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The Puzzle of Criminal Sanctions for Intellectual Property Infringement

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**THE PUZZLE OF CRIMINAL SANCTIONS FOR INTELLECTUAL
PROPERTY INFRINGEMENT**

*Irina D. Manta**

TABLE OF CONTENTS

I. INTRODUCTION	469
II. HOW THEFT BECAME CRIMINAL AND INTELLECTUAL PROPERTY INFRINGEMENT BECAME THEFT	473
III. THE PAST, PRESENT, AND POSSIBLE FUTURE OF CRIMINAL SANCTIONS IN INTELLECTUAL PROPERTY	480
<i>A. Criminal Sanctions in Copyright</i>	481
<i>B. Criminal Sanctions in Trademark</i>	485
<i>C. Criminal Sanctions for Patent-Related Offenses</i>	488
<i>D. Proposed Sanctions in Soft Intellectual Property and Patents</i>	489
IV. THE ROLES OF REASON AND POLITICS — UNPACKING THE CAUSES BEHIND THE LEGAL DISPARITIES	492
<i>A. Moral and Utilitarian Considerations</i>	492
<i>B. Public Choice Explanation</i>	505
V. CONSEQUENCES OF THE PUZZLE OUTSIDE OF PATENTS	512
VI. CONCLUSION	517

I. INTRODUCTION

Three areas dominate the universe of intellectual property law: copyright, trademark, and patent. While the owners of any of these forms of intellectual property (“IP”) can seek civil remedies to protect their goods, the law imposes criminal punishments only on copyright and trademark violators, and not patent infringers.¹ Why is that? This

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1. I would like to thank Ted Sichelman for our conversation on this subject.

Article argues that the disparity has arisen from both moral and utilitarian rationales and the political landscape of the patent industry. As this landscape shifts and the United States negotiates a wide variety of international agreements in the IP arena, however, political forces threaten to overpower the discourse on criminal sanctions in IP. This Article proposes an analytical and normative framework to understand the nature of these sanctions and provides guidance regarding the optimal role of such sanctions in IP law.

The disparity in the availability of criminal sanctions for different forms of IP subject matter is counterintuitive, as the following hypothetical demonstrates. Let us imagine that The Great New Media Company (“GNMC”) creates a novel type of disc on which data such as movies can be recorded. The disc is more durable than existing ones because its top layer consists of a newly invented material, and GNMC obtains a patent for this disc technology. An entertainment company named Awesome Movie Makers (“AMM”) decides to distribute one of its recent hit movies on the GNMC discs, and the two companies reach an agreement for this distribution. The disc with AMM’s movie is sold at major outlets and becomes a commercial success. John Doe, who runs an illicit bootlegging business, manages to produce discs that contain GNMC’s patented disc technology with the help of some other associates. He then copies AMM’s hit movie onto a set of the discs and decides to sell them on the street. To feign legitimacy, he affixes a label on each disc that uses AMM’s trademarked logo and reads “Endorsed by Awesome Movie Makers.”

Doe’s scheme is uncovered and the local federal prosecutor decides to pursue him criminally for his willful actions. He faces charges for criminal copyright infringement for copying and selling AMM’s movie illegally. He is similarly confronted with criminal sanctions for his use of AMM’s trademarked logo. The prosecutor, however, cannot charge Doe with any crimes related to his infringement of GNMC’s patent. GNMC can try to recover losses through a civil patent infringement lawsuit, just as AMM can initiate civil suits for copyright and trademark infringement, but Doe’s actions against GNMC will remain unpunished by the criminal law. This appears particularly puzzling given that his motivation — to make a profit from the willful copying of protected material — is the same with respect to all three types of infringement, and given that similar actions ran afoul of the three IP regimes.

One could argue that we have departed from the sentiment expressed in the British judge Sir James Eyre’s 1774 statement that “[a] mechanical Invention and a literary Composition exactly agree in Point of Similarity; the one therefore is no more entitled to be the Ob-

ject of Common Law Property than the other.”² Is the United States treating “soft” IP (i.e., copyrights and trademarks) more like property than it does patents by criminalizing “theft” of the former but not the latter? In any case, some commentators have claimed that large companies and individuals are on a “tilted playing field”³ with respect to their respective IP rights: “If you violate the rights of a big corporation by transferring a song or movie they own without payment, they can have you hauled away. If they steal your invention, all the onus for prosecution is on you and the worst that can happen is they write a check.”⁴ One may conclude that the criminal law ought to correct this imbalance.

The question of introducing criminal sanctions for patent infringement is far from purely theoretical: the European Union seriously debated for several years the introduction of such sanctions and only dropped the idea under great pressure from information technology (“IT”) companies and grassroots organizations.⁵ If the EU does eventually choose to adopt criminal penalties, this would deepen a longstanding divide between the United States and several other countries; one article noted in 1935 that “[i]n many foreign countries, the willful infringement of a patent is punishable by fine or imprisonment or both,”⁶ and its author went on to name twenty-three countries where this was the case.⁷ Numerous countries still have criminal provisions for patent law infringement, with varying levels of enforcement.⁸ Currently, the United States and other countries have released the finalized text of the Anti-Counterfeiting Trade Agreement (“ACTA”), which would strengthen the enforcement of both civil and criminal sanctions for IP infringement to help stem counterfeiting and

2. Nigel Stirk, *Intellectual Property and the Role of Manufacturers: Definitions from the Late Eighteenth Century*, 27 J. HIST. GEOGRAPHY 475, 478 (2001).

3. Dana Blankenhorn, *Time To Criminalize Patent Violations?*, SMARTPLANET (Sept. 2, 2009), <http://www.smartplanet.com/technology/blog/thinking-tech/time-to-criminalize-patent-violations/1268/>.

4. *Id.*

5. See, e.g., Paul Meller, *Odd Coalition Opposes Criminalizing Patent Violations*, N.Y. TIMES, Dec. 10, 2005, at C4, available at http://www.nytimes.com/2005/12/10/business/worldbusiness/10patent.html?_r=1.

6. John Boyle, Jr., *May Patent Infringement Be a Criminal Conspiracy?*, 17 J. PAT. OFF. SOC’Y 529, 529 (1935).

7. *Id.* (“Among these countries are France, Germany, Italy, Austria, Denmark, Norway, Sweden, Spain, Bulgaria, Greece, Luxemburg, Persia, Poland, Argentine Republic, Bolivia, Brazil, Chile, Ecuador, Guatemala, Honduras, Paraguay, Peru and Uruguay.”).

8. See, e.g., Eric Le Forestier, INTERNATIONAL FEDERATION OF INTELLECTUAL PROPERTY ATTORNEYS, REPORT ON WORKSHOP 2 — RKRIMINAL SANCTIONS OF IP INFRINGEMENT” (2007) (explaining criminal sanctions in Austria, Italy, Brazil, and other countries); Siriporn Denkesineelam, *Intellectual Property in Thailand*, HG.ORG (June 30, 2010), <http://www.hg.org/article.asp?id=19222> (discussing criminal punishments for patent infringement in Thailand); Kazuo Iwasaki, *Intellectual Property Protection in Japan*, IWASAKI KAZUO, http://homepage3.nifty.com/Prof_K_Iwasaki/lawdb/japan/invstmnt/intpp-en.html#PAT4 (last visited May 6, 2011) (mentioning the availability of such sanctions in Japan).

piracy in international trade;⁹ the main focus of ACTA, however, is soft IP rather than patent infringement.¹⁰ Even so, the discussions surrounding ACTA have sparked interest in a variety of matters concerning criminal enforcement of IP infringement.¹¹

Multiple theories could explain why the United States has criminalized copyright and trademark infringement but not patent infringement. There could be a moral or utilitarian distinction between soft IP and patents, and the differing availability of criminal sanctions may be warranted because infringers of soft IP cause more harm and/or require harsher punishments for deterrence than infringers of patents.¹² Alternatively, perhaps criminalizing soft IP infringement provides the proper balance of incentives for creators by giving them the safety of added protections for their works, whereas it would overly deter inventors in the patent context. Another possible explanation for the distinction is a public choice rationale: while a number of industries lobby for stronger protection for soft IP (especially copyright), different industries are at odds with one another regarding the proper level of protection for patents.¹³ As this Article will demonstrate, all of these elements play a role in shaping criminal IP laws.

Part II explores the justifications for criminal sanctions in the property arena and their potential application to IP violations. Part III discusses the existence or non-existence of criminal sanctions for different forms of IP infringement and shows how recent international developments may influence the future course of the law in the United States. Part IV examines in more detail some of the explanatory theories for the disparity, including those based on morality, utilitarianism, and public choice. Part V draws normative conclusions for IP outside of patent law based on the insights developed in Part IV, focusing especially on the issue of non-commercial violations of copyright law. Part VI concludes.

9. See *Anti-Counterfeiting Trade Agreement (ACTA)*, OFF. OF THE U.S. TRADE REPRESENTATIVE, <http://www.ustr.gov/acta> (last visited May 6, 2011).

10. See *Anti-Counterfeiting Trade Agreement*, Dec. 3, 2010 [hereinafter ACTA December Draft], available at http://www.ustr.gov/webfm_send/2417.

11. For instance, a number of authors are working on a collaborative book project that examines the international dimensions of criminal enforcement, mainly discussing the fight against trademark counterfeiting and copyright infringement and presenting the national experiences of several countries with these soft IP issues. See *CRIMINAL ENFORCEMENT OF INTELLECTUAL PROPERTY: A BLESSING OR A CURSE?* (Christophe Geiger ed., forthcoming 2011).

12. This is, of course, a contested point, as this Article will discuss. See *infra* Parts IV–V.

13. I would like to thank Craig Nard for our discussion about this theory.

II. HOW THEFT BECAME CRIMINAL AND INTELLECTUAL PROPERTY INFRINGEMENT BECAME THEFT

Many trace the criminalization of IP back to much earlier developments in property law. This Part analyzes the justification of criminal sanctions for infringements on property law, such as theft, and explains the rationales for applying some of these principles to IP law. This is not an attempt to resolve the perpetual questions of whether IP qualifies as property, or whether the answer to that question depends on the type of IP involved.¹⁴ Rather, this Article recognizes that as a matter of *historical record*, policymakers have largely relied upon analogies to property law in their decisions to introduce and legitimize criminal sanctions for violations of IP laws. It is thus both necessary and useful to begin with an understanding of how governments and scholars have justified criminalizing violations of property law, and how this reasoning was later — for better or for worse — extended to the IP arena.

Much of the legislative and scholarly rhetoric in the United States and abroad characterizes some forms of IP infringement as “theft,”¹⁵ a term that one traditionally encounters when dealing with illegitimate takings of tangible property. Black’s Law Dictionary defines theft as the “felonious taking and removing of another’s personal property with the intent of depriving the true owner of it.”¹⁶ The traditional “bundle of rights” in property mainly contains “the rights to possess the property, to use the property, to exclude others from the property,

14. The list of scholarly articles on this topic is long. See, e.g., Stephen L. Carter, *Does It Matter Whether Intellectual Property Is Property?*, 68 CHI-KENT L. REV. 715 (1993); Frank H. Easterbrook, *Intellectual Property Is Still Property*, 13 HARV. J.L. & PUB. POL’Y 108 (1990); Richard A. Epstein, *Liberty Versus Property? Cracks in the Foundations of Copyright Law*, 42 SAN DIEGO L. REV. 1 (2005); F. Scott Kieff, *Property Rights and Property Rules for Commercializing Inventions*, 85 MINN. L. REV. 697 (2001); Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031 (2005); Adam Mossoff, *Is Copyright Property?*, 42 SAN DIEGO L. REV. 29 (2005); Henry E. Smith, *Intellectual Property As Property: Delineating Entitlements in Information*, 116 YALE L.J. 1742 (2007).

15. See, e.g., Cheng Lim Saw, *The Case for Criminalising Primary Infringements of Copyright — Perspectives from Singapore*, 18 INT’L J.L. & INFO. TECH. 95, 102 (2010) (“Because intellectual property is recognised and treated as a species of property, criminalising primary infringements of copyright may be legitimized on the same basis as offences concerning the violation of general property interests, such as the law of theft.”); Lauren E. Abolsky, Note, *Operation Blackbeard: Is Government Prioritization Enough To Deter Intellectual Property Criminals?*, 14 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 567, 598, 602 (2004). But see Brian M. Hoffstadt, *Dispossession, Intellectual Property, and the Sin of Theoretical Homogeneity*, 80 S. CAL. L. REV. 909, 958 (2007) (“Despite the attractiveness of treating all property similarly and hence equating criminal infringement of intellectual property rights with the theft of tangible property, this homogenous approach overlooks the salient fact that the intrusion occasioned by these two types of criminal activity is theoretically distinct.”).

16. BLACK’S LAW DICTIONARY 1615 (9th ed. 2009).

and to dispose of the property by sale or by gift.”¹⁷ Theft, of course, interferes with each one of those rights because individuals by definition lose control over what they own once it is taken from them. Societies have long supplemented the declaration that theft is against God’s will — represented for instance in the Bible by the commandment, “Thou shalt not steal”¹⁸ — with the threat of earthly punishment to deter would-be offenders more effectively.¹⁹ Early societies implemented particularly harsh punishments for theft, such as the Roman Empire and its routine use of the death penalty.²⁰ These severe punishments persisted until the relatively recent past; for instance, England did not renounce the death penalty for shoplifting or for stealing sheep, cattle, and horses until 1832.²¹ While most countries have now abolished the death penalty for theft,²² they continue to provide a variety of harsh punishments for the offense, including imprisonment.

One scholar explains that criminal law and IP began intersecting “largely because of increases in the value of intangible property and growth in its variations.”²³ Then, as policymakers began applying criminal law to IP offenses, the intangible material in question became increasingly “propertize[d]”²⁴ and the discussion mostly shifted from whether IP infringement should be criminalized at all to which particular instances of infringement merit criminal punishment. This may have dovetailed with the larger trend in the criminalization of theft given that there has been a

17. *Moore v. Regents of Univ. of Cal.*, 793 P.2d 479, 509 (Cal. 1990) (Mosk, J., dissenting).

18. *Exodus* 20:15.

19. See Paul M. Schoenhard, *Who Took My IP? — Defending the Availability of Injunctive Relief for Patent Owners*, 16 TEX. INTELL. PROP. L.J. 187, 191 (2008) (“A property right without an enforcement mechanism is meaningless.”). But see Shyamkrishna Balganesh, *Demystifying the Right To Exclude: Of Property, Inviolability, and Automatic Injunctions*, 31 HARV. J.L. & PUB. POL’Y 593, 595–96 (2008) (presenting a model that justifies the right to exclude apart from the availability of remedies).

20. Richard A. Epstein & Thomas P. Brown, *Cybersecurity in the Payment Card Industry*, 75 U. CHI. L. REV. 203, 204 (2008).

21. John D. Bessler, *Revisiting Beccaria’s Vision: The Enlightenment, America’s Death Penalty, and the Abolition Movement*, 4 NW. J.L. & SOC. POL’Y 195, 316 n.885 (2009); Richard Clark, *Timeline of Capital Punishment in Britain*, CAPITAL PUNISHMENT U.K., <http://www.capitalpunishmentuk.org/timeline.html> (last visited May 6, 2011). Before abolition of the death penalty for theft, “English law was notorious for prescribing the death penalty for a vast range of offenses as slight as the theft of goods valued at twelve pence.” John H. Langbein, *The Historical Origins of the Sanction of Imprisonment for Serious Crime*, 5 J. LEGAL STUD. 35, 54 (1976).

22. China remains an exception. See, e.g., AMNESTY INT’L, PEOPLE’S REPUBLIC OF CHINA: EXECUTED “ACCORDING TO THE LAW”? THE DEATH PENALTY IN CHINA (2004), <http://www.amnesty.org/en/library/asset/ASA17/003/2004/en/3342bc0c-d642-11dd-ab95-a13b602c0642/asa170032004en.html>.

23. GERALDINE SZOTT MOOHR, *THE CRIMINAL LAW OF INTELLECTUAL PROPERTY AND INFORMATION: CASES AND MATERIALS* 2 (2008).

24. *Id.*

long history of expansion of the role of the criminal law in protecting property. That history begins with a concern for crimes of violence — in the present context, the taking of property by force from the possession of another, *i.e.*, robbery. The criminal law then expanded, by means of the ancient quasi-criminal writ of trespass, to cover all taking of another's property from his possession without his consent, even though no force was used. This misconduct was punished as larceny.²⁵

When it comes to IP, the law went a step further. Not only is force rarely involved in IP infringement, but the law must grapple with the question of what exactly is taken or stolen. Indeed, because IP tends to be both intangible and non-rivalrous, its infringement causes at most a reduction in value as opposed to a genuine “taking” of the good. Perhaps in the criminal context such infringement would often be more akin to other property crimes than it is to theft.

