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An Economic Analysis of Damages Rules in Intellectual Property Law

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AN ECONOMIC ANALYSIS OF DAMAGES RULES IN INTELLECTUAL PROPERTY LAW

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I. INTRODUCTION

In 1987, an architect named Lebbeus Woods created a graphite pencil drawing entitled "Neomechanical Tower (Upper Chamber)," which depicts an ominous-looking chamber containing a chair mounted high upon one wall by means of a vertical rail, and a sphere suspended in front of the chair at face level.¹ Eight years later, Universal City Studios, Inc. ("Universal") released the film *12 Monkeys*, a dystopian adventure involving a future world in which human beings have taken to living underground following an outbreak of a mysterious virus that kills five billion people beginning in the year 1996.² Near the beginning of the film, the rulers of this world bring the lead character, played by Bruce Willis,

into a room where he is told to sit in a chair which is attached to a vertical rail on a wall. The chair slides up the rail to a horizontal ledge on the wall so that the chair is several yards above the ground. A sphere supported by a metal-frame armature descending from above is suspended directly in front of [Willis]. On three occasions, [Willis] returns to this chair.³

A few weeks after the film was released, Woods filed suit in the United States District Court for the Southern District of New York, alleging that Universal and the film's director and production designer had infringed his copyright in the drawing by reproducing the work in the scene described above (albeit in another medium, film), and by distributing and exhibiting the reproduction to the public without permission.⁴ Concluding that the defendants had access to Woods's work and that the scene was strikingly similar to that work, the court granted Woods's

1. See *Woods v. Universal City Studios, Inc.*, 920 F. Supp. 62, 63 (S.D.N.Y. 1996). A copy of the work can be found in LEBBEUS WOODS, *ANARCHITECTURE: ARCHITECTURE IS A POLITICAL ACT* 30 (1992). Woods subsequently created a color version of the drawing, which can be found in LEBBEUS WOODS, *THE NEW CITY* 21 (1992).

2. *12 MONKEYS* (Universal City Studios 1995).

3. *Woods*, 920 F. Supp. at 63-64.

4. See *id.* at 63.

motion for a preliminary injunction.⁵ Shortly thereafter, the parties agreed to a settlement pursuant to which Woods agreed to allow the continued exhibition of the film in return for an undisclosed sum of money.⁶

Had the case proceeded all the way to trial and resulted in a judgment in Woods's favor, Woods presumably would have been entitled to a permanent injunction against the exhibition of the film,⁷ and also to monetary damages for the defendants' unauthorized use of the drawing.⁸ But what would those damages be? In answering this question, a policymaker with the authority to award whatever damages she believes to be appropriate would face several different, and difficult, choices; and although this example involves the law of copyright, one can easily imagine similar examples involving other types of intellectual property such as patents, trade secrets, and trademarks. One option would be to award Woods his lost profits from the sale of authorized copies of his drawing;⁹ on the facts described above, however, this amount probably would be zero, because it is unlikely that the film would be a close enough substitute for, say, a book of authorized Woods reproductions so as to displace sales of the latter.¹⁰ A second option would be to award Woods a royalty for the unauthorized use of his drawing, but this option raises the question of how to determine the amount of the royalty. Should the policymaker simply award the amount she believes to be "just"? Should she refer the decision to some expert tribunal? Or should she try to reconstruct the amount the parties themselves would have agreed upon *ex ante* (and if so, how)?¹¹ A third op-

5. See *id.* at 64-65.

6. See *Universal Settles Suit Claiming 12 Monkeys Infringed Set Drawing*, ENT. LITIG. REP., June 30, 1996.

7. See 17 U.S.C. § 502 (1994); *Woods*, 920 F. Supp. at 64-65 (granting motion for preliminary injunction).

8. See 17 U.S.C. § 504; see also *infra* notes 91-99 and accompanying text (discussing the monetary damages that are available to a successful plaintiff in a copyright infringement action).

9. See 17 U.S.C. § 504.

10. Indeed, one might expect the film to increase the demand for Woods's work if the scene at issue were properly attributed to Woods.

11. Cf. 7 DONALD S. CHISUM, CHISUM ON PATENTS § 20.02[2] (1997) (discussing the remedy of reasonable royalties in patent law).

tion would be to forgo compensation altogether and to order the defendants instead to disgorge their profit from the exhibition of the film—though surely not their *entire* profit, but only that portion that is attributable to the use of Woods's drawing (and how, exactly, would you go about measuring *that*)? Perhaps one could sympathize with a policymaker who, upon consideration of the above choices, simply throws up her hands and awards some arbitrary amount—as, arguably, the concept of presumed damages allows the trier of fact to do in some types of defamation cases.¹²

This Article focuses on the use of economic analysis to assist our hypothetical policymaker, confronted as she is with these various and conflicting options, in crafting the optimal set of damages rules for use in intellectual property litigation. Surprisingly, this issue has remained largely unexplored in the law and economics literature to date—notwithstanding both the growing importance of intellectual property law in a technologically complex world¹³ and the steady increase in the number of law and

12. See *infra* notes 243-49 and accompanying text. A cynic might be tempted to suggest that the infringement was probably the best thing that ever happened to Woods, and that a fifth option of awarding him absolutely nothing would be the most sensible choice. Consider the likely turn of events if Universal had approached Woods prior to completing the film: if Woods had demanded too high a price in exchange for the use of his drawing, then the director and production designer probably would have chosen a different setting for the scene described above. After the completion and distribution of the film, however, the cost of editing and reshooting even five minute's worth of dialogue likely would have been enormous. Once an injunction was in place, Woods was in a position to demand compensation beyond his wildest dreams. To some extent this turn of events may illustrate not so much a damages problem as a possible defect in the substantive law. The wisdom of permitting the copyright owner to enjoin all derivative uses of his work, even when those uses amount to a very small portion of the infringing work, is questionable. See, e.g., Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 TEX. L. REV. 989, 1023-24, 1063-65 (1997) (comparing copyright and patent law treatment of radical improvements on an original work). We nevertheless discuss some possible damages implications of this potential holdout problem. See *infra* notes 145, 184-93 and accompanying text.

13. See, e.g., Emily Narvaes, *Intellectual Property Booms Lawyers Abound in Field Guarding Firms' Unique Qualities*, DENV. POST, Feb. 23, 1997, at I1, available in 1997 WL 6065515 (discussing increasing importance of intellectual property protection in business); Henry J. Reske, *Riding the Brain Train*, ABA J., Feb. 1997, at 30, 30 (discussing the growth in intellectual property legal practice); Saundra Torrey, *These Trends Drop New Business into the Specialist's Lap*, WASH.

economics scholars who have begun to devote attention to this body of law.¹⁴ To be sure, there is a substantial body of work devoted to the issue of whether intellectual property rights should be protected by what Calabresi and Melamed referred to in their famous article as "property rules" or "liability rules,"¹⁵ with most, though not all, economic analysts of law concluding that protection under a property-rule regime is preferable to liability-rule protection.¹⁶ To the extent that this analysis is correct, it suggests that injunctive relief should be the principal remedy available against those who infringe intellectual property rights.¹⁷ The question nevertheless remains what sort of damages should be available to an intellectual property owner for acts of infringement occurring prior to the issuance of an appropriate injunction. Devising the correct answer to this ques-

POST, Feb. 10, 1997, at F7 (identifying intellectual property and telecommunications as the "big winners" among specialties that are driving the increase in legal business and profits).

14. Two very good analyses of some of these damages rules can be found in JOHN W. SCHLICHER, *PATENT LAW: LEGAL AND ECONOMIC PRINCIPLES* § 9.05 (1996), which provides an economic analysis of the various methods for calculating compensatory damages in patent cases; and Paul Heald, *Money Damages and Corrective Advertising: An Economic Analysis*, 55 U. CHI. L. REV. 629 (1988), which discusses the economics of corrective advertising awards in trademark litigation. In this Article, we employ, and expand upon, Schlicher's general model of the optimal set of damages rules in patent law. Our overall focus is somewhat different, however, in that we have chosen to analyze at a more general level the type of monetary relief that should be available in cases involving intellectual property infringement, and then attempted to discover whether the ways in which the actual rules depart from this model can be explained in light of the specific nature of the rights protected by patent, copyright, and trademark law.

15. See Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1092 (1972) (discussing three types of entitlements that differ in how they are protected and whether individuals are able to sell or trade them). A property rule confers upon the owner of an entitlement the right to enjoin others from using that entitlement without permission. A liability rule confers the right to recover damages for another's unauthorized use. See *id.*

16. In brief, the argument relies upon the premise that an injunction is more efficient than a damages remedy when transaction costs are low because an injunction forces the would-be user and the owner of an entitlement into the market to bargain over which one is the more efficient user of that entitlement. In general, one would expect the condition of low transaction costs to hold with respect to most negotiations over intellectual property rights. See *infra* notes 138-40 and accompanying text.

17. See *infra* notes 138-40 and accompanying text.

tion is of great importance if, as is likely, a significant number of infringements go undetected for more than a nominal period of time.¹⁸

Our principal thesis is that the optimal set of damages rules should preserve both the incentive structure of intellectual property law and the property-like character of intellectual property rights. As we demonstrate herein, in the absence of enforcement, information, and other transaction costs, these goals require at a minimum an award that renders the infringer no better off as a result of the infringement. As a first approximation, then, the optimal rule is to award the plaintiff the royalty to which the parties would have agreed prior to the infringement, in cases in which the infringer is a more efficient user of the subject property than is the plaintiff, or the defendant's profit attributable to the infringement in cases in which he is not.¹⁹ After eliminating the assumption of zero costs from the model, however, this rule must be modified in two crucial respects. First, to preserve the owner's incentive to create and to publish, in cases in which for whatever reason the rule fails to deter, the owner always should be able to recover her own lost profit resulting from the infringement.²⁰ Second, in order to avoid having courts determine the value of intellectual property and to encourage the parties to engage in voluntary bargaining *ex ante*, the defendant always should be required to disgorge all of his profit attributable to the infringement, unless this would result in a double recovery.²¹ As a second approximation, then, the optimal rule is to award the plaintiff the greater of either her lost profits or the defendant's profit resulting from the infringement.²² On its face, this rule appears to provide the correct incentives for optimal use, inasmuch as lost profits will exceed the defendant's

18. See, e.g., Jochen Pagenberg, *The WIPO Patent Harmonization Treaty*, 19 AIPLA Q.J. 1, 13 (1991) (noting the difficulty of detecting infringement with respect to process patents).

19. See *infra* notes 163-68 and accompanying text (discussing applicability of this rule in connection with patent infringement).

