natural resources, have large populations, play a unique strategic geopolitical role in their respective spheres of interest, and three of the four are members of the world's most exclusive club: countries with nuclear weapons.⁹⁴ Russia and China are also permanent members of the United Nations Security Council, giving them the power to veto any action by the U.N. Security Council.⁹⁵ Therefore, trade and intellectual property relationships with these countries are confounded with other factors, such as geopolitical considerations, rather than pure considerations of intellectual property enforcement and proper trade practices.⁹⁶ Because of the BRIC countries' size, relative wealth, and strategic considerations (including those related to trade as well as to national security concerns) developed countries are loath to use the WTO dispute resolution mechanism or the other leavers of soft power, such as foreign aid.⁹⁷ Other forms of political and economic pressure are also less effective when attempting to coerce a BRIC country to comply with international intellectual property norms in their domestic or international trade practices.⁹⁸ Accordingly, in the BRIC countries the modern intellectual property and trade regime is more a precatory obligation with the potential for soft sanctions for violating the rules rather than an obligation enforced under the WTO dispute settlement system or through coercive foreign policy measures. Thus, the BRIC countries currently enjoy development status and access to uncompensated intellectual property transfers that is akin to that historically enjoyed by all countries pre-WTO.

93. S. MUKHERJEE & J. CHAKRABARTI, *EVOLUTION OF INDIAN ECONOMY & ELEMENTARY STATISTICS* 252–256 (2000).

94. RADHA RAJ, *ECONOMIC ENVIRONMENT OF BUSINESS AND ENVIRONMENTAL MANAGEMENT* 2.15–2.16, tbls. 2.1–.2; *List of States with Nuclear Weapons*, WIKIPEDIA, http://en.wikipedia.org/wiki/List_of_states_with_nuclear_weapons (last visited Feb. 26, 2010).

95. Membership of the Security Council, UNITED NATIONS (last visited May 11, 2011), <http://www.un.org/sc/members.asp>.

96. *The Trillion-Dollar Club: Brazil, Russia, India and China Matter Individually. But Does It Make Sense to Treat the BRICs—Or any Other Combination of Emerging Powers—As a Block?*, *ECONOMIST*, Apr. 15, 2010, available at <http://www.economist.com/node/15912964>.

97. See, e.g., JOHN R. THOMAS, CONG. RESEARCH SERV., RL 31066, *HIV/AIDS DRUGS, PATENTS AND THE TRIPS AGREEMENT: ISSUES AND OPTIONS* 13–15 (2001) (describing how the U.S. disengaged with Brazil before the WTO over a disputed compulsory license for U.S. AIDS drugs).

98. Robert C. Bird, *Defending Intellectual Property Rights in the BRIC Economies*, 43 *AM. BUS. L.J.* 317, 334–49 (2006).

III. BIRTH OF THE MODERN INTELLECTUAL PROPERTY REGIME

The global intellectual property regime that was ultimately enshrined into TRIPS was largely finalized in the 19th century.⁹⁹ The 19th century saw the closing of the intellectual property frontier.¹⁰⁰ Patents, copyrights, and trademarks were clearly protected in domestic law and ultimately defined in international treaties.¹⁰¹ Many of the countries that are now characterized as developing nations did not participate in negotiating the 19th century treaties that ultimately became the basis of the current global intellectual property regime.¹⁰² Despite the participation of some developing countries, the 19th century intellectual property rights treaties were largely Eurocentric, with occasional participation by the United States. And to the degree that the needs of many of the countries that are now part of the developing world were considered, their participation was as colonies or dependencies of the European powers.¹⁰³

The needs and role of the colonies, if and when considered, were considered as part of the historical legacy of mercantilism.¹⁰⁴ Under mercantilism, the role of the colonies was to provide raw materials and to be a

99. See, e.g., TRIPS, *supra* note 20, art. 2 (requiring compliance with Articles 1 through 12, and Article 19, of the Paris Convention); *id.* art. 9 (allowing the same exceptions as the Paris Convention and Berne Convention); *id.* art. 9.1 (requiring compliance with the substantive provisions of Articles 1 through 21 of the Berne Convention and its annex).

100. See BRAD SHERMAN & LIONEL BENTLY, *THE MAKING OF MODERN INTELLECTUAL PROPERTY LAW: THE BRITISH EXPERIENCE, 1760–1911*, at 3 (1999) (contending the modern paradigm, taxonomy, and distinctions among patent, copyright, and trademark laws can be traced to the 1850s). The “newer,” more developing-world “friendly” forms of intellectual property are not generally recognized, nor part of the 19th-century WTO–TRIPS intellectual property bargain. See generally Convention on Biological Diversity, June 5, 1992, *available at* <http://www.cbd.int/convention/text/> (bio-piracy); UNESCO, Convention for Safeguarding of the Intangible Cultural Heritage, Oct. 17, 2003, *available at* <http://www.unesco.org/culture/ich/index.php?pg=00006>; UNESCO World Heritage Convention, Convention Concerning the Protection of the World Cultural and Natural Heritage, Nov. 16 1972, *available at* <http://whc.unesco.org/en/conventiontext>.

101. See, e.g., Berne Convention for the Protection of Literary and Artistic Works, art. 1, Sept. 9, 1886 [hereinafter Berne Convention], *available at* http://www.wipo.int/treaties/en/ip/berne/trtdocs_wo001.html (copyright). Of course, these treaties were revised and amended numerous times over the years; Paris Convention for the Protection of Industrial Property, art. 1, Mar. 20, 1883 [hereinafter Paris Convention], *available at* http://www.wipo.int/treaties/en/ip/paris/trtdocs_wo020.html (“patents, utility models, industrial designs, trademarks, service marks, trade names, indications of source or appellations of origin, and the repression of unfair competition”).

102. See KINGSTON, *supra* note 15, at 67; see, e.g., Berne Convention, *supra* note 101, art. 26 (“[c]ontracting countries shall have the right to accede to the present convention at any time for their colonies or foreign possessions”); Paris Convention, *supra* note 101, art. 24.1 (“Any country may . . . any time thereafter, that this Convention shall be applicable to all or part of those territories, designated in the declaration or notification, for the external relations of which it is responsible.”).

103. Peter Drahos, *Developing Countries and International Intellectual Property Standard-Setting*, COMM’N ON INTELL. PROP. RIGHTS, http://www.iprcommission.org/papers/pdfs/study_papers/sp8_drahos_study.pdf (last visited Feb. 26, 2011). See DRAHOS, *supra* note 9.

104. *Id.*

marketplace for manufactured goods.¹⁰⁵ Under an economic policy of neo-mercantilism, the role of intellectual property or technology transfer to the then-colonies (now developing nations) as an engine of economic development was marginalized or rejected by the European powers for fear of creating competitors.¹⁰⁶ This legacy continued in former colonies even after their political independence.¹⁰⁷ As colonies became independent, the colonial power's intellectual property laws were often retained as the laws of the newly-independent country with little, if any, consideration as to whether these laws were appropriate for the unique economic-development challenges facing each newly-independent country.¹⁰⁸

While the dominant body of intellectual property law was developed in the late 19th and early 20th centuries, these intellectual property treaty regimes lacked an effective enforcement mechanism.¹⁰⁹ Nations that had the infrastructure or the human and fiscal capital to move from agricultural economies to industrial economies continued to enjoy an unsanctioned respite from domestic intellectual property enforcement obligations.¹¹⁰ Thus, as a developmental tool, uncompensated transfers were still available. As one historian observed,

Without an international intellectual property regime, abiding by these notions was left to the voluntary actions of states. The United States merely paid lip service to the principle of international intel-

105. ELIZABETH C. HANSON, *THE INFORMATION REVOLUTION AND WORLD POLITICS* 142 (2008).

106. See, e.g., Chang, *supra* note 57, at 23 ("Britain banned the imports of superior products from some of its colonies if they happened to threaten British industries."). But see JOHNS, *supra* note 3, at 263 (describing *sui generis* counter examples. For example, in 1852, the United Kingdom excluded colonies of the British Empire from having to honor patents filed in the home country, but this policy was to compensate sugar plantations and manufacturers for the additional labor and equipment costs after the abolition of slavery.).

107. See DRAHOS, *supra* note 9, at 8.

108. *Id.* at 8–9 ("By the time many countries shed their colonial status, they were confronted by a Berne system that was run by an Old World club of former colonial powers to suit their economic interests. Former colonial powers continued to watch over their former colonies. When eleven Sub-Saharan states joined Berne they were 'so totally dependent economically and culturally upon France (and Belgium) and so inexperienced in copyright matters that their adherence was, in effect, politically dictated by the 'mother country' during the aftermath of reaching independence.'") (quoting A.H. Lazar, *Developing Countries and Author's Rights in International Copyright*, in 19 *COPYRIGHT LAW SYMPOSIUM* (1971)). Moreover, the Secretariats of the Conventions were funded by each country according to their wealth so that the staff was largely drawn from the countries with the greatest interests in protecting intellectual property. At least one author speculates based on information released through Freedom of Information Act (FOIA) requests that "the Secretariate act[s] to preserve structures which reflect the interests of the more powerful countries." KINGSTON, *supra* note 15, at 104.

109. See Berne Convention, *supra* note 101, art. 33 ("(1) Any dispute . . . may . . . be brought before the International Court of Justice . . . unless the countries concerned agree on some other method of settlement. . . . (2) Each country may . . . declare that it does not consider itself bound by the provisions of paragraph (1). With regard to any dispute between such country and any other country of the Union, the provisions of paragraph (1) shall not apply."); Paris Convention, *supra* note 101, art. 28(1) ("Any dispute between two or more countries of the Union concerning the interpretation or application of this Convention . . . may . . . be brought before the International Court of Justice . . . unless the countries concerned agree on some other method of settlement.").

110. KINGSTON, *supra* note 15, at 66.

lectual property. Ignoring intellectual property entitlements across national lines enabled Americans to build an industrial powerhouse founded upon the intellectual labor of Europeans.¹¹¹

The experience of other nations supports this conclusion. A German economic historian, Eckhard Höffner, concluded that Germany's lack of copyright law was at the foundation of Germany's industrial development in the 19th century.¹¹² In order to protect its domestic industries from foreign competition, Germany did not join the Paris Convention until 1903, twenty years after the Convention was first opened to signatories.¹¹³

The ability of countries to ignore either the intellectual property rights of foreigners or to interpret flexibly their treaty obligations changed with the creation of the WTO and the TRIPS Agreement.¹¹⁴ For the first time, international intellectual property treaties provided a carrot by offering tariff concessions to encourage countries to adopt a minimum level of domestic intellectual property protection and a stick through the WTO dispute resolution mechanisms to encourage effective intellectual property rights enforcement at the national level.¹¹⁵

The creation of the WTO required that developed countries make certain vacuous commitments that are integrally related to intellectual property, primarily in the area of technology transfer.¹¹⁶ The quid pro quo for developing nations entering into the WTO, especially the TRIPS Agreement, was the largely unfulfilled promise by the developed countries to promote technology transfer to developing countries.¹¹⁷ Technology transfer provides numerous benefits: "[provides] more and better competition, upgrade[s] domestic innovative capacity, increase[s] R&D employment, give[s] better training and support[s] to education, and reverse[s] 'brain drain' effects."¹¹⁸ Generally, while the WTO and the TRIPS

111. BEN-ATAR, *supra* note 68. England adopted patent policies to reward foreigners to bring technology to England thus converting it "from a technological debtor nation into one of the world's center of industry and innovation." *Id.* at 9.

112. See Frank Thadeusz, *No Copyright Law: The Real Reason for Germany's Industrial Expansion?*, DER SPIEGEL, Aug. 18, 2010, available at <http://www.spiegel.de/international/zeitgeist/0,1518,710976,00.html>.

113. See KINGSTON, *supra* note 15, at 67.

114. See WTO—TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS 69 (Peter-Tobias Stoll, Jan Busche & Katrin Arend eds., 2009); Kevin Kennedy, *The 2005 TRIPS Extension for the Least-Developed Countries: A Failure of the Single Undertaking Approach?*, 40 INT'L LAW. 683, 697–99 (2006) ("Article XI:2 of the Agreement Establishing the WTO is not an escape hatch designed to relieve LDCs permanently of their WTO legal obligations. But if that article is indeed a general exception for LDCs from the single undertaking approach, then perhaps a decision should be taken by the WTO Ministerial Conference permanently to exempt LDCs from assuming any obligations under the TRIPS Agreement and instead to make adoption of the Agreement optional for them.").