There are, for instance, some analogies between IP infringement and vandalism in that both potentially cause a reduction in the value of goods rather than a complete deprivation thereof. Vandalism — also known as “malicious mischief,” “criminal mischief,” or “criminal damage to property” — is often covered by statutes that determine the level of punishment based on the degree of damage inflicted, as measured by the cost of potential repairs or reduction of fair market value.²⁶ Another act that leads to the diminution but not elimination of the value of property is criminal conversion, which involves “knowingly or intentionally exert[ing] unauthorized control over the property of another person.”²⁷ The idea behind criminal punishments for offenses such as vandalism and conversion is that ownership extends further than the simple holding of legal title to a good and the ability to transfer such title. Rather, as indicated earlier in this Part, ownership under the traditional understanding is a “bundle of rights” that includes the ability to maintain the integrity of a good (hence the prohibition on vandalism) and to control who uses it at what time and in what location (hence the crime of conversion).

This ability to preserve economic value and dispose of one's property has certainly not been recognized as a legal absolute. Much of property law and scholarship precisely seeks to delineate — often in the context of land ownership — the scope of an owner's rights, the point at which other individuals impermissibly infringe on those

25. MODEL PENAL CODE § 223.1 cmt. 2(a) (1980).

26. 52 AM. JUR. 2D *Malicious Mischief* § 1 (2010).

27. 18 AM. JUR. 2D *Conversion* § 156 (2010).

rights,²⁸ and to what extent government regulations are allowed to chip away at them.²⁹ Of course, not all potential violations in these areas result in punishments under criminal statutes, nor should they, but the general principle that economic harm to property can give rise to criminal sanctions is uncontroversial. Conversely, there are situations in which the law punishes conduct that interferes with property rights even when no economic harm takes place; an example is trespass, which encompasses “[a]n unlawful act committed against the person or property of another [and especially] wrongful entry on another’s real property.”³⁰ Certain forms of trespass are considered “criminal trespass” if they consist of unlawful behavior such as invading land “clearly marked against trespass” or remaining on a piece of property after an authorized person has ordered one to leave.³¹ Hence, historically, economic harm to property has been neither necessary nor sufficient to result in criminal sanctions, although it has played an important role in many such determinations.

Under principles of morality, it can be argued that conduct should be criminalized only when it meets several criteria. One scholar has claimed that, at a minimum:

Penal statutes must proscribe a nontrivial harm or evil; hardship and stigma may be imposed only for conduct that is in some sense wrongful; violations of criminal laws must result in punishments that are deserved; and the burden of proof should be placed on those who advocate the imposition of criminal sanctions.³²

To understand the criminalization of property violations, it makes sense to focus on the first two factors, nontrivial harm and wrongful conduct. The most obvious harms caused by violations such as theft

28. The law of nuisance is an example of an area of the law that studies such questions. *See, e.g.*, *Boomer v. Atl. Cement Co.*, 257 N.E.2d 870 (N.Y. 1970) (delineating some of the contours of nuisance law); *Morgan v. High Penn Oil Co.*, 77 S.E.2d 682 (N.C. 1953) (same).

29. Zoning and exercising the power of eminent domain are both government activities that raise this question, as do environmental regulations. *See, e.g.*, *Kelo v. City of New London*, 545 U.S. 469 (2005) (interpreting the “public use” provision of the Takings Clause of the Fifth Amendment to the Constitution); *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365 (1926) (declaring a zoning ordinance constitutional).

30. BLACK’S LAW DICTIONARY 1642 (9th ed. 2009). Admittedly, one could argue that trespass inflicts some economic harm on a property owner if he wants to sell the property and a potential buyer knows that trespassers abuse its boundaries.

31. *See id.*

32. DOUGLAS HUSAK, *OVERCRIMINALIZATION: THE LIMITS OF THE CRIMINAL LAW* 103–19 (2008) (describing the proper boundaries of the criminal law and arguing that our legal system has overstepped them); *see also* Darryl K. Brown, *Can Criminal Law Be Controlled?*, 108 MICH. L. REV. 971 (2010) (responding to Husak’s claims).

are the loss of wealth to property owners and the potential disincentive for such owners to engage in future productive and socially beneficial endeavors because their resulting profits are at risk of being stolen. In addition to endangering personal wealth and discouraging economic production, however, a thief can “upset the social order not only by threatening property, but by violating the general sense of security and well-being of the community.”³³ Crimes such as vandalism and trespass also have the potential to destabilize the community, even when they inflict minimal or no damage in a particular case. In terms of wrongfulness of the defendant’s conduct, convictions for such property crimes generally require evidence that the defendant intended to commit the illegal actions in question.³⁴ While the exact degree of “wrongfulness” may differ by defendant and crime, one can assume that the vast majority of criminals in the property context are quite aware that the property against which they are infringing does not belong to them and that their actions are illegal.

The Supreme Court came closest to expressing its views on the relationship between IP and theft in *Dowling v. United States*,³⁵ where the Court held that a National Stolen Property Act (“NSPA”) provision criminalizing the interstate transportation of stolen property did not cover bootleg records.³⁶ The defendant had transported bootleg phonorecords that contained copyrighted musical compositions by Elvis Presley, and the government argued that “the unauthorized use of the musical compositions rendered the phonorecords ‘stolen, converted or taken by fraud’ within the meaning of the statute.”³⁷ The Court disagreed, stating: “The copyright owner . . . holds no ordinary chattel. A copyright, like other intellectual property, comprises a series of carefully defined and carefully delimited interests to which the law affords correspondingly exact protections.”³⁸ As a result, “infringement implicates a more complex set of property interests than does run-of-the-mill theft, conversion, or fraud.”³⁹ The key distinctions that the Court drew between copyright and property are that one can neither “assume physical control over the copyright[,] nor . . . wholly deprive its owner of its use.”⁴⁰ The Court also reasoned that Congress could have directly imposed additional criminal sanctions for the transportation of copyrighted materials if it wished to do so,

33. George P. Fletcher, *The Metamorphosis of Larceny*, 89 HARV. L. REV. 469, 474 (1976).

34. For instance, “an intent to steal . . . is the traditional mens rea of theft.” Laurie L. Levenson, *Good Faith Defenses: Reshaping Strict Liability Crimes*, 78 CORNELL L. REV. 401, 428 (1993).

35. 473 U.S. 207 (1985).

36. *See id.* at 228–29.

37. *Id.* at 214–15.

38. *Id.* at 216.

39. *Id.* at 218.

40. *Id.* at 217.

and that the legislative history of criminal provisions for copyright infringement did not suggest that Congress intended such additional sanctions.⁴¹ The opinion further expressed concerns that if copyright fell under the purview of the NSPA, then patents and trademarks might as well.⁴² This possibility troubled the Court because infringement of patents had so far not been criminalized, and trademark infringement had just recently been criminalized and only in the very limited context of counterfeiting.⁴³

Justice Powell authored a dissenting opinion joined by two other Justices, which argued that the NSPA does not seem to distinguish between tangible and intangible forms of property.⁴⁴ In addition, he wrote, “[a]lthough the rights of copyright owners in their property may be more limited than those of owners of other kinds of property, they are surely just as deserving of protection.”⁴⁵ The dissent believed that the defendant’s acts should plainly be viewed as forms of theft, unauthorized use, and conversion.⁴⁶ It is unclear to what extent the majority and the dissent would have actually disagreed if simply asked to analyze the parallels between the criminalization of IP infringement and that of various offenses against physical property, while leaving aside the question of interfering with legislative intent in copyright matters.⁴⁷

While *Dowling* represented the last Supreme Court pronouncement on this matter, lower courts have distinguished the case in some relevant instances. Most saliently, some of these courts have endorsed the view that intangible property can in fact be “stolen.” Arguing in part based on a post-*Dowling* congressional amendment to the NSPA that added the term “transmits,”⁴⁸ bringing electronic transfers in

41. *Id.* at 220–26.

42. *See id.* at 226–27.

43. *See id.* at 227 n.20.

44. *Id.* at 230 (Powell, J., dissenting).

45. *Id.* at 230–31 (internal quotation marks omitted).

46. *Id.* at 232.

47. The majority’s discussion of IP criminalization itself leaves much room for speculation due to the relatively superficial treatment that the opinion gave to the question. It is undeniable that a copyright infringer does not assume “physical control,” *id.* at 217, as such over a good. He also indeed does not “wholly deprive its owner of its use,” *id.*, in many cases, but that position nonetheless suffers from two weaknesses. First, the same is true of some forms of physical property violations, such as trespass and arguably conversion. If the Court meant that infringement could not be a form of theft when the infringer lacks physical control, its point is well-taken. The Court, however, did not devote much attention to the fact that the NSPA appeared to cover a number of other property offenses that may still have taken place in the absence of theft. Second, in some situations copyright infringement *can* deprive the owner of virtually all economically valuable use, even though that may not have been the case in *Dowling*. This observation raises questions about the Court’s definition of “use.” For these reasons, a refusal to equate IP infringement with physical property violations is neither necessary, nor, perhaps, sufficient, to arrive at the Court’s decision in *Dowling*. Hence, conversely, one cannot derive from *Dowling* conclusive guidance about the Court’s view of the relationship between violations of these two forms of property.

48. 18 U.S.C. § 2314 (2006).

commerce within the purview of the statute, some courts held that the transfer of electronic documents⁴⁹ or the interstate transportation of stolen software⁵⁰ satisfied the NSPA's requirements. One court even stated that a defendant "physically stole" software when he loaded his employer's software program onto his laptop computer and then transported the program in electronic form on his computer in interstate and international commerce.⁵¹ In that case, simply *copying* a program constituted theft. This and similar cases suggest that either (1) the lower courts have failed to follow *Dowling*, (2) the addition of the "transmits" language fundamentally amended the holding of *Dowling*, or (3) *Dowling* did not actually reject the idea that intangible goods protected by copyright or other forms of IP are subject to property crimes such as theft and conversion. Perhaps the Supreme Court will eventually clarify its understanding of the subject. For now, the addition of the term "transmits" seems to suggest that, at least in Congress's view, the illegitimate taking and transfer of IP is akin to other property-related crimes such as theft.⁵²

In conclusion, the harms that stem from IP infringement display both similarities to and differences from those in property crimes. In terms of similarities, IP infringement can, as mentioned, deprive an IP owner of some of the economic value of his goods, even to the point of making the goods virtually worthless. Infringement can also reduce incentives to invest in the development and accumulation of IP goods,⁵³ just as property crimes can diminish the frequency and inten-

49. See, e.g., *United States v. Farraj*, 142 F. Supp. 2d 484, 490 (S.D.N.Y. 2001).

50. See, e.g., *United States v. Alavi*, No. CR07-429-PHX-NVW, 2008 WL 1971391, at *2 (D. Ariz. May 2, 2008). But see *United States v. Brown*, 925 F.2d 1301, 1307 (10th Cir. 1991) (stating that the *Dowling* decision removed all intangible property from the purview of the NSPA).

51. *Alavi*, 2008 WL 1971391, at *2.

52. See *id.* (describing legislative history of the amendment). The issue of theft of intangible goods also arises in other contexts, such as the unauthorized use of other individuals' Wi-Fi Internet connections. See generally Benjamin D. Kern, *Whacking, Joyriding and War-Driving: Roaming Use of Wi-Fi and the Law*, 21 SANTA CLARA COMPUTER & HIGH TECH. L.J. 101 (2004); Ned Snow, *Accessing the Internet Through the Neighbor's Wireless Internet Connection: Physical Trespass in Virtual Reality*, 84 NEB. L. REV. 1226 (2006); Matthew Bierlein, Note, *Policing the Wireless World: Access Liability in the Open Wi-Fi Era*, 67 OHIO ST. L.J. 1123 (2006); Grant J. Guillot, Comment, *Trespassing Through Cyberspace: Should Wireless Piggybacking Constitute a Crime or Tort Under Louisiana Law?*, 69 LA. L. REV. 389 (2009). A recent dramatic case in this context involved a man who hacked into his neighbor's wireless connection and then proceeded to pose as the neighbor while threatening the Vice President of the United States and emailing child pornography. See Press Release, U.S. Dep't of Justice, *Blaine Man Indicted for Hacking into Neighbor's Wireless Internet System and Posing As the Neighbor to Email Child Pornography and Threats to the Vice President* (June 24, 2010), available at <http://www.cybercrime.gov/ardolfIndict.pdf>.

53. See Glen O. Robinson, *On Refusing To Deal with Rivals*, 87 CORNELL L. REV. 1177, 1210 (2002). But see Jonathan M. Barnett, *Shopping for Gucci on Canal Street: Reflections on Status Consumption, Intellectual Property, and the Incentive Thesis*, 91 VA. L. REV. 1381, 1422 (2005) (questioning the assumption "that unauthorized copying always harms innovation incentives").

sity with which owners would engage in various productive endeavors. Furthermore, as this Article discusses below, criminal convictions in the IP context tend to occur where defendants engage in wrongful conduct — awareness of the illegality of their actions and disregard for potential harm to the owners — rendering these defendants rather similar to those in the property context.⁵⁴ On the other hand, IP infringement does not tend to endanger the safety of an owner like some property crimes do.⁵⁵ The non-rivalrous nature of IP also means that an infringer cannot completely deprive the owner of a good, unless she also commits an accompanying property crime such as the theft of all copies of a manuscript. Finally, the average act of IP infringement may well be less wrongful than the average act of property infringement in that an individual is more likely to commit accidental infringement of IP materials (e.g., by creating a song or text that is too similar to copyrighted material) than to accidentally steal or vandalize someone else's physical goods. This leads to the need for particular care in determining whether a defendant met the proper mens rea requirements before imposing criminal sanctions for IP violations.

III. THE PAST, PRESENT, AND POSSIBLE FUTURE OF CRIMINAL SANCTIONS IN INTELLECTUAL PROPERTY

In Part II, this Article mostly referred to IP as a single concept, but the availability of criminal sanctions greatly differs by type of IP. This Part discusses the history and current state of criminal sanctions in the three main types of IP: copyright, trademark, and patent. It delineates the key means available to prosecutors to pursue violations of soft IP rights, and presents some recently suggested extensions of criminal liability in both the soft IP and patent areas.⁵⁶

54. The mens rea for most property crimes is intent, with some only requiring recklessness or negligence. *See, e.g.*, MODEL PENAL CODE §§ 220.1–.3 (1962).

55. Under some circumstances, stealing trade secrets might be one of a few exceptions, but that would mainly occur when it is accompanied by property crimes such as trespass or theft of physical goods. Even when it comes to property crimes, there are obviously many different degrees of physical harm involved, although one could speculate that acts causing no direct harm may still increase victims' fear for their personal safety. *See* Christine Hurt, *Of Breaches of the Peace, Home Invasions, and Securities Fraud*, 44 AM. CRIM. L. REV. 1365, 1377 (2007) (describing the relationship between theft and people's sense of safety, including how robbery "threaten[s] the sanctity of home and hearth").

56. Due to space constraints, this Part focuses on the foundations and legislative histories of some of the key moments in the enactment of criminal IP laws. A number of authors and works have addressed the general background of these types of laws at greater length. *See, e.g.*, MOOHR, *supra* note 23; Joseph W. Cormier et al., *Intellectual Property Crimes*, 46 AM. CRIM. L. REV. 761 (2009); David J. Goldstone & Peter J. Toren, *The Criminalization of Trademark Counterfeiting*, 31 CONN. L. REV. 1 (1998); Mary Jane Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DENV. U. L. REV. 671 (1994).

A. Criminal Sanctions in Copyright

Copyright law in the United States did not contain criminal provisions for over one hundred years after the passage of the first federal copyright act in 1790, until Congress added criminal sanctions in 1897.⁵⁷ Even after 1897, criminal law initially played a minor role in copyright law because it only applied to limited types of copyright infringement.⁵⁸ The 1897 “provision created criminal sanctions only for unlawful public performances and representations of copyrighted dramatic or musical compositions,”⁵⁹ which had to be done “willfully” and “for profit.”⁶⁰ The Copyright Act of 1909 extended criminal liability to all types of infringement, with the exception of sound recordings, and applied criminal provisions for the first time to individuals who “knowingly and willfully” aided and abetted an act of infringement.⁶¹ Under this Act, violations were punished as misdemeanors.⁶²

The Sound Recording Act of 1971 provided federal copyright protection for sound recordings.⁶³ Several years later, countering what had been a trend of expansion in the area of criminal sanctions, the Copyright Act of 1976 eliminated the provisions for aiding and abetting introduced in 1909, and it changed the mens rea definition to require that conduct be engaged in “willfully and for purposes of commercial advantage or private financial gain.”⁶⁴ In 1982, Congress passed the Piracy and Counterfeiting Amendments Act, which restructured the criminal sanctions available under Title 17 and introduced felony punishments for certain types of offenses under Title 18, although most copyright infringement remained punishable as misdemeanors.⁶⁵

Congress added felony provisions for willful infringement of all types of copyrighted works through the Copyright Felony Act of 1992.⁶⁶ The original Senate bill only extended felony penalties to infringement of computer software programs.⁶⁷ By introducing addi-

57. See Lydia Pallas Loren, *Digitization, Commodification, Criminalization: The Evolution of Criminal Copyright Infringement and the Importance of the Willfulness Requirement*, 77 WASH. U. L.Q. 835, 840 (1999).

58. Geraldine Szott Moohr, *Defining Overcriminalization Through Cost-Benefit Analysis: The Example of Criminal Copyright Laws*, 54 AM. U. L. REV. 783, 789–90 (2005).