20. See *infra* notes 169-75 and accompanying text.

21. See *infra* notes 177-78 and accompanying text.

22. See *infra* pp. 1632-33 (summarizing analysis of efficient minimum sanctions for infringement of patent rights).

profit only when the plaintiff is a more efficient user than is the infringer, and vice versa.²³

As we also demonstrate, however, this second approximation may be subject to further modification in light of two additional factors that inject considerable uncertainty into the analysis. The first is that an award that merely renders the infringer no better off as a result of the infringement may be an ineffective deterrent, because only a portion of all possible infringements are susceptible of detection.²⁴ This insight suggests that a substantial damages multiplier often may be necessary to achieve adequate deterrence. The second is that the standard of liability in intellectual property cases often is uncertain²⁵ and that in some instances, such as the *12 Monkeys* example, the infringer will have incurred substantial sunk costs by the time his infringement is detected. These facts suggest that, on occasion, the optimal award should be lower than the initial model would advise, in order to avoid the overdeterrence of marginally lawful conduct. As a third approximation, then, the optimal rule is to award the prevailing plaintiff the greater of either a compensatory or restitutionary recovery, suitably enhanced or diminished in light of the competing interests in deterring infringements that otherwise may go undetected, and in discouraging would-be users from overcomplying with their legal obligations.²⁶ We recognize, of course, that this formulation does not inform the policymaker precisely *how* to calculate the optimal award in any given case—if anything, the analysis shows that any precise calculation of optimal damages is likely to be next to impossible in the real world²⁷—and that it does not offer any easy solution,

23. See *infra* notes 174-78 and accompanying text (discussing applicability of this rule in connection with patent infringement).

24. See, e.g., Pagenberg, *supra* note 18, at 13 (noting that it is difficult to detect infringement in the context of process patents).

25. See *infra* notes 35, 84, 108, & 181 and accompanying text (discussing examples of uncertain standards in intellectual property law).

26. See *infra* notes 179-213 and accompanying text (discussing applicability of the rule in connection with patent, copyright, and trademark infringement and trade secret misappropriation).

27. Cf. Richard Craswell & John E. Calfee, *Deterrence and Uncertain Legal Standards*, 2 J.L. ECON. & ORG. 279, 295 (1986) (discussing the virtual impossibility of calculating optimal multipliers, particularly when legal standards are uncertain).

in a case such as *Woods*, to the problem of determining how much of a benefit the user derived from the infringement. We nevertheless conclude that this formulation provides a rational overall framework for considering damages issues, and that, notwithstanding some lack of precision, this framework greatly illuminates some vexing issues in patent, copyright, and trademark damages law.

In Part II, we provide some background information concerning these four bodies of law, including the damages rules that govern each of them. We also briefly describe the predominant economic justifications for these bodies of law and review the literature suggesting that property-rule protection is the preferable method for safeguarding the rights of intellectual property owners. In Part III, we develop a general model of the optimal set of damages rules to apply in intellectual property litigation, and we demonstrate that the rules applicable in trade secret law track our model quite closely, whereas patent, copyright, and trademark law conform only to varying degrees. In Part IV, we consider whether the principal ways in which patent, copyright, and trademark law depart from the model are rational adaptations to the specific nature of the rights protected by these bodies of law. We conclude that there are plausible economic justifications for some, though not all, of these departures. Specifically, we demonstrate that the possible economic justifications for the principal manner in which copyright law departs from the model appear to be roughly consistent with the realities of the markets in which copyrighted works are exploited. We also demonstrate that the possible justifications for copyright's departure from the model are stronger than the corresponding justifications for the principal departure found in trademark law, and that both the copyright and trademark departures stand on a stronger theoretical footing than does the principal departure found in patent law.

II. BACKGROUND

In this part, we briefly describe the scope of patent, trade secret, copyright, and trademark law, as well as the damages rules that apply in litigation involving these bodies of law. We also describe the economic explanations for these laws and re-

view the debate over whether intellectual property rights are better protected by property or liability rules.

A. *Patents and Trade Secrets*

Depending on its content, information in the form of inventions and other industrial know-how may be subject to ownership under either patent or trade secret law.²⁸ Because patents usually are viewed as conferring a more robust form of protection,²⁹ however, a person faced with a choice between patent and trade secret ownership frequently will opt for the former over the latter.³⁰ This subsection provides a brief overview of the scope of these bodies of law and their suggested economic underpinnings.

To qualify for patent protection, an invention must meet the three statutory criteria of novelty, utility, and nonobviousness.³¹ The novelty requirement normally is satisfied as long as the patent applicant was the first to invent the claimed innovation,³²

28. To be precise, inventions can be protected under the law of utility patents. Novel and distinct plant varieties are patentable for the same twenty-year period applicable to utility patents. *See* Plant Variety Protection Act, 7 U.S.C. §§ 2321-2582 (1994); Plant Patent Act, 35 U.S.C. §§ 161-64 (1994). Designs that satisfy the three conditions of novelty, ornamentality, and nonobviousness are protectable for a fourteen-year period under the law of design patents. *See* 35 U.S.C. §§ 171-73. The principal focus in this subsection is on the law of utility patents.

29. *See, e.g.,* Brian G. Brunsvold & William H. Pratt, *Intellectual Property Rights—What Are They and How Does a Company Secure Them?*, in GOING INTERNATIONAL: FUNDAMENTALS OF INTERNATIONAL BUSINESS TRANSACTIONS, 137, 162 (ALI-ABA Course of Study, July 8, 1996) available in Westlaw SBO4 ALI-ABA 137 (noting that patent law gives one the absolute right to exclude others, although trade secret law does not).

30. *But see infra* note 70 (discussing circumstances under which trade secret protection may be preferable).

31. *See* 35 U.S.C. § 101 (defining patentable subject matter as "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof"); 35 U.S.C.A. § 103 (West Supp. 1997) (requiring that invention be nonobvious). Patent protection is not available for laws of nature, natural phenomena, and abstract ideas. *See* *Diamond v. Diehr*, 450 U.S. 175, 185 (1981).

32. A claimed invention lacks novelty if, first, another invention contains all of the "elements" or "limitations" of the claimed invention, arranged in the same order. *See* *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983). Second, novelty will be lacking if, prior to the date on which the applicant invented the claimed invention, the other invention was, *inter alia*, already known or used by others in the United States, patented or described in a printed publication in the United

while the utility condition requires only that the invention work as intended and that it serve some minimal human need.³³ The nonobviousness requirement denies patentability if the differences between the claimed invention and other, earlier inventions, referred to as "prior art," are such that the claimed invention would have been "obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."³⁴ This requirement is more difficult to describe or quantify, but in general it denies patentability for insubstantial improvements over existing technology.³⁵

In addition to imposing the three requirements of novelty, utility, and nonobviousness, the Patent Act also obligates the patent applicant to disclose, in the specification portion of his application, three different types of information. First, the specification must include a written description of the invention "in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same."³⁶ Second, it must disclose the inventor's own "best mode" or preferred embodiment of the invention, if any, as of the time of the application's filing.³⁷ Third, the specification must "conclude with one or more claims particularly pointing out and

States or abroad, described in a pending and subsequently granted U.S. patent application, or was made and used in the United States by another who had not abandoned, suppressed, or concealed it. See 35 U.S.C. § 102(a), (e), (g); see also *id.* § 102(b) (denying patentability where invention was patented or described in a printed publication, or in public use or on sale in United States, more than one year prior to date on which applicant filed U.S. patent application).

33. See 1 CHISUM, *supra* note 11, § 4.01, at 4-2.1; cf. *Brenner v. Manson*, 383 U.S. 519, 532-36 (1966) (holding that invention lacks utility where its only claimed function is to satisfy scientific curiosity).

34. 35 U.S.C.A. § 103(a).

35. See, e.g., 2 CHISUM, *supra* note 11, § 5.01, at 5-11 (describing the general purpose behind the requirement of nonobviousness as limiting patent monopolies to those innovations that serve to advance the state of useful arts). In determining whether an invention is nonobvious for purposes of § 103, a court will consider factors such as the inventor's commercial success, the fact that others attempted but failed to solve the problem addressed by the subject invention, and the recognition and acceptance of the patent by others who agree to license it from the inventor. See MARGRETH BARRETT, *INTELLECTUAL PROPERTY: CASES AND MATERIALS* 181-82 (1995).

36. 35 U.S.C. § 112.

37. See *id.*

distinctly claiming the subject matter which the applicant regards as his invention."³⁸ Once the patent application is granted, the patentee may exclude others from, among other things, making, using, or selling the invention in the United States for a term ending twenty years from the date on which the application was filed.³⁹ Upon issuance of the patent, however, all of the information disclosed in the application, including the enabling and best mode disclosures and the claims, becomes a matter of public record.⁴⁰

In a suit for patent infringement, the court may award the prevailing plaintiff injunctive relief,⁴¹ as well as "damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court."⁴² "Damages adequate to compensate for the infringement" may include an award of the plaintiff's lost profits attributable to the infringement, the amount of an established royalty, or a reasonable royalty.⁴³ Significantly, the courts have inter-

38. *Id.*

39. See 35 U.S.C. § 154(a); 35 U.S.C.A. § 271(a) (West Supp. 1997). Prior to 1995, the patent term was 17 years from the date of issuance. See 35 U.S.C. §§ 154(a), 271(a) (1988) (amended 1994). Note that patent ownership is defined in terms of the right to exclude others from making, using, or selling, not in terms of an affirmative right on the part of the patentee to make, use, or sell the invention. The patentee also may be precluded from practicing her own invention by other law—for example, pending regulatory approval by the Food and Drug Administration of a new drug. See BARRETT, *supra* note 35, at 134. Alternatively, the patentee may have obtained a patent on an improvement to another's patented invention; in such a situation, neither the improver nor the original patentee is entitled to practice the improvement without the permission of the other. See generally Robert Merges, *Intellectual Property Rights and Bargaining Breakdown: The Case of Blocking Patents*, 62 TENN. L. REV. 75 (1994) (discussing patents for improvements on patented inventions).

40. See 35 U.S.C. §§ 111-13, 154(a)(4); 37 C.F.R. §§ 1.11, 1.14 (1997).

41. See 35 U.S.C. § 283.

42. *Id.* § 284.