115. Christine Thelen, Comment, *Carrots And Sticks: Evaluating the Tools for Securing Successful TRIPs Implementation*, 24 TEMP. J. SCI. TECH. & ENVTL. L. 519, 520–24 (2005).

116. See TRIPS, *supra* note 20, art. 66(2).

117. See *id.*; Kennedy, *supra* note 114, at 686.

118. HASSAN, YAQUB & DIEPEVEEN, *supra* note 12, at 3. This is also not to say that TRIPS and the WTO do not contain certain flexibilities that ameliorate some of their more draconian positions. See, e.g., TRIPS, *supra* note 20, art. 27(2), 27(3), 31, 40. See also Marrakesh Agreement Establishing The World Trade Organization, Apr. 15, 1994, 1867

Agreement promoted increased intellectual property protection, the WTO and developed nations failed to deliver on their promises of increased technology transfer.¹¹⁹

While foreign direct investment and the export trade are significant factors in economic development and improving the material well-being in developing countries,¹²⁰ the conclusions of the academic and non-governmental organization studies on whether the WTO, TRIPS, and domestic-strong intellectual property rights law are good for the economic development of developing countries is, to be charitable, at best mixed.¹²¹

The empirical evidence suggests that stronger [intellectual property rights] may positively affect the volume of [foreign direct investment] and exports, particularly in countries with strong technical absorptive capabilities where the risk of imitation is high. When such risk is weak, particularly in the poorest countries, firms in developed countries do not seem to be sensitive to the level of protection in developing countries.¹²²

Strong intellectual property rights do not necessarily encourage foreign direct investment. Rather, under some circumstances, stronger intellectual property rights may actually decrease foreign direct investment.¹²³ For example, if intellectual property protection is weak, foreign investors prefer foreign direct investment so that they can control the dissemination and use of their intellectual property assets.¹²⁴ However, if intellectual property rights are strong, then a foreign direct investor may be willing to risk their intellectual property assets and use a local licensee rather than directly engage in the market.¹²⁵

U.N.T.S. 154, 162 [hereinafter Marrakesh Agreement] (Article XI:2 provides “[t]he least-developed countries recognized as such by the United Nations will only be required to undertake commitments and concessions to the extent consistent with their individual development, financial and trade needs or their administrative and institutional capabilities. This Article contends that the global Realpolitik makes exercising these rights under TRIPS or the WTO problematic at best, and at worse, it threatens a developing country with unilateral sanctions and/or proceedings before a WTO panel. As a practical matter, these flexibilities, except in the BRIC countries or perhaps the Republic of South Africa, are not really available options.

119. See World Trade Organization, Meeting of the Ministers Responsible for Trade of the Least Developed Countries Zanzibar Declaration art. 14, WT/L/409 (Aug. 6, 2001), available at <http://www.un.org/esa/ffd/themes/ldc-4.htm>; World Trade Organization, Ministerial Declaration of 14 November 2001, WT/MIN (01)/Decc/1, ui I.L.M. 746 (2002), available at http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_e.htm#technology; DANIEL GERVAIS, *THE TRIPS AGREEMENT: DRAFTING HISTORY AND ANALYSIS* 521–24 (2d ed. 2003).

120. *Id.* at 15–16.

121. HANSEN, YAQUB & DIEPEVEEN, *supra* note 12, at 15–16.

122. *Id.* at xiv.

123. *Id.* at 5.

124. Peter K. Yu, Intellectual Property, Foreign Direct Investment and the China Exception 2 (2007), available at <http://www.peteryu.com/fdi.pdf>.

125. HANSEN, YAQUB & DIEPEVEEN, *supra* note 12, at 5. Licensing is not necessarily bad. The licensee inherently gains a transfer of know-how and general business knowledge that can potentially be utilized in other ventures. On the other hand, merely exporting for sale into a developing country, without more, often adds little value to a developing country's economic development.

At least one study found that while strong intellectual property rights were advantageous in promoting foreign direct investment “among the least developed nations: among these countries, WTO members do not have significantly more [foreign direct investment] than non-members.”¹²⁶ Unremarkably, intellectual property protection in a developing country becomes more strategically valuable as it produces and uses more domestic intellectual property. However, it may be too soon to reach a firm conclusion. The WTO and the TRIPS Agreement were not in place until 1994 and not fully obligatory on the least developed countries “until 1 July 2013, or until such a date on which they cease to be a least-developed country Member, whichever date is earlier.”¹²⁷ The logic of the law lies in experience.¹²⁸ Consequently, the theory that piracy is a necessary stage on the road to economic development may be tested in the future. If the LCDs become industrialized countries under the TRIPS regime, this theory will then be disproven.

IV. EFFICIENT PIRACY AND THE INEFFICIENT FOREIGN AID

This section analyzes two models for economic development. The first model is that of direct foreign aid. Developed countries provide economic or in-kind assistance to developing countries. The second model is technology transfer and is based on the voluntary technology transfer or direct foreign investment by the private sector. Often governments provide economic incentives to domestic companies to transfer technology through foreign investment in developing countries. Both of these development models suffer from similar problems in that they are more responsive to the domestic political and economic agenda of the private business entity or the donor-developed country than to the actual or perceived needs of the recipient-developing country.¹²⁹ This Article rejects economic development options limited to these two development models as a false choice and instead recommends a third development model: one that acquiesces to, or at least tolerates, uncompensated intellectual property transfers as long as the core economic incentives that promote the future production of intellectual property in developed countries are adequately protected.¹³⁰

A. FOREIGN AID

Direct foreign aid is often caricatured or stereotyped as being a species of waste, fraud, abuse, inefficiencies, and political pork—often hurting

126. *Id.* at 6.

127. GÉRAIS, *supra* note 119, at 521.

128. See *The Common Law*, WIKIPEDIA, http://en.wikipedia.org/wiki/The_Common_Law (last updated Feb. 25, 2011).

129. See generally JEFFREY F. TAFFET, *FOREIGN AID AS FOREIGN POLICY: THE ALLIANCE FOR PROGRESS IN LATIN AMERICA* 1–2 (2007).

130. Cf. KINGSTON, *supra* note 15, at 200.

more than it helps developing countries.¹³¹ Direct foreign aid or in-kind aid plays a significant role in alleviating poverty and suffering in the developing world and a critical role in the provision of public health services.¹³² Nothing in this Article should be interpreted as justifying decreasing “investment” in foreign aid. Rather, this Article contends that foreign aid (excluding humanitarian aid, education aid, and infrastructure development aid) *may* be less efficient than uncompensated intellectual property transfers as a developmental subsidy to promote industrialization. Under the existing foreign aid regime, a developed country provides economic support for programs in developing countries that the developed country finds “worthy,” or are at least in the developed country’s self-interest to support.¹³³ In a developed country, these “foreign aid” projects are often motivated by domestic politics rather than a desire to meet the enlightened needs of the recipient–developing country.¹³⁴ An excellent example of this is the dramatic swings of U.S. foreign aid funding in the area of reproductive technologies and rights—from funding condoms and reproductive health services to funding abstinence education—depending on which political party holds the White House.¹³⁵ These changes in funding priorities represent only the reality of U.S. domestic politics rather than the proven needs of the recipient–developing countries.

Foreign aid is often provided to developing countries for strategic-geopolitical aims rather than to meet the actual needs of developing countries or as part of a strategic-economic-efficient development program.¹³⁶ Over the past few decades, U.S. foreign aid has been directed by perennial strategic and peace concerns in the Middle East, the Cold War, or the Clinton Administration’s “environmental, population, and democracy-building concerns” rather than by economic growth policy. And under the Bush and Obama Administrations, national security and fighting terrorism are the primary factors in the allocation of U.S. foreign aid rather than actual needs or development goals.¹³⁷ The U.S. is not alone in using foreign aid as an instrument of national political policy.

131. See generally DAMBISA MOYO, *DEAD AID: WHY AID IS NOT WORKING AND HOW THERE IS A BETTER WAY FOR AFRICA* xix (2009).

132. See generally Peter Singer, *THE LIFE YOU CAN SAVE: ACTING NOW TO END WORLD POVERTY*, at xii–xiii (2009).

133. Foreign aid administered through an international or multi-national organization often suffers from the same problems as purely bilateral aid. The cure for the problems identified in this Article is *not* merely adding additional layers of bureaucracy, inefficiency, and further opportunities for agency capture and rent-seeking to the development process.

134. Evan Osborne, *Rethinking Foreign Aid*, 22 *CATO J.* 297, 306–07 (2002), available at http://www.ciaonet.org/olj/cato/v22n2/cato_v22n2ose01.pdf.

135. See Kim McIntyre, *Obama Reverses Bush’s Abortion Policy*, *EXAMINER*, Jan. 28, 2009, <http://www.examiner.com/first-100-days-in-national/obama-reverses-bush-s-abortion-policy>; TAFFET, *supra* note 129, at 4–5 (discussing the vagaries of U.S. family planning policy as a question of foreign aid from 1974 to 1999).

136. Osborne, *supra* note 134, at 306.

137. *Id.*

Other donor[] [countries] have their own objectives. For many years Sweden targeted aid toward “progressive” societies. In France, governments since De Gaulle have sought to promote the maintenance and spread of French culture and the French language as well as the preservation of French influence, particularly in West Africa. French aid has also often been disproportionately concentrated among nations with which France has extensive commercial ties. In Japan, aid has historically flowed disproportionately to neighboring Asian nations in which Japan has the greatest commercial interests, and Japan has in the past often tied aid to purchases of Japanese products. In general, pressure groups such as trade associations and, in the United States, ethnic political blocs have also proven quite adept at steering aid to their favored recipients.¹³⁸

Further, even when foreign aid is not tied to a domestic political agenda, there are often explicit requirements or implicit understandings that the recipient country uses the foreign aid to purchase goods and services from the donor country.¹³⁹ These goods and services are not necessarily the optimal goods or services demanded by the developing country’s economic-development needs, or the goods may be irrelevant, or even detrimental, to economic development because they are merely surplus goods for which the donor country is trying to create demand.¹⁴⁰ As one commentator found, “[i]f aid is not particularly given with the intention to foster economic growth, it is perhaps not surprising that it does not achieve it.”¹⁴¹

Foreign aid programs are rife with waste, fraud, and inefficiency.¹⁴² Even when foreign aid is targeted wisely and dedicated to economic development, foreign aid is still an inefficient means to development, and the actual delivery of that aid is problematic.¹⁴³ The potential for waste, fraud, and inefficiency exists in both the donor country’s ability to pro-

138. *Id.* at 307 (internal citation omitted).

139. Vexen Crabtree, *Which Countries Set the Best Examples?*, VEXEN.CO.UK (2005), <http://www.vexen.co.uk/countries/best.html> (“Countries that tie less than 10% of aid include Ireland, Norway and the UK, then Belgium, Finland, Switzerland and Sweden. The USA is the worst, and ties nearly 90% of its aid to developing countries. Italy is the second worst with 70%.”).

140. One may ask: if foreign aid is largely given to the recipient country for the benefit of the donor nation, then why would a developed country substitute “unlicensed uses” for foreign aid? Treating unlicensed uses in developing countries as a form of foreign aid or a developmental subsidy does not preclude donor countries from using direct foreign aid for national security reasons, as an instrument of soft power, or in response to domestic politics. Instead, unlicensed uses merely provide one, albeit more advantageous, route to economic self-sufficiency for developing countries.

141. Osborne, *supra* note 134, at 307; *see also* Nadia Masud & Boriana Yontcheva, *Does Foreign Aid Reduce Poverty? Empirical Evidence from Nongovernmental and Bilateral Aid* (Int’l Monetary Fund, Working Paper No. 5, 2005) (finding that NGO aid more effective at reducing infant mortality than bilateral aid but not significantly more effective on reducing illiteracy rates).

142. *See Development Aid*, WIKIPEDIA, http://en.wikipedia.org/wiki/Development_aid#Quality (last updated Feb. 26, 2011).