59. Loren, *supra* note 57, at 840.

60. *Id.* (quoting Act of Jan. 6, 1897, 29 Stat. 481).

61. Pub. L. No. 60-349, §§ 25(e), 28, 35 Stat. 1075, 1081–82 (1909).

62. *Id.* § 28, 35 Stat. at 1082.

63. Pub. L. No. 92-140, § 1(a), 85 Stat. 391, 391 (1971).

64. Pub. L. No. 94-553, § 506, 90 Stat. 2541, 2586 (codified as amended at 17 U.S.C. § 506 (2006 & Supp. II 2008)).

65. See Pub. L. No. 97-180, 96 Stat. 91 (1982).

66. Pub. L. No. 102-561, § 1, 106 Stat. 4233, 4233 (1992) (amending 18 U.S.C. § 2319(b) (2006 & Supp. II 2008)).

67. See S. REP. NO. 102-268, at 1 (1992).

tional criminal sanctions, the bill sought to protect the software industry and reduce the imbalance between the treatment of software piracy and piracy of sound recordings and movies.⁶⁸

After the bill was passed in the Senate, the Subcommittee on Intellectual Property and Judicial Administration amended it so that felony provisions would extend to all types of copyrighted works.⁶⁹ Addressing the House of Representatives, Representative Hughes described the costs of copyright infringement in terms of displaced sales, loss of jobs, and reduction in the creation of new works, and further highlighted the "important safeguards to ensure that isolated but unauthorized copying, and ordinary business disputes [would not be] subject to felony penalties."⁷⁰ In expressing his support for the bill before the House, Representative Moorehead explained that the bill was necessary because "[c]urrent misdemeanor penalties [had] proven inadequate for stemming software piracy."⁷¹ He then commended Hughes for his work on amending the bill to "provid[e] strong copyright protection for all copyrighted works."⁷² For imposition of felony penalties, the bill as passed required not only that the conduct be willful and for purpose of commercial advantage or private financial gain, but also that within a 180-day period, the defendant infringe at least ten copies of one or more copyrighted works having a retail value of more than \$2500.⁷³

Five years later, in a further important expansion of copyright protection, the No Electronic Theft ("NET") Act⁷⁴ was introduced to address a loophole that became apparent as digital technology grew.⁷⁵ Prior to amendments made by this Act, not-for-profit or non-commercial copyright infringement was not subject to criminal liability no matter how great a loss the copyright holder suffered.⁷⁶ The potential shortcomings of this lack of protection were illustrated in *United States v. LaMacchia*, where the defendant, a graduate student at MIT, encouraged lawful purchasers of software programs to post the programs on an online bulletin board.⁷⁷ The defendant then moved copies of these programs to another bulletin board, where they could be downloaded by anyone who had the password to access the website.⁷⁸ Although the copyright infringement that resulted from the de-

68. *Id.* at 2. In 1992, the world market for computer software was around \$70 billion per year, and losses from software piracy in 1989 cost the industry an estimated \$1.6 billion. *Id.*

69. See 138 CONG. REC. 31,181-82 (1992).

70. *Id.* at 31,182.

71. *Id.*

72. *Id.*

73. Copyright Felony Act of 1992, Pub. L. No. 102-561, § 1, 106 Stat. 4233, 4233.

74. Pub. L. No. 105-147, 111 Stat. 2678 (1997).

75. See *id.* § 2, 111 Stat. at 2678.

76. See *United States v. LaMacchia*, 871 F. Supp. 535, 545 (D. Mass. 1994).

77. *Id.* at 536.

78. *Id.*

fendant's actions allegedly cost the copyright holders nearly \$1 million,⁷⁹ the district court found that the defendant could not be held criminally liable because he never benefited financially from the transactions.⁸⁰

In response to the district court's ruling, the NET Act sought to amend criminal copyright infringement provisions by criminalizing computer theft of copyrighted works, whether or not the infringer derives a direct financial benefit from his misappropriation.⁸¹ Under the NET Act, criminal liability extends to

[a]ny person who infringes a copyright willfully either . . . for purposes of commercial advantage or private financial gain, or . . . by the reproduction or distribution, including by electronic means, during any 180-day period, of 1 or more copies or phonorecords of 1 or more copyrighted works, which have a total retail value of more than \$1,000.⁸²

Representative Cannon of Utah stated that although "[p]laying Robin Hood may have made sense when the Sheriff of Nottingham was extracting tribute from the peasantry, . . . playing Robin Hood on the Internet is a recipe for disaster for our domestic software industry";⁸³ he further explained to the House of Representatives that the Act "focuses on the damage done to the software owner, not just the money put into the pocket of the pirate."⁸⁴

Initially, prosecutions under the NET Act were rare and the Act had a limited deterrent effect on copyright infringement.⁸⁵ Dissatisfied with the Act's effectiveness,⁸⁶ Congress enacted the Digital Theft Deterrence and Copyright Damages Improvement Act of 1999.⁸⁷ When the bill, H.R. 1761, was presented to the House, the estimated costs of computer software counterfeiting and piracy to the copyright holders were between \$11 billion and \$20 billion annually, allegedly resulting in "lost U.S. jobs, lost wages, lower tax revenue, and higher prices for honest purchasers of copyrighted software."⁸⁸ This amendment therefore sought to provide a stronger deterrent against copyright infringe-

79. *Id.* at 536-37.

80. *Id.* at 545.

81. See H.R. REP. NO. 105-339, at 3 (1997).

82. Pub. L. No. 105-147, § 2(b), 111 Stat. 2678, 2678 (1997).

83. 143 CONG. REC. 24,327 (1997).

84. *Id.*

85. See H.R. REP. NO. 106-216, at 3 (1999).

86. See *id.*

87. Pub. L. No. 106-160, 113 Stat. 1774.

88. H.R. REP. NO. 106-216, at 3. But see Eric Goldman, *A Road to No Warez: The No Electronic Theft Act and Criminal Copyright Infringement*, 82 OR. L. REV. 369, 397-98 (2003) (criticizing these figures as vastly overstating the losses to U.S. copyright owners).

ment by increasing the civil statutory penalties in the Copyright Act.⁸⁹ Another purpose of the amendment was to provide for stronger enforcement of existing criminal laws. Under the previous law, approximately forty-five percent of convicted criminal IP offenders received sentences of probation without any requirement of confinement.⁹⁰ In committee hearings on the bill, witnesses from the Department of Justice reported that these low sentences served as a disincentive for the government to investigate and prosecute IP cases.⁹¹ Infrequent prosecution combined with low penalties helped further the “perception of intellectual property crime as a high profit, low risk venture.”⁹² To address this issue, the Act “clarif[ied] Congress’ intent that the United States Sentencing Commission ensure that the sentencing guideline for intellectual property offenses provides for consideration of the retail price of the legitimate infringed-upon item and the quantity of the infringing items in order to make the guideline sufficiently stringent to deter such crime.”⁹³

A number of other relatively recent pieces of legislation have further advanced the availability of criminal sanctions for copyright violations. For instance, the Anticounterfeiting Consumer Protection Act of 1996⁹⁴ made copyright counterfeiting a racketeering activity.⁹⁵ The intent of the law was to address the inadequacy of existing federal law in protecting consumers and American businesses from “the scope and sophistication of modern counterfeiting” of copyrighted and trademarked products, an activity estimated to cause losses of \$200 billion every year.⁹⁶ Recognizing that the most harmful counterfeiting activity was not conducted by individuals but rather by groups, the new bill would “increase[] criminal penalties for counterfeiting and allow[] law enforcement to fight counterfeiters at the organizational level by making trafficking in counterfeit goods or services an offense under the Racketeer Influenced and Corrupt Organizations (RICO) Act.”⁹⁷

The WIPO Copyright and Performance and Phonograms Treaties Implementation Act of 1998,⁹⁸ which was Title I of the controversial

89. H.R. REP. NO. 106-216, at 2; *see also* Pub. L. No. 106-160, § 2, 113 Stat. 1774, 1774.

90. *Implementation of the “NET” Act and Enforcement Against Internet Piracy: Hearing Before the Subcomm. on Courts and Intellectual Prop. of the H. Comm. on the Judiciary*, 106th Cong. 39 (1999) (statement of John Steer, General Counsel, U.S. Sentencing Comm’n), *available at* http://commdocs.house.gov/committees/judiciary/hju62503.000/hju62503_0f.htm.

91. H.R. REP. NO. 106-216, at 4.

92. *Id.*

93. *Id.* at 2.

94. Pub. L. No. 104-153, 110 Stat. 1386.

95. *Id.* § 3, 110 Stat. at 1386.

96. S. REP. NO. 104-177, at 1–2 (1995).

97. *Id.* at 2.

98. Pub. L. No. 105-304, tit. I, 112 Stat. 2860, 2861–77.

Digital Millennium Copyright Act (“DMCA”),⁹⁹ prohibited the circumvention of copyright protection systems under threat of not only civil but also criminal sanctions.¹⁰⁰ Through the Anti-counterfeiting Amendments Act of 2004,¹⁰¹ the law also criminalized trafficking in counterfeit or illicit labels in connection with copyrighted works.¹⁰² The Artists’ Rights and Theft Prevention Act of 2005¹⁰³ provided criminal penalties for the unauthorized recording of motion pictures in theaters.¹⁰⁴ Finally, Title II of the Enforcement of Intellectual Property Rights Act of 2008¹⁰⁵ strengthened criminal penalties for repeat copyright infringers.¹⁰⁶ Recent instances of criminal copyright infringement have resulted in sentences such as eighteen months in prison for selling pirated software worth more than \$250,000,¹⁰⁷ and twenty-four months in prison for selling pirated movies and television shows with a combined value of more than \$100,000.¹⁰⁸

This brief history, which centers on the most important criminal measures protecting copyrighted materials, illustrates the continued expansion of criminal penalties for infringement. The expansion of criminal sanctions in IP did not follow a linear path, but rather involved a clear acceleration over the last fifteen years. This acceleration was mostly due to the ways in which modern technologies multiplied the opportunities for copyright violations, even for ordinary consumers without any special expertise.

B. Criminal Sanctions in Trademark

Compared to copyright, the law of trademark is a latecomer to the world of criminal sanctions. After Congress increased criminal sanctions for copyright infringement in 1982, it also saw the need to increase sanctions for trademark infringement. The Trademark Counterfeiting Act of 1984¹⁰⁹ (“TCA”) criminalized the intentional

99. Pub. L. No. 105-304, 112 Stat. 2860 (1998).

100. See *id.* § 103, 112 Stat. at 2876. For a discussion of some of the problems that the DMCA presents, see, for example, Jacqueline Lipton, *The Law of Unintended Consequences: The Digital Millennium Copyright Act and Interoperability*, 62 WASH. & LEE L. REV. 487 (2005).

101. Pub. L. No. 108-482, tit. I, 118 Stat. 3912, 3912–16.

102. *Id.* § 102, 118 Stat. at 3912–15.

103. Pub. L. No. 109-9, tit. I, 119 Stat. 218, 218–23.

104. *Id.* § 102, 119 Stat. at 218–20.

105. Pub. L. No. 110-403, 122 Stat. 4256.

106. See *id.* tit. II, 122 Stat. at 4260–64.

107. Press Release, U.S. Dep’t of Justice, Internet Seller of Pirated Software Sentenced to 18 Months in Prison for Criminal Copyright Infringement (May 28, 2010), available at <http://www.cybercrime.gov/ciminoSent.pdf>.

108. Press Release, U.S. Attorney’s Office Dist. of Conn., East Hartford Man Who Pirated Movies and Television Shows and Sold Them on eBay Is Sentenced to Prison (Sept. 26, 2008), available at <http://www.justice.gov/criminal/cybercrime/singarellaSent.pdf>.

109. Pub. L. No. 98-473, tit. II, ch. XV, 98 Stat. 1837, 2178–83.

trafficking of counterfeit goods or services.¹¹⁰ The TCA was proposed because “[t]he absence of [criminal] penalties, and the lack of sufficiently stiff civil sanctions, has emboldened counterfeiters, who now defraud consumers out of billions of dollars each year in the United States alone.”¹¹¹ Thus, “to help combat the mushrooming traffic in counterfeit goods and services. . . . the bill authorizes courts to impose criminal penalties upon persons who intentionally traffic or attempt to traffic in goods and services knowing them to be counterfeit.”¹¹² Because lawmakers recognized that prosecutors would only be able to pursue a small number of counterfeiters, the bill also strengthened civil sanctions by increasing the ability of plaintiffs to obtain treble damages against counterfeiters, among other modifications.¹¹³

Loopholes remained after the passage of the TCA, however. In *United States v. Giles*,¹¹⁴ the Tenth Circuit reversed a conviction under the TCA, holding that the defendant’s labels that displayed the infringing trademarks were not “goods” within the meaning of the statute when sold independently of other products.¹¹⁵ The government had argued that because the labels were sold for a price, they were merchandise and therefore “goods.”¹¹⁶ Nonetheless, the court reasoned that “‘goods’ were intended to be viewed as separate and distinct from the marks they carry.”¹¹⁷ The court ultimately concluded that the TCA did not prohibit trafficking in counterfeit labels.¹¹⁸

To extend criminal punishments to future defendants in similar situations, Congress passed laws such as the Stop Counterfeiting in Manufactured Goods Act¹¹⁹ (“SCIMGA”) in 2006.¹²⁰ The SCIMGA amended the TCA by prohibiting trafficking of items such as labels and packaging even when not associated with any goods.¹²¹ Furthermore, the law expanded the definition of “trafficking” to cover more types of economic activities as part of the Protecting American Goods and Services Act of 2005,¹²² which accompanied the SCIMGA in the same bill.

110. *Id.* § 1502(a), 98 Stat. 2178–79 (codified as amended at 18 U.S.C. § 2320 (2006 & Supp. II 2008)).

111. S. REP. NO. 98-526, at 1 (1984).

112. *Id.* at 2.

113. *Id.*

114. 213 F.3d 1247 (10th Cir. 2000).

115. *Id.* at 1249–51.

116. *Id.* at 1249.

117. *Id.*

118. *Id.* at 1251.

119. Pub. L. No. 109-181, § 1, 120 Stat. 285 (2006).

120. *See id.* § 1(a)(2), 120 Stat. at 285.

121. *See id.* § 1(b)(1), 120 Stat. at 286.

122. Pub. L. No. 109-181, § 2, 120 Stat. 285, 288 (2006); *id.* § 2(b)(1), 120 Stat. at 288 (stating that “the term ‘traffic’ means to transport, transfer, or otherwise dispose of, to another, for purposes of commercial advantage or private financial gain, or to make, import,

A number of other laws have sought to impose criminal sanctions for the counterfeiting of trademarks. For instance, in 1994 counterfeiting was added to the list of unlawful activities under the money laundering statute.¹²³ Also, as mentioned above, both trademark and copyright counterfeiting became predicate offenses to racketeering under the Anticounterfeiting Consumer Protection Act of 1996.¹²⁴ Recent sentences in trademark counterfeiting cases have included forty-one months in prison for trafficking goods with a combined worth of more than \$2 million,¹²⁵ and seventy-eight months in prison “for conspiring with others in the Peoples [sic] Republic of China to traffic in counterfeit pharmaceutical drugs and causing the introduction of counterfeit and misbranded drugs into interstate commerce.”¹²⁶

At the same time, trademark law continues to rely more heavily on private enforcement through civil litigation than on criminal prosecutions. Current criminal statutes only cover the most egregious form of trademark infringement — counterfeiting — which is defined in the criminal context as the use of a mark “identical with, or substantially indistinguishable from, a mark registered on the principal register in the United States Patent and Trademark Office and in use”;¹²⁷ counterfeiting does not cover cases where the question of infringement is close in meaningful ways, whether or not the infringement is willful.¹²⁸ No criminal sanctions are available for such offenses as dilution (whether through tarnishment or blurring)¹²⁹ or any other type of trademark infringement that may diminish the value of the senior mark but does not cause confusion as to an actual association with the senior user or her product.¹³⁰

export, obtain control of, or possess, with intent to so transport, transfer, or otherwise dispose of”).

123. See Violent Crime Control and Law Enforcement Act of 1994, Pub. L. No. 103-322, § 320104(b), 108 Stat. 1796, 2111 (amending 18 U.S.C. § 1956(c)(7)(D) (2006 & Supp. III 2009)).

124. Pub. L. No. 104-153, § 3, 110 Stat. 1386, 1386.

125. Press Release, U.S. Dep’t of Justice, San Antonio Woman Sentenced to Federal Prison for Trafficking over Two Million Dollars Worth of Counterfeit Goods (Apr. 9, 2009), available at <http://www.cybercrime.gov/parkSent.pdf>.

126. Press Release, U.S. Dep’t of Justice, Distributor of Counterfeit Pharmaceutical Drugs Sentenced (Jan. 15, 2009), available at <http://www.cybercrime.gov/XuSent.pdf>.

127. 18 U.S.C. § 2320(e)(1)(A)(ii) (2006 & Supp. II 2008).

128. But see Sandra L. Rierson, *Pharmaceutical Counterfeiting and the Puzzle of Remedies*, 8 WAKE FOREST INTELL. PROP. L.J. 433, 436–39 (2008) (expressing concern about the line between counterfeiting and other forms of trademark infringement).