43. See 7 CHISUM, *supra* note 11, § 20.01, at 20-7 to -8; *id.* § 20.03, at 20-77. As Chisum explains:

Lost profits, in form of sales diversion, price erosion, or increased expense, are an appropriate basis for recovery when the patent owner (or an exclusive licensee) exploits the lawful exclusive rights of the patent directly by manufacture, use or sale. If the owner chooses to exploit the patent through offering licenses at an established royalty rate, that rate is the appropriate basis for recovery. Absent sufficient evidence of lost

preted the language quoted above as preventing them from awarding the plaintiff a restitutionary recovery consisting of the defendant's profits attributable to the infringement;⁴⁴ as we shall demonstrate, patent law stands alone among the four branches of intellectual property law in forbidding a recovery of this nature under any circumstances.⁴⁵ The court has the authority to "increase the damages up to three times the amount found or assessed,"⁴⁶ but normally it will exercise this discretion only in cases of willful infringement or bad faith litigation.⁴⁷ The statute also permits the court to award attorneys' fees to the prevailing party "in exceptional cases,"⁴⁸ generally those in which either the defendant is found to have willfully infringed or the plaintiff obtained the patent by fraud or brought

profits or an established royalty, the patent owner may in any case recover against the infringer not less than a reasonable royalty. A reasonable royalty is the royalty that willing parties would have agreed to had they negotiated a license under the patent.

Id. § 20.03, at 20-77 to -78 (footnote omitted). There are a number of different methods a court may employ to determine the amount of lost profits or the amount of a reasonable royalty. For the most part, the analysis herein will not focus on the specifics of how courts do or should go about calculating these sums. For good discussions of that issue, see *id.* § 20.03; SCHLICHER, *supra* note 14, §§ 9.04, 9.05; Ned L. Conley, *An Economic Approach to Patent Damages*, 15 AIPLA Q.J. 354 (1987).

44. The defendant's profits attributable to the infringement may be greater or less than the plaintiff's lost profits, depending on the circumstances; in general, however, the defendant's profits should be greater than or equal to the amount of a reasonable royalty. See *infra* notes 155-62 and accompanying text.

45. Although earlier versions of the Patent Act expressly permitted the court to award a restitutionary recovery, the relevant provision was deleted in 1946. Some language from the legislative history of that amendment suggests that the purpose of the deletion was to prevent the courts from rendering such awards. See 7 CHISUM, *supra* note 11, § 20.02[4][a]. Although this reading of the amendment has been criticized, see *id.* (suggesting an alternative reading); Kenneth W. Dam, *The Economic Underpinnings of Patent Law*, 23 J. LEGAL STUD. 247, 256-57 (1994), the courts have tended to follow Justice Brennan's adoption of it in his plurality opinion in *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 505-07 (1964). See 7 CHISUM, *supra* note 11, § 20.2[4][b]-[c]. Restitutionary recoveries are still permitted for design patent infringement, however. See 35 U.S.C. § 289 (rendering a design patent infringer liable to the owner "to the extent of his total profit, but not less than \$250").

46. 35 U.S.C. § 284.

47. See 7 CHISUM, *supra* note 11, § 20.03[4], at 20-300. On the distinction between intentional and unintentional infringement, see *infra* notes 297-312 and accompanying text.

48. 35 U.S.C. § 285.

the action in bad faith.⁴⁹ Finally, prejudgment interest usually is awarded to the prevailing plaintiff as a matter of course.⁵⁰

The two principal economic justifications for a regime of patent rights are the "incentive" or "reward" theory and the "prospect" theory.⁵¹ The incentive theory assumes that, in the absence of a system of patent rights, society will fail to achieve the optimal amount of innovation, because inventors will have a disincentive both to invest in innovation (due to the ability of others to obtain a competitive advantage over the inventor by free-riding upon any such investment) and to disclose how to make and use those innovations they do create (thereby inhibiting others from building upon the inventor's body of knowledge).⁵² Permitting the inventor to obtain some portion of the social value attributable to her innovation, while at the same time inducing her to disclose relevant information concerning that innovation, is therefore viewed as a way to overcome these potential market failures.⁵³ The prospect theory claims that conferring broad ownership rights upon the inventor promotes economic efficiency by enabling her to disclose her invention long before it becomes commercially viable, and thereafter to coordinate investments by others in second-generation improvements over the initial innovation.⁵⁴ According to this view, a

49. See 7 CHISUM, *supra* note 11, § 20.03[4], at 20-384 to -385.

50. See *id.* § 20.03[4][a], at 20-274 to -275.

51. See Mark F. Grady & Jay I. Alexander, *Patent Law and Rent Dissipation*, 78 VA. L. REV. 305, 310-16 (1992) (reviewing the "traditional" patent law economic theories); A. Samuel Oddi, *Un-Unified Economic Theories of Patents—The Not-Quite-Holy Grail*, 71 NOTRE DAME L. REV. 267, 273-89 (1996) (comparing various theoretical justifications for patents).

52. See Grady & Alexander, *supra* note 51, at 310-13.

53. See Dam, *supra* note 45, at 247-48; cf. Robert P. Merges & Richard R. Nelson, *On the Complex Economics of Patent Scope*, 90 COLUM. L. REV. 839, 842-43 (1990) (rejecting what the authors view as the "two-dimensional" nature of traditional incentive theory, in favor of an analysis that considers incentives both to invent and to improve upon existing inventions). At the same time, incentive theorists note that patent rights that are too broad in scope or duration may, in some instances, either facilitate monopoly pricing or impose costs that inhibit future innovation from occurring. See Dam, *supra* note 45, at 249-51, 257-67; Merges & Nelson, *supra*, at 844-68; Suzanne Scotchmer, *Standing on the Shoulders of Giants: Cumulative Research and the Patent Law*, J. ECON. PERSP., Winter 1991, at 29, 31.

54. See generally Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265 (1977) (introducing the prospect theory). For discussions

patent serves as a sort of public claim or stakehold on the opportunity to develop an entire family of improvements, deterring others from engaging in wastefully duplicative efforts to exploit a given technology.⁵⁵ Because the prospect theory relates more to the appropriate scope of patent rights than to the appropriate monetary remedy for the violation of those rights, our principal focus herein will be upon the incentive theory.

Trade secret law differs from the law of patents in at least four crucial respects. First, trade secret protection is based primarily on common law and state statutory law, and requires no act of recognition on the part of the government as a precondition of enforceability.⁵⁶ Second, any information that provides a person with a competitive advantage as long as it remains secret is potentially protectable as a trade secret.⁵⁷ Thus, the stringent nonobviousness condition of patent law does not apply.⁵⁸

and critiques of the prospect theory, see Dam, *supra* note 45, at 266-67; Lemley, *supra* note 12, at 1042-72; Merges & Nelson, *supra* note 53, at 871-78.

55. See *supra* note 54.

56. A majority of states have now adopted the Uniform Trade Secrets Act (UTSA), which was first promulgated in 1979. See UNIF. TRADE SECRETS ACT (amended 1985), 14 U.L.A. 433-67 (1990 & Supp. 1997). Other sources of trade secret law upon which courts sometimes rely are the RESTATEMENT (THIRD) OF UNFAIR COMPETITION §§ 39-45 (1995) and the RESTATEMENT OF TORTS §§ 757-59 (1939). In addition, the U.S. Congress recently enacted the Economic Espionage Act of 1996, 18 U.S.C.A. §§ 1831-39 (West Supp. 1997), which makes trade secret misappropriation a federal crime under some circumstances. See James H.A. Pooley et al., *Understanding the Economic Espionage Act of 1996*, 5 TEX. J. INTELL. PROP. L. 177 (1997) (discussing this act); see also 18 U.S.C.A. § 1905 (prohibiting federal employees from disclosing trade secret information disclosed to them during the course of their official duties).

57.

For example, under the UTSA, a trade secret is defined as any information, including a formula, pattern, compilation, program, device, method, technique, or process, that . . . derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and . . . is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

UNIF. TRADE SECRETS ACT § 1(4); see also RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 (defining trade secret as "any information that can be used in the operation of a business or other enterprise and that is sufficiently valuable and secret to afford an actual or potential economic advantage over others").

58. Trade secret law relies instead on the less stringent condition that the information be not generally known or readily ascertainable. See UNIF. TRADE SECRETS ACT § 1(4).

Third, although patent law requires the patentee to disclose certain information to the public as a condition of patentability,⁵⁹ trade secret law affirmatively discourages the owner from making any public disclosure because any such disclosure of trade secret information may result in the information losing its protectable status.⁶⁰ A fourth, and related, point is that trade secret protection is of uncertain duration and can be forfeited much more easily than can patent protection. While the protection lasts, the owner of a trade secret may exclude another from, among other things, acquiring the secret by "improper means" such as theft or espionage.⁶¹ She may also prevent another from using or disclosing the secret if the other knew, or had reason to know, at the time of disclosure or use that the secret was derived from a person who: (1) had used improper means to acquire it; (2) had acquired it under circumstances giving rise to a duty to maintain secrecy; or (3) owed a duty of secrecy to another.⁶² Unlike a patentee, however, the owner of a trade secret cannot exclude one who independently invents or discovers the subject matter of the secret from making use of it, nor can he prevent another from attempting to discover, and subsequently exploiting, the secret through reverse engineering.⁶³ In this respect, trade secret protection is more tenuous and less valuable than patent protection, which as we have seen prohibits others from making, using, or selling the patented device even if they do so on the basis of independent discovery.

If the plaintiff proves the actual or threatened misappropriation of a trade secret, the court may award injunctive relief.⁶⁴

59. See *supra* note 40 and accompanying text.

60. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 cmt. f.

61. See UNIF. TRADE SECRETS ACT § 1(2)(i); RESTATEMENT (THIRD) OF UNFAIR COMPETITION §§ 40(a), 43.

62. See UNIF. TRADE SECRETS ACT § 1(2)(ii); RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 40(b).

63. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 43 & cmt. b.

64. See UNIF. TRADE SECRETS ACT § 2(a); RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 44. Moreover, the court may continue the injunction against the defendant's use of the secret even after it loses its secretive nature, for such additional period of time as is necessary to eliminate any commercial advantage otherwise attributable to the misappropriation. See UNIF. TRADE SECRETS ACT § 2(a); RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 44(3) & cmt. f.

The Uniform Trade Secrets Act qualifies this right to an injunction, however, by providing that:

In exceptional circumstances, an injunction may condition future use upon payment of a reasonable royalty for no longer than the period of time for which use could have been prohibited. Exceptional circumstances include, but are not limited to, a material and prejudicial change of position prior to acquiring knowledge or reason to know of misappropriation that renders a prohibitive injunction inequitable.⁶⁵

The plaintiff also may recover damages, which may include "both the actual loss caused by misappropriation and the unjust enrichment caused by misappropriation that is not taken into account in computing actual loss."⁶⁶ Alternatively, the court may award a reasonable royalty for a misappropriator's unauthorized disclosure or use of the secret.⁶⁷ Finally, in the event of a "willful and malicious" misappropriation, courts in states that have adopted the UTSA may award punitive damages in an amount not exceeding twice the amount of actual damages,⁶⁸ as well as attorneys' fees.⁶⁹

As Friedman, Landes, and Posner have noted, trade secret law supplements the patent system by providing limited ownership rights in information that, although socially valuable, may be insufficiently valuable to merit exclusive ownership for the twenty-year period mandated by the Patent Act.⁷⁰ By providing

65. UNIF. TRADE SECRETS ACT § 2(b); *see* RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 44 cmt. c.

66. UNIF. TRADE SECRETS ACT § 3(a); *see* RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 45. A damages recovery may be conditioned, however, on the defendant's not having incurred "a material and prejudicial change of position prior to acquiring knowledge or reason to know of misappropriation." UNIF. TRADE SECRETS ACT § 3(a); *cf.* RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 45 cmts. b, g (suggesting that the court may award a reasonable royalty for the use made after the user is put on notice that the information is secret, and an injunction conditioning further use upon payment of a royalty).