143. Chuck Neubauer & Matthew Cella, *U.S. Aid Meant to Reward Reforms Goes to Countries Listed as Corrupt*, WASH. TIMES, Aug. 22, 2010, available at <http://www.washingtontimes.com/news/2010/aug/22/countries-on-us-lists-for-corruption-aid/>.

vide the foreign aid and the recipient country's ability to administer aid wisely.¹⁴⁴ If either party fails at these tasks then foreign aid is wasted.¹⁴⁵ Alternatively, providing direct foreign aid, rather than increasing the funds available for development or humanitarian relief, often results in a mere substitution of local funding for foreign funding without any actual increase in the relevant services.¹⁴⁶

Finally, the law of unintended consequences may come into play because foreign aid oftentimes exacerbates local needs and adds to local misery in other areas, even while achieving the donor country's intended goal.¹⁴⁷ Even targeted development aid may also result in failure.

American foreign aid has often harmed the Third World poor. In Indonesia, the government confiscated subsistence farmers' meager plots for AID-financed irrigation canals. In Mali, farmers were forced to sell their crops at giveaway prices to a joint project of AID and the Mali government. In Egypt, Haiti, and elsewhere, farmers have seen the prices for their own crops nose-dive when U.S. free food has been given to their countries.¹⁴⁸

Therefore, even when foreign aid targeted for economic development is delivered and spent properly, there is no assurance that the aid will actually improve the quality of life for the people in the developing country or promote economic development. In sum, foreign aid is often designated for the political and economic benefit of the donor country. This means that waste, fraud, and inefficiency in either or both the donor or recipient countries (and the iron law of unexpected consequences) make the question of whether foreign aid efficiently promotes or inefficiently hinders economic development *at best* an open question.

B. INTERNATIONAL TECHNOLOGY TRANSFER INCENTIVES

As of the writing of this Article, it is not clear that the benefits of the technology transfer provisions of the WTO-TRIPS regime exceed the losses from eliminating the uncompensated intellectual property transfers described in this Article. International technology transfer (ITT) does not appear to be a better tool than foreign aid to promote development.

144. Osborne, *supra* note 134, at 308–09.

145. *Id.*

146. *Id.* at 309; see also Paul Collier & Anke Hoeffler, *Unintended Consequences: Does Aid Promote Arms Races?*, 69 OXFORD BULL. ECON. & STAT. 2, 11–12 (2007) (“Finally, budgets in most developing countries are partially financed by aid, either directly through budget support, or indirectly because of the fungibility of projects. There is a widespread concern that inadvertently aid is financing military spending.”), available at http://www.ssnnetwork.net/uploaded_files/4048.pdf.

147. SAJAL LAHIRI, *THEORY AND PRACTICE OF FOREIGN AID* 422 (2007) (foreign aid harms exports and results in price increases developing countries); Collier & Hoeffler, *supra* note 146, at 11–12.

148. James Bovard, *The Continuing Failure of Foreign Aid*, CATO POL’Y ANALYSIS NO. 65 (Jan.1986), available at <http://www.cato.org/pubs/pas/pa065.html>.

"Technology transfer is neither simple nor cost free."¹⁴⁹ There are significant costs in translating the technology into an economically, technically, and sometimes culturally appropriate form so that it is suitable for use in a developing country.¹⁵⁰ For example, the technology may require a steady power supply in a country where power outages are the norm, or the resulting products may need to be redesigned so that they do not need special handling in the marketplace. Under the existing technology transfer model, either a developed country creates incentives for its domestic industries to invest in developing nations, or private companies, for strategic market reasons, decide to invest in a developing country.¹⁵¹

Companies seeking to invest in developing countries face a host of problems, including distance from markets; poor infrastructure; lack of human capital (skilled labor); lack of local companies to provide ancillary goods and services; weak or no enforcement of contracts, property, and other laws; recipient country licensing, regulatory, and other policies that discourage or complicate investment; donor country policies that frustrate or complicate foreign direct investment; corruption; and political instability.¹⁵² Even in stable, democratic developing countries—with a well-established rule of law, skilled workforce, and appropriate infrastructure—there is information asymmetry. Plus, foreign companies may be unaware of the economic possibilities in these developing countries. Voluntary, unincentivized foreign direct investment is unlikely to become a widespread engine for development in lesser-developed countries,¹⁵³ except in developing countries with large populations, critical infrastructure, or natural resources, and even then, this investment-led development may only spread to those countries that are perceived as having potentially extremely lucrative markets.¹⁵⁴

149. GERVAIS, *supra* note 119, at 522; MASKUS, *supra* note 17, at 19 ("The bulk of econometric studies that incorporate measures of investment costs find that they significantly reduce FDI and MNE activity at all levels of development.").

150. See GERVAIS, *supra* note 119, at 522. See generally Peter J. Buckley, *International Technology Transfer by Small and Medium-Sized Enterprises*, 9 SMALL BUS. ECON. 67, 77-78 (1997) ("All the evidence suggests that SMEs will not, in aggregate, be the major suppliers and transferors of technology in the world economy. . . . In general, technology developed by the parent is transferred via an international network which relies rather heavily on joint ventures, alliances and licensing links rather than on foreign direct investment. The key international transfer mechanism is on-the-job training in the host country.").

151. See KEITH E. MASKUS, ENCOURAGING INTERNATIONAL TECHNOLOGY TRANSFER 33-35 (2004), available at http://www.iprsonline.org/unctadictsd/docs/CS_Maskus.pdf.

152. Many of these are also problems in the developed world, but there are sufficient returns to capital or rewards to justify the risks of entering these markets. Also as a matter of history and practical necessity, principles of the rule of law are well-established in many industrialized nations.

153. ORG. FOR INT'L CO-OPERATION & DEV., FOREIGN DIRECT INVESTMENT FOR DEVELOPMENT 29-30 (2002), available at <http://www.oecd.org/dataoecd/47/51/1959815.pdf>.

154. Strangely, this caveat sounds like the so-called BRIC countries. For example, regardless of China's intellectual property policies, or lack thereof, the size of the potential Chinese market tempted Western private industry with potential rewards—justifying what was perceived as a very high level of risk. Cf. MASKUS, *supra* note 17, at 19 ("Multinational firms are less attracted to the least developed countries in part because of their poor productivity levels in addition to other factors. Rather, affiliate activity tends to be higher

Coupling voluntary foreign investment with a donor country's incentive to support foreign direct investment does not substantially change the picture. As one prominent professor found:

First, few new initiatives have been reported; virtually all are continued from prior policy decisions. Second, there are virtually no programs aimed specifically at the LDCs, rather their benefits are available to all developing countries (or even developed countries). Third, the programs are largely in the form of technical assistance and capacity building, with payments typically made to source-country consultants for this purpose. Fourth, where assistance payments are made to developing countries for the purpose of technology acquisition, it is generally for recognized regional development purposes, such as within the EU or NAFTA. Fifth, measurement of the extent of technology transfer is typically restricted to the dollar value of the assistance provided rather than some meaningful measure of effectiveness or results in transferring information. Of course, it must be acknowledged that precise measurements of technology transfer are extremely difficult to make without revealing proprietary information. Sixth, some countries make available for transfer the results of certain public research programs, though the extent of active efforts to shape that information varies widely.¹⁵⁵

There are policies that developed countries could adopt that would make foreign direct investment or technology transfer more attractive to private industry, such as granting preferential access to their markets, structuring the tax code to encourage investment in developing countries, providing suitable financing for these investment projects, assisting in developing a skilled, healthy workforce, and promoting education.¹⁵⁶

C. PIRACY AS MARKET EFFICIENCY

This section will analyze whether uncompensated transfers or unlicensed uses of intellectual property promote development. This section also analyzes the putative effects of uncompensated transfers on utilitarian incentives—essentially, whether the supply, demand, and price structures of developing nations can be segregated from those of the developed world.¹⁵⁷ As discussed above, both foreign aid and technology

in countries with a reasonable supply of technical skills and access to an effective labour force.”).

155. MASKUS, *supra* note 17, at 35.

156. See generally Dirk Willem te Velde, *Understanding Developed Country Efforts to Promote Foreign Direct Investment to Developing Countries: The Example of the United Kingdom Transnational Corporations*, Dec. 2007, available at http://findarticles.com/pl/articles/mi_6790/is_3_16/ai_n30890020/; United Nations Conference on Trade and Development, Oct. 15, 2010, *Developing Productive Capacities in Least Developed Countries: Issues for Discussion*, available at http://www.unctad.org/en/docs/aldc20101_en.pdf.

157. This Article offers its advice with one significant caveat that developed countries may not look to the pricing structure of the pirated economy to determine developed countries prices. Demagogues may not point the lower developing country “pirated” price to contend those prices should be charged in the developed world nor make arguments that intellectual property rights holders are gouging consumers in the developed world, or complaints regarding developing countries free riding on the research investments of the devel-

transfer are inefficient modalities to support efficient economic development.¹⁵⁸ This Article assumes the unremarkable but debatable proposition that free markets are more efficient than regulated markets in allocating resources and promoting economic growth.¹⁵⁹

This Article then moves to the highly speculative assumption that a free marketplace in unlicensed intellectual property is more likely to promote economic development in developing countries than either direct foreign aid or incentivized technology transfer. Further, one lesson that may be drawn from history is that those countries that have successfully transitioned from developing or agricultural economies to developed or industrial economies all did so during periods of lax or no transnational enforcement of intellectual property rights. In fact, the development norm in history was not the enforcement of intellectual property rights but, instead, the positive flouting of the intellectual property rights of non-citizens as an aid to national development. Unlicensed uses may not have the unintended consequences of foreign aid. The individualized decisions of free market participants should assure that the negative externalities of uncompensated use are minimized, and unlike government programs, once the negative externalities are noted, the free market may act more quickly to ameliorate the inadvertent effects of transferred technology.

1. *Utilitarian Intellectual Property Rights*

There are many theories that justify the periods of legal exclusivity granted to intellectual property rights holders.¹⁶⁰ The utilitarian justification for intellectual property rights is that absent a period of time in which only the creator or inventor of intellectual property may exploit their work, there would be no economic incentive to create new works of

oped world. Further, “[m]ost of the clamor that pharmaceutical prices are unfairly low in foreign countries is based solely on anecdotal evidence.” Patricia Danzon, *The Price of Pharmaceuticals: International Comparisons and the Effects of Controls*, AM. ENTERPRISE INST. FOR PUB. POL’Y RES. (Dec.12, 2003), <http://www.aei.org/EMStaticPage/682?page=summary>. “Pharmaceutical price differentials across countries roughly reflect differences in income. Adjusting the price indices by per capita income suggests that drug price levels are actually slightly higher in other major markets. For the basket used in this study, drug prices in Canada are 4 percent higher than in the United States and are 25 percent higher in the United Kingdom. In Chile and Mexico, prices are nearly 430 percent higher than found in the U.S. when normalized for income. While the American public protests that drug prices abroad are too low, the data suggest that we in fact are asking low-income countries to contribute more for pharmaceuticals than they can reasonably afford.” *Id.* “Pharmaceutical R&D is a large, globally-joint fixed cost, where optimal pricing is a function of demand elasticities. Using income as a proxy for elasticity, we conclude that higher drug prices for high-income countries are both efficient and equitable. For the United States to artificially dampen prices through reimportation or price controls would create inappropriate price uniformity and lower social welfare.” *Id.*

158. See *supra* Parts IV.A–B.

159. WARWICK E. MURRAY, *GEOGRAPHIES OF GLOBALIZATION* 137–38 (David Bell & Stephen Wyn Williams eds., 2006).

160. See generally WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 3–4 (2003); Menell, *supra* note 26.

authorship or to create new inventions.¹⁶¹ This presupposes that, while intellectual property works require some investment to create, once works are created they are easily copied so that a competitor not bearing the costs of creation could undercut the price charged by the creator-investor and readily flood the market with cheaper reproductions of the protected work.¹⁶² This utilitarian justification for intellectual property rights requires an ongoing, careful calibration between incentives and the creation of new forms of intellectual property.¹⁶³ Unfortunately, rather than calibrating the intellectual property rights incentives necessary to create new intellectual property with the costs and returns on investment, the longest period of time and the most robust degree of exclusivity necessary to provide an incentive to develop the most costly copyrighted work or patented innovation then becomes the *de jure* norm for all forms intellectual property protection for different classes of works.¹⁶⁴ Consequently, for many industries and types of works, the term and scope of existing intellectual property protection is well in excess of the level of protection necessary to provide an adequate or reasonable incentive to create new intellectual property. Over time, the scope of intellectual property rights has been expanding. Subject matters such as genetics, business methods, and software are now patentable, and works created long ago, by authors who are long dead, are enjoying enlargement of copyright protection as their works are exploited in new mediums and the copyright term is constantly extended.¹⁶⁵ Therefore, because most forms of intellectual property are overprotected, in that the statutory incentives are well in excess of those reasonably necessary to provide a reasonable economic incentive to create new intellectual property, intellectual property holders are capturing a significant part of what should be the consumer surplus and imposing a significant deadweight loss on the economy.¹⁶⁶ As a result, some minor slippage or leakage of the intellectual property rights holders' claim to a "global zone" of exclusivity should have no effect on the necessary reasonable incentive structure to

161. See Bradford S. Simon, *Intellectual Property and Traditional Knowledge: A Psychological Approach to Conflicting Claims of Creativity in International Law*, 20 BERKELEY TECH. L.J. 1613, 1623–24 (2005).