129. For an overview of these forms of trademark infringement, see 4 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION §§ 24:93–134 (4th ed. 2010).

130. Criminal penalties would not be available in cases of infringement that do not cause confusion because the statute requires that the infringing mark be identical with or substantially indistinguishable from the registered mark. See *supra* note 127 and accompanying text.

C. Criminal Sanctions for Patent-Related Offenses

As the Supreme Court noted in *Dowling v. United States*, “[d]espite its undoubted power to do so, . . . Congress has not provided criminal penalties for distribution of goods infringing valid patents.”¹³¹ Rather, there are only two criminal provisions that relate to patents at all, and they are both of relatively modest importance. The first is the prohibition on forging letters patent,¹³² which are “document[s] granting some right or privilege, issued under governmental seal but open to public inspection.”¹³³ No published opinions report any convictions under the statute.¹³⁴

Second, the law criminalizes the false marking of patents and punishes the behavior through fines of “not more than \$500 for each offense.”¹³⁵ False marking includes counterfeiting or imitating a patentee’s mark or deceiving the public as to an article’s affiliation with the patentee, marking as patented an unpatented article, and falsely claiming that a patent application has been made or is pending.¹³⁶ The idea behind the law is that false marking deceives people “into believing that a patentee controls the article in question . . . , placing [the risk of error] on the public . . . , and increases the cost to the public of ascertaining whether a patentee in fact controls the intellectual property.”¹³⁷ There have been few prosecutions for this set of offenses, though case law indicates that the government would need to prove that a given defendant *intended* to deceive or counterfeit.¹³⁸ This emphasis on deception and counterfeiting is in many ways more reminiscent of trademark law and its focus on violations through deception, counterfeiting, and consumer confusion than any principle of patent law.

In any case, neither the letters patent statute nor the false marking statute creates criminal penalties for patent infringement per se, even if the infringement was commercial, far-reaching, and malicious. This puts patents entirely at odds with soft IP and especially copyright law where, for example, even some non-commercial violations are eligible for criminal sanctions.¹³⁹

131. 473 U.S. 207, 227 (1985).

132. 18 U.S.C. § 497 (2006).

133. BLACK’S LAW DICTIONARY 989 (9th ed. 2009).

134. The U.S. Department of Justice had not located any such cases by 2006. *See* U.S. DEPT’ OF JUSTICE, PROSECUTING INTELLECTUAL PROPERTY CRIMES 247 (3d ed. 2006) [hereinafter PROSECUTING IP CRIMES], available at <http://www.justice.gov/criminal/cybercrime/ipmanual/ipma2006.pdf>. My own research also did not uncover any such cases.

135. 35 U.S.C. § 292 (2006).

136. *Id.*

137. *Clontech Labs., Inc. v. Invitrogen Corp.*, 406 F.3d 1347, 1356–57 (Fed. Cir. 2005).

138. *See* PROSECUTING IP CRIMES, *supra* note 134, at 249 (citing *Arcadia Mach. & Tool Inc. v. Sturm, Ruger & Co.*, 786 F.2d 1124, 1125 (Fed. Cir. 1986)).

139. *See, e.g., supra* notes 81–82 and accompanying text.

D. Proposed Sanctions in Soft Intellectual Property and Patents

The most important and controversial set of laws on the horizon stems from the proposed Anti-Counterfeiting Trade Agreement, which is currently under negotiation among the United States, the European Union, and other countries, and is hotly debated by scholars and policy groups.¹⁴⁰ While the agreement is still in the drafting stage, one of the key provisions of the July 2010 draft specified that each country that becomes a party to ACTA “shall provide for criminal procedures and penalties to be applied at least in cases of willful trademark counterfeiting or copyright or related rights piracy on a commercial scale.”¹⁴¹ The draft from April 2010 had stated that willful rights piracy includes instances of infringement for purposes of commercial advantage as well as some infringing actions “that have no direct or indirect motivation of financial gain.”¹⁴² As of July, however, the acts falling under this treaty provision were limited to “those carried out in the context of commercial activity for direct or indirect economic or commercial advantage.”¹⁴³

The United States and Switzerland proposed modified language that would require countries to criminally punish acts on a commercial scale, “includ[ing] *at least*”¹⁴⁴ those performed for economic gain; the two nations presumably wanted to leave unfettered freedom for countries to criminally punish non-economic activity as well and sought to clarify that ACTA would only provide a floor rather than a ceiling for criminal sanctions.¹⁴⁵ A provision in the July draft also articulated that the recording of certain public exhibitions of motion pictures or other audiovisual works shall be punished by criminal sanctions, and the EU requested that the aiding and abetting of criminalized offenses in turn be criminalized as well.¹⁴⁶ Some of the pro-

140. See, e.g., *Anti-Counterfeiting Trade Agreement: Deliberate Confusion*, FOUND. FOR A FREE INFO. INFRASTRUCTURE, <http://action.ffii.org/acta/Analysis-August> (last updated Jan. 23, 2011).

141. Anti-Counterfeiting Trade Agreement: Informal Predecisional/Deliberative Draft, at 15, July 1, 2010 [hereinafter ACTA July Draft], *available at* http://www.laquadrature.net/files/ACTA_consolidatedtext_EUrestricted130710.pdf.

142. Anti-Counterfeiting Trade Agreement: Public Predecisional/Deliberative Draft, at 15, Apr. 2010, *available at* http://trade.ec.europa.eu/doclib/docs/2010/april/tradoc_146029.pdf.

143. ACTA July Draft, *supra* note 141, at 15.

144. *Id.* (emphasis added).

145. In the context of a different dispute about “commercial scale,” one commentator expressed apprehension about “what the meaning is of an international criminal enforcement regime if the parties cannot even agree as to when criminal enforcement should be applied. It also raises serious human rights concerns about the international legal justification of criminal measures on copyright a la carte, especially in authoritarian countries.” David Hammerstein, *ACTA Debate in the European Parliament: White Smoke and Red Lines on ACTA*, IP POL’Y COMMITTEE BLOG (July 14, 2010), <http://www.tacd-ip.org/blog/2010/07/14/smokescreen-on-acta/>.

146. ACTA July Draft, *supra* note 141, at 16.

posed language included in the July draft, and endorsed by eight countries including the United States, suggested that parties to ACTA must provide for imprisonment or monetary fines that are “sufficiently high to provide a deterrent to future acts of infringement, with a view to removing the monetary incentive of the infringer,”¹⁴⁷ whereas three countries and the EU would like to see “effective, proportionate and dissuasive” sanctions.¹⁴⁸ The consolidated ACTA draft of October 2010 suggested that the United States prevailed on a number of its demands in the area of criminal sanctions.¹⁴⁹ The November 2010 draft suggests that the “include at least” language for commercial activities is settled;¹⁵⁰ the penalties that ACTA expects countries to implement now “include imprisonment as well as monetary fines sufficiently high to provide a deterrent to future acts of infringement, consistently with the level of penalties applied for crimes of a corresponding gravity.”¹⁵¹ The November 2010 draft underwent legal verification, and these provisions remained the same in the December 2010 version of the ACTA text, which may constitute the final draft.¹⁵²

It is worth noting that, in the January 2010 draft, Japan and New Zealand also wanted “trademark infringement caused by confusingly similar trademark goods” to be added to the list of offenses that must have criminal sanctions associated with them, which on its face goes much further than punishing counterfeiting alone.¹⁵³ None of the subsequent drafts, however, adopted that provision. To the dismay of critics, ACTA has largely been negotiated in secret and outside traditional bodies such as the World Trade Organization (“WTO”) or World Intellectual Property Organization (“WIPO”),¹⁵⁴ and some of the materials discussed here stem from leaks rather than official announcements by the governments in question.

147. *Id.* at 17.

148. *Id.* at 16–17. For a brief general discussion of changes between the April 2010 and July 2010 drafts, see Jimmy Koo, *Comparing ACTA Texts — April 2010 v. July 2010*, AM. U. WASHINGTON C. OF L. (Aug. 12, 2010), <http://www.wcl.american.edu/pijip/go/koo08122010>.

149. See Anti-Counterfeiting Trade Agreement: Informal Predecisional/Deliberative Draft, Oct. 2, 2010, available at <http://www.med.govt.nz/upload/75080/Consolidated%20text%20of%20the%20draft%20ACTA%20agreement%20as%20at%202%20October%202010.pdf>.

150. See Anti-Counterfeiting Trade Agreement: Subject to Legal Review, at 13, Nov. 15, 2010, available at http://www.ustr.gov/webfm_send/2379.

151. *Id.* at 14 (footnote omitted).

152. See ACTA December Draft, *supra* note 10, at 13–14.

153. Anti-Counterfeiting Trade Agreement: Informal Predecisional/Deliberative Draft, at 18, Jan. 18, 2010, available at http://www.laquadrature.net/files/201001_acta.pdf.

154. See, e.g., Nate Anderson, *European Parliament Unites Against 3 Strikes, ACTA Secrecy*, ARS TECHNICA, <http://arstechnica.com/tech-policy/news/2010/03/european-parliament-unites-against-3-strikes-acta-secrecy.ars> (last updated Mar. 9, 2010) (noting that the European parliament expressed concerns over the lack of transparency in ACTA negotiations).

While ACTA does not provide for criminal sanctions for patent infringement, the EU did float that idea as part of an early draft of its own Second Intellectual Property Rights Enforcement Directive (“IPRED2”) that proposed criminal sanctions for infringements of *all* forms of IP.¹⁵⁵ Even parties that normally oppose each other on issues of patent rights expansion — large companies and patent holders like Nokia and Microsoft on one side and grassroots organizations on the other — came together to oppose the criminal sanctions in the IPRED2 draft.¹⁵⁶ Tim Frain, the director of IP matters at Nokia, explained that patents are often ambiguous and weak enough that he tells managers to use patented technology despite the potential for infringement “because, after making a risk analysis, we feel we can safely challenge the existing patent. . . . But with this law, even if I’m certain the existing patent is no good, the manager involved would be criminally liable.”¹⁵⁷ The EU commission that wrote the draft of IPRED2, however, saw it as a matter of protecting innovators and wanted to send a clear message to infringers that their behavior is unacceptable enough to warrant criminal sanctions.¹⁵⁸

While the implementation of even the newer, less controversial versions of IPRED2 has been delayed due the directive’s questionable legal basis, the ACTA leaks suggest that EU negotiators may have attempted to incorporate parts of IPRED2 directly into ACTA.¹⁵⁹ Tensions ran high in the days before the ninth ACTA negotiation round when another leak provided evidence that the Presidency of the Council of the EU was actively pushing for increased criminal sanctions, including sanctions that would apply to non-commercial use of copyrighted works on the Internet.¹⁶⁰ Meanwhile, some of the drafts of ACTA suggest that the United States may actually be taking a hard stance regarding criminal sanctions and IP, including in some areas where the EU has eased its position. This is evidenced by earlier disagreements on the “include at least” language discussed above in relation to economic versus non-economic activity, and also by the EU’s proposal that ACTA “*exclude*” such acts carried out by end consum-

155. See *JURI Tabled Amendments*, FOUND. FOR A FREE INFO. INFRASTRUCTURE, <http://action.ffii.org/ipred2/JURI%20Tabled%20Amendments> (last updated Aug. 15, 2009). For more information on IPRED2, see *IPRED2 Workgroup*, FOUND. FOR A FREE INFO. INFRASTRUCTURE, <http://action.ffii.org/ipred2> (last updated Aug. 15, 2009).

156. See Paul Meller, *Prison Over Patents? Proposed EU Law Unites Foes*, N.Y. TIMES, Dec. 9, 2005, at C4, available at <http://www.nytimes.com/2005/12/09/business/worldbusiness/09iht-patent.html>.

157. *Id.*

158. *Id.*

159. See Lassi Jyrkkio, *Smooth Criminal Harmonisation: ACTA, EU and IPR Enforcement*, INTELL. PROP. WATCH (Apr. 8, 2010), <http://www.ip-watch.org/weblog/2010/04/08/smooth-criminal-harmonisation-acta-eu-and-ipr-enforcement/>.

160. See *Leak: EU Pushes for Criminalizing Non-Commercial Usages in ACTA*, LA QUADRATURE DU NET (June 24, 2010), <http://www.laquadrature.net/en/leak-eu-pushes-for-criminalizing-non-commercial-usages-in-acta>.

ers”¹⁶¹ where the United States and other countries preferred that ACTA use the words “*may exclude*.”¹⁶² It appears that neither of these formulations has been accepted, as neither side’s language is present in the December 2010 draft.¹⁶³

Although criminal patent sanctions are not currently being debated by United States legislators, these recent events suggest that such sanctions might be considered in the future. First, discussions and compromises taking place in the international arena could lead to treaties down the line that further increase the availability of various forms of IP-related criminal sanctions and that would be binding on the United States.¹⁶⁴ Second, some actors in the United States not only support current American criminal sanctions but may also wish to expand them.¹⁶⁵ One recent example of this trend are the legislative recommendations that the Obama Administration issued in the form of a white paper and that call for an increase in the applicable criminal sanctions for a number of different IP offenses.¹⁶⁶ If the moment arrives when patent sanctions are proposed in the United States, scholars and legislators will be well-served by having a normative understanding and framework to explain how such sanctions could have fundamentally different effects from those that currently exist in soft IP. The next Part outlines such a framework.

IV. THE ROLES OF REASON AND POLITICS — UNPACKING THE CAUSES BEHIND THE LEGAL DISPARITIES

A. Moral and Utilitarian Considerations

This Part addresses some of the differences between patents and soft IP and investigates both moral and utilitarian reasons for the current landscape of criminal sanctions in IP. This discussion will seek to understand the distinctions between the nature of different forms of IP from registration to infringement, the ease of committing large-scale infringement, the ability of other measures to contain the consequences of infringement, and the effects of overdeterrence. This Part examines moral and utilitarian arguments together, because one of the

161. ACTA July Draft, *supra* note 141, at 15 (emphasis added).

162. *Id.* (emphasis added).

163. See ACTA December Draft, *supra* note 10.

164. For instance, if Japan and New Zealand had been successful in obtaining criminal sanctions in ACTA for regular trademark infringement, changes in U.S. law could have resulted.

165. See, e.g., *infra* note 168 and accompanying text.

166. See EXEC. OFFICE OF THE PRESIDENT OF THE U.S., ADMINISTRATION’S WHITE PAPER ON INTELLECTUAL PROPERTY ENFORCEMENT LEGISLATIVE RECOMMENDATIONS (2011), available at http://www.whitehouse.gov/sites/default/files/ip_white_paper.pdf.

key questions for both is the same: how much harm do patent infringers cause and what punishments should they receive as a result?

Just a few months ago, a well-known British inventor complained to the UK Intellectual Property Office about the losses that patent owners incur through infringement and asked the government “to make stealing a patent a criminal offence — just as it’s already a criminal offence to steal copyright from creative people like authors and musicians.”¹⁶⁷ The voices of inventors and their representatives are making themselves heard in the United States as well, with one commentator stating:

Theft of independent and academic inventors [sic] patent properties is rampant. Big companies have an entitlement mentality and are stealing the fruits of American ingenuity on the grandest of scales. . . .

. . . .

. . . Perhaps the best way to correct this problem is to criminalize patent theft, especially willful patent theft and send the managers who are perpetuating fraud on America’s inventors to jail.¹⁶⁸

As mentioned in Part I, the idea holds some intuitive appeal. First, criminalization could provide incentives for willful patent infringers to cease their illegal activities (or not engage in them in the first place) and thus reduce losses to patent owners. One rough indicator of these losses is the fact that typical claimed damages often exceed \$25 million per patent lawsuit.¹⁶⁹ Not only do patent owners suffer direct harms, but the expenses of litigating patents are very high as well, with discovery costs often totaling \$2.5 million and litigation costs amounting to \$4 million.¹⁷⁰ Even if plaintiffs in patent infringement

167. Nick Higham, *Inventor Urges Patent Law Change*, BBC NEWS (Sept. 2, 2009), http://news.bbc.co.uk/2/hi/uk_news/8232130.stm.

168. Ronald Riley, Comment to *Yahoo Loses Patent Infringement Case, \$12.4 Million*, WEBPRONews (Feb. 3, 2010, 10:58 AM), <http://www.webpronews.com/topnews/2010/02/03/yahoo-loses-patent-infringement-case-124-million>. Riley is the president of the Professional Inventors Alliance USA, an advocacy group for “independent inventors, small and medium-sized businesses and colleges and universities.” *About Professional Inventors Alliance*, PROF. INVENTORS ALLIANCE http://www.piausa.org/general_info/about_us/index.html (last visited May 6, 2011).

169. See Jonathan M. Barnett, *Property as Process: How Innovation Markets Select Innovation Regimes*, 119 YALE L.J. 384, 397 (2009).