67. *See* UNIF. TRADE SECRETS ACT § 3; *see also* RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 45 cmt. g (discussing reasonable royalties).

68. *See* UNIF. TRADE SECRETS ACT § 3(b); *cf.* RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 45 cmt. i (permitting "punitive damages under the rules generally applicable in the jurisdiction to the award of punitive damages in tort actions").

69. *See* UNIF. TRADE SECRETS ACT § 4.

70. *See* David D. Friedman et al., *Some Economics of Trade Secret Law*, J. ECON.

limited protection for information of this nature, trade secret law, like patent law, encourages the production of information by allowing the innovator to internalize a portion of its social value.⁷¹ And while trade secret law departs from patent law by actively discouraging the public dissemination of information, this effect is constrained to some degree by the rule permitting others to independently discover or reverse engineer the secret.⁷²

B. Copyright

Unlike patent and trade secret law, which prohibit, at least under some circumstances, the unauthorized use of the innovator's idea, copyright law forbids certain uses only of the expression of a given idea and not of the idea itself.⁷³ Specific-

PERSP., Winter 1991, at 61, 63-64. The authors also note, however, that in some instances the developer of patentable information may prefer trade secret to patent protection, notwithstanding the typical characterization of trade secret rights as being weaker than patent rights. *See id.* In general, the more difficult the inventor believes it will be for others to duplicate his innovation, the greater his incentive will be to opt for trade secret protection; this incentive will be strongest when the information has only modest economic value, thus reducing the potential gains from investing in procuring a patent, or when the inventor believes that it will take others more than 20 years, the current patent term, to independently discover or reverse engineer the innovation. *See id.* at 62-64. The Coca-Cola formula would be an example of a trade secret that has enormous value, presumably attributable in part to its nonsusceptibility thus far to reverse engineering.

71. *See id.* at 64.

72. *See id.* at 70 (discussing possible efficiency rationale for permitting reverse engineering). Of course, even with the rule permitting independent discovery and reverse engineering, the secret nature of trade secrets may tend to inhibit the development of some future innovations that otherwise would be derived from them. *See id.* at 65. One might also conclude that trade secret law is at odds with the prospect theory, which, as noted above, argues that allowing one entity to stake a public claim over a family of innovations will deter inefficient rentseeking. *See id.* at 64-66 (recognizing the problem, but suggesting that under some circumstances trade secret protection might be consistent with prospect theory); Kitch, *supra* note 54, at 288. An alternative system that recognized shorter-term patents in information that otherwise would be protected under trade secret law, in exchange for the public disclosure thereof, might impose prohibitive administrative costs. *See* Friedman et al., *supra* note 70, at 64-66.

73. *See* 17 U.S.C. § 102(b) (1994) ("In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery."). The precise words used in the text above, for example, constitute an original, copyrightable expression. The ideas con-

ly, copyright inheres in "works of authorship" that are "original" and "fixed" in a "tangible medium of expression."⁷⁴ Works of authorship potentially subject to copyright protection include literary,⁷⁵ musical, dramatic, and choreographic works; pictorial, graphic, and sculptural works; motion pictures and other audiovisual works; sound recordings; and, since 1990, architectural works.⁷⁶ The originality condition requires only independent creation and some minimal degree of creativity, either in the expression of underlying facts or ideas, or in the selection or arrangement of those facts.⁷⁷ The fixation condition requires that the work be embodied in either a copy or phonorecord,⁷⁸ by or under the authority of the author of the work, in sufficiently permanent or stable condition "to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration."⁷⁹ For works created on or after January 1,

veyed, on the other hand, concerning the fundamentals of copyright law, can be expressed in many different ways and are themselves not subject to copyright protection. There is, however, a substantial gray area in between these obvious examples of idea and expression. Does the copyright extend to a loose paraphrase or summary of the above text, for example, or would interpreting the rights in such a fashion confer an unwarranted monopoly over the underlying ideas? The impossibility of articulating any sharp distinction between idea and expression has been one of the recurring dilemmas in copyright law. See, e.g., *Peter Pan Fabrics, Inc. v. Martin Weiner Corp.*, 274 F.2d 487, 489 (2d Cir. 1960) (L. Hand, J.) ("[N]o principle can be stated as to when an imitator has gone beyond copying the 'idea,' and has borrowed its 'expression.' Decisions must therefore inevitably be *ad hoc*."), quoted in 4 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.03[A][1][a], at 13-31 (1997).

74. 17 U.S.C. § 102.

75. "Literary works are works, other than audiovisual works, expressed in words, numbers, or other verbal or numerical symbols or indicia . . ." 17 U.S.C. § 101. They include both the source code and the object code of computer programs. See 1 NIMMER & NIMMER, *supra* note 73, § 2.04[C], at 2-52.1.

76. See 17 U.S.C. § 102.

77. See *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 344-51 (1991).

78. See 17 U.S.C. § 101.

"Phonorecords" are material objects in which sounds, other than those accompanying a motion picture or other audiovisual work, are fixed by any method now known or later developed, and from which the sounds can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.

Id. A copy is a material object, other than a phonorecord, in which a work is fixed. See *id.*

79. *Id.* The effect of the fixation requirement is to exclude from federal copyright

1978 (the effective date of the 1976 Copyright Act), copyright exists from the moment of creation, regardless of whether the work is subsequently registered with the U.S. Copyright Office,⁸⁰ and initially vests in the author.⁸¹ The copyright term for such works consists of the life of the author plus fifty years.⁸²

Copyright ownership entails the five exclusive rights of reproduction, adaptation, distribution, public performance, and public display.⁸³ Of these, the most important is usually the reproduction right, which entitles the copyright owner to make copies of his own work and to authorize others to do so. Thus, one who copies⁸⁴ protectable expression from another's copyrighted work without permission infringes the owner's copyright, absent some overriding defense such as fair use.⁸⁵ Note, however, that, unlike the rule in patent law, independent discovery is not actionable in copyright; absent a copying of another's work there can be no liability.⁸⁶ The adaptation right provides the owner with the exclusive right to prepare derivative works based upon the

protection things such as impromptu speeches and improvised musical and choreographic performances. Live broadcasts of ongoing events, however, are considered fixed if a fixation is made simultaneously with the transmission. *See id.*

80. *See id.* § 301(a).

81. *See id.* § 201(a). In the case of certain works referred to as "works made for hire," however, the employer or other person for whom the work is prepared, rather than the individual who actually creates the work, is considered to be the author of the work. *See id.* § 201(b); *see also id.* § 101 (defining work made for hire).

82. *See id.* § 302(a). Copyright in works made for hire endures for 75 years from the date of first publication or 100 years from the date of creation, whichever expires first. *See id.* § 302(c).

83. *See* 17 U.S.C.A. § 106 (West 1996 & Supp. 1997).

84. The issue of what constitutes a "copying" is complex because actionable copying often entails not only literal copying of another's work but also so-called nonliteral copying of things such as plot or characters, or the structure of a computer program. *See* 4 NIMMER & NIMMER, *supra* note 73, § 13.03[A] (discussing the vague nature of testing for the infringement of a copyright).

85. *See* 17 U.S.C. § 107 (providing a limited defense for purposes such as criticism, comment, news reporting, teaching, scholarship, or research, in light of various specified factors).

86. *See, e.g.,* *Sheldon v. Metro-Goldwyn Pictures Corp.*, 81 F.2d 49, 54 (2d Cir. 1936) (L. Hand, J.) ("[I]f by some magic a man who had never known it were to compose anew Keats's Ode on a Grecian Urn, he would be an 'author,' and, if he copyrighted it, others might not copy that poem, though they might of course copy Keats's.").

copyrighted work.⁸⁷ The distribution right confers upon the owner the exclusive right to distribute copies of the work to the public;⁸⁸ once the author has distributed a particular copy, however, the "exhaustion" or "first sale" doctrine terminates his right to prevent further distribution of that copy by its lawful owner.⁸⁹ Finally, the performance and display rights entitle the owner of the copyright to authorize, respectively, the public performance and display of those works.⁹⁰

The prevailing plaintiff in a copyright infringement action may be awarded, in addition to injunctive relief,⁹¹ his "actual

87. See 17 U.S.C. § 101 ("A 'derivative work' is a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgement, condensation, or any other form in which a work may be recast, transformed, or adapted.").

88. See *id.* § 106(3).

89. See *id.* §§ 106(3), 109(a). The exhaustion doctrine explains why, for example, the holder of a copyright in a literary work cannot prevent the resale of a used copy of that work. This is particularly exasperating to textbook authors!

90. See 17 U.S.C.A. §§ 106(4), 106(5), 106(6) (West Supp. 1997) (amending 17 U.S.C. § 106 (1994)); see also 17 U.S.C. § 101 (defining what it means to perform or display a work "publicly"). The performance right applies to literary, musical, dramatic, and choreographic works, pantomimes, motion pictures and other audiovisual works, and to digital sound recordings. See 17 U.S.C.A. §§ 106(4), 106(6) (amending 17 U.S.C. § 106 (1994)). The display right applies to "literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work." *Id.* § 106(5). Like the distribution right, the display right is subject to a form of the exhaustion doctrine. See 17 U.S.C. § 109(c) (permitting the owner of a lawfully made copy to "display that copy publicly, either directly or by projection of no more than one image at a time, to viewers present at the place where the copy is located").

A 1990 amendment to the Copyright Act known as the Visual Artists Rights Act (VARA) created an additional set of so-called "moral rights" for certain "works of visual art," defined as original, and certain limited edition copies of, paintings, drawings, sculptures, and still photographic images produced for exhibition purposes. See Visual Artists Rights Act of 1990 § 602, 17 U.S.C. § 101. Under VARA, the author of a qualifying work of visual art retains a right, among other things, to claim authorship of his work and to prevent any intentional distortion or mutilation of the work that would prejudice his reputation, even after title to the work and its copyright have passed to another. See *id.* §§ 101 (defining "work of visual art"), 106(A)(a) (establishing rights of attribution and integrity), 113(d) (qualifying right of integrity). For further discussion, see Thomas F. Cotter, *Pragmatism, Economics, and the Droit Moral*, 76 N.C. L. REV. 1 (1997).