162. See RICHARD A. SPINELLO & HERMAN T. TAVANI, *INTELLECTUAL PROPERTY RIGHTS IN A NETWORKED WORLD: THEORY AND PRACTICE* 5 (2004).

163. See Mark A. Lemley, *The Economics Of Improvement In Intellectual Property Law*, 75 TEX. L. REV. 989, 995–97 (1997). See generally WILLIAM M. LANDES & RICHARD A. POSNER, *THE POLITICAL ECONOMY OF INTELLECTUAL PROPERTY LAW* (2004) (published by the AEI-Brookings Joint Center for Regulatory Studies), available at http://www.aei.org/docLib/20040608_Landes.pdf.

164. Dan L. Burk & Mark A. Lemley, *Policy Levers In Patent Law*, 89 VA. L. REV. 1575, 1629–31 (2003).

165. See Ben Depoorter, *The Several Lives Of Mickey Mouse: The Expanding Boundaries of Intellectual Property Law*, 9 VA. J.L. & TECH 4, 8–14 (2003).

166. Rachelle Cooper Dreyfuss, *State Street or Easy Street: Is Patenting Business Methods Good for Business?*, U.S. INTELLECTUAL PROPERTY LAW AND POLICY 24 (Hugh C. Hansen ed., 2006).

create or innovate.¹⁶⁷ In economic terms, these unauthorized and uncompensated uses proposed in this Article decrease the deadweight loss on the economy and increase the consumer surplus without affecting the monopoly profits that the intellectual property rights holder enjoys as a reward for her creativity and industry. Because developing countries do not purchase licenses or licensed goods in any significant quantity, these unlicensed uses in developing countries should have little or no effect on the GDP or balance of payments (BOP) of the developed country.¹⁶⁸

2. *Piracy Is an Efficient Development Modality*

The question to be asked may be whether unlicensed uses are more efficient in promoting developmental goals than direct foreign aid or incentives for technology transfer. A market-driven policy for intellectual property or technology transfer that permits access to and use of intellectual property in response to market demand for technology or information in a local developing country's markets will promote development more efficiently than either direct foreign aid or technology transfers.¹⁶⁹ History teaches that uncompensated intellectual property transfers (piracy) as a developmental policy may have much to commend it because uncompensated transfers may mark an attempt to return to the well-worn paths that led to past successful economic development. Many now-developed nations passed through this stage of taking and exploiting uncompensated transfers of intellectual property.¹⁷⁰ This Article does not suggest that developed country intellectual property rights holders should grant developing countries an indefinite period or a blank check. Rather, as was discussed previously, at some level of economic development, nations start noticing that the economic development of *other* nations is free-riding on the intellectual property rights belonging to their citizens, and only then do these nations begin to develop strong domestic laws protecting intellectual property rights and, ultimately, become vocal advocates for strong international intellectual property protection.¹⁷¹ National self-interest and long-term economic development is the ultimate limitation on uncompensated uses.

167. See, e.g., *Eldred v. Ashcroft*, 537 U.S. 186, 249 (2003) (Breyer, J., dissenting) ("one might conservatively estimate that 20 extra years of copyright protection will mean the transfer of several billion extra royalty dollars to holders of existing copyrights—copyrights that, together, already will have earned many billions of dollars in royalty 'reward.'").

168. See U.N. DEV. PROGRAMME, HUMAN DEVELOPMENT REPORT 2010, THE REAL WEALTH OF NATIONS: PATHWAYS TO HUMAN DEVELOPMENT 8 (2010), available at <http://hdr.org/en/reports/global/hdr2010/> (last visited Feb. 8, 2011) (1.44 billion people live on \$1.25 or less per day.)

169. See generally ADAM SMITH, THE WEALTH OF NATIONS (1776), available at <http://www.econlib.org/library/Smith/smWN1.html>.

170. CHANG, *supra* note 57, at 85.

171. Yu, *supra* note 9, at 12; cf. DUNCAN MATTHEWS, GLOBALISING INTELLECTUAL PROPERTY RIGHTS: THE TRIPS AGREEMENT 111 (2002), available at <http://questia.com/pmast?a=0td=102810332> (discussing that as they developed domestic intellectual property assets, Hong Kong, Singapore, and Korea became strong proponents of the TRIPS Agreement).

Most individuals living in a market economy take it as a given that markets are better than the governments in allocating scarce resources.¹⁷² Markets supplied by unlicensed producers suffer from fewer transaction costs and are more responsive to local needs.¹⁷³ For example, unlicensed markets avoid the transactions costs associated with administering foreign aid. Free market piracy lacks the inefficiency of what is essentially a command economy of intellectual property or technology demand created by government policies. Unlicensed use is not a response to the political vagaries of the domestic or foreign policies of the donor or recipient countries, but rather, it is a response to the felt or perceived needs of market participants.

There is less inefficiency in a market for unlicensed uses in the delivery of the intellectual property; each market player receives the unit of intellectual property or technology that the market participant demands at a price that is responsive to its individualized needs and the marginal costs of production.¹⁷⁴ Prices for tangible embodiments of goods protected by intellectual property law may remain low because intellectual property rights will not serve as a barrier to market entry and the production of these goods. Potentially, there will be numerous entities competing to sell goods in the marketplace and thus, creating something that approximates a free market for these products.¹⁷⁵ Technology or intellectual property may be modified to suit local conditions without the transaction costs of negotiating a licensee agreement or seeking permissions.¹⁷⁶ Adaptation, or even imitative use, of technology to meet local needs is often the foundation of an independent local research and development sec-

172. See Frank A.G. den Butter & John Hudson, *Standardization and Compliance Costs: Relevant Developments at EU Level*, in BUSINESS REGULATION AND PUBLIC POLICY: THE COSTS AND BENEFITS OF COMPLIANCE 145–47 (Andre Nijsen et al. eds., 2009); Justin Fox, *The Growing Consensus on U.S. Competitiveness*, HARVARD BUS. REV. BLOGS (Sept. 29, 2010, 2:46 PM), <http://blogs.hbr.org/fox/2010/09/economists-vs-b-school-profess.html>; ANDRE NIJSEN ET AL., BUSINESS REGULATION AND PUBLIC POLICY: THE COSTS AND BENEFITS OF COMPLIANCE 145–47 (2009).

173. See Butter & Hudson, *supra* note 172.

174. See generally Nancy Gallini & Suzanne Scotchmer, *Private Orderings and Intellectual Property: What is the Best Incentive System?*, in LEGAL ORDERINGS AND ECONOMIC INSTITUTIONS 133–53 (earlier draft available at <http://levine.sscnet.ucla.edu/archive/scotchmer-when-is-ip-best.pdf>). Of course the marginal cost to the pirate does not include the very economically significant fixed costs of research, development, marketing, licensing, regulatory compliance, etc. that were paid by the intellectual property rights holder or investor.

175. *Id.* at 150 n.9. Of course, this Article is assuming away the effects any distortions in the market caused by organized crime or government corruption.

176. In the United States computer software is protected under copyright law as a literary work. Lateef Mtima, *So Dark The CON(TU) Of Man: The Quest For A Software Derivative Work Right In Section 117*, 69 U. PITT. L. REV. 23, 74 n.164 (2007). If a software licensee modifies copyrighted software even to remove “bugs,” the licensee risks creating an infringing unauthorized derivative work. *Id.* at 80 n.171; see also Berne Convention, *supra* note 101, art. 12 (“Authors of literary or artistic works shall enjoy the exclusive right of authorizing adaptations, arrangements and other alterations of their works.”). So modifying or adapting software or any copyrighted work for use in a developing country will require permission from the copyright owner.

tor.¹⁷⁷ If local industry has to understand a product in order to replicate it and then build, buy, or modify the technology to produce the product, these efforts will then result in truly effective technology transfer.¹⁷⁸ An industry in a developing country which is developed from independently reverse-engineering a product and the associated manufacturing process has gained more than one that merely received an instruction manual, foreign advisors, and a prefabricated factory. This, of course, may be less true in some industries than in others—for example, the mere digital duplication of copyrighted works will have less research and development spillover than developing an indigenous printing industry to pirate physical books.¹⁷⁹ And, the very least developed countries may lack any imitative industrial capacity. These countries may benefit greatly from unlicensed access to copyrighted scientific articles, educational materials, practical training manuals, or other materials that improve that country's human capital.

Moreover, industry in the developed nations may be unprepared or unwilling to meet the needs of developing countries. For instance a developing country may have a significant supply of computers that can only run v1.0 software. Producers in the developed world no longer support that version because the demand in the developed world is for v3.0 software, which only runs on computers with faster processors and more memory. Developing country industries may still desire to purchase first generation, fully functional—but by industrialized-nation standards—obsolete machinery that is still under patent protection. Yet, the patent owner may be unwilling or unable to provide the machinery, parts, or service in the developing country. In fact, the patent owner may not even be willing to license the patents for use in the developing world. In a developing country, technology that is obsolete in the developed world may be more appropriate, still useful, proven, and cheaper.¹⁸⁰

3. *Marginal Costs, Marginal Losses, and Foreign Aid as Marginal Compensation*

Academic and industry leaders approach the battle of high versus low barriers of intellectual property protection, in both the arena of public opinion and before legislative bodies, as an all-or-nothing, zero-sum

177. See PAZ ESTRELLA E. TOLENTINO, *TECHNOLOGICAL INNOVATION AND THIRD WORLD MULTINATIONALS* 46–47 (1993).

178. See Amy Jocelyn Glass & Kamal Saggi, *The Role of Foreign Direct Investment in International Technology Transfer*, in *INTERNATIONAL HANDBOOK OF DEVELOPMENT ECONOMICS* (Amitava Dutt & Jaime Ros eds.), available at <http://econweb.tamu.edu/aglass/DevHandbook.pdf>; Howard Pack & Kamal Saggi, *Inflows of Foreign Technology and Indigenous Technological Development*, *INFLOWS OF FOREIGN TECHNOLOGY AND INDIGENOUS TECHNOLOGY DEVELOPMENT*, 1 *REVIEW OF DEVELOPMENT ECONOMICS* 81 (1997), available at <http://onlinelibrary.wiley.com/doi/10.1111/1467-9361.00007/pdf>.

179. Fair Use Since the Digital Millennium Copyright Act of 1998 (unpublished manuscript), available at http://correctingcourse.columbia.edu/paper_tushnet.pdf (last visited Feb. 26, 2011); cf. KNELLER ET AL., *supra* note 37, at 8.

180. See RICHARD OUMA-ONYANGO, *INFORMATION RESOURCES AND TECHNOLOGY TRANSFER MANAGEMENT IN DEVELOPING COUNTRIES* 45 (1997).

game. But there is academic research that suggests that some policies governing spillovers and externalities may approach a Pareto optimal solution—benefiting both innovators and society at large in both developed countries and developing countries.¹⁸¹ Intellectual property and technology transfers are not zero-sum games; properly administered, they may actually change the size of the pie.¹⁸² Intellectual property is characterized by high costs of creation compared with the relatively low costs of subsequent reproduction.¹⁸³ While the cost of producing the first and subsequent units of intellectual property is relatively easy to calculate, calculating the losses caused by piracy of intellectual property is often problematic.¹⁸⁴

Accurately valuing the economic losses to intellectual property holders in developed countries is significant because the basis of the utilitarian model is the *assumption* that an intellectual property holder is entitled to a period of market exclusivity (or monetary damages when that exclusivity is breached) as an incentive to produce new innovation and creative works.¹⁸⁵ This section will briefly evaluate some of the problems in calculating the economic damages that intellectual property rights holders claim are caused by unlicensed use in the developing world. In the absence of evidence to the contrary, this Article assumes that the marginal cost per unit of unlicensed use (actual losses) in developing nations is relatively small. This Article also posits, while tacitly accepting, unlicensed uses in developing countries is the preferred model, and the economically less efficient solution (but the politically expedient one) may be for some developed nations to compensate their citizens for their *actual* losses caused by unlicensed use in developing countries, rather than to provide incentives for authorized technology transfer. Basically, foreign aid funds purchase “licenses” for developing countries rather than forcing compliance with existing, inefficient international intellectual property norms.