170. See *id.* There are approximately a few thousand patent infringement lawsuits every year; district courts decided 2,400 of them in 2001 (a number twice that of three years before and thus indicating possible growth) and many other cases settled out of court. See, e.g., Xuan-Thao Nguyen, *Justice Scalia’s “Renegade Jurisdiction”: Lessons for Patent Law*

cases vastly overclaim the damages that they suffered, scholars have found that the social burden caused by these lawsuits “is large compared [to that created by] other types of civil litigation.”¹⁷¹ Criminal prosecution of patent infringers could drive down these litigation costs by providing disincentives for infringement or at least reduce the enforcement burden on patent owners by shifting courtroom costs to the government. Such a legal regime could be justified on utilitarian grounds if it sufficiently enhanced technological progress by promoting more innovation. Creating criminal sanctions for patents would also send a message to inventors that society prizes them as much as the owners of copyrights or trademarks. Further, even if civil sanctions are sufficient to promote progress, some scholars have emphasized the expressive value of criminal punishments because “[t]he public demands moral condemnation of criminal wrongdoers, whether natural persons or corporations; when the law satisfies that demand, it creates social welfare.”¹⁷² Thus, if society views patent infringers as thieves and parasites and feels strongly about communicating this disapproval, criminal sanctions may provide a tool that is more effective than letting infringers and patent owners resolve their disputes in a civil courtroom.

While there are certainly some advantages to introducing criminal sanctions for patents, there are numerous problems as well, stemming in large part from the many differences between patents and soft IP. To understand these issues better, it is worth noting some of the legal distinctions between the basic protections conferred on patents, copyrights, and trademarks. First, patent protections expire after a limited number of years: twenty years from the PTO filing date for utility patents¹⁷³ and fourteen years from issue date for design patents.¹⁷⁴ Copyrights also have limited duration, but last much longer than patents — the current copyright length consists of the life of the author plus seventy years¹⁷⁵ after Congress extended the protection period

Reform, 83 TUL. L. REV. 111, 116 n.21 (2008) (citation omitted); see also Kimberly A. Moore, *Worthless Patents*, 20 BERKELEY TECH. L.J. 1521, 1521–22 (2005) (putting the number of patent suits filed each year at about 3,000 and the number of litigated patents at 4500).

171. James Bessen & Michael J. Meurer, *Lessons for Patent Policy from Empirical Research on Patent Litigation*, 9 LEWIS & CLARK L. REV. 1, 25 (2005).

172. Dan M. Kahan, *Social Meaning and the Economic Analysis of Crime*, 27 J. LEGAL STUD. 609, 619 (1998).

173. 35 U.S.C. § 154(a)(2) (2006). Note that for a patent that was “in force on or that result[ed] from an application filed before” June 8, 1995, the patent term is “the greater of the 20-year term as provided in [section 154(a)], or 17 years from grant.” *Id.* § 154(c)(1); see also *Changes To Implement 20-Year Patent Term and Provisional Applications*, U.S. PATENT & TRADEMARK OFF., http://www.uspto.gov/web/offices/com/doc/uruguay/20_year_term.html (last updated Aug. 1, 2007) (explaining the effect of the Uruguay Round Agreements Act).

174. 35 U.S.C. § 173 (2006).

175. 17 U.S.C. § 302(a) (2006).

several times.¹⁷⁶ Registered trademarks have an initial validity of ten years upon issuance by the PTO, but owners can renew them indefinitely every ten years if the marks are still in use.¹⁷⁷ In addition to benefiting from longer terms, copyright and trademark owners can obtain some forms of protection by virtue of the common law; in contrast, there is no protection under the patent system prior to patent issuance aside from any indirect safeguards derived from trade secret laws. Furthermore, patent protection is far more expensive and tedious to obtain than soft IP protection.¹⁷⁸

On the other hand, patent holders have the greatest power to exclude infringers. Neither reverse engineering nor independent invention excuse the use of patented technology; by contrast copyright owners have to submit to “fair use” of their works as well as some compulsory licenses, and trademark owners must allow use of their marks unless such use results in consumer confusion, dilution, or a few other impermissible outcomes.¹⁷⁹ Yet, despite the difficulties and expenses inherent in obtaining patents, the patents themselves often do not hold up to scrutiny. A study of about three hundred litigated patents found that courts invalidated 46% of them.¹⁸⁰ Hence, a potential infringer cannot always know whether she is violating a legitimate patent when using someone else’s patented technology. If one considers that the criminal law ought to provide a sensible level of guidance to citizens regarding permissible behavior and also be “accessible to those regulated,”¹⁸¹ imposing criminal sanctions for patent infringement could raise significant concerns. A statute providing criminal sanctions for patent infringement would presumably require willfulness as the infringer’s mens rea. In the copyright context, willfulness has mostly been interpreted as an intent to violate the law, although the Second Circuit has taken it to mean “an intent to copy, rather than

176. For a more detailed discussion on the subject, see, for example, Arlen W. Langvardt & Kyle T. Langvardt, *Unwise or Unconstitutional?: The Copyright Term Extension Act, the Eldred Decision, and the Freezing of the Public Domain for Private Benefit*, 5 MINN. INTELL. PROP. REV. 193 (2004).

177. 15 U.S.C.A. §§ 1058(a), 1059(a) (West 2011).

178. The application costs for a patent (including fees paid to the PTO and attorneys) are estimated at about \$20,000. Barnett, *supra* note 169, at 396; see also Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1498 (2001) (estimating application costs at “\$10,000 to \$30,000 per patent”). Meanwhile, trademark registration costs range “anywhere from \$500 to multiple thousands of dollars.” Sharon K. Sandeen, *Defenders of Small Business?: A Perspective on the Supreme Court’s Recent Trademark Jurisprudence*, 30 WM. MITCHELL L. REV. 1705, 1709 n. 13 (2004). Copyright registrations currently cost \$35 and can be filed quite easily. *Fees*, U.S. COPYRIGHT OFF., <http://www.copyright.gov/docs/fees.html> (last updated Sept. 24, 2010).

179. The issue of exclusive use in different forms of IP is covered in Hoffstadt, *supra* note 15, at 951–52.

180. John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 205 (1998).

181. LARRY ALEXANDER ET AL., *CRIME AND CULPABILITY: A THEORY OF CRIMINAL LAW* 291 (2009).

an intent to infringe.”¹⁸² Some of the differences between patents and soft IP make the willfulness determination more complex in the patent context, and could create challenges in setting an appropriate threshold for successful prosecution.

In the civil setting, willfulness in patent infringement has been defined as “objective recklessness,” referring to the mindset of an infringer who “acted despite an objectively high likelihood that its actions constituted infringement of a valid patent” where the “objectively-defined risk . . . was either known or so obvious that it should have been known to the accused infringer.”¹⁸³ By setting this standard, the Federal Circuit overruled its prior requirement of an affirmative duty of due care, and it explained “that there is no affirmative obligation to obtain opinion of counsel.”¹⁸⁴ Some commentators have stated that a lack of the necessary objective recklessness can be shown if a defendant gives a “reasonable basis for why the patent is invalid, unenforceable, or not infringed, even if the [defendant’s] theories ultimately fail in court.”¹⁸⁵ Given the softening of the willfulness standard in civil patent infringement over time, it is difficult to imagine what a reasonable criminal standard would look like.¹⁸⁶ Similar to that of the criminal test for copyright, the mindset needed for criminal patent infringement would likely be a step above the civil requirement of recklessness, which is already hard for patentees to prove. Determining whether intent was present in patent infringement could easily present a conundrum for the typical criminal jury.

One related complication for criminal sanctions in patents as opposed to soft IP arises from the differences in complexity of the subject matter that are visible in the context of application or registration. Applications for patents are significantly more expensive and experience more delays than, for instance, trademark registrations¹⁸⁷ due to the difficulty of resolving the merits of patent applications. While

182. Cormier et al., *supra* note 56, at 789.

183. *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007).

184. *Id.* The *Seagate* decision has had a complex effect on the number of willfulness findings in the case law and the awarding of damages. See Christopher B. Seaman, *Willful Patent Infringement and Enhanced Damages After In Re Seagate: An Empirical Study* 97 IOWA L. REV. (forthcoming 2011), at 23, 26, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1751831 (explaining that willful infringement was found in about 10% fewer cases after *Seagate*, with juries finding such infringement significantly more often but awarding enhanced damages less often than judges).

185. John Kappos & Paul Veravanich, *Changing Opinions on Willful Patent Infringement*, IPFRONTLINE (Nov. 3, 2009), <http://www.ipfrontline.com/depts/article.aspx?id=23731&deptid=3>.

186. This is not to say that the standard in copyright criminal actions is entirely clear, as discussed in the text surrounding note 182, *supra*.

187. For a more extensive discussion of delays at the PTO and possible solutions, see Michael Abramowicz & John F. Duffy, *Ending the Patenting Monopoly*, 157 U. PENN. L. REV. 1541 (2009), and Irina D. Manta, *Privatizing Trademarks*, 51 ARIZ. L. REV. 381 (2009).

providing a thorough discussion of the intricacies of patent applications is outside the scope of this Article, one of many issues that PTO examiners face is that “finding the relevant written information to invalidate [a patent] during the review process can be quite difficult, especially under the time and resource constraints created by the backlog and with double the number of applications as there were ten years ago.”¹⁸⁸ Once a patent has been granted, its owner may encounter problems with non-literal in addition to literal infringers.¹⁸⁹ A literal infringer is one who “without authority makes, uses, offers to sell, or sells any patented invention.”¹⁹⁰ Because limiting punishment to literal infringers would permit abuse by allowing the use of others’ inventions with only slight alterations, courts apply the “doctrine of equivalents” and consider a device infringing “if it performs substantially the same function in substantially the same way to obtain the same result.”¹⁹¹ Of course, determining that (1) someone not only committed such non-literal infringement but did so willfully — meaning willfully enough to potentially go to prison or pay criminal fines — and (2) committed such actions in a case where the patent is upheld by courts (which, as discussed, only occurs in 54% of litigated cases) becomes a significant challenge.

There are risks in setting the threshold for criminal prosecution both too high and too low. If the bar is high, such as if Congress and the courts only make criminal sanctions available for direct infringement or demand significant amounts of difficult-to-obtain evidence to prove willfulness, successful prosecutions will be few and far between. As a result, the government would risk wasting financial resources on failed prosecutions or would pursue few infringers.¹⁹² In either scenario, the advantages of having such sanctions would likely be insignificant; after all, a criminal framework is not likely to change

188. Beth Simone Noveck, “Peer to Patent”: *Collective Intelligence, Open Review, and Patent Reform*, 20 HARV. J.L. & TECH. 123, 132 (2006).

189. See Univ. of Houston Law Ctr., *Decisions for 2005–2009*, PATSTATS.ORG, http://www.patstats.org/2005-2009_composite.htm (indicating that doctrine of equivalents cases constitute a significant percentage of all patent infringement lawsuits); see also Noel Mendez, Comment, *Patent Infringers, Come out with Your Hands Up!: Should the United States Criminalize Patent Infringement?*, 6 BUFF. INTELL. PROP. L.J. 34, 40–41 (2008) (discussing the two types of infringement in the context of patent criminal sanctions).

190. 35 U.S.C. § 271(a) (2006).

191. *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 608 (1950) (quoting *Sanitary Refrigerator Co. v. Winters*, 280 U.S. 30, 42 (1929)).

192. If many prosecutions fail and this fact becomes publicized, would-be offenders could lose their general inhibitions against breaking criminal laws and engage in significant degrees of cavalier behavior as a result. And while only prosecuting and then publicizing the “slam dunk” cases could deter some willful patent infringers, most of them may not identify with the most blatant infringers that would likely be the only defendants in those cases.

behavior if potential gains from patent infringement are large and odds of apprehension and criminal punishment are small.¹⁹³

Setting the bar low, however, could result in the prosecution and conviction of relatively harmless infringers and perhaps even innocent parties. A low bar could also lead to overdeterrence of innovation by individuals afraid of suffering criminal sanctions. Furthermore, considering only the effects of reduced legitimate innovation — i.e., non-infringing innovation — misses key considerations. First, society may have an interest in an optimal level of infringement that is above zero if the overall benefit from infringers' innovations is greater than the loss resulting from the drop in infringees' (and possibly third parties') innovation.¹⁹⁴ One could argue that criminal sanctions could put the "fear of God" in infringers such that this optimal level would be more difficult to reach.

Second, society may benefit from willful infringement when it forces the litigation of improperly granted patents that impede innovation and allow patent owners to monopolize entire areas of technology without making corresponding contributions.¹⁹⁵ This is a key distinction between patents and soft IP — willful infringement of copyrights and trademarks does not generally give society useful information as to whether the right was appropriately granted in the first place, while patent actions do.¹⁹⁶ As discussed in the European context,¹⁹⁷ individuals and companies would likely cease to infringe patents of spurious validity because of the severe legal consequences should the patents ultimately be upheld. This change in behavior could harm the public.

Third, society would likely suffer more from overdeterrence in the patent area as a result of the introduction of criminal sanctions than it does in the soft IP context. Consider, for example, the effects of overdeterrence as a function of the subject matter of each area of

193. One could introduce very high penalties as a remedy to this problem, but that comes with its own set of issues, such as lack of proportionality between the crime and the punishment. It is also not necessarily effective, as seen in the copyright file-sharing context. See Part V, *infra*.

194. See Ian Ayres & Paul Klemperer, *Limiting Patentees' Market Power Without Reducing Innovation Incentives: The Perverse Benefits of Uncertainty and Non-Injunctive Remedies*, 97 MICH. L. REV. 985, 1019–20 (1999) (analyzing the benefits of imperfect enforcement of valid patents). But see Kieff, *supra* note 14, at 733 (noting the potentially destructive implications of imperfect enforcement).

195. Several scholars have noted that society suffers from the settlement of some civil patent lawsuits if bad patents that block "very useful or valuable" technology are allowed to continue existing as a result. Jay P. Kesan & Gwendolyn G. Ball, *How Are Patent Cases Resolved? An Empirical Examination of the Adjudication and Settlement of Patent Disputes*, 84 WASH. U. L. REV. 237, 244 (2006).

196. Indeed, it is patents specifically that are often improvidently granted, and patent infringement lawsuits allow this to come to light. See *supra* note 180 and accompanying text. I would like to thank Jacqueline Lipton for our conversation on this topic.

197. See *supra* notes 155–158 and accompanying text.

IP. In the case of trademarks, someone who needs a new mark for a product or service could technically decide not to choose the optimal trademark because of overdeterrence, but she would likely still be able to develop a mark that would serve the purpose of identifying her goods well enough to market them. For copyright, the consequences could be more serious in that some works of art or music may not be created or disseminated¹⁹⁸ and people's ability to express themselves could be hindered.¹⁹⁹ As problematic as these consequences may be, they would likely still pale in comparison to the effect of overdeterrence in the patent context; entire classes of technologies and medicines, even life-saving ones, might never be developed and reach the market due to inventors' fears of criminal sanctions. This is particularly true when one considers the way in which these sanctions have been used for soft IP as opposed to how they would have to be used in the patent context to reach a positive result. For trademarks, only counterfeiting (i.e., making replicas of a mark) — as opposed to other forms of trademark infringement — can be prosecuted.²⁰⁰ For copyright, the enforcement of sanctions has also primarily focused on punishing the creation and distribution of exact copies of works.²⁰¹ How would patent criminal sanctions likely be enforced?

Let us take one of the most straightforward examples, involving literal infringement, high stakes, and willfulness that is easy to prove. Company A makes and sells a drug that reproduces an existing popular drug called "Superpill" for which Company B owns a patent. What will Company A name its drug and how will it package it? The way for Company A to maximize profits is to maximally capitalize on Superpill's popularity by copying the name, packaging, and any other identifying marks. If Company A gives the drug a different name, people are both less likely to buy it and Company A may even be more likely to get caught.²⁰² Once it copies the name and other attrib-

198. See, e.g., Geraldine Szott Moohr, *The Crime of Copyright Infringement: An Inquiry Based on Morality, Harm, and Criminal Theory*, 83 B.U. L. REV. 731, 760 (2003) ("Fear of criminal penalties may inhibit second-generation creators from working with material they believe may be off-limits — even when such use is in fact lawful.").

199. While one may argue that criminal sanctions have focused on exact replicas in the copyright context and so have not necessarily inhibited "creators," high civil statutory damages can have a similar effect. See Alan E. Garfield, *The Case for First Amendment Limits on Copyright Law*, 35 HOFSTRA L. REV. 1169, 1206 (2007) (arguing that "punitive-like statutory awards should be limited so that parties wanting to make derivative works will not have their creative speech chilled").

200. See 18 U.S.C.A. § 2320 (West 2011).

201. Some forms of criminal sanctions for copyright infringement could theoretically have even more detrimental effects than criminal sanctions for patent infringement (e.g., if the former were to meaningfully chill political speech). As a historical and pragmatic matter, however, the aggregate risks from patent criminal sanctions currently appears higher than that from copyright criminal sanctions. I would like to thank Eric Goldman for his comments on this issue.