91. See 17 U.S.C. § 502; see also *id.* § 503(b) (authorizing the court to order destruction of infringing items). Subject to certain specified exceptions, however, the copyright owner must register the work with the U.S. Copyright Office prior to filing

damages suffered by him or her as a result of the infringement, and any profits of the infringer that are attributable to the infringement and are not taken into account in computing the actual damages."⁹² Normally, this means that the plaintiff is entitled to the larger of either his own lost profits or the defendant's profits attributable to the infringement.⁹³ With regard to the latter figure, the copyright owner need only present proof of the infringer's gross revenue, at which point the burden shifts to the defendant "to prove his or her deductible expenses and the elements of profit attributable to factors other than the copyrighted work."⁹⁴ In the alternative, and at the election of the copyright owner, the court may award, in lieu of actual damages and profits, "statutory damages for all infringements involved in the action, with respect to any one work . . . in a sum of not less than \$500 or more than \$20,000 as the court considers just."⁹⁵ In cases of willful infringement, the court may in-

suit. *See id.* § 411.

92. *Id.* § 504(b).

93. To illustrate, suppose first that the plaintiff's lost profits are greater than the defendant's profits and that the two entities compete for the same customers. The plaintiff may recover his own lost profits but not the defendant's profits as well, because the latter element of damages would confer upon the plaintiff a double recovery. If, however, the defendant's profits exceed the plaintiff's lost profits, then the plaintiff will be entitled to his own lost profits plus the difference between those lost profits and defendant's profits—i.e., the amount of defendant's profits. *See Taylor v. Meirick*, 712 F.2d 1112, 1120 (7th Cir. 1983); 4 NIMMER & NIMMER, *supra* note 73, § 14.02[A], at 14-9 to -10. If the defendant competes in both the plaintiff's territory and in another location, however, then the analysis is slightly different; if the plaintiff's lost profits exceed the defendant's profits in the common region, the plaintiff should recover his lost profits plus the profits the defendant earned in the other region. *See U.S. Payphone, Inc. v. Executives Unlimited, Inc.*, 781 F. Supp. 412, 414 & n.1 (M.D.N.C. 1991); *Manufacturers Techs., Inc. v. Cams, Inc.*, 728 F. Supp. 75, 84 (D. Conn. 1989).

94. 17 U.S.C. § 504(b).

95. *Id.* § 504(c)(1); *see id.* § 504(a). Note what the statute appears to say: the plaintiff is entitled to an award of statutory damages not for every act of infringement, but for all infringements with respect to any one work. *See id.* § 504(c)(1). Whether the defendant makes one or one thousand unauthorized copies of the plaintiff's work, the plaintiff receives one award of statutory damages. *See id.* In addition, and subject to certain limited exceptions, the prevailing plaintiff may recover neither statutory damages nor attorneys' fees unless he registers the copyright to the work either (1) prior to its infringement, or (2) within three months of its publication. *See id.* § 412. In the case of an infringement of an unpublished work, recovery of statutory damages and fees is conditioned upon registration of the work prior

crease statutory damages to a sum of not more than \$100,000; in cases of innocent infringement, the court may reduce them to a sum of not less than \$200.⁹⁶ The court in its discretion also may award the prevailing party costs and attorney's fees⁹⁷ and, arguably, prejudgment interest,⁹⁸ but not punitive damages.⁹⁹

Like patent law, copyright can be viewed as performing both an incentive and a prospect-like function. The incentive theory suggests that, in the absence of copyright protection, the number of works created and published will be suboptimal, due to the ability of others to free ride upon the efforts of creators and publishers and thereby prevent them from recouping their investments in creation and dissemination.¹⁰⁰ At the same time, incentive theorists recognize that too strong a system of copyright protection may deter the creation of new works that build upon earlier ones, due to the presence of transaction costs and other bargaining obstacles that may restrict access to these earlier works.¹⁰¹ The prospect theory suggests that according ownership rights in all of the various uses for any given copyrighted work will maximize social welfare by encouraging the efficient development of markets for those uses.¹⁰² At times, the two

to the date of infringement. *See id.*

96. *See id.* § 504(c)(2).

97. *See id.* § 505. In *Fogerty v. Fantasy, Inc.*, 507 U.S. 517 (1994), the Supreme Court held that prevailing plaintiffs and prevailing defendants must be treated alike in awarding attorney's fees under § 505. *See id.* at 521-535.

98. *See* 4 NIMMER & NIMMER, *supra* note 73, § 14.02[B], at 14-20 to -22.

99. *See id.* at 14-23 to -24. Criminal sanctions, however, are available for willful infringement for purposes of commercial advantage or private financial gain. *See* 17 U.S.C.A. § 506(a) (West Supp. 1998); 18 U.S.C.A. § 2319 (West Supp. 1998).

100. *See* Stewart E. Sterk, *Rhetoric and Reality in Copyright Law*, 94 MICH. L. REV. 1197, 1204 (1996); *see also* William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 326-32 (1989) (following, in large part, an incentive approach).

101. *See* Landes & Posner, *supra* note 100, at 332; Sterk, *supra* note 100, at 1204-05.

102. *See* PAUL GOLDSTEIN, COPYRIGHT'S HIGHWAY 178-79 (1994) ("The logic of property rights dictates their extension into every corner in which people derive enjoyment and value from literary and artistic works. To stop short of these ends would deprive producers of the signals of consumer preference that trigger and direct their investments."); *see also* Neil Weinstock Netanel, *Copyright and a Democratic Civil Society*, 106 YALE L.J. 283, 308-36 (1996) (critiquing this theory). *See generally* Harold Demsetz, *The Private Production of Public Goods*, 13 J.L. & ECON. 293 (1970) (arguing that exclusionary rights enhance the public good).

theories can produce widely conflicting policy recommendations. Providing the copyright owner with an exclusive right to prepare derivative works, for example, is difficult to justify based on an incentive theory, because in most cases the additional creative incentive attributable to this right will be small.¹⁰³ From the standpoint of prospect theory, on the other hand, the adaptation right may seem desirable because it facilitates the copyright owner's ability to efficiently coordinate investment in specific derivative works for which consumers are willing to pay.¹⁰⁴ For present purposes, however, it is unnecessary to choose between these two theories. For better or worse, we shall assume that the substantive rights conferred by the Copyright Act are efficient, and that the applicable damages rules should be crafted so as to facilitate the copyright owner's ability to enforce those rights.

C. Trademarks

The third source of intellectual property law, in addition to patents and copyrights, is the law of unfair competition. The term "unfair competition" itself encompasses a number of specific bodies of law, including the law of trade secrets, as well as trademarks, false advertising, product disparagement, and the right of publicity.¹⁰⁵ For purposes of this Article, we shall limit our discussion of unfair competition to what we view as its two most important aspects, namely the law of trade secrets and trademarks. Having discussed trade secrets above in connection with patent rights,¹⁰⁶ we describe in this subsection the princi-

103. See Sterk, *supra* note 100, at 1215-17. Sterk recognizes that, under some circumstances, the expectation of derivative revenues may be a motivating factor in creating the original work, but he argues that these circumstances are atypical. See *id.*

104. See, e.g., Landes & Posner, *supra* note 100, at 354-55 (arguing for an author's ability to copyright derivative works and against a rule of mere exclusion); cf. Lemley, *supra* note 12, at 1044-77 (critiquing prospect-theoretical justification for current scope of adaptation right). These differences of opinion concerning the appropriate scope of copyright law tend to divide law and economics scholars who write in this field into two camps, which Neil Netanel refers to as the "minimalist" and "neo-classical" schools. See Netanel, *supra* note 102, at 309-11.

105. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION (1995).

106. See *supra* notes 56-72 and accompanying text.

pal features of and economic justifications for the law of trademarks.

A trademark is any word, name, device, or other symbol that identifies a unique source of a product or service.¹⁰⁷ In general, the first person to make a lawful, commercial use of a mark to identify her product or service acquires the right to exclude others from using the same or a confusingly similar mark for the same or a related product or service.¹⁰⁸ The more famous a mark is, however, the greater the likelihood that a court will enjoin others from using a similar designation even on products or services that are not closely related to the owner's business.¹⁰⁹ At common law, the geographic scope of a trademark

107. See 15 U.S.C. § 1127 (1994) (amended by 15 U.S.C.A. § 1127 (West 1998)); RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 9. In some circumstances, even such attributes as colors, sounds, and fragrances can serve as trademarks. See *Qualitex Co. v. Jacobson Prods. Co.*, 115 S. Ct. 1300, 1302-05 (1995). So too can "trade dress," a term often used to refer to a product's packaging or configuration. See *Two Pesos, Inc. v. Taco Cabana, Inc.*, 505 U.S. 763, 764 n.1 (1992); *Duraco Prods., Inc. v. Joy Plastic Enters., Inc.*, 40 F.3d 1431, 1438-39 (3d Cir. 1994). Often these less traditional types of source identifiers, however, are vulnerable to the defense of functionality. Functional attributes—those that are "essential to the use or purpose of the article or . . . effect [] the cost or quality of the article"—are not subject to trademark protection. *Qualitex*, 115 S. Ct. at 1304 (quoting *Inwood Labs., Inc. v. Ives Labs., Inc.*, 456 U.S. 844, 850 n.10 (1982)).

108. See generally 2 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 16:1 (4th ed. 1997) (describing the acquisition of legal rights in a business symbol). In determining whether a competing mark is likely to cause confusion as to source, sponsorship, or affiliation, a court will consider as many as eight or more different factors, such as the similarity of the marks, the similarity of the goods on which they are used, the sophistication of the class of prospective purchasers of the goods, and any instances of actual confusion of the marks. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION §§ 20-23; Thomas F. Cotter, *Owning What Doesn't Exist, Where It Doesn't Exist: Rethinking Two Doctrines from the Common Law of Trademarks*, 1995 U. ILL. L. REV. 487, 530 n.177.