181. Bronwyn H. Hall, Contribution to the International Encyclopedia of the Social Sciences, Second Edition (unpublished manuscript), *available at* http://www.econ.berkeley.edu/~bhhall/papers/bhh06__less_rdf.pdf (last visited Feb. 8, 2011).

182. See FALVEY & FOSTER, *supra* note 88, at 9–16.

183. LYDIA PALLAS LOREN & JOSEPH SCOTT MILLER, *INTELLECTUAL PROPERTY LAW: CASES AND MATERIALS* 2–3 (2010).

184. See generally U.S. GOV'T ACCOUNTABILITY OFFICE, *INTELLECTUAL PROPERTY, OBSERVATIONS ON EFFORTS TO QUANTIFY THE ECONOMIC EFFECTS OF COUNTERFEIT AND PIRATED GOODS*, (Apr. 2010), *available at* <http://www.gao.gov/new.items/d10423.pdf>. In the United States, Congress recognized the problems inherent in determining actual damages and has permitted courts to use statutory damages as a proxy or effectuate other purposes that fall under the market-incentives created by intellectual property. See 17 U.S.C. § 504 (2006) (copyright); 15 U.S.C. § 1117 (2006) (trademark). Under the Patent Act, the court may award actual damages or a reasonable royalty or enhanced damages for willful infringement. 35 U.S.C. § 284 (2006). There are similar provisions in European law. See Directive 2004/48/EC of the European Parliament and the Council of 29 April 2004 on the Enforcement of Intellectual Property Rights, 2004 O.J. (L 195) 16.

185. See Aaron Xavier Fellmeth, *Copyright Misuse and the Limits of the Intellectual Property Monopoly*, 6 J. INTELL. PROP. L. 1, 5–6 (1998).

a. Marginal Costs of Production of Intellectual Property

Economically motivated innovators (inventors and authors) will not invest in the production of intellectual property unless their expected return on the investment is greater than the cost of their initial investment to produce the new "unit" of potentially patentable or copyrightable subject matter.¹⁸⁶ Intellectual property is non-rivalrous. Once the innovator creates the first unit of intellectual property, an imitative competitor (or pirate) or developing country user could immediately copy the intellectual property and compete in the marketplace at a lower price than the innovator. Accordingly, the innovator would lose sales to the imitator, the innovator would not be able to recoup its substantial investment in research and development; and eventually, there would be a scarcity of innovation and creative works because of a lack of investment.¹⁸⁷

In a utilitarian model system, it is an axiom that innovators ought to be rewarded.¹⁸⁸ The question under the existing global intellectual property regime is whether innovators are justly rewarded or unjustly enriched. One problem is that the consuming public remembers the blockbuster successes rather than the more numerous failures of innovators. While the public remembers Apple Computer's successful competitors in the marketplace—the Mac®, the iPod®, the iPhone®, and now the iPad®—many consumers do not remember some of Apple's numerous failures—the Lisa, the 15.5 pound Macintosh Portable®, the Newton®, and the CYBERDOG®.¹⁸⁹ Creators of blockbuster products must pay for the research and development that leads to development of the product, and they must also pay for the marketing of the product. But the revenues from a few blockbuster products must also pay for the costs of failed products, subsidize future research, and reward investment if there are to be new products.¹⁹⁰

Conceding that, under the utilitarian justification for intellectual property, a period of exclusivity is necessary in order to recoup investments, the question is whether the United States, the European Union, the developed world, the BRIC countries, or the known universe should be in the geographic scope of this market-exclusivity.¹⁹¹ The United States

186. JEAN TIROLE, *THE THEORY OF INDUSTRIAL ORGANIZATION* § 10.1 (1998).

187. *Id.*

188. See MERGES ET AL., *supra* note 26, at 10 (discussing competing methods of spurring innovation, such as prized or bounties, patronage, government funding, etc. and rejecting them in preference of a utilitarian approach). *But see* Adam D. Moore, Intellectual Property, Innovation, and Social Progress: The Case Against Incentive Based Arguments, 26 *HAMLINE L. REV.* 601, 613–22 (2003).

189. See, e.g., Rachel Rosmarin, *Apple's Biggest Duds*, *FORBES*, Mar. 31, 2006, available at http://www.forbes.com/2006/03/30/newton-apple-lisa_cx_tr_0331APPLEDUDS.html.

190. See SHAYNE C. GAD, *HANDBOOK OF PHARMACEUTICAL BIOTECHNOLOGY* 163 (2007).

191. Of course, a similar result could be achieved by changing the temporal duration of intellectual property rights. However, proposing a temporal duration solution is outside the scope of this Article because this Article presupposes minimal changes to the scope of the existing intellectual property rights regime and the economic incentives provided in the developed nations for the creation of intellectual property.

alone is a sufficiently large market to justify creating innovation and new copyrighted works.¹⁹² The United States is a sufficiently large market in which many non-U.S. companies pursue intellectual property protection.¹⁹³ With the exception of products designed for a specific subculture (for example, a non-English-language copyrighted work) or for specialized needs, most pharmaceutical products, medical devices, inventions, and copyrighted works would still be produced even if the only market for these products was the United States.¹⁹⁴ Assuming that the United States is not a sufficiently large market in which an innovator can recoup his or her investment by exploiting intellectual property rights, then continuing down this slippery slope the innovator could add the member states of the European Union.¹⁹⁵ If the United States and the European Union together are not sufficiently large, then she could add Japan, South Korea, Singapore, India, and China as additional markets.

At some point, long before considering entering the developing nations' markets (especially the LDCs), the potential market for the patented invention or the copyrighted work is sufficiently large so that even the largest expenditure in research, development, and marketing could potentially be profitably recouped so as to justify the initial investment.¹⁹⁶ With the limited exception of innovation that exclusively serves developing countries, for example, drugs that treat illnesses that are borne largely by individuals in the developing world, market exclusivity in the developed world alone should serve as an adequate incentive for most new innovation. Assuming, arguendo, that some innovations require the exclusive market to extend from developed nations to newly industrialized developing nations, it is still difficult to imagine why a period of geographic market exclusivity in the developing world is ever the extra marginal unit of incentive (revenue) that makes or breaks a decision to invest in that innovation.¹⁹⁷

192. See U.S. Census Bureau, *Statistical Abstract of The United States*, tbl. 683 (Average Annual Expenditures of All Consumer Units by Selected Major Types of Expenditure), available at <http://www.census.gov/compendia/statab/2011/tables/11s0683.pdf> (last visited Feb. 28, 2011).

193. See Nat'l Sci. Found., *Industry Technology and the Global Marketplace: Patented Inventions*, in SCIENCE AND ENGINEERING INDICATORS 2004, at 6-23 to 6-24, available at <http://www.nsf.gov/statistics/seind04/c6/c6s4.htm#c6s4l2> ("patents granted to foreign inventors generally accounted for about 45-47 percent of total U.S. patents granted").

194. The gross domestic product of the United States is \$14.59 Trillion. See Jeff Carter, *20/20 Hindsight*, <http://pointsandfigures.com/2010/07/08/2020-hindsight/> (last visited Feb. 8, 2011).

195. The gross domestic product of the European Union is \$14.89 Trillion. See Central Intelligence Agency, *European Union*, THE WORLD FACTBOOK, <https://www.cia.gov/library/publications/the-world-factbook/geos/ee.html>.

196. The reader is encouraged to slide down the slippery slope of incentive to decide when some developing country markets are not worth the trouble of exploiting.

197. The size of the theoretical markets in many developing countries would provide no additional incentive for additional R&D expenditures. Currently, the largest pharmaceutical companies spend more on R&D than the GDP of some of the poorest countries in the world. Compare *List of Countries by GDP (nominal)*, WIKIPEDIA, [http://en.wikipedia.org/wiki/List_of_Countries_by_GDP_\(nominal\)](http://en.wikipedia.org/wiki/List_of_Countries_by_GDP_(nominal)) (last updated Feb. 14, 2011) (includes the

b. Marginal Losses (Damages) of Piracy

The economic value and economic costs of intellectual piracy is at best speculative.¹⁹⁸ The actual market value of unlicensed use in the developed world, while certainly much less than in the developing countries, is a hotly debated topic.¹⁹⁹ The claimed losses experienced by intellectual property owners depend on how one defines a loss for the purposes of calculating damages. The market for pharmaceutical products is readily understood by consumers and is therefore an excellent example of the problem of determining the value of the loss to the rights holder because of so-called piracy.²⁰⁰ The proper measure is the actual value of the loss to the owner of a patented product or the copyrighted work. Unfortunately, measuring intellectual property damages is problematic: Is it the cost of the product had a licensed product been sold, the loss of the profits on the sale of a licensed product, the market price of the counterfeit copy, or the counterfeiter's profits on the sale?²⁰¹

GDPs of the least developed countries), with MedTrack, *Industry Statistics*, <http://www.medtrack.com/research/Istats.asp#list1> (last visited Feb. 15, 2011).

198. U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 183; WILLIAM PATRY, MORAL PANICS AND THE COPYRIGHT WARS 15–16 (2009) (discussing the proof of “losses” caused by Napster).

199. See generally U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 183.

200. Patented pharmaceutical or medical products that can be reproduced cheaply, but are only available at prohibitively expensive prices could be used to demonstrate this point as “[t]he UNDP Human Development Report 2000 notes that generic production of the HIV treatment flucanazole in India has kept the price at \$55 for 150 milligrammes compared with \$697 in Malaysia, \$703 in Indonesia and \$817 in the Philippines. Similarly, a report to the CESC has noted that the AZT treatment is produced at a supply cost of \$48 a month in India as compared with \$239 in the United States.” ECONOMIC & SOCIAL COUNCIL, UNITED NATIONS, ECONOMIC, SOCIAL, AND CULTURAL RIGHTS 13 (2001), *available at* [http://www.unhcr.ch/Huridocda/Huridoca.nsf/e06a5300f90fa0238025668700518ca4/590516104e92e87bc1256aa8004a8191/\\$FILE/G0114345.pdf](http://www.unhcr.ch/Huridocda/Huridoca.nsf/e06a5300f90fa0238025668700518ca4/590516104e92e87bc1256aa8004a8191/$FILE/G0114345.pdf) (last visited Feb. 8, 2011). In some developing countries it is not uncommon to spend 50% of the household income on out of pocket medical expenses. See U.S. AGENCY FOR INT'L DEV., TRACKING HOUSEHOLD HEALTH EXPENDITURES IN DEVELOPING COUNTRIES THROUGH MAJOR POPULATION-BASED SURVEYS 5 (2009), *available at* www.healthsystems2020.org/files/2312_file_HH_surveys_Fin.pdf.