202. To successfully market the drug under a different name, Company A would likely have to give extensive explanations online or elsewhere as to the function being similar to

utes, however, Company A has counterfeited Company B's trademark and is at risk of criminal sanctions under various existing counterfeiting provisions. Thus, substitution effects may be in play where society already criminally punishes many types of patent infringement indirectly by punishing the accompanying counterfeiting.²⁰³ The additional marginal impact on deterrence of patent infringement through patent-specific criminal sanctions is likely to be minimal, since an individual or company that is willing to risk counterfeiting-related criminal sanctions will rarely stop because a different set of criminal sanctions is also in place. Thus, some of the most blatant patent infringers can already be pursued criminally under counterfeiting provisions, which currently subject such infringers to fines of millions of dollars and up to ten years in prison for a first offense or up to twenty years for repeated offenses.²⁰⁴

In cases that do not involve overlapping IP regimes, it is necessary to examine the legal and practical nature of patent infringement compared to copyright and trademark infringement to understand the reasons behind the existing distinctions in the criminal law. First, "[t]he lack of a copying requirement for liability places patent law in sharp contrast with copyright."²⁰⁵ Also, while copying is technically not necessary for a finding of trademark infringement, the intent to copy or deceive is used as a factor in deciding whether infringement took place, with recent work suggesting that "evidence of intent is the most significant factor predicting a finding of trademark infringement."²⁰⁶ Of the 1871 patent infringement opinions that two scholars examined, only 1.76% held that copying took place,²⁰⁷ and 2.24% included a finding of willfulness.²⁰⁸ A finding of willfulness typically meant either (1) that the defendant engaged in copying or (2) "that the defendant didn't stop infringing once it found out about the patent and didn't have good reason to believe that the patent was invalid or not

Superpill's (whether Company A mentions Superpill by name or not in that description), which would raise red flags for Company B and its attorneys.

203. I would like to thank Ted Sichelman for our conversation on this topic.

204. See 18 U.S.C. § 2320. Trademark counterfeiting and piracy are also prosecutable under a number of state statutes. For a list of such laws, see *State Statutes for Prosecuting Counterfeiting & Piracy*, INVESTIGATIVE CONSULTANTS, <http://www.investigativeconsultants.com/html/state-statutes.pdf> (last visited May 6, 2011). Clarisa Long has helpfully suggested to me that substitution effects also operate in reverse in that laws criminalizing counterfeiting or the types of violations covered by the DMCA enable law enforcement to catch individuals that also engage in other types of illegal behavior unrelated to IP. According to Long, this gives the government an additional incentive to criminalize trademark and copyright offenses but not patent offenses where infringers do not tend to constitute persons of interest in other regards.

205. Christopher A. Cotropia & Mark A. Lemley, *Copying in Patent Law*, 87 N.C. L. REV. 1421, 1426 (2009).

206. *Id.* at 1427–28 (citing Barton Beebe, *An Empirical Study of the Multifactor Tests for Trademark Infringement*, 94 CALIF. L. REV. 1581, 1608 (2006)).

207. *Id.* at 1451.

208. See *id.* at 1454.

infringed.”²⁰⁹ Thus, even if patent infringement as a whole may present a real problem in the United States, it is not clear that *purposeful* infringement (the only type that criminal sanctions would likely cover) poses a significant threat.²¹⁰ Of course, one could argue that criminal sanctions may reduce non-purposeful infringement as well by making infringers more careful, but the risks of overdeterrence and over-investment in legally protective mechanisms loom rather large over this proposition.²¹¹

When it comes to the practical nature of infringement against each form of IP, the advent of various technologies in recent years may have had a larger impact on soft IP than on patents, and harsher sanctions may thus be more necessary for infringement of the former than the latter. Indeed, of the materials protected by IP, those subject to copyright are generally the likeliest to suffer infringement on a large scale. This has held especially true since the invention of modern reproduction mechanisms and has become a particularly explosive issue in cyberspace. “Internet users have been able to reproduce and redistribute information of all kinds — music, text, video, etc. — . . . in quantities that truly stagger the mind.”²¹² Some argue that these

209. *Id.* at 1442.

210. It is conceivable that despite the low percentage of patent infringement cases in which the court held that willfulness took place, the threat of heightened civil sanctions for willful infringement might still have a chilling effect on the behavior of would-be inventors. Given the current lack of clarity of patent scope and validity, however, it is not apparent that this would have a significant marginal effect on overdetering inventions. Further, for any area of IP, corporations at least can compensate executives and employees for the civil legal risks that they take and that could result in personal financial losses were the corporate veil to be pierced; such compensation may not be practically feasible for the risk of criminal liability. For an example of corporate veil piercing in the copyright infringement context, see Eric Goldman, *LimeWire Smacked Down for Inducing Copyright Infringement — Arista Records v. Lime Group*, TECH. & MARKETING L. BLOG (May 13, 2010, 12:04 PM), http://blog.ericgoldman.org/archives/2010/05/limewire_smacke.htm (discussing *Arista Records LLC v. Lime Group LLC*, 715 F. Supp. 2d 481 (S.D.N.Y. 2010)).

211. As mentioned previously, some inventions indirectly receive not only civil but also criminal law protection as early as the pre-patenting stage (or even in specific cases where no patent can be obtained) through the mechanisms of trade secret laws. Trade secret theft is, however, less likely to occur “accidentally” than patent infringement and is intuitively more likely than the latter to damage corporate culture and the relationship between employer and employee. Furthermore, such theft can increase the risk that a competitor will realize gains from a new product developed via a stolen trade secret before the original inventor reaped any benefits at all, which elevates the potential of such theft to reduce incentives to invent. From a utilitarian perspective (and possibly a moral one) criminalizing trade secret theft thus presents a different set of costs and benefits than criminalizing patent infringement; the former creates a lower risk of overdeterrence of invention. For a more extensive discussion of trade secret law and its relationship to IP, see Mark A. Lemley, *The Surprising Virtues of Treating Trade Secrets As IP Rights*, 61 STAN. L. REV. 311 (2008); Michael Risch, *Why Do We Have Trade Secrets?*, 11 MARQ. INTELL. PROP. L. REV. 1 (2007); see also Robert G. Bone, *A New Look at Trade Secret Law: Doctrine in Search of Justification*, 86 CALIF. L. REV. 241 (1998) (criticizing the existence of trade secret laws and arguing for a contract-based approach to trade secret liability).

212. DAVID G. POST, IN SEARCH OF JEFFERSON’S MOOSE: NOTES ON THE STATE OF CYBERSPACE 202 (2009). Post elaborates:

factors have contributed to the large losses that the U.S. economy suffers as a result of copyright infringement, which one author has estimated at about \$58 billion and over 373,000 jobs every year.²¹³ The Internet has had a significant effect in the area of trademark as well, most relevantly by facilitating the sale of counterfeit goods.²¹⁴ At times, products such as counterfeit drugs or foods can cause major health risks, and their sale over the Internet may make it even more difficult for some consumers to verify their source and safety.²¹⁵ As some have noted, the buyers of counterfeit products may be dispersed, may each suffer small financial losses, and may each be unlikely to deal with the counterfeiters directly.²¹⁶ This is because “an individual end user often has insufficient information or incentive to bring a civil action against the counterfeiter. Thus, a counterfeiter who has defrauded thousands of end users and profited greatly, but caused only minimal damage to each individual, may avoid paying any damages.”²¹⁷ The argument, then, is that only criminal enforcement is likely to remedy the situation and deter future infringement of producers’ and consumers’ rights.²¹⁸

In the case of copyright infringement on the Internet, it is often the infringers rather than the victims that are widespread. For example, it is precisely because of the difficulty in pursuing individuals who download and distribute music illegally online that the entertainment industry has gone after the peer-to-peer software companies that facilitate the process, and the well-known Supreme Court case

Sean Fanning comes up with a little string of program code — Napster — throws it onto the network, and a year later 70 million people are trading billions of songs every day. Shut down Napster, along comes Grokster, and BitTorrent, and file-sharing continues apace.

And just when you thought it was safe, here comes YouTube.

Id. He further points out that a number of individuals had already predicted these developments back in the early 1990s. *Id.* at 203; see also Aaron B. Rabinowitz, *Criminal Prosecution for Copyright Infringement of Unregistered Works: A Bite at an Unripe Apple?*, 49 SANTA CLARA L. REV. 793, 793–94 (2009) (explaining how at times, “infringers distribute copies of works before those works are even publicly released”).

213. STEPHEN E. SIWEK, INST. FOR POLICY INNOVATION, THE TRUE COST OF COPYRIGHT INDUSTRY PIRACY TO THE U.S. ECONOMY 14 (2007), [http://www.ipi.org/IPI/IPublications.nsf/PublicationLookupFull-TextPDF/02DA0B4B44F2AE9286257369005ACB57/\\$File/CopyrightPiracy.pdf](http://www.ipi.org/IPI/IPublications.nsf/PublicationLookupFull-TextPDF/02DA0B4B44F2AE9286257369005ACB57/$File/CopyrightPiracy.pdf). Not everyone agrees on these figures, however, as discussed in Part V, *infra*.

214. See, e.g., INT’L TRADEMARK ASS’N, COUNTERFEITING SPECIAL REPORT 2 (2004) (noting that the impact of counterfeiting on the pharmaceutical industry has greatly increased because of the new channels of distribution that the Internet offers). This problem is somewhat, though not entirely, alleviated by the availability of consumer reviews and certification services online.

215. *Id.* at 8–9.

216. See David J. Goldstone & Peter J. Toren, *The Criminalization of Trademark Counterfeiting*, 31 CONN. L. REV. 1, 13 (1998).

217. *Id.*

218. See *id.*

*Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*²¹⁹ arose as a result.²²⁰ Indeed, as described in Part III, *supra*, file-sharing has played an essential role in the shaping of criminal law sanctions in recent years, based on the idea that a few instances of harsh sanctions against infringers will provide a deterrent to other potential culprits and prove more cost-effective than widespread civil litigation.²²¹ Copyright infringers also often do not have “deep pockets,” so it is difficult for owners to recover much in civil litigation compared to the amounts spent on attorneys’ fees and other litigation costs.²²²

Unlike soft IP, however, patents have not suffered a massive increase in infringement as a result of the Internet. Most likely, neither has the number of patent infringers increased radically unlike in copyright infringement, nor are significantly more people hurt by the effects of patent infringement. It is true that many goods, including those that infringe patents, have found new distribution channels through the creation of the Internet. Nevertheless, there is no reason to believe that willful patent infringers — the individuals of interest when it comes to criminal sanctions — have experienced a boon from these technologies except potentially when it comes to the sale of goods that also contain, for instance, counterfeit markings and whose sale is thus already punishable through counterfeiting criminal sanctions. The Internet simply does not increase the ability to infringe on patents as significantly as it does the ability to infringe on other forms of IP. Also, unlike copyright infringement in particular, patent infringement is often committed by companies, which are more likely to respond to being hit with large damage awards than individual in-

219. 545 U.S. 913 (2005).

220. Indeed, the *Grokster* Court itself specifically mentioned as part of its reasoning that in the case of peer-to-peer sharing technology and resulting dispersed infringement, “it may be impossible to enforce rights in the protected work effectively against all direct infringers, the only practical alternative being to go against the distributor of the copying device for secondary liability on a theory of contributory or vicarious infringement.” *Id.* at 929–30. “The introduction of peer-to-peer networks presented copyright owners with an unprecedented challenge.” Assaf Hamdani & Alon Klement, *The Class Defense*, 93 CALIF. L. REV. 685, 699–702 (2005) (describing the problems with civil litigation against dispersed defendants in the peer-to-peer context). One recent lawsuit, filed by the attorney for a company whose copyrighted pornographic goods have allegedly been infringed via BitTorrent, has attempted a “reverse class action” to reach a larger group of individuals in one fell swoop. See Nate Anderson, *Reverse Class-Action? It’s the Latest Tactic in the P2P Wars*, ARS TECHNICA, <http://arstechnica.com/tech-policy/news/2011/02/reverse-class-action-its-the-latest-tactic-in-the-p2p-wars.ars> (last updated Feb. 5, 2011).

221. See generally Moohr, *supra* note 58 (evaluating the utilitarian pros and cons of criminalizing copyright infringement, including in the context of file-sharing).

222. See *infra* discussion surrounding note 275.

fringers²²³ because although companies may have the ability to pay, these awards could significantly hurt their bottom line.²²⁴

One last noteworthy point in the discussion about the different nature of soft IP versus patent infringement is their respective effects on the order of society.²²⁵ Patent infringement does not usually touch the average citizen's life in the same way as soft IP infringement does. Counterfeiting can interfere with the financial and even physical well-being of ordinary consumers. Copyright infringement, especially through mechanisms such as file-sharing, can involve regular people in infringement and arguably desensitize them to engaging in other forms of illegal activities. Patent infringement, however, largely takes place between companies.²²⁶ It therefore rarely hurts citizens in a tangible, individualized manner and does not tend to disrupt the fabric of society. This dynamic reduces the justification for the government to intervene directly and punish those guilty of patent infringement even in its more blatant forms.

A number of other issues influence the balance of costs and benefits of implementing criminal sanctions for patents, including the potential difficulties that patent cases would encounter in criminal courts.²²⁷ Overall, this Part shows that moral and utilitarian factors likely played a strong role in the development of the disparity between

223. This is not to imply that individual infringers, including judgment-proof ones, are entirely indifferent to being hit with damages, but the impact would likely be reduced compared to the consequences for entities that can pay.

224. There are some questions as to whether a few recent Federal Circuit decisions reducing the availability of monetary damages in patent infringement cases will encourage future pushes for criminal sanctions. *See* *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1315 (Fed. Cir. 2011) (holding “that the 25 percent rule of thumb is a fundamentally flawed tool for determining a baseline royalty rate in a hypothetical negotiation”); *ResQNet.com v. Lansa, Inc.*, 594 F.3d 860, 868 (Fed. Cir. 2010) (striking down a 12.5% royalty rate because it “relied on speculative and unreliable evidence divorced from proof of economic harm linked to the claimed invention” and was “inconsistent with sound damages jurisprudence”). Some patent owners and their representatives may start asking for criminal sanctions due to fears that monetary damages are becoming more modest and thus less powerful in deterring infringement. Given the other problems with introducing criminal sanctions in this context, however, calls for statutory civil damages such as those already present in copyright appear more likely. I would like to thank Gregory Dolin and John Whealan for the conversations we had on this subject.

225. For a discussion of how theft disrupts the order of society, see *supra* Part II.

226. One study of 1000 patents found that 707 were owned by large companies, and that 293 were owned by small entities, 175 of which were individuals. John R. Allison & Mark A. Lemley, *Who's Patenting What? An Empirical Exploration of Patent Prosecution*, 53 VAND. L. REV. 2099, 2117 (2000).

227. *See* Mendez, *supra* note 189, at 43 (suggesting that criminal courts have neither the expertise nor the resources to handle patent cases). The role and abilities of criminal juries in scientifically complex cases would also require further study. In an analogous context—willfulness in civil infringement cases—one scholar (now a judge on the Federal Circuit) assessed that juries found for patent holders somewhat more often than judges did. Kimberly A. Moore, *Judges, Juries, and Patent Cases—An Empirical Peek Inside the Black Box*, 99 MICH. L. REV. 365, 391 (2000) (stating that juries find for patent holders on willfulness 71% of the time and judges 53%).

patents and soft IP in the criminal arena. There are, however, also non-moral and non-utilitarian reasons that the United States has the current model in place. The next Part examines how public choice factors have helped to shape policy as well.

B. Public Choice Explanation

Public choice theory is generally understood “as the economic study of nonmarket decision making, or simply the application of economics to political science.”²²⁸ A central concept of public choice theory is that of rent-seeking, which is a behavior pattern in which actors seek to convince the government to “help create, increase, or protect a group’s monopoly position,” thereby enhancing the profits “of the favored groups, at the expense of the buyers of the group’s products or services. The monopoly rents that the government can help provide are a prize worth pursuing, and the pursuit of these rents has been given the name rent-seeking.”²²⁹ While scholars have mostly focused on the effects of rent-seeking in the context of the civil law, the criminal law also has the ability to serve as a tool for rent-seeking where groups can “use the mechanism of government to create or protect economic rents.”²³⁰ Criminal sanctions in IP are no exception to that principle.

Most of the public choice scholarship in the soft IP context concerns criminal sanctions for copyright violations.²³¹ Viewing matters through a public choice lens, this Part thus mainly contrasts the existence of sanctions in the copyright context with the lack thereof in the patent area, and also anticipates how public choice scholars would likely react to the existence of criminal sanctions in trademarks. This analysis will show that rent-seeking behaviors are an important factor in explaining the disparity of criminal sanctions between soft IP and patents.

As is also apparent from the discussion in Part III, the role of the criminal law in protecting copyrighted materials has expanded significantly, starting in 1897.²³² Some scholarship has stated unambiguously that in the copyright context, “Congress’ decision to increase criminal penalties was driven by interest groups seeking copyrights protected by criminal sanctions as a means of restricting entry into an

228. DENNIS C. MUELLER, PUBLIC CHOICE II: A REVISED EDITION OF PUBLIC CHOICE I (1989).

229. *Id.* at 229; see also Anne O. Krueger, *The Political Economy of the Rent-Seeking Society*, 64 AM. ECON. REV. 291, 291 (1974) (introducing the concept of rent-seeking).

230. Lanier Saperstein, Comment, *Copyrights, Criminal Sanctions and Economic Rents: Applying the Rent Seeking Model to the Criminal Law Formulation Process*, 87 J. CRIM. L. & CRIMINOLOGY 1470, 1471 (1997).