109. McDonald's Corporation and Toys "R" Us, Inc., for example, have been successful in enjoining others' uses of the letters "Mc" and "R' Us," respectively, even in connection with goods or services not directly related to the owners' principal businesses. See, e.g., *Geoffrey, Inc. v. Stratton*, No. 90-56060, 1991 WL 278840 (9th Cir. Dec. 27, 1991) (affirming judgment enjoining defendant from using the name PHONES-R-US in connection with a telephone sales and repair business); *McDonald's Corp. v. Druck and Gerner, DDS.*, 814 F. Supp. 1127 (N.D.N.Y. 1993) (enjoining dentists from using the name McDENTAL in connection with dental services). In many of the cases involving the use of "Mc" or "R' Us," the plaintiffs also raised a successful trademark dilution claim. See, e.g., *Toys "R" Us, Inc. v. Akkaoui*, 40 U.S.P.Q.2d (BNA) 1836 (N.D. Cal. 1996) (enjoining the defendant from using the

right generally is limited to those areas in which the owner's products are sold or otherwise have acquired notoriety.¹¹⁰ Since 1947, however, the federal Lanham Act¹¹¹ has permitted the owner of a mark used in interstate commerce to register the mark with the Patent and Trademark Office and, thereby, effectively to acquire nationwide rights to exclude others from the use of marks that are likely to cause confusion as to source, sponsorship, or affiliation.¹¹² Subject to several exceptions of varying importance, trademark rights persist for as long as consumers continue to identify the mark with a unique source.¹¹³

The prevailing plaintiff in a federal trademark infringement action¹¹⁴ is entitled to injunctive relief¹¹⁵ and, like her counterpart in a copyright case, also may recover the defendant's profit attributable to the infringement and any damages sus-

name Adults 'R' US for an Internet site and shopping service featuring sexual devices and clothing, on the ground that the use threatened to dilute the plaintiff's mark by tarnishment). For a discussion of trademark dilution, see *infra* notes 129-35 and accompanying text.

110. See Cotter, *supra* note 108, at 491-92. In a few instances, however, the common law may enforce trademark rights outside this limited geographic area. See *id.* at 492-94.

111. 15 U.S.C.A. §§ 1051-1127 (West 1998).

112. See 15 U.S.C. §§ 1051, 1072, 1115 (1994). The ability to acquire nationwide rights prior to the actual expansion of business into a specific region is clearly important for many types of business enterprises, such as franchises. Indeed, under some circumstances a business may have a substantial interest in reserving a national mark prior to any actual use. Responding to a perceived need for such reservations, Congress in 1988 amended the Lanham Act to permit a person with a good faith intention to use a mark in commerce to file with the Patent and Trademark Office an intent-to-use application that, if approved, allows the applicant to reserve a mark for a six-month period, renewable up to a maximum of 24 months. Actual use of the mark within the applicable period then results in registration of the mark. See *id.* § 1051(b)-(d).

113. See *id.* §§ 1058, 1064. Federal registrations must be renewed every 10 years, however, in order to remain effective. See *id.* §§ 1058(a), 1059(a).

114. Unlike the Patent and Copyright Acts, which preempt analogous state laws and which provide a right to relief that is exclusively within the subject matter jurisdiction of the federal courts, see 28 U.S.C. § 1338(a) (1994), the Lanham Act neither preempts state trademark law nor requires that actions for violation of the Act be pursued exclusively in federal court. See 4 MCCARTHY, *supra* note 108, § 32:1. To keep matters simple, however, the discussion above concentrates exclusively upon the remedies available under the Lanham Act.

115. See 15 U.S.C. § 1116(a).

tained by the plaintiff,¹¹⁶ as long as the court avoids double counting.¹¹⁷ Notwithstanding the statutory authorization to award restitutionary damages, however, courts are reluctant to do so unless the defendant's infringement implies "some connotation of 'intent,' or a knowing act denoting an intent, to infringe or reap the harvest of another's mark and advertising."¹¹⁸ As in the copyright context, the plaintiff satisfies her burden of production on this issue by providing evidence of the defendant's sales, at which point the burden shifts to the defendant to prove which costs should be deducted to arrive at the correct profit amount.¹¹⁹ With respect to actual damages, the court may award: (1) the plaintiff's lost profits attributable to the infringement; (2) the amount necessary to undertake a corrective advertising campaign; or (3) a reasonable royalty for use of the mark.¹²⁰

116. *See id.* § 1117(a) (authorizing such recoveries "subject to the principles of equity"). Certain exceptions to damages liability apply, however, with respect to defendants whose only involvement in an infringement is the printing or advertising of an infringing mark. *See id.* § 1114(2).

117. *See* RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 45 cmt. c (1995); 4 MCCARTHY, *supra* note 108, § 30:73. In cases involving counterfeit marks, however—defined as the use of a

counterfeit of a mark that is registered on the principal register in the United States Patent and Trademark Office for such goods or services sold, offered for sale, or distributed and that is in use, whether or not the person against whom relief is sought knew such mark was so registered,

15 U.S.C. § 1116(d)(1)(B)(ii)—the plaintiff may recover treble her actual damages or the defendant's profits, whichever is greater. *See id.* § 1117(a)-(b). Alternatively the plaintiff may elect to recover statutory damages in the amount of "not less than \$500 or more than \$100,000 per counterfeit mark per type of goods or services sold, offered for sale, or distributed, as the court considers just." 15 U.S.C.A. § 1117(c)(1) (West 1998). If the court finds that the counterfeiting was willful, it may assess statutory damages of "not more than \$1,000,000 per counterfeit mark per type of goods or services sold, offered for sale, or distributed, as the court considers just." *Id.* § 1117(c)(2). The court also may order the seizure, upon ex parte application, of goods bearing counterfeit marks. *See* 15 U.S.C. § 1116(d)(1)(A). In cases involving either infringement or counterfeiting the court may order the destruction of any goods found to bear an infringing or counterfeiting mark. *See id.* § 1118; *see also* 18 U.S.C.A. § 2320 (West 1998) (imposing criminal penalties for trafficking in counterfeit goods or services).

118. 4 MCCARTHY, *supra* note 108, § 30:62, at 30-101; *see also* RESTATEMENT (THIRD) OF UNFAIR COMPETITION §§ 36 cmts. b-c, 37 & cmt. e (discussing restitution).

119. *See* 15 U.S.C. § 1117(a).

120. *See* 4 MCCARTHY, *supra* note 108, §§ 30:79 to 30:87; *see also* RESTATEMENT

The Lanham Act also authorizes the enhancement of damages awards in appropriate cases. First, the court may enhance the amount of actual damages by entering judgment "according to the circumstances of the case, for any sum above the amount found as actual damages, not exceeding three times such amount."¹²¹ Second, "[i]f the court shall find that the amount of recovery based on profits is either inadequate or excessive the court may in its discretion enter judgment for such sum as the court shall find to be just, according to the circumstances of the case."¹²² In effect, this latter provision enables the court to "[i]ncrease or decrease an award of profits by any amount if the court finds the profit recovery is 'either inadequate or excessive.'"¹²³ In general, however, enhanced damages are awarded only when the court finds that the defendant willfully infringed the plaintiff's mark.¹²⁴ The court may award reasonable attorney's fees to the prevailing party in exceptional cases.¹²⁵ Courts are divided, however, over whether they should ordinarily award her prejudgment interest as well, or whether such relief should be limited to exceptional cases.¹²⁶

Trademarks serve at least two important economic functions. First, they lower search costs by allowing consumers to distinguish between products that differ in quality but that, in the absence of differing brand names, would be difficult or impossible to distinguish at the point of purchase.¹²⁷ Second, in order

(THIRD) OF UNFAIR COMPETITION § 36 (stating that plaintiff's actual damages may include (1) losses resulting from sales or other revenues lost because of defendant's conduct; (2) sales made by the plaintiff at prices that have been reasonably reduced because of such conduct; (3) harm to market reputation of plaintiff's goods, services, business, or trademark; and (4) reasonable expenditures made by the plaintiff to prevent, correct, or mitigate confusion).

121. 15 U.S.C. § 1117(a).

122. *Id.* The statute goes on to state that "[s]uch sum in either of the above circumstances shall constitute compensation and not a penalty." *Id.* The precise meaning of this sentence is unclear. See 4 MCCARTHY, *supra* note 108, § 30:91.

123. 4 MCCARTHY, *supra* note 108, § 30:90, at 30-146.

124. *See id.* § 30:91.

125. *See* 15 U.S.C. § 1117(a).

126. *See* 4 MCCARTHY, *supra* note 108, § 30:93.

127. *See* Cotter, *supra* note 108, at 490-91. These would be so-called "experience" goods, which must be consumed in order for the purchaser to evaluate their quality. The rationale would not apply to "inspection" goods, which can be examined prior to consumption and evaluated for quality differences. For further discussion, see *id.* at

for trademarks to lower search costs, the goods or services they identify must be of reasonably uniform quality; an additional benefit of trademarks therefore is that they encourage producers to invest in quality control.¹²⁸ A third function trademarks sometimes serve is as a vehicle for persuasive advertising¹²⁹—a function that may be undermined by another's use of a similar mark (even if that use is unlikely to cause confusion as to source, sponsorship, or affiliation) that threatens to "blur" the distinctive nature of the mark or to "tarnish" its image "through inherently negative or unsavory associations, or with goods or services that produce a negative response"¹³⁰ An example of the former type of harm might be the use of the mark TIFFANY for restaurant services; an example of the latter might be the use of that mark on a pornographic or illegal product.¹³¹ Whether the law ought to recognize a cause of action for injuries of this nature, which are said to "dilute" the value of the mark, has been a matter of considerable debate for years.¹³² In 1996, however, the U.S. Congress created a federal cause of action for trademark dilution by enacting the Federal Trademark Dilution

491 and sources cited therein.

128. *See id.*

129. *See, e.g.*, RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 25 cmt. b (1995) (discussing the view that "the primary value of trade symbols [is] their power to generate sales"); *id.* § 25 cmt. c ("[A] mark may be so highly distinctive and so well advertised that it acts as a powerful selling tool.").

130. *Id.* § 25 cmt. c.

131. *See id.* § 25 & cmts. c, f, g; 3 MCCARTHY, *supra* note 108, §§ 24:68, 24:69.

132. Among the early works in the field are Walter Derenberg, *The Problem of Trademark Dilution and the Antidilution Statutes*, 44 CAL. L. REV. 439 (1956); Beverly W. Pattishall, *The Dilution Rationale for Trademark—Trade Identity Protection, Its Progress and Prospects*, 71 NW. U. L. REV. 618 (1976) (detailing the confusion surrounding antidilution theory); and Frank I. Schechter, *The Rational Basis of Trademark Protection*, 40 HARV. L. REV. 813 (1927) (proposing a trade identity rationale for trademark law). For further discussion of dilution, see Robert C. Denicola, *Institutional Publicity Rights: An Analysis of the Merchandising of Famous Trade Symbols*, 62 N.C. L. REV. 603, 637-41 (1984); Paul J. Heald, *Filling Two Gaps in the Restatement (Third) of Unfair Competition: Mixed-Use Trademarks and the Problem with Vanna*, 47 S.C. L. REV. 783, 783-803 (1996); William M. Landes & Richard A. Posner, *Trademark Law: An Economic Perspective*, 30 J.L. & ECON. 265, 306-09 (1987); Jerre B. Swann & Theodore H. Davis, Jr., *Dilution, An Idea Whose Time Has Gone; Brand Equity as Protectable Property, the New/Old Paradigm*, 1 J. INTEL. PROP. L. 219 (1994); David S. Welkowitz, *Reexamining Trademark Dilution*, 44 VAND. L. REV. 531 (1991).