201. Along this line of analyzing gain rather than loss, should one off-set the alleged loss by any positive effects caused by the piracy? Intellectual property law does not allow for these offsets, but the laws of economics should permit them when analyzing the effect of piracy on the market. For example, in the context of on-line music sampling, sampling is allegedly an infringing use, but it may also result in increased exposure and, possibly, increased sales to the copyright owner. See generally *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1018 (9th Cir. 2001). In the developing world, the better example is a copyrighted and patented operating system and office productivity suite. Locally, computer users cannot afford to pay hundreds of dollars for an operating system and a suite of office products—word processing, spreadsheet, presentation programs, etc. If a local user pirates the office productivity suite, it will develop an entrenched user base. Eventually, a developing country becomes sufficiently developed, and users will demand and be willing to pay for the licensed product. But if there is no piracy, the developing country users adopt a free-ware open-source solution. These users will quickly learn that an open-source operating system like Linux can compete with proprietary systems and that open office software can compete with its proprietary competitors on quality as well as cost. Eventually, as the developing country residents can afford to purchase proprietary software, the vendors of proprietary software will find barriers to entry: consumers will be satisfied with their free software or commercial entities will not want to face the expenses of purchasing the propri-

With a bit of thought, a conniving counterfeiter could construct measures that actually result in a net gain rather than a loss to the rights holder. For example, a pirate could prove that the purchase of the counterfeit simulates sales of complimentary licensed products (builds brand awareness), serves as “advertising” for the licensed product, or prevents competing licensed products from entering the marketplace. Pirated copies often keep competing open-source or domestically produced products out of the market thus eliminating competition and preserving “first mover” advantage for the intellectual property rights holder.²⁰²

In developing countries, there is little evidence of substituting the unlicensed product for purchasing an authorized, licensed product. At developed-country prices, a poverty-level worker in a developing country could spend more than one month’s income for one month’s treatment of an illness, or a music compact disc could represent more than twelve days of work. At developed-country prices, there is little or no market demand for even life-saving medicines in developing countries where earning \$1.25 a day is considered being above the poverty level.²⁰³ In sum, unlicensed production and sale of these products in a developing country will result in no more than nominal (if any) injury to the patent owner unless these unlicensed products are later exported to developed countries.²⁰⁴ So, this Article assumes that much of the internal domestic use of unlicensed intellectual property in developing nations does not result in a substitute for the purchase of or demand for the licensed product.²⁰⁵ If there is no substitution for demand and no substitution for actual purchase, the developed country rights holder is not injured, at least in the utilitarian sense under patent or copyright law. Of course, there may be reputational or injury to goodwill under principles of trademark law or moral rights, which are outside the scope of this Article.

In the easiest case, if there has been a substitution for the purchase of the licensed good by the purchase of a pirated product at the same price, then the damages are readily determined. But, in the event that the pur-

etary software as well as training their employees on its use. A modicum of piracy may be the cheapest method of brand development in many developing countries.

202. See, e.g., U.S. GOV’T ACCOUNTABILITY OFFICE, *supra* note 183, at 15; Kathleen Reavis Conner & Richard P. Rumelt, *Software Piracy: An Analysis of Protection Strategies*, 37 MGMT. SCI. 125–39 (1991); Lisa N. Takeyama, *The Welfare Implications of Unauthorized Reproduction of Intellectual Property in the Presence of Demand Network Externalities*, 42 J. OF INDUS. ECON. 155–66 (1994).

203. See Fund to Assist Ag in Developing Countries Could be Vital, AGWEEK, Sept. 21, 2010, <http://www.agweek.com/event/article/id/17166/>.

204. See *id.* In 2005, approximately 3 billion people earn \$2.00 or less per day. See World Bank Dev. Res. Group, *World Development Indicators: Poverty Headcount Ratio at \$2 a Day*, <http://data.worldbank.org/indicator/SI.POV.2DAY/countries> (last visited Feb. 8, 2011) (providing country-by-country statistics).

205. This Article assumes for the purposes of this analysis that pirated intellectual property is produced and consumed solely in developing countries that could not afford the market price established in the developed world. And, it also assumes that the circulation of these goods or services remains internal to the developing country or otherwise does not leak into the developed world in a quantity that affects the supply, demand, or developed country market price.

chaser would never have bought a licensed product, the harm to the intellectual property rights owner, if any, is totally speculative.²⁰⁶ This point may be demonstrated anecdotally by an example drawn from popular music. A recent popular song ranged in price from \$8.50 in India to \$20.50 in South Africa.²⁰⁷ But, in terms of local comparative purchasing power, the price of the same song ranged from only \$75 in Mexico to \$760 in India.²⁰⁸ A pirated copy in India costs between \$0.40 and \$1.20 in local purchasing power.²⁰⁹ This approximates the marginal costs of reproduction and includes a small profit for the pirates and other infringers.²¹⁰ One does not have to belabor this point to bring it home. Few if any purchasers, even in an affluent, developed country, would pay between \$75 and \$760 for a compact disc of popular music.²¹¹ Therefore, demand for popular music at those prices, even in the United States or European Union, would border on zero.²¹² Similarly, in the developing world, there is often little or no demand for the licensed product at the developed-country monopoly price.²¹³ Consequently, unlicensed uses do not result in actual lost sales.²¹⁴ So, there is no actual economic loss to the intellectual property rights owners, but these uses do result in a great benefit to the developing country.²¹⁵

Even in the poorest of countries, there are some individuals sufficiently affluent to pay the developed-country market price. This Article assumes that the few affluent individuals in a developing country will buy the licensed product either because the product is a Veblen or Giffen good, so that the quantity demanded is unresponsive to normal changes in price, or because of the quality assurance, warranty, or other benefits that accompany the licensed product. In theory, even in a developing country, the licensed and the unlicensed goods markets may remain largely separated. This paradigm of tacit toleration of unauthorized use is justified as

206. See, e.g., *On Davis v. Gap, Inc.*, 246 F.3d 152, 166 (2d Cir. 2001).

207. David Weinberger, *Piracy in Developing Countries*, JOHO THE BLOG (Feb. 2, 2010, 1:58 PM), <http://davidweinberger.sys-con.com/node/1270990>. See also KARAGANIS, *supra* note 89, at 56–58 (comparing the legal price, comparative purchasing power legal price, pirate price, and comparative purchasing power pirate price for two works in U.S., Russia, Brazil, South Africa, India, and Mexico).

208. See Weinberger, *supra* note 208.

209. *Id.*

210. *Id.*

211. *Id.*

212. *Id.* The author has done an exhaustive search of Amazon.com® and searched the web using the Google® search engine and was unable to find any individual music CDs in the \$75 to \$760 price range. The author assumes, *arguendo*, that in the United States or Europe, if there was an actual market for music CDs in this price range, someone would be producing CDs at these price points to meet this pent-up demand.

213. Rhetorically, it would seem to be an irrational exchange to trade ten days of subsistence wages for one music CD.

214. Cf. *The Impact of Digital Piracy on Music Sales: A Cross-Country Analysis*, INT'L SOC. SCI. REV., Sept. 2009, http://goliath.ecnext.com/coms2/gi_0199-12169443/The-impact-of-digital-piracy.html (even in the affluent, developed world it is debatable whether music downloading reduces sales of music).

215. See David Hurlbut, *Fixing the Biodiversity Convention: Toward a Special Protocol for Related Intellectual Property*, 34 NAT. RESOURCES J. 379, 392 (1994).

long as there is minimal or no leakage from the unlicensed sales marketplace into the licensed sales marketplace.²¹⁶ If there is significant leakage, then unlicensed goods will become cheaper substitutes for licensed goods, and the intellectual property owner will experience a real economic loss.²¹⁷ The utilitarian regime of intellectual property rights incentives in the developed nations may require a virtually impermeable barrier between licensed and unlicensed uses—that is, if the uncompensated technology or intellectual property transfer model proposed in this Article is not to undercut the intellectual property incentives that are assumed to underlie and motivate the creation of new intellectual property and if the model is to be politically palatable to governments and rights holders.²¹⁸ Under the circumstances posited in this Article, because there is no demand at the seller's prices (in developing countries), even though a rational seller could complete the transaction without a loss, other measures for assessing the rights-holder's damages also fail, such as a hypothetical arm's-length transaction because an arm's length transaction assumes both a willing seller and a willing buyer.

Rhetorically, at first blush, this Article's recommended approach of tacitly tolerating unauthorized uses that do not result in economic damages to the rights holder is readily condemned because it costs little to intellectual property rights owners and conveys great value to consumers in the developing world. Thus, intellectual property consumers or users in developing countries are *unjustly* enriched because they fail to pay the price demanded. It may just feel wrong or unfair for someone to "get" something for nothing. One must first presuppose the contentious assumption that intellectual property is an actual form of property, with rights that are closely analogous to real property or other forms of tangi-

216. Cf. Hsiu-Li Chen, *Gray Marketing: Does it Hurt the Manufacturers?*, ATL. ECON. J. 3–4 (Mar. 2009), at 3–4, available at http://www.entrepreneur.com/tradejournals/article/198413006_1.html (the effects of gray market or parallel imports on profits). This Article assumes that if gray market goods, which are legitimate but unauthorized for export in to the home market result in loss profits, then black market goods which are totally illegitimate will result in even a greater loss.

217. Cf. *id.*

218. This is a natural "assume a can opener" point. This Article contends that a policy of vigorous law enforcement in the developed world with the implacable use of self-help and technical protection measures—like digital rights management in copyright, packaging and supply chain control in patent and copyright, and the use of RFID chips and barcodes—can stop leakages into the developed countries when coupled with appropriate incentives to keep the pirate and their government "honest." See *AIDS, Drug Prices, and Generic Drugs*, AVERT, <http://www.avert.org/generic.htm> (last visited Feb. 28, 2011) ("Negotiations with Big Pharma have led to a system of 'tiered' pricing. Tiered pricing means that the price at which the big pharmaceutical companies sell their drugs is calculated using formulas based on average income per head, leading to lower prices in poor countries." For example, one could "require" that unlicensed pharmaceutical products must be readily distinguishable from the licensed product.).

ble property.²¹⁹ First, intellectual property rights are territorial.²²⁰ A claim of theft must therefore presuppose that the developed country's intellectual property rights owners actually have enforceable intellectual property rights in the developing country. As Professor Lemley demonstrated in his analysis of judicial opinions, the term *intellectual property* is of recent vintage.²²¹ "The rise of property rhetoric in intellectual property cases is accordingly closely identified not with common law property rules in general, but with a particular view of property rights as the right to capture or internalize the full social value of property."²²² Professor Lemley later concluded:

The assumption that intellectual property owners should be entitled to capture the full social surplus of their invention runs counter to our economic intuitions in every other segment of the economy. We do not permit producers to capture the full social value of their output. Nor do we permit the owners even of real property to internalize the full positive externalities associated with their property.²²³

Moral traditions support these unauthorized and uncompensated uses, and the legal claim against uncompensated transfers under the conditions described in this Article rests on weak grounds. Morally, one could analyze these uncompensated uses as akin to the theft of property.²²⁴ Legally this argument seems to rely on the well-developed doctrine of unjust enrichment.²²⁵ First, from the perspective of many developing nations, unlicensed uses are merely restitution or reparations based on a history of past colonial exploitation.²²⁶ Developing nations may also question the

219. See Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031, 1032 (2005) (arguing that "treating intellectual property . . . 'just like' real property is a mistake as a practical matter"). See generally SHERMAN & BENTLY, *supra* note 100 (discussing the legislative and judicial process by which products of the mind became cognizable as property).

220. Peter K. Yu, *Anticircumvention and Anti-Anticircumvention*, 84 DENV. U. L. REV. 13, 40 (2006). See, e.g., *Quality King Distribs., Inc. v. L'anza Research Int'l, Inc.*, 523 U.S. 135, 154 (1998) (Ginsburg, J. concurring) (copyright); *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 527 (1972) (patent).

221. Lemley, *supra* note 217, at 1033-34 (reporting that the historical number and percentage of IP cases using the term Intellectual Property was 9 (0.3%) in 1944-1954, 12 (0.3%) in 1954-1964, 20 (0.4%) in 1964-1974, 140 (3.2%) in 1974-1984, 743 (13%) in 1984-1994, and 3,211 (37.8%) in 1994-2004).

222. *Id.*; see also PATRY, *supra* note 56, at 109-32 (discussing the role of reifying intellectual property as real property in the copyright wars).

223. Lemley, *supra* note 217, at 1046.

224. In the physical property, in the case of a theft, the owner is actually deprived of control, possession, or use of property. Because intellectual property is not rivalrous, the "theft" can take place without the rights holder being aware of it or even suffering any measurable damages, thus, the injury ranges from the loss of the right or expectation of exclusive control to actual economic damages because of loss of sales or licensing revenues.

225. The concept of unjust enrichment is also recognized in civil law and international human rights. See, e.g., Margalynne Armstrong, *Reparations Litigation: What About Unjust Enrichment?*, 81 OR. L. REV. 771, 774 nn.15-16 (2002).