231. See, e.g., *infra* note 233 and accompanying text.

232. See Moohr, *supra* note 58, at 789–90.

increasingly profitable market.”²³³ While Congress augmented available criminal sanctions in the Copyright Act of 1976 by relaxing the mens rea requirement and providing harsher punishments in the form of greater fines, prison sentences, and mandatory destruction of infringing materials, copyright interest groups such as the Recording Industry Association of America (“RIAA”) and the Motion Picture Association of America (“MPAA”) doubted that such maneuvers would truly deter infringement.²³⁴ These organizations wanted the government to introduce felony penalties for some types of copyright infringement because civil actions had proven to be insufficient deterrents and “[e]xisting criminal penalties [did] not deter counterfeiters and pirates. A first offense [was] only a misdemeanor, a very small risk in light of the enormous profits to be made.”²³⁵ Further, the group feared that the U.S. Attorney’s Office would focus much less on prosecuting misdemeanor cases than felony ones.²³⁶ In response to the lobbying efforts of the RIAA and MPAA, Congress further increased maximum fines and sentences to a felony level of \$250,000 and five years in prison, respectively.²³⁷

The software industry sought to seize on similar tools to combat its own loss of revenues due to unauthorized duplication, and it began to lobby Congress in pursuit of what later became the Copyright Felony Act of 1992; the law further strengthened criminal penalties for infringement and extended felony punishment to infringement of computer software and video games.²³⁸ For organizations like the RIAA, MPAA, and software lobbies — organizations that have a great deal to lose from large-scale copyright infringement and do not themselves commit significant amounts of infringement — lobbying for increased criminal sanctions represents a cost-effective method of influencing the law in a clearly favorable way. Individual copyright owners, by contrast, have to expend their own resources in every single civil lawsuit for infringement and watch as the resulting penalties are inconsistently enforced; furthermore, civil sanctions often provide a much weaker deterrent effect than criminal ones.²³⁹ As discussed, criminal sanctions are especially effective at deterring infringers who

233. Saperstein, *supra* note 230, at 1472. See generally Laurence R. Helfer, *World Music on a U.S. Stage: A Berne/TRIPS and Economic Analysis of the Fairness in Music Licensing Act*, 80 B.U. L. REV. 93, 119–39 (2000) (analyzing rent-seeking behaviors on the part of copyright owners and users in the music licensing context); Jessica Litman, *Copyright Legislation and Technological Change*, 68 OR. L. REV. 275, 279–80 (1989) (discussing such behaviors during the passage of the 1909 and 1976 Copyright Acts).

234. Saperstein, *supra* note 230, at 1478–79.

235. *Id.* at 1479 (citing *Piracy and Counterfeiting Amendments Act of 1981: Hearing on S. 691 Before the Subcomm. on Criminal Law of the S. Comm. on the Judiciary*, 97th Cong. 27 (1981) [hereinafter *Joint Statement*] (joint statement of the MPAA and RIAA)).

236. See *Joint Statement*, *supra* note 235, at 27.

237. Saperstein, *supra* note 230, at 1480.

238. *Id.* at 1481–82; see also *supra* notes 66–73 and accompanying text.

239. Saperstein, *supra* note 230, at 1507.

are judgment proof in civil litigation, and incarceration also ensures that infringers cannot immediately return to their illegal activities.²⁴⁰

There is a limited amount of literature on public choice in the context of criminal sanctions for trademark infringement; however, it makes intuitive sense that trademark owners would have the same sentiments toward criminal sanctions against counterfeiters as copyright owners do against willful copyright infringers. Trademark owners — particularly large companies with numerous marks and strong legal departments — benefit from increased sanctions for infringement, typically without an increased risk of suffering the negative consequences of such sanctions themselves. Criminal sanctions for trademark infringement, at the very least, have the potential to provide increased deterrence and a reduction in civil litigation costs. In short, from most trademark owners' perspectives, the only good counterfeiter is a jailed counterfeiter.²⁴¹

It is not immediately clear why the public choice story would be any different in the patent context from copyright and trademark. Indeed, many patent owners have strong incentives to support significant sanctions for infringement of their IP; they would likely also prefer enforcement through government rather than private resources. Craig Nard and Andrew Morriss, however, show how governments have historically limited the influence of interest groups in the patent context, and the two scholars provide examples through an analysis of three major sets of patent legislation: the Venetian Patent Act of 1474; the English Statute of Monopolies of 1624; and the Patent and Copyright Clause of the U.S. Constitution along with the Patent Act of 1790.²⁴² According to Nard and Morriss, four common threads run through these laws. First, in each instance the government created institutions that would narrow the opportunities for rent-seeking by doing the following:

In Venice, the power to grant patent monopolies was taken from the political class — a class defined by its propensity to seek rents — and delegated to a bureaucracy. In Britain, Parliament fought long and hard to restrict the terms of monopolies granted by the monarch through judicial review under the common law. In the United States, the Patent and Copy-

240. *Id.* at 1508.

241. Further, not only is it more difficult to prosecute individual counterfeiters and copyright infringers, as discussed above, but their often-dispersed actions can be more difficult to detect than those of patent infringers, which may increase the need for a damage multiplier when it comes to trademark and copyright offenses. I would like to thank Jonathan Klick for suggesting this point to me.

242. See Craig Allen Nard & Andrew P. Morriss, *Constitutionalizing Patents: From Venice to Philadelphia*, 2 REV. L. & ECON. 223 (2006).

right Clause imposed constraints on Congress to ensure invention was rewarded, and the First Congress refused to read the Patent and Copyright Clause expansively to allow import patents and to rent-seek through private legislative grants, insisting rather on an examination system and disclosure requirements to restrict rent-seeking behavior.²⁴³

Second, each system demonstrated the need for constitutional assurances to deal with interest groups that sought to circumvent other legal safeguards against rent-seeking;²⁴⁴ the American experience in particular showed that the benefits outweigh the costs when writing a constitutional provision that limits the patent power.²⁴⁵ Third, all three governments turned the patent process “from an individual legislative bargain into an administratively-issued property right,”²⁴⁶ which led to the decentralization of decision-making and “engender[ed] technological progress because [decentralized systems] did not depend on the personal judgment and survival of single-minded and strong-willed individuals.”²⁴⁷ Fourth, all three systems recognized that patents needed to become “durable bargains. . . . [because a] patent that can be arbitrarily revoked tomorrow is clearly worth less than one that cannot be revoked.”²⁴⁸

This evidence shows that a number of governments, including the United States, have long been committed to reducing the ability of interest groups to affect the functioning of the patent system. The United States, both through the Patent and Copyright Clause and the creation of a formal patent administration, did its best to insulate the process from arbitrary decision-making and from individual attempts to influence outcomes in a manner that would yield socially detrimental rents. In the early years of the patent system this may have limited the role of lobbying, at least at the margins, and potentially precluded the introduction of criminal sanctions in the United States. As this Article will show, nonetheless, patent lobbies have become very powerful today. Of course, the existence of a constitutional provision that covers patents could also not be the distinguishing characteristic when

243. *Id.* at 310. For a more extensive discussion of the history and meaning of the Patent and Copyright Clause, see Dotan Oliar, *Making Sense of the Intellectual Property Clause: Promotion of Progress as a Limitation on Congress's Intellectual Property Power*, 94 GEO. L.J. 1771 (2006) (arguing that the Patent and Copyright Clause was enacted as a limitation on Congress's power in the area of IP).

244. See Nard & Morriss, *supra* note 242, at 310.

245. See *id.* at 308–09.

246. *Id.* at 310.

247. *Id.* at 311 (quoting JOEL MOKYR, *THE GIFTS OF ATHENA: HISTORICAL ORIGINS OF THE KNOWLEDGE ECONOMY* 239 (2002)).

248. *Id.* Enshrining patent institutions in a constitution is one way of ensuring that patents are not arbitrarily revoked. *Id.*

comparing patents to soft IP given that the same provision covers copyright as well. Copyright, however, does not have a formalized registration process comparable to the patent application system,²⁴⁹ and the public choice-related differences do not end there.

Indeed, Jay Kesan and Andres Gallo — after examining interest groups' attempts to influence the U.S. patent system — demonstrate a point that is essential to understanding why patent lobbies are likely to function differently from soft IP lobbies: inventors disagree about whether they would benefit from stronger protections and increased sanctions for infringement.²⁵⁰ Kesan and Gallo subdivide inventors into groups that are often at odds with one another, such as individual inventors, universities, big IT companies, big pharmaceutical and biotechnology companies, small IT companies, and small pharmaceutical and biotechnology companies.²⁵¹ To mention a few of the tensions between different inventor groups, big IT companies “prefer a lower degree of property rights protection and enforcement to avoid becoming hostage to small companies' patents,” whereas “[b]ig companies in the pharmaceutical and biotechnology sector, as well as small companies in both sectors, prefer strong enforcement of their patents.”²⁵² The fact that big IT companies and big pharmaceutical companies — the two strongest lobbyists in the patent arena — often hold directly contrary interests makes the enactment of patent reform measures a difficult proposition for Congress.²⁵³ After analyzing the failure of the Patent Reform Act of 2007 to pass the Senate, Kesan and Gallo conclude that the lobbies of the big IT and big pharmaceutical companies “have a strong influence on the voting behavior of congresspersons, and they have a real influence on the direction of patent reform.”²⁵⁴ The scholars state as a general matter that any legal reform in the patent area will require at least a modicum of consensus among the different types of inventors as well as other parties involved, such as the patent bar and the Patent and Trademark Office.²⁵⁵ Indeed, these authors go as far as suggesting that their study's “analysis of the votes cast by individual congresspersons, correlating the votes to contribu-

249. For a proposal to create a more formalized system of copyright registration, see Christopher Sprigman, *Reform(aliz)ing Copyright*, 57 STAN. L. REV. 485 (2004).

250. See Jay P. Kesan & Andres A. Gallo, *The Political Economy of the Patent System*, 87 N.C. L. REV. 1341, 1351–52 (2009).

251. See *id.* at 1354–58. There are other actors who are relevant in the public choice context aside from inventors, such as prosecutors and litigators. See *id.* at 1357.

252. *Id.* at 1369–70. One limited area of “agreement” that scholars found when studying entrepreneurs from different technological sectors, however, is that many of them are unconvinced that the current state of patent law fully serves their needs. See Stuart J.H. Graham et al., *High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey*, 24 BERKELEY TECH. L.J. 1255, 1323–25 (2009).

253. See Kesan & Gallo, *supra* note 250, at 1376.

254. *Id.* at 1385; see also *supra* Part III.D (discussing big IT companies' opposition to criminal sanctions in patents in the IPRED2 context).

255. Kesan & Gallo, *supra* note 250, at 1412.

tions made by various sectors, shows that Congress does not have a point of view independent from the stakeholders in the patent system.”²⁵⁶ This evidence suggests that lobbying has great potential to shape future patent policy.²⁵⁷

While Kesan and Gallo do not specifically discuss the issue of criminal sanctions in patents, one can surmise that such measures would primarily find support amongst believers in strong property-type rights, such as big pharmaceutical companies,²⁵⁸ and encounter opposition among believers in weaker rights, such as big IT companies. As discussed earlier in this Part, the large copyright lobbies, unlike the large patent lobbies, are united in their efforts to combat infringement through any means possible and do not believe that strong enforcement would have many drawbacks for them. The same is likely true in the trademark context, where there is little reason to believe that any issue would divide large trademark holders with respect to enforcement. Even if there were some splits amongst trademark holders (for instance, between producers of well-known brand name goods and manufacturers of near-generic ones), the passage of the Trademark Dilution Revision Act of 2006²⁵⁹ (“TDRA”) suggests that the owners of famous marks may currently have the upper hand in the world of trademark lobbying.

Trademark lobbying has generally received less press than copyright and patent lobbying. The strengthening of trademark dilution laws, however, presents an exception to that trend. In 2003, the Supreme Court in *Moseley v. V Secret Catalogue, Inc.*²⁶⁰ examined whether the Federal Trademark Dilution Act (“FTDA”) required proof of actual dilution or only likelihood of dilution of a famous mark for a finding of legally cognizable injury.²⁶¹ In *Moseley*, the defendant had opened a lingerie and novelties store named Victor’s Secret, later renamed Victor’s Little Secret, and the owner of the famous Victoria’s Secret brand argued that the rival store was diluting its mark.²⁶² The Supreme Court disagreed, holding that because of the

256. *Id.* at 1413.

257. While trade secret laws are not a focus of this Article, it is noteworthy that the public choice landscape in that area may look quite different from the landscape in patent law. Michael Risch argues that small companies tend to rely the most on trade secrets because patent protection is expensive, many companies want to both protect their own secrets and gain access to others’ secrets through methods such as reverse engineering, and trade secret protection is primarily rooted in the common law rather than the legislative process. Risch, *supra* note 211, at 36.

258. Of course, not all pharmaceutical companies are likely to agree to harsher sanctions given the battle between the producers of patented drugs and those of generic ones. *See, e.g.*, Meller, *supra* note 5 (describing some of these tensions between European drug companies).

259. Pub. L. No. 109-312, 120 Stat. 1730.

260. 537 U.S. 418 (2003).

261. *Id.* at 420–22.

262. *Id.* at 423–24.

lack of proof of actual dilution, no violation of the FTDA had occurred.²⁶³ The owners of famous marks, supported by organizations such as the International Trademark Association and the American Intellectual Property Law Association, immediately began to lobby for legislative change to the FTDA and played a key role in passing the TDRA.²⁶⁴ The TDRA clarified that actual dilution was not required for liability under the FTDA and also introduced some other language that increased the protection of famous marks. For example, the TDRA ensured that not only inherently distinctive marks but also descriptive marks with secondary meaning would newly be included under the FTDA.²⁶⁵ While some organizations such as the Electronic Frontier Foundation resisted the change on free speech grounds,²⁶⁶ this series of events demonstrates that the interests of large trademark owners tend to be aligned, and not split along industry lines as they are in the patent world. Moreover, criminal sanctions in trademark are used primarily against counterfeiters, and trademark holders large and small can agree on the substantial benefits of stopping these infringers. Indeed, in the counterfeiting context, “it is usually the victimized companies, not the federal government, that spearhead the investigations which lead to major arrests and confiscation of counterfeit goods.”²⁶⁷

The public choice rationale likely provides at least a partial explanation for the unequal availability of criminal sanctions in soft IP and patent law. The lobbies in the soft IP world tend to unite for stronger enforcement of sanctions and do not often break down along industry lines. The patent lobbies, however, are in a state of constant tension over the expansion of patent rights and their enforcement. This helps to explain why there is no push for criminal sanctions for willful patent infringement. Even if influential groups such as the big pharmaceutical lobbies were to propose and advocate sanctions, other important parties, such as the large IT lobbies, would issue an emphatically negative response and the debate would likely end in a

263. *Id.* at 434.

264. See Caroline Horton Rockafellow, *Changes in Trademark Law — Will They Affect Free Speech?*, WRAL TECH WIRE (May 10, 2006), http://localtechwire.com/business/local_tech_wire/biotech/story/1165951/.

265. For a discussion of the effects of the TDRA, see Robert G. Bone, *A Skeptical View of the Trademark Dilution Revision Act*, 11 INTELL. PROP. L. BULL. 187 (2007).

266. See Rockafellow, *supra* note 264.

267. Lauren D. Amendolara, Note, *Knocking Out Knock-Offs: Effectuating the Criminalization of Trafficking in Counterfeit Goods*, 15 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 789, 792 (2005). Of course, the fact that the soft IP lobbies experience fewer rifts than the patent lobbies does not mean that the former always get desirable legislation passed and the latter never succeed. For instance, large copyright owners were unable to convince Congress to pass the Inducing Infringement of Copyrights Act in 2004, which, as its name suggests, targeted individuals and companies suspected of inducing others to commit copyright violations. See Ben Aranda, Note, *Inducing a Remedy or Courting a Solution? A Comparative Institutional Analysis of the P2P Dilemma*, 50 ST. LOUIS U. L.J. 851, 869–75 (2006).

stalemate. Importantly, however, the balance could swing over time as the relative political powers of these industries shift. Kesan and Gallo have uncovered that while the lobbying expenditures of both pharmaceutical and IT companies have risen, the expenditures of the pharmaceutical industry — which were higher in the first place — have been increasing significantly faster; while IT lobbying experienced an increase of 186.5% over nine years (from \$39 million a year in 1998 to \$113 million in 2007), pharmaceutical lobbying rose 215.5% in the same period (from \$72 million to \$228 million).²⁶⁸ One may speculate that if this trend continues, the United States will see more legislative proposals for harsher patent infringement sanctions, including, perhaps, criminal ones.

The theory that a deadlock is currently in place certainly does not tell the entire story. For instance, why is it that no criminal sanctions were introduced before IT became a powerful sector of the U.S. economy? As indicated, Nard and Morriss may provide part of the explanation: the United States originally created a patent system that was more insulated from rent-seeking generally than were other regulatory schemes, which may have historically set some limits before lobbying expenditures and other efforts reached substantial levels. Furthermore, large-scale patent infringement was not likely a widespread problem before the creation of the IT industry, so it is entirely possible that few people would have viewed criminal sanctions as necessary at the time.²⁶⁹ After all, this conclusion — that criminal sanctions tend to become desirable to a significant number of people once the civil sanctions are perceived as failures — is the same conclusion one derives from the history of such sanctions in copyright. This combination of factors provides credence to the public choice rationale as a powerful explanatory tool to understand the disparity in the existence of criminal sanctions in the universe of soft IP as opposed to that of patents.