Act of 1995 (the "Act").¹³³ The Act authorizes courts to enjoin the dilution of "famous" marks¹³⁴ and, in cases of willful dilution only, to apply the same set of damages remedies that are available for trademark infringement.¹³⁵

D. Property Rules and Liability Rules

One remedial issue that has attracted substantial interest within the law and economics community is whether it is preferable to protect intellectual property entitlements by means of property or liability rules. In their famous article, Calabresi and Melamed distinguished these two types of rules:

An entitlement is protected by a property rule to the extent that someone who wishes to remove the entitlement from its holder must buy it from him in a voluntary transaction in which the value of the entitlement is agreed upon by the seller. It is the form of entitlement which gives rise to the least amount of state intervention: once the original entitlement is decided upon, the state does not try to decide its value. It lets each of the parties say how much the entitlement is worth to him, and gives the seller a veto if the buyer does not offer enough

Whenever someone may destroy the initial entitlement if he is willing to pay an objectively determined value for it, an entitlement is protected by a liability rule. . . . Obviously,

133. See Pub. L. No. 104-98, 109 Stat. 985 (codified at 15 U.S.C.A. § 1125(c) (West 1998)). Prior to the passage of the Act, about half of the states recognized dilution claims. See 3 MCCARTHY, *supra* note 108, §§ 24:77 to :81. The Act does not preempt these state law claims, see *id.* § 24:90, at 24-134 (referencing H.R. REP. NO. 104-374, at 4 (1995), reprinted in 1995 U.S.C.C.A.N. 1029, 1031), although it does prohibit the assertion of a state law dilution claim against a federally registered mark. See 17 U.S.C.A. § 1125(c)(3) (West 1998); 3 MCCARTHY, *supra* note 108, § 24:90, at 24-139 to -140.

134. See 15 U.S.C.A. § 43(c)(1) (West Supp. 1997) (outlining factors to be considered in determining whether a mark is sufficiently famous to merit protection against dilution); see also RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 25 cmt. e ("As a general matter, a trademark is sufficiently distinctive to be diluted by a nonconfusing use if the mark retains its source significance when encountered outside the context of the goods or services with which the mark is used by the trademark owner."). Although state antidilution laws do not expressly require the plaintiff to demonstrate that her mark is famous, most courts have read such a requirement into state law as well. See 3 MCCARTHY, *supra* note 108, § 24:108, 24:112.

135. See 15 U.S.C.A. § 43(c)(1), (2).

liability rules involve an additional stage of state intervention: not only are entitlements protected, but their transfer or destruction is allowed on the basis of a value determined by some organ of the state rather than by the parties themselves.¹³⁶

On the basis of this discussion, the use of the term "intellectual property" to describe such things as patents, trade secrets, copyrights, and trademarks seems fitting, inasmuch as the law accords these entitlements property-like protection. As we have seen, the law generally entitles the owner of an intellectual property right to obtain an injunction against the unauthorized use of his work; and, in so doing, it encourages the owner and would-be user to bargain for a transfer of rights at a mutually agreed-upon price. In these respects, intellectual property rights are a paradigm example of entitlements protected by property rules. Indeed, there are only a handful of situations in which the would-be infringer is entitled, as under a liability-rule system, simply to "breach and pay damages" whenever he wishes to use another's intellectual property.¹³⁷

136. Calabresi & Melamed, *supra* note 15, at 1092 (footnote omitted).

137. There are a handful of situations in which copyright law authorizes the use of compulsory licenses. See 17 U.S.C. § 104A(d)(3) (1994) (authorizing owners of derivative works based on "restored works," as defined by 17 U.S.C. § 104A(h)(6), to continue using derivative works upon payment of reasonable compensation); *id.* § 116 (providing for arbitration of disputes between owners of copyrights to musical compositions and jukebox operators, in the event that negotiations fail); *id.* § 118 (providing for compulsory licensing of works for use by public broadcasting entities); *id.* § 405(b) (authorizing the court to allow an infringer to continue using work upon payment of reasonable license fee, in certain cases involving innocent infringement); 17 U.S.C.A. § 111(c) (West Supp. 1997) (providing for compulsory licensing for secondary transmissions by cable systems); *id.* § 114(d)(2), (f) (providing for compulsory licensing of copyrights in sound recordings for use in digital transmission subscription services); *id.* § 115 (West 1996 & Supp. 1997) (providing for compulsory licensing of musical compositions for use in phonorecords); *id.* § 119 (providing for compulsory licensing for satellite retransmissions). In the law of trade secrets, a court may permit a defendant, who innocently acquired knowledge of another's secret and who thereafter incurred a material and prejudicial change of position prior to acquiring knowledge or reason to know of the secretive nature of the information, to continue using it upon payment of a reasonable royalty. See *supra* text accompanying note 65; see also Robert P. Merges, *Of Property Rules, Coase, and Intellectual Property*, 94 COLUM. L. REV. 2655, 2668 n.47 (1994) (discussing an analogous theory in copyright law). In addition, an employee who is deemed to own an invention or other valuable

A substantial number of the law and economics scholars who have written on this subject appear to agree that it is generally preferable to protect intellectual property rights through the use of property, as opposed to liability, rules. As Merges has explained, in the context of a discussion of patents that is equally applicable to the other branches of intellectual property law:

[A] property rule makes sense . . . because: (1) there are only two parties to the transaction, and they can easily identify each other; (2) the costs of a transaction between the parties are otherwise low; and (3) a court setting the terms of the exchange would have a difficult time doing so quickly and cheaply, given the specialized nature of the assets and the varied and complex business environments in which the assets are deployed. Hence the parties are left to make their own deal.¹³⁸

For these reasons, Merges and other scholars contend that compulsory licensing schemes, under which the owner of an intellectual property right must license users at some statutorily or judicially fixed rate, are less efficient than a system of property-like protection.¹³⁹ Although recognizing that transaction costs

information created during the period of his employment may be required to provide his employer with a "shop right"—an irrevocable, nonexclusive, royalty-free license to use the invention in its own business. See Thomas F. Cotter, *Conflicting Interests in Trade Secrets*, 48 FLA. L. REV. 591, 594 (1996) [hereinafter Cotter, *Conflicting Interests*]. Otherwise in the law of patents, compulsory licenses typically arise only as a remedy for patent misuse. See ROBERT PATRICK MERGES, *PATENT LAW AND POLICY: CASES AND MATERIALS* 906-08 (1992). Finally, the government sometimes may effect a taking of intellectual property for a public purpose, subject to the Fifth Amendment's requirement of just compensation. See, e.g., 28 U.S.C. § 1498 (1994); *Jacobs Wind Elec. Co. v. Department of Transp.*, 626 So. 2d 1333 (Fla. 1993); see also Thomas F. Cotter, *Do Federal Uses of Intellectual Property Implicate the Fifth Amendment?* (Mar. 22, 1998) (unpublished manuscript, on file with authors); Christina Bohannon & Thomas F. Cotter, *When the State Steals Ideas: Is the Abrogation of State Sovereign Immunity from Federal Infringement Claims Constitutional in Light of Seminole Tribe?* 27-58 (Mar. 23, 1998) (unpublished manuscript, on file with authors) (discussing whether state governments' uses of intellectual property effect takings).

138. Merges, *supra* note 39, at 78; see also Robert P. Merges, *Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations*, 84 CAL. L. REV. 1293, 1296 (1996) (arguing in addition that compulsory licensing schemes are suboptimal because they are subject to "legislative lock-in").

139. See, e.g., Richard P. Adelstein & Steven I. Peretz, *The Competition of Technol-*

and other bargaining obstacles may sometimes threaten to impede efficient transfers from going forward, these scholars suggest that the available methods for reducing these obstacles within the framework of a property-rule system are more likely to induce the movement of rights to their highest-valued uses than would a liability-rule regime.¹⁴⁰

For purposes of this analysis, we shall assume that property rules are more likely than liability rules to encourage the efficient use of intellectual property. Developing a set of damages rules is, nevertheless, also necessary, as long as some infringements are likely to go undetected or unremedied for some period of time, to ensure that the purposes underlying the various bodies of intellectual property law are not frustrated. If a property-like entitlement structure is generally preferable, however, for

ogies in Markets for Ideas: Copyright and Fair Use in Evolutionary Perspective, 5 INT'L REV. L. & ECON. 209 (1985) (arguing against expansive interpretation of fair use doctrine); Wendy J. Gordon, *Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and its Predecessors*, 82 COLUM. L. REV. 1600, 1613 (1982) (suggesting that compulsory licensing be reserved for extreme cases only); Kitch, *supra* note 54, at 286-87 (arguing that compulsory licensing destroys prospect function of patent rights); Lemley, *supra* note 12, at 1061-67, 1068-83 (arguing that certain alterations of rules relating to derivative works and fair use are preferable to compulsory licensing as a means for avoiding losses associated with bargaining breakdowns in copyright law); Merges, *supra* note 138 (arguing that formation of voluntary institutions, such as patent pools and collective rights organizations such as ASCAP and BMI, are preferable to compulsory licensing systems as a means of overcoming bargaining obstacles); Merges, *supra* note 39 (arguing that the expanded use of reverse doctrine of equivalents is preferable to compulsory licensing for avoiding losses associated with bargaining breakdowns in patent law); *cf.* Cotter, *supra* note 108, at 519-27 (arguing that rules concerning ownership of common-law trademarks can be viewed as methods for overcoming bargaining breakdowns in trademark law).

In contrast, Ian Ayres and Eric Talley have argued that under some circumstances a compulsory licensing system will induce the owner and user to reveal their true valuation of the subject property, and therefore may help to overcome bargaining obstacles arising out of strategic behavior. See Ian Ayres & Eric Talley, *Solomonic Bargaining: Dividing a Legal Entitlement to Facilitate Coasean Trade*, 104 YALE L.J. 1027, 1092-94 (1995); see also Netanel, *supra* note 102, at 334-35 nn.247-48 (discussing Ayres's and Talley's theory and Merges's response to it). In response, Merges suggests that Ayres's and Talley's analysis does not apply outside the bilateral monopoly context. See Merges, *supra* note 138, at 1304-05. Alternatively, Lemley submits that a system of divided property entitlements of the type he proposes in connection with derivative works would have benefits similar to, and fewer costs than, Ayres's and Talley's proposed scheme. See Lemley, *supra* note 12, at 1068-72.