226. See *Governance by Multi-Nation Organizations and International Law*, 2 INT'L BUS. TRANSACTIONS § 25.5 (2010) ("The aspirations of developing nations of the 1970s, to achieve development through transfers (reparations for alleged abuses of colonialism, transfers of technology based on ideas being the patrimony of mankind rather than subject

legitimacy of an international intellectual property system that they did not participate in creating and does not recognize their claims of property rights in cultural knowledge or their natural biological resources.²²⁷

In the Judeo-Christian moral tradition, the *Bible* teaches:

For six years you are to sow your fields and harvest the crops, but during the seventh year let the land lie unplowed and unused. Then the poor among your people may get food from it, and the wild animals may eat what is left. Do the same with your vineyard and your olive grove.²²⁸

When you reap the harvest of your land, do not reap to the very edges of your field or gather the gleanings of your harvest. Do not go over your vineyard a second time or pick up the grapes that have fallen. Leave them for the poor and the foreigner. I am the LORD your God.²²⁹

These are clear statements of the moral claim of the poor to a surplus or a “free ride” that does not affect the owner’s legitimate interests in their property rights. Likewise, the Third Pillar of Islam is an obligation to give to the poor.²³⁰ One may suppose that most religions and moral teachings, although not defining property, do impose some obligation on property owners to share from their surplus with the needy in their community. As posited in this Article, developing countries have markets that cannot be effectively exploited by intellectual property owners in the developed world. Therefore, uncompensated use in these developing markets is akin to leaving the gleanings behind or not reaping to the very edge of the property right.²³¹

For the purposes of this Article, there seems to be little difference between the common and civil law concepts of unjust enrichment (legal claim),²³² so this Article will engage in a common law analysis of this

to private ownership, etc.), have been largely subordinated to a desire to achieve development through self help.”).

227. See Yu, *supra* note 9, at 10–15.

228. *Exodus* 23:10–11 (New Int’l Version).

229. *Leviticus* 19:10 (New Int’l Version); see also *id.* at 23:22; *Deuteronomy* 24:19.

230. See GEOFF TEECE, RELIGION IN FOCUS: ISLAM 16 (2004).

231. In theory, a rational, profit-maximizing intellectual property owner exercising robust price discrimination could accomplish the same development goals and reap these small incremental profits by plugging the leaks and providing these products at the marginal unit cost of production. *But see* WILLIAM J. BAUMOL, THE FREE-MARKET INNOVATION MACHINE: ANALYZING THE GROWTH MIRACLE OF CAPITALISM 133 (2002) (suggesting that price discrimination is difficult—maybe impossible in reality). However, this would not have the spill-over effects of the developing country having to create the infrastructure to produce the pirated goods. Direct foreign investment would still be required. The experience and skills developed producing unlicensed patented medicines could eventually be turned to producing lawful-generic or licensed pharmaceutical products. The presses that produce unauthorized books may also produce lawful public domain works or works by local national authors. These tangible and intangible spill-over effects or externalities are why this Article does not argue for the libertarian paradigm of a strong legal regime backed by strong technical protection measures that would facilitate robust, bordering on perfect, price discrimination.

232. Compare MEXICAN LEGAL DICTIONARY U120 (Jorge A. Vargas ed., 2009) (UNJUST ENRICHMENT (*Enriquecimiento Illegítimo*)) (“Under Mexico’s Civil Law, whoever be-

objection and analyze it in the context of U.S. law. The essence of a claim of unjust enrichment is that someone has benefited at the expense of another; therefore, the benefited person must pay compensation under a quasi-contract theory.²³³ Specific principles of the Restatement (Third) of Restitution and Unjust Enrichment that address unjust enrichment in the context of intellectual property may be more supportive of a claim of unjust enrichment than those provisions found in the Restatement (Second) of Contracts.²³⁴ Section 42 provides:

- (1) A person who obtains a benefit by misappropriation or infringement of another's legally protected rights in any idea, expression, information, image, or designation is accountable to the holder of such rights for the benefit so obtained.²³⁵
- (2) The measure of recovery depends on the blameworthiness of the defendant's conduct. As a general rule:
 - (a) A conscious wrongdoer, or one who acts despite a known risk that the conduct in question violates the rights of the claimant, will be required to disgorge all gains (including consequential gains) derived from the wrongful transaction.
 - (b) A person whose conduct is innocent or merely negligent will be liable only for the direct benefit derived from the wrongful transaction. Direct benefit may be measured, where such a measurement is available and appropriate, by a reasonable royalty or by the reasonable cost of a license.²³⁶

Assuming that the developed country rights hold actually has a legally protected intellectual property right in the developing country and that the Restatement of Restitution's scope reaches copyright and patent infringement, the first factor of the Restatement (Third) of Restitution test will easily be proven in many cases alleging the violation of intellectual property rights in the developing world. But there is still the second fac-

comes enriched without justification at the expense of another shall be obligated to indemnify the other person for his/her loss in the proportion of the former's enrichment (Art. 1882, FCC)), with BLACK'S LAW DICTIONARY 1573 (8th ed. 2004) ("unjust enrichment. 1. The retention of a benefit conferred by another, without offering compensation, in circumstances where compensation is reasonably expected. . . . 2. A benefit obtained from another, not intended as a gift and not legally justifiable, for which the beneficiary must make restitution or recompense.").

233. See George P. Roach, *Counting the Beans: Unjust Enrichment and the Defendant's Overhead*, 16 TEX. INTELL. PROP. L.J. 483, 493 (2008).

234. But see generally, RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT § 42 cmts. a-e (Tentative Draft No. 4, 2005).

235. See MASKUS, *supra* note 17, at 3. The rights holder would not have any intellectual property rights, but for the developing country's WTO/TRIPS obligations to provide protection for these rights pursuant to the TRIPS Agreement, principles of national treatment, TRIPS-plus, or other bilateral trade agreements. *Id.*

236. RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT § 42 (Tentative Draft No. 4, 2005). The Restatement (Third) of Restitution seems to add a level of moral culpability that may conceptually sound in tort law akin to the difference between negligence and recklessness or the various *mens rea* that distinguish between levels of criminal culpability under the penal code. One is not more unjustly enriched if he is an intentional infringer or an accidental infringer unless there is a difference in the economic value of the right to the infringer.

tor, the question of the remedy. Under the second factor, the analysis is bifurcated, and depending on blameworthiness, either the market price of a license or disgorgement of profits is the appropriate remedy.²³⁷ As demonstrated elsewhere in this Article, the market price in many developing countries for a licensed product borders on zero because there is little or no demand at the licensed price.²³⁸ Perhaps, the better interpretation of Section 42 is that it may require the developing-country infringer to disgorge profits.

“Profits” is a term of art in U.S. intellectual property law.²³⁹ Accordingly, the concept may not have the usual and customary dictionary meaning when determining damages in an intellectual property case. Under copyright law a court may award actual damages and profits.²⁴⁰ Damages are awarded to compensate the copyright owner for actual losses “attributable to the [act of] infringement.”²⁴¹ The Article assumes few or any lost sales or license royalties in a developing country. To claim profits, a copyright owner needs to merely show “the infringer’s gross revenue,” and then, the infringer must prove their deductible business expenses.²⁴² The copyright owner is only entitled to those profits that are attributable to the infringing activity.²⁴³ Under this definition, a developing country’s unlicensed industries that add value to the uncompensated use could have a very lucrative business even after disgorging profits related to the unjust enrichment or infringement to the copyright owner.²⁴⁴ Of course, a developing country may want to attempt to limit *losses* in this context to *actual lost sales*.

In *On Davis v. The Gap, Inc.*, the court wrestled with the issue of in-

237. Further, if the remedies under the state law claims of restitution are more draconian than the federal remedies under patent and copyright law for the infringement of these federally protected rights, then there are serious questions of federal preemption. In a case alleging the infringement of a utility patent, patent law does not allow as a remedy the “disgorgement of profits.” *Compare* *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 504–05 (1964), *with* *Catalina Lighting, Inc. v. Lamps Plus, Inc.*, 295 F.3d 1277, 1290–92 (Fed. Cir. 2002) (affirming that 35 U.S.C. § 289 authorized the disgorgement of profits in design patent infringement cases).

238. See *supra* Part IV.C.3.b.

239. See *INTELLECTUAL PROPERTY ASSETS IN MERGERS AND ACQUISITIONS*, 4-11 to 4-12 (Lanning G. Bryer & Melvin Simensky eds., 2002) (defining different methods of calculating profits attributable to intellectual property).

240. See 17 U.S.C. § 504 (2010). In the alternative, because of the problematic nature of calculating damages and because the damages attributable to the infringement may not provide an adequate incentive to bring the litigation or to discourage the infringing activity, the plaintiff may elect to ask the court to award statutory damages. See *PATRY, supra* note 76, at § 22:173 (2010).

241. *Abeshouse v. Ultragraphics, Inc.*, 754 F.2d 467, 469 (2d Cir. 1985) (quoting 17 U.S.C. § 504(b)).

242. 17 U.S.C. § 504(b).

243. See *id.*

244. Under U.S. copyright law, profits are limited to those profits attributable to the act of copyright infringement. See *id.* Therefore, to the degree that the infringer has added independent value, those profits belong to the infringer. See Andrew W. Coleman, *Copyright Damages and the Value of the Infringing Use: Restitutionary Recovery in Copyright Infringement Actions*, 21 *AIPLA Q.J.* 91, 94–98 (1993).

fringement without a corresponding direct loss to the copyright owner.²⁴⁵ In order to determine if a "foregone payment" could constitute "actual damages," the court accepted that:

If the infringer's venture turned out to be unprofitable, the owner can receive no recovery based on the statutory award of the "infringer's profits." And in some instances, there will be no harm to the market value of the copyrighted work. The owner may be incapable of showing a loss of either sales or licenses to third parties."²⁴⁶

The *Gap* court then concluded that:

The question is not what the owner would have charged, but rather what is the fair market value. In order to make out his claim that he has suffered actual damage because of the infringer's failure to pay the fee, the owner must show that the thing taken had a fair market value.²⁴⁷

Under patent law, "[l]ost profit damages are an assessment of actual damages (the profits the patentee [not the infringer] lost due to the infringement). In the event that lost profits cannot be calculated, reasonable royalty damages represent the floor of possible damages"²⁴⁸ The patent owner "must prove: (1) demand for the patented product, (2) absence of acceptable non infringing substitutes, (3) manufacturing and marketing capability to exploit the demand, and (4) the amount of the profit he would have made" in order to prove lost profits because of infringement.²⁴⁹ Under this test, developed-country patent owners will often be unable to show local demand for the patented product at the developed-country price, will find it difficult to show they have the marketing capability to serve a developing country, and will struggle to demonstrate that their alleged profits from legitimate sales are *not* speculative.²⁵⁰ To continue the refrain, if the fair market value is the market value as determined by the developing countries' internal marketplaces, this is not an onerous burden on intellectual property rights holders or unreasonable price point for developing countries to use to determine compensation even if one assumes that compensation is required by considerations of the developed country's internal politics.²⁵¹

245. On *Davis v. Gap, Inc.*, 246 F.3d 152, 166 (2d Cir. 2001) ("[T]he defendant has surreptitiously taken a valuable right, for which plaintiff could have charged a reasonable fee. Plaintiff's revenue is thus smaller than it would have been if defendant had paid for what he took. On the other hand, plaintiff's revenue is no less than it would have been if the defendant had refrained from the taking. In our view, as between leaving the victim of the illegal taking with nothing, and charging the illegal taker with the reasonable cost of what he took, the latter, at least in some circumstances, is the preferable solution.").

246. *Id.*

247. *Id.*

248. *DSU Med. Corp. v. JMS Co.*, 296 F. Supp. 2d 1140, 1148 (N.D. Cal. 2003).

249. *Id.* at 1148-49.

250. See U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 173, at 12-13.

251. Any calculation of the developing country price may be speculative, but courts often construct hypothetical arms length transactions to determine value. See, e.g., *Stickle v. Heublein, Inc.*, 716 F.2d 1550, 1563 (Fed. Cir. 1983).