V. CONSEQUENCES OF THE PUZZLE OUTSIDE OF PATENTS

Part IV explained how moral, utilitarian, and public choice rationales have contributed to the different development of the criminal

268. Kesan & Gallo, *supra* note 250, at 1359.

269. Indeed, patent litigation did not explode until the 1990s. See JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK* 16 (2008); see also JAMES C. DUFF, ADMIN. OFF. OF THE U.S. COURTS, *JUDICIAL FACTS AND FIGURES* 25 (2009), available at <http://www.uscourts.gov/uscourts/Statistics/JudicialFactsAndFigures/2008/alljudicialfactsfigures.pdf> (showing the number of IP cases filed from 1990 until 2008 and noting that “[f]ilings increased steadily from 1990 through 2000 due to rapid growth in advanced technology and an increase in the number of companies and individuals who view intellectual property as an asset to be protected”).

law in relation to patents versus soft IP. In doing so, however, it has also raised questions regarding some of the existing sanctions in soft IP, and especially copyright. Indeed, while this Article has shown that there are more reasons — both empirical and political — for having criminal sanctions for infringement of soft IP rather than of patents, it has by no means demonstrated that all of the existing sanctions in soft IP are justified. While this Article does not seek to provide a conclusive prediction as to the future of criminal sanctions in soft IP, this Part applies the analysis used to examine patent criminal sanctions to understand whether the use of such sanctions for *non-commercial* copyright infringement fulfills the criteria that warrant their use in commercial copyright and trademark matters.

As discussed, much of the moral and utilitarian reasons for criminal sanctions revolve around (1) the harm done to IP owners and (2) the ability of criminal laws to prevent these harms. As scholar Julie Cohen has pointed out:

Entertainment industry representatives have deployed a variety of rhetorical tropes designed to position online copyright infringement, and particularly p2p filesharing, as morally objectionable and socially insidious. In a blizzard of press releases and media interviews, and in a variety of more formal settings ranging from conference addresses to congressional testimony, they have equated online copyright infringement with theft, piracy, communism, plague, pandemic, and terrorism.²⁷⁰

One of the most famous criminal enforcement actions in the peer-to-peer context came in 2005 during “Operation D-Elite,” when agents of the FBI and U.S. Immigration and Customs Enforcement took aggressive steps to shut down networks that provided users with large amounts of infringing content.²⁷¹ The figures cited by government officials at the time were appalling: billions of dollars lost annually to the U.S. economy because of Internet pirates, plus stories such as how the movie *Star Wars Episode III: Revenge of the Sith* became available on a network called Elite Torrent six hours before its theatrical release and was downloaded over 10,000 times in the following twenty-four hours.²⁷² Some, however, contest whether file-sharing and downloads have had the large-scale financial effects that law en-

270. Julie E. Cohen, *Pervasively Distributed Copyright Enforcement*, 95 GEO. L.J. 1, 18 (2006).

271. See Press Release, U.S. Dep’t of Justice, Federal Law Enforcement Announces Operation D-Elite, Crackdown on P2P Piracy Network (May 25, 2005), available at http://www.justice.gov/opa/pr/2005/May/05_crm_291.htm.

272. *Id.*

forcement officials and the music and movie industries claim. After citing to studies that provide empirical opposition to the assertion that the music industry has lost billions of dollars through file-sharing mechanisms and refuting the claim that each downloaded song represents one lost sale, scholar Geraldine Szott Moohr concludes: "If file sharing did not cause the observed drop in music sales, then making the conduct criminal is not a solution to the problem, and to the extent that file sharing had only a small effect on sales, the justification for criminal law loses force."²⁷³ Similarly, regarding the Elite Torrent example, it is difficult to gauge how many of the people who downloaded the Star Wars movie refused to spend money on theater tickets or DVD rentals as a result of the download. It is thus hard to evaluate whether the legal battle against individual users has been worth its high price tag. To the delight of some online commentators, the RIAA spent more than \$16 million in 2008 on attorneys' fees and recouped only \$391,000 from copyright infringement payments.²⁷⁴ Over three years, the RIAA paid \$64 million in legal and other expenses and only made back about \$1.36 million.²⁷⁵

Some speculate that the goal of these expenditures was to educate individuals, to deter them from illegal downloading, and to change social norms by convincing consumers to buy music again, though this may have been an exercise in futility.²⁷⁶ As far as changing norms is concerned, even after serving a five-month sentence, Scott McCausland, the person who uploaded the Star Wars movie to Elite Torrent, did not appear to feel as if he had done anything wrong when he discussed his behavior in an interview. McCausland stated that even though he knew all along that his actions were illegal, he did not deserve his punishment and "still firmly believe[d] that if [he] can give it, you shall have it."²⁷⁷ While he concluded that "you can't beat the Justice Department,"²⁷⁸ he also felt that "although they stopped me, they can't stop everyone, and I was a small player in an unmeasurable game."²⁷⁹ Scholar Eric Goldman suggests that online piracy

273. Moohr, *supra* note 58, at 794.

274. Ray Beckerman, *Ha Ha Ha Ha Ha. RIAA Paid Its Lawyers More Than \$16,000,000 in 2008 to Recover Only \$391,000!!!*, RECORDING INDUSTRY VS THE PEOPLE (July 13, 2010, 11:26 AM), <http://recordingindustryvspeople.blogspot.com/2010/07/ha-ha-ha-ha-ha-riaa-paid-its-lawyers.html>.

275. *Id.*

276. See SlyckTom, *RIAA Pays \$16 Million in Legal Fees, Gets \$391K — Makes Lawyers Rich*, SLYCK (July 13, 2010, 12:57 PM), <http://www.slyck.com/forums/viewtopic.php?t=51907>.

277. Thomas Mennecke, *EliteTorrents Interview*, SLYCK (July 31, 2007), http://www.slyck.com/story1554_EliteTorrents_Interview.

278. *Id.*

279. *Id.* For a discussion of some of the earlier prosecutions for non-commercial distribution of illegal content, see Goldman, *supra* note 88, at 381–92.

may have in fact increased since the passage of the NET Act and that uneven enforcement may not adequately deter potential infringers.²⁸⁰

The empirical data on norms and copyright infringement suggests that harsh sanctions, including criminal ones, may be ineffective in promoting lawful behavior. For instance, some studies have found that “[s]trong-armed enforcement tactics induce strong anticopyright aversion,”²⁸¹ and therefore excessive sanctions can actually prove counterproductive.²⁸² It also appears that while lawsuits against file-sharers temporarily led to a decrease in illegal downloads, that number rebounded within a short period of time.²⁸³ Meanwhile, other data raises the question whether increasing criminal penalties truly encourages more innovation by making authors feel more secure in their ownership rights; one study that measured, among other things, the relationship between increases in criminal sanctions and innovation found no clear effect.²⁸⁴

280. Goldman, *supra* note 88, at 398–400. As one scholar succinctly put it: “At the most basic level, there are two reasons why P2P file sharers won’t behave: (1) they don’t have to, and (2) they don’t want to.” Annemarie Bridy, *Why Pirates (Still) Won’t Behave: Regulating P2P in the Decade After Napster*, 40 RUTGERS L.J. 565, 600 (2009). She further explains that copyright infringers have remained ahead of copyright holders through tactics such as improving their ability to circumvent technological protections and finding better ways to hide their activities. *Id.* at 601. *But see* Press Release, NPD Group, With Limewire Shuttered, Peer-to-Peer Music File Sharing Declines Precipitously (Mar. 23, 2011), *available at* http://www.npd.com/press/releases/press_110323.html (suggesting that the shutdown of Limewire has decreased the percentage of the population that uses a peer-to-peer file sharing service to download music from 16% in 2007 to 9% in 2010).

281. Ben Depoorter & Sven Vanneste, *Norms and Enforcement: The Case Against Copyright Litigation*, 84 OR. L. REV. 1127, 1161 (2005).

282. *Id.* at 1158. At other times, social norms can actually play a protective role for IP. *See, e.g.,* Jacob Loshin, *Secrets Revealed: Protecting Magicians’ Intellectual Property Without Law*, in LAW AND MAGIC: A COLLECTION OF ESSAYS 123 (Christine A. Corcos ed., 2010) (explaining the effect of social norms in the world of illusionists); Dotan Oliar & Christopher Sprigman, *There’s No Free Laugh (Anymore): The Emergence of Intellectual Property Norms and the Transformation of Stand-Up Comedy*, 94 VA. L. REV. 1787 (2008) (discussing the function of norms for stand-up comedians).

283. *See* Bridy, *supra* note 280, at 604 (suggesting that the threat of lawsuits “[rang] hollow for the millions of file sharers who continued to share copyrighted material without permission (or reprisal)”). On a basic level, “[i]t is generally undesirable policy to make every American a criminal.” Goldman, *supra* note 88, at 414. Such an outcome is particularly worrisome because the United States is “a nation of constant infringers.” John Tehranian, *Infringement Nation: Copyright Reform and the Law/Norm Gap*, 2007 UTAH L. REV. 537, 543–48 (giving numerous examples of everyday infringement). In Europe, the dissatisfaction of file-sharers with strong enforcement is beginning to have political consequences that could ultimately limit IP owners’ rights. For instance, the Swedish Pirate Party, whose “ultimate aim is to deregulate copyright, abolish the patent system and decrease online surveillance,” recently managed to get its first representative elected to the European parliament. Marco Woldt, *Pro-Piracy Parties Gain Foothold Across Europe*, CNN.COM (July 23, 2009), <http://www.cnn.com/2009/SHOWBIZ/Movies/07/22/pirate.party.christian.engstrom/>.

284. Laws increasing criminal penalties had an effect on creativity, as measured by the number of copyright registrations in a given time period, in only six out of twenty-three instances (four modest increases in registrations and two modest decreases). Raymond Shih Ray Ku et al., *Does Copyright Law Promote Creativity? An Empirical Analysis of Copy-*

Criminal sanctions come at a cost. One such cost is the previously mentioned expense on the part of the government to investigate and prosecute IP infringement. Another is the possible chilling effect on expressive activities.²⁸⁵ Additionally, because of limited resources, prosecutors may strategically opt to make an example out of a few offenders, resulting in disproportionate punishments.²⁸⁶ Given this threat, targeted offenders are more likely to challenge the accusations against them in court, which in turn raises enforcement costs further.²⁸⁷

Similar issues arise in the context of particularly harsh civil sanctions. Before the first successful civil lawsuits against individual, non-commercial file-sharing infringers, some commentators speculated that juries would refuse to enforce tough laws against these defendants.²⁸⁸ Such reluctance was nowhere to be found in the case of Joel Tenenbaum, the Boston University graduate student who was ordered by a Massachusetts jury to pay \$675,000 for the illegal infringement of thirty copyrighted songs (although the district court judge reduced that amount to \$67,500 under a due process rationale).²⁸⁹ Still, perhaps because of the negative publicity surrounding cases like Tenenbaum's, the RIAA has promised not to file any new lawsuits against individual file-sharers, although some feel that the organization has already breached that promise.²⁹⁰

A disconcerting picture arises when one views criminal sanctions for non-commercial copyright infringement and for patent infringement side by side. The empirical foundations for advocating either are unsteady, and it is not clear that the benefits outweigh the costs. The advantages in both cases supposedly consist of greater protection for

right's Bounty, 62 VAND. L. REV. 1669, 1694 (2009). The authors also note that creators who operate outside the copyright registration scheme may have been deterred as a result of increases in civil and criminal liability. *Id.* at 1721.

285. See, e.g., David S. Olson, *First Amendment Interests and Copyright Accommodations*, 50 B.C. L. REV. 1393 (2009) (expressing concerns about the impact of the expansion of copyright sanctions on activities typically protected by the First Amendment).

286. See Mark A. Lemley & R. Anthony Reese, *Reducing Digital Copyright Infringement Without Restricting Innovation*, 56 STAN. L. REV. 1345, 1401–02 (2004) (discussing how the selective enforcement of criminal and harsh civil sanctions “put[s] the burden of reducing infringement squarely on the backs of a few uploaders”).

287. See *id.* at 1403–04.

288. See, e.g., *id.* at 1404.

289. Sony BMG Music Entm't v. Tenenbaum, 721 F. Supp. 2d 85, 87, 121 (D. Mass. 2010).

290. See, e.g., Nate Anderson, *RIAA: “We Have No Choice” But To File More Named Lawsuits*, ARS TECHNICA (May 6, 2009), <http://arstechnica.com/tech-policy/news/2009/05/riaa-we-have-no-choice-but-to-file-more-named-lawsuits.ars> (questioning the RIAA's definition of what constitutes a “new” lawsuit as well as its argument that it would be unfair to past infringers who did settle if others are “let off the hook”). Meanwhile, the legal action against Jammie Thomas, the Minnesota woman accused of downloading and sharing twenty-four songs in 2006, continues, with the most recent judgment against her set at \$1.5 million. See Steven Musil, *Jammie Thomas Hit with \$1.5 Million Verdict*, CNET NEWS (Nov. 3, 2010), http://news.cnet.com/8301-1023_3-20021735-93.html.

IP owners, but evidence is lacking to suggest that criminal sanctions do or would actually increase innovation in either area. In the case of patents, overdeterrence is a real risk, in part because the same actors whose patents are infringed can easily become infringers themselves (especially in the computer software business). For copyright, there is a danger of overly harsh sanctions and individuals' loss of respect for copyright and criminal law generally if, given the widespread culture of file-sharing, the law is perceived as criminalizing "everybody." Hence, those who advocate criminal sanctions for non-commercial copyright activities need to present a consistent moral and utilitarian framework to buttress their claims beyond statements that "the illicit downloading of copyright works, regardless of [commercial] motive, is . . . (like stealing) morally wrong and deserving of criminal sanction."²⁹¹ Judging from prevalent file-sharing norms, the public does not accept these claims, and the data is inconclusive when it comes to bearing out utilitarian advantages. The failure to provide such a framework solidifies the idea that the main story consists of public choice elements. In other words, the fact that "some of the most powerful lobbying groups in the world are behind stronger criminal copyright enforcement"²⁹² dictates U.S. policy above all else. That impression, in itself, could lead to even stronger anti-copyright norms and potentially increase violations rather than eliminate them.

As previously indicated,²⁹³ there may be an uneven playing field between large companies and individuals because the former are able to obtain prison sentences against file-sharers but never suffer more than civil sanctions if they themselves infringe on inventors' patents. Rather than leveling the field by introducing patent criminal sanctions, however, perhaps the United States should consider eliminating such sanctions for non-commercial copyright infringers.²⁹⁴

VI. CONCLUSION

Hopefully, the initially puzzling disparity in the availability of criminal sanctions in different IP regimes is now more coherent. As this Article has shown, the lack of criminal sanctions for patent infringement has arisen from a combination of (1) real, significant differences amongst IP goods themselves and the likely effect of such sanctions for each type of infringement, and (2) potentially less palat-

291. Saw, *supra* note 15, at 112.

292. See Lemley & Reese, *supra* note 286, at 1404.

293. See *supra* notes 3–4 and accompanying text.

294. For a discussion of additional solutions for the entertainment industry, including the introduction of a claiming system in copyright or a heavier reliance on trademarks and patents, see F. Scott Kieff, *Coordination, Property, and Intellectual Property: An Unconventional Approach to Anticompetitive Effects and Downstream Access*, 56 EMORY L.J. 327, 429–35 (2006).

able but still powerful public choice rationales. Even the latter, however, are partially rooted in the fact that innovation would likely suffer in industries such as software from the implementation of stronger patent infringement sanctions. This Article has also sought to illuminate how changes in the lobbying balance in the United States and developments in the international arena may affect the United States IP regime in the short and long term. These ongoing developments highlight the importance of a sturdy theoretical framework that can provide guidance regarding whether to create criminal sanctions for patent infringement. Last, this Article has used the analysis of patent sanctions as a mirror reflecting the light of inquiry back onto some of the more questionable forms of criminal (and potentially also civil) sanctions in soft IP. Similar to how the toughest sanctions could impede progress and may not be warranted in the patent context, sanctions might also cause more harm than good in the non-commercial copyright context. Abolishing old laws can be at least as hard as passing new ones,²⁹⁵ so any serious proposals to introduce harsher sanctions for patent infringement should be viewed with the greatest circumspection in the years to come.

295. See, e.g., Bradford R. Clark, *Domesticating Sole Executive Agreements*, 93 VA. L. REV. 1573, 1606 n.146 (2007) (“[F]ederal lawmaking procedures make it difficult not only to adopt, but to repeal federal law. The Founders recognized this danger, but thought that Congress could draft around it if necessary.” (citing 2 THE RECORDS OF THE FEDERAL CONVENTION OF 1787, at 587 (comments of James Madison) (Max Farrand ed., 1911))).