Another measure of unjust enrichment, the increased value to the party (individual user or end-user infringer) is also unavailing. While listening to copyrighted music, viewing copyrighted movies, and reading copyrighted books all increase the “value” of the individual and his or her capacities as an employee, citizen, parent, and member of the human family, it is hard to place an economic value on this, if any, other than the value of the unjust enrichment at the marginal market price of the work in a developing country. Pharmaceuticals and other products that increase the quality and duration of life are equally hard to value. An individual who receives a drug that returns that person to being an economically viable member of society has received an increase in value, but any measure of that increase would be extremely speculative—and even then, not part of the legal value of the unjust enrichment. Therefore, the analysis once again returns to the question of the competitive (non-intellectual property premium) market price which this Article speculates will be a comparatively insignificant price in many developing countries.²⁵²

D. COMPENSATING RIGHTS HOLDERS FOR UNCOMPENSATED TECHNOLOGY TRANSFER OR A FOREIGN AID SUBSIDY

Developing countries need access to intellectual property at little or no cost to facilitate their economic development. The TRIPS Agreement, the WTO, the Paris Convention, and the Berne Convention all have sufficient flexibilities to permit developing countries to engage in unlicensed uses that do not threaten the incentives that drive investment, innovation, and the production of new works.²⁵³ Developed countries may strategically weigh the costs of infringement to their rights holders against the

252. See, e.g., RESTATEMENT (SECOND) OF CONTRACTS § 371 cmt. a, illus. 2 (1981). Section 371 of the Restatement (Second) of Contracts provides that the measurement of restitution in a case of unjust enrichment can be either “(a) the reasonable value to the other party of what he received in terms of what it would have cost him to obtain it from a person in the claimant’s position, or (b) the extent to which the other party’s property has been increased in value or his other interests advanced.” *Id.* § 371(a)–(b). As comment a of section 371 explains, the first measure is used to determine the market price of the service or product and this is measured from *the perspective of the unjustly enriched person*. See *id.* § 371 cmt. a. Compare RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT § 42 cmt. f (Tentative Draft No. 4, 2005) (“The minimum liability in restitution for benefits wrongfully obtained is the value of anything wrongfully taken from the claimant, whether or not the taking causes measurable harm to the claimant. . . . In the context of intellectual property, what is “taken” is often an unauthorized use; the value of the use may often be determined—depending on the nature of the property—by a reasonable royalty or by the market price of a license.”).

253. See generally Annette Kur, *Of Oceans, Islands, and Inland Water—How Much Room for Exceptions and Limitations Under the Three-Step Test?*, 8 RICH. J. GLOBAL L. & BUS. 287, 288, 301–04 (2009). The “third-step” in the three-step test to evaluate a limitation or exception from intellectual property treaty obligations requires that the exception or limitation be one that does “not unreasonably conflict with a normal exploitation of the [intellectual property right] and do[es] not unreasonably prejudice the legitimate interests of the [intellectual property] owner, taking account of the legitimate interests of third parties.” See Berne Convention, *supra* note 101, art. 9(2); Marrakesh Agreement, *supra* note 118; TRIPS, *supra* note 21, art. 30; *id.* arts. 13, 17, 26(2).

benefits conferred on the developing country and refrain from using the levers of power at their disposal to force compliance with the broadest possible interpretation of the scope of intellectual property rights. This can be done in several ways. Because tacit toleration of uncompensated uses of intellectual property by industrialized countries costs less than actually appropriating direct foreign aid, is more efficient at promoting development goals, and will have minimal or no economic effect on rights holders, it is a preferred model for providing foreign aid and promoting economic development. Unfortunately, policymakers in developed nations will face the politically unpalatable reality that intellectual property rights holders will shrilly complain that they are losing money, that the United States or the European Union is losing jobs, and that future research and innovation are being hindered.²⁵⁴ This Article posits that the effect of tolerated, uncompensated uses in developing countries on the market price, profits, and revenues in the developed nations would be nominal.²⁵⁵ Even if all the demand in all the developing countries by consumers who can afford a licensed product is aggregated, it would still represent a miniscule and insignificant portion of the potential global market, with the sole exception of products that are only designed for, or especially cater to, the needs of the developing world.²⁵⁶

254. See, e.g., BUSINESS ACTION TO STOP COUNTERFEITING & PIRACY, REPORT ON MISSION, ACHIEVEMENTS, WORK PLAN AND MEMBERSHIP 2 (2010), available at http://www.iccwbo.org/uploadedFiles/BASCAP/Pages/Prospectus_1005%20%282%29.pdf ("The OECD reports international trade in [counterfeit and pirated] products could be worth US\$250 billion. . . . [T]he global impact on legitimate business revenue is well over US\$750 billion. . . . The U.S. Chamber of Commerce estimates that C&P cost the U.S. 750,000 jobs annually. A recent BASCAP report estimates that digital piracy of creative works (film, TV, music, software) will put 1.2 million jobs at risk in the EU by 2015. The auto industry estimates 210,000 jobs per year are lost to counterfeit auto parts. And just a 10% reduction in software piracy would create 100,000 new jobs. . . . Avoided taxes on illicit products deprive governments of revenues for investment in infrastructure and other social priorities. BASCAP estimates for the G20 alone put losses to governments and consumers at over \$125 billion. . . . A European survey of small and medium sized companies found that 25% of decisions to invest in R&D or production were adversely influenced by considerations of IPR abuses."). But see U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 183, at 18–19 (questioning the data on which piracy and counterfeit estimates are made).

255. There may be another effect that is outside the scope of this Article. If developed-world intellectual property rights holders are prepared to sell a licensed product in the developing world at a price significantly below what they are currently charging in the developed world, then there will be howls of "price gouging" by their developed world customers or demagoguing politicians claiming that the licensed price in the developing country should be used as a negotiating tool to delegitimize the price in the developed country or to allege that the company is discriminating against developed country purchasers.

256. There are a variety of measures for defining the global middle class. Some experts define it as those individuals with between \$2 and \$4 per day per person in purchasing power. Others have used ranges from \$10 to \$100 per day per person depending on the country. See Homi Kharas, *The Emerging Middle Class in Developing Countries* 8–9 (OECD Dev. Ctr., Working Paper No. 285, 2010), available at <http://www.oecd.org/dataoecd/12/52/44457738.pdf>. It is clear that the global middle class outside of the developed countries are, at this point in time, marginal as factors driving actual demand for most licensed products.

This proposed model of a nuanced enforcement of intellectual property rights in developing countries is not unconstrained, and it may be properly applied with no affect on the utilitarian incentives that justify intellectual property rights law. Developed countries should stop turning a blind eye to unlicensed uses in developing countries only at the point where there is sufficient injury to their rights holders so that continued use may result in under-investment in the production of new intellectual property.²⁵⁷ Undeniably, this is not an objective test but rather a nuanced, individualized multifactor test with indeterminate factors that should be carefully weighed and applied industry-by-industry, product-by-product, firm-by-firm, and most importantly, individual-*developed* country by individual-*developing* country. This would not require a change in the global intellectual property regime; rather, it would merely require the selective enforcement and management of intellectual property rights through a judicious use of existing instrumentalities.²⁵⁸

A modicum of moral suasion may be applied by governments or consumers in the developed world to encourage rights holders to grant licenses or to provide their products in the developing world at a price approaching the marginal cost of production.²⁵⁹ The political process has already commenced to reframe these issues in the context of patented, life-saving pharmaceutical products from a focus on property rights and free-riding to a view that balances the patent incentives for innovation and the actual costs imposed on patent owners through compulsory licenses, with the social impact on providing these medicines in developing

257. See Ruth L. Okediji, *Public Welfare and the Role of the WTO: Reconsidering the TRIPS Agreement*, 17 EMORY INT'L L. REV. 819, 862 (2003) ("In an integrated market, intellectual property rights owners are united by their joint desire to maximize gains from the exclusive proprietary rights and the resulting market power that intellectual property protection affords. States are expedient agents to assist these citizens in accomplishing this goal in the international setting. However, securing the public policy and welfare objectives for having an intellectual property system is also the responsibility of the state.").

258. Cf. Marrakesh Agreement, *supra* note 118 (recognizing limits on the obligations of the LDCs as recognized by the United Nations); Decision of the General Counsel, *Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health*, WT/L/540 & Corr. 1 (Sept. 1, 2003), available at http://www.wto.org/english/tratop_e/trips_e/implem_para6_e.htm (waiving obligations regarding art. 31 of the TRIPS Agreement for least developed countries).

259. See Sara Fisher Ellison & Catherine Wolfram, *Coordinating on Lower Prices: Pharmaceutical Pricing Under Political Pressure*, 37 RAND J. ECON. 324, 337 (2006) (suggesting that "there was a political component to pharmaceutical pricing during the [Clinton era] health care reform debates. In particular, the firms we identified as more politically sensitive were more likely to engage in coordinated pricing, consistent with a pledge many firms made not to raise prices more than the rate of inflation."); see also *AIDS, Drug Prices and Generic Drugs*, AVERT, <http://www.avert.org/generic.htm> (last visited Feb. 28, 2011) ("Another significant event in drug price reduction also came in 2001 following an attempt by thirty-nine major pharmaceutical companies to prosecute the South African government for passing a law that allowed easy production and importation of generics. Big Pharma was eventually forced to back down and drop the case following a tremendous outcry from the international community including the South African government, the European Parliament and 300,000 people from over 130 countries who signed a petition against the action.").

countries.²⁶⁰ Alternatively, developed countries may purchase licenses from domestic intellectual property rights holders that permit developing countries, on reasonable terms, to exploit intellectual property.²⁶¹ If one accepts the market value for these products as the fair market price in a developing country, then the costs of these licenses will be nominal at best and licenses will be more readily affordable. The value of licensing rather than piracy is that rights holders may use license terms to protect critical markets and uses while permitting developing countries to use the intellectual property in a manner that has a minimal effect on the owner's profits. Uncompensated transfers are a one-size-fits-all solution, while licensing is a customizable solution that often benefits both parties. Further, a liberal or low price licensing regime reinforces international norms of intellectual property and reinforces the expectation that at some point developing countries become developed and will have to pay for continued uses of intellectual property. This avoids the slide into intellectual property anarchy.

V. CONCLUSION

Uncompensated intellectual property technology transfers, so-called intellectual property piracy, or old-fashioned free-riding by most developing countries, especially the Least Developed Countries, is the paradigmatic example of "he who lights his taper at mine, receives light without darkening m[in]e."²⁶² It often benefits the developing country without placing undue costs on the rights holders or taxpayers in developed countries. It may ameliorate suffering, promote development, and facilitate the ultimate creation of new markets where eventually the rights holders of the developed nations may exploit their intellectual property for a fair(er) price. One of the intended consequences of the WTO and the TRIPS Agreement was to close the so-called pirate route, the uncompensated use of intellectual property route, to economic development. Yet, the WTO and TRIPS Agreement's promises of promoting technology transfer did not provide an effective alternative route to development. The new purported road to economic development—developed countries granting incentives to the domestic companies to promote technology transfer or providing foreign development aid—is so far leading nowhere. Consequently, developing nations must once again look to the historic role models of countries that have successfully developed and follow these well-worn paths unless developed nations are prepared to develop new, untried, and perhaps risky modalities to support economic development and to also make a significant financial commitment to fund the economic development of the lesser-developed nations.

260. See MÉDECINS SANS FRONTIÈRES, *A MATTER OF LIFE & DEATH: THE ROLE OF PATENTS IN ACCESS TO ESSENTIAL MEDICINES 3* (2001), available at http://www.doctorswithoutborders.org/publications/reports/2001/doha_11-2001.pdf.

261. See KINGSTON, *supra* note 15, at 201.

262. Letter from Thomas Jefferson to Isaac McPherson (Aug. 13, 1813), available at <http://en.wikiquote.org/wiki/Copyright>.

This Article presupposes a utilitarian justification for intellectual property protection and concludes that properly managed “piracy” in the developing world does not affect the practical incentives provided by intellectual property rights in the developed world and its markets. If the developing country’s domestic-use market can be properly differentiated, segmented, or separated from the export, gray or parallel import markets in developed countries, then developing countries may follow the rich example of the developed world and enjoy a sustained period of an intellectual property rights subsidy without affecting intellectual property’s utilitarian incentive structure. A period of intellectual property piracy seems to be a natural developmental stage on the road to becoming a developed nation. Once these development goals have been met, the former outlaw pirate nation then becomes a zealous advocate for strong intellectual property protection internationally and domestically—thus, making strict adherence the norm. In sum, this Article merely encourages developed countries and intellectual property rights holders in developed countries to be tolerant of a limited scope of unlicensed intellectual property use (so-called piracy) in developing countries on a graduated scale according to that country’s level of economic development.