140. See sources cited *supra* note 139.

the protection of intellectual property rights, then these damages rules should be largely ancillary to that structure; in other words, the rules should be designed so that the infringer is no better off than he would have been had he been enjoined from using the property *ab initio*. If this analysis is correct, then it suggests, for reasons explored below, that the standard measure of damages in intellectual property cases generally should be either the restitution of the infringer's profits or an award of compensatory damages, whichever is greater, subject to various context-specific adjustments.¹⁴¹ In the following Part, this model is developed further, and then in Part IV we attempt to discover whether the ways in which the actual rules differ from the model are consistent with an efficiency rationale.

III. A GENERAL THEORY OF DAMAGES RULES

In this Part, we begin by modeling the incentive structure facing both the innovator and the potential infringer of the innovator's intellectual property. Applying the insights derived from this analysis, we then construct a simple model of optimal damages rules. In Part IV, we discuss whether the principal ways in which the actual rules in patent, trade secret, copyright, and trademark law differ, both from the optimal rules suggested by the model and from one another, can be explained by further refinements of our economic analysis or only by other, noneconomic, considerations.

141. We recognize that the prospect of awarding restitutionary damages, in order to make sure that the infringer is rendered no better off as a result of the infringement, appears to make it possible for the plaintiff to be rendered better off as a result of the infringement. The likelihood that an intellectual property owner would respond to this incentive structure by encouraging others to infringe her property nevertheless should be minimal. For one thing, defenses such as estoppel and acquiescence are designed precisely to prevent such behavior. See 6 CHISUM, *supra* note 11, § 19.05[3] (discussing the defense of estoppel in patent litigation); 4 MCCARTHY, *supra* note 108, §§ 31.41 to 31.43 (discussing acquiescence); 4 NIMMER & NIMMER, *supra* note 73, § 13.07 (discussing estoppel). Moreover, as we demonstrate below, the amount of the infringer's illicit profit is also the upper bound of what he would have been willing to pay the owner for the use of that property. The owner's lost licensing revenue and the defendant's gain attributable to the infringement therefore should tend to converge. See *infra* text accompanying notes 161-62, 167.

A. Preserving the Incentive to Create

The decision to invest in the creation of intellectual property is often accompanied by uncertainty concerning matters such as the cost that will be incurred in attempting to produce the desired innovation; whether the attempt to produce will be successful; and, assuming that the attempt is successful, what the profit will be from the subsequent commercial exploitation of the innovation. In order to focus on what concerns us, however, let us assume initially that both the cost and the profit that will result if the creative venture is successful are known. Let P represent the probability of success and $(1 - P)$ the probability of failure.¹⁴² At the initial stage, the potential creator's expected return ($E[R]$) can be written as:

$$E[R] = P\pi + (1 - P)(0) - C,$$

where C is the cost of creating the intellectual property and π is the profit that will result if the creative effort is successful. In other words, there are two possible outcomes: (1) the creative effort will be successful and thereby will generate profits of π , or (2) the effort will be unsuccessful and no profit will be earned. In either case, the creator will have to bear the cost of the creative effort. Because $(1 - P)$ times zero is zero, the expected return may be rewritten as:

$$E[R] = P\pi - C,$$

i.e., the expected return equals the expected profit minus the cost of the creative effort.

Next, let us assume in addition that the profit to be derived from a successful creative effort is subject to uncertainty due to the possibility of infringement. If the expected value of the profit given a successful creative effort is below π , then the incentive to invest is reduced.¹⁴³ To preserve the incentive to create intel-

142. The numerical value of the probability must be between zero and one, because probability is a measure of relative frequency. It is the proportion of times that an event may occur, which is necessarily a fraction in the unit interval. See generally EMANUEL PARZEN, *MODERN PROBABILITY THEORY AND ITS APPLICATIONS* (Wiley Classics Library ed. 1992) (1960) (describing the probability theory).

143. We shall assume throughout this discussion that the incentives provided by the substantive law of intellectual property—for example, the rules providing the patentee with the right to exclude others from making, using, or selling her invention for 20 years, and the copyright owner with the right to exclude others from

lectual property, then, it is important to devise damages rules that leave π unchanged. One way to accomplish this is to compensate the creator so that she is no worse off as a result of any infringement. Another way is to deter infringement, thereby preventing any deterioration in π in the first instance.

B. Deterring Infringement

In order to deter infringement, we must have a set of rules that renders an infringement unprofitable. The guidance that this observation provides can be developed in a simple model.

If one person infringes another's intellectual property, the infringer will increase his profits by an amount that we denote as π_i . Suppose that the probability of detecting the infringement is P and that the probability of undetected infringement is $(1 - P)$. Now, the return on infringement is subject to uncertainty. The actual return will be either π_i with probability $(1 - P)$, or it will be π_i less the sanction for infringing, denoted as F , with probability P . Accordingly, the expected return to infringing can be written as:

$$E[R] = P(\pi_i - F) + (1 - P)\pi_i,$$

where E is the expectations operator and R is the uncertain return on infringing.

In a stochastic world, this risky venture can be made unprofitable in an expectations sense.¹⁴⁴ That is, we can make the ex-

copying his work until 50 years after the author's death—will induce, in the absence of infringement, the optimal creation and dissemination of information. Whether this assumption is accurate is, of course, debatable. See, e.g., Louis Kaplow, *The Patent-Antitrust Intersection: A Reappraisal*, 97 HARV. L. REV. 1815, 1823-45 (1984) (discussing the difficulty of determining optimal patent term); Landes & Posner, *supra* note 100, at 361-63 (discussing the optimal copyright term). To the extent that the substantive rules either provide an inadequate incentive for achieving optimal creation and publication, or in the alternative hinder the attainment of this goal by unnecessarily increasing the cost of creating new works from old, the damages rules derived above also may be suboptimal.

144. In other words, infringing is profitable to the infringer if he gets away with it, and it is unprofitable to him if he does not. By making the expected value of infringement less than or equal to zero, the policymaker can render infringement unprofitable in an expectations sense. Thus, any infringement that is not detected will be profitable, but on average infringement will not be profitable. See ROGER D. BLAIR & LAWRENCE W. KENNY, *MICROECONOMICS FOR MANAGERIAL DECISION MAKING* 161 (1982).

pected return less than or equal to zero by operating on the penalty for infringing, F . Algebraically rearranging $E[R]$ yields:

$$\begin{aligned} E[R] &= P\pi_i + (1 - P)\pi_i - PF \\ &= \pi_i - PF. \end{aligned}$$

Thus, an expected sanction PF equal to the profit due to infringement makes the expected return equal to zero. This will leave a potential infringer indifferent between infringing and not infringing. If PF exceeds π_i , the potential infringer will be deterred because, on average, he will earn less profit by infringing than by not infringing. This means that the sanction must be a multiple of the profit due to infringing:

$$F > \pi_i/P.$$

Because P is necessarily a fraction in the unit interval, $0 < P < 1$, the sanction will always exceed π_i except when the probability of detection equals one. In all other cases, F will be a multiple of π_i . For example, if the probability of catching an infringer is 0.25, the sanction will be $4\pi_i$.¹⁴⁵

145. There are two important qualifications to the above analysis, both of which derive from the fact that, if the infringement is detected, the infringer will be enjoined from further unauthorized use of the property. The first is that the cost of complying with the injunction probably should be subtracted from the calculation of π_i in the event that the defendant is enjoined. See Heald, *supra* note 14, at 644-45 (arguing that, in determining the amount of damages to be awarded in a trademark infringement case, the court should take into account the cost to the defendant of complying with the injunction). Second, as the example from the Introduction suggests, there may be some limited class of cases in which *no* penalty other than an injunction would be necessary to deter infringement. To illustrate, suppose that the would-be intellectual property user plans to produce goods with a market value of \$1,000,000; the expected production costs are \$800,000; and the expected marketing and distribution costs are \$100,000. If the user decides to negotiate *ex ante* with the intellectual property owner, he will agree to pay no more than his expected profit of \$100,000 in exchange for a license. Now suppose that the user decides instead to infringe, but that he is enjoined immediately after expending the \$800,000 in production costs. Once the injunction is entered, the infringer has two choices: either to abandon use of the property or to agree to a license. Under these circumstances, however, the infringer would rationally pay up to \$900,000 for the license, because in its absence the (already produced) goods will be worthless. (In the intermediate case in which the infringer is enjoined after having produced only a portion of the expected output, the *ex post* value of the license will fall somewhere in between \$100,000 and \$900,000.) A rational would-be user therefore will factor these potential losses into his expected revenue function. Thus, under a system in which only injunctive relief is available, a more complete description of that function would be:

$$E[R] = (1 - P)\pi_i + P(\beta\pi_i - (1 - \beta)C),$$

where β is a measure of the infringer's bargaining strength vis-à-vis the owner, such

There are three implications of this simple model that may lead to extraordinary complexity:

- (1) We must be able to measure π_i accurately.
- (2) The multiplier ($1/P$) will vary from case to case.
- (3) The potential infringer may be risk-averse.

Measurement of π_i : The measurement of the profit due to infringement is complicated by the fact that the infringer may have earned some profit without infringing. It is only the incremental profit that π_i captures. This calculation is, therefore, not trivial. Presumably, the wrongdoer should bear the brunt of any uncertainty surrounding the accurate measurement of π_i : thus, the plaintiff should be responsible for proving the total revenue earned, at which point the burden should then shift to the defendant to prove the profit that he would have earned absent the infringement.¹⁴⁶ If the defendant is a firm that produces many different products, this will involve a substantial effort. There also may be complicated questions of cost allocations.

Multiplier: The optimal multiplier is the reciprocal of the probability of getting caught infringing. This multiplier will vary from case to case. But even in a specific case, it is not obvious how to assess or estimate the probability of detecting an infringer. In its classic form, probability is a relative frequency; thus, the probability of detection is the number of instances in which an infringer is detected, divided by the total number of infringements. The problem is that if undetected infringing occurs, one cannot know the total number of infringements. One therefore

that $0 \leq \beta \leq 1$, and C is the sunk cost the infringer expects to have incurred by the time, if ever, the injunction issues. Assuming that the user and infringer are equally good bargainers, such that $\beta = .5$; that the probability of detection is .25; and that $C = \$800,000$, the user's expected revenue = $(.75)(100,000) + (.25)(50,000 - 400,000) = -12,500$. On these facts, then, a rational user would choose to negotiate a license *ex ante* rather than to infringe, even in the absence of a damages remedy. (If $C < \$700,000$, however, some damages remedy will be necessary to deter). The analysis therefore suggests that, in cases in which both owner and infringer have an interest in allowing the infringer to continue using the property—i.e., in cases in which the infringer is a more efficient user of the property than is the owner, see *infra* text accompanying notes 161-62, 167—the minimum sanction necessary to deter sometimes may be less than the model described in the text above suggests. For further discussion, see *infra* notes 179-93 and accompanying text.

146. Cf. 15 U.S.C. § 1117(a) (1994) (authorizing a similar rule in trademark cases); 17 U.S.C. § 504(b) (1994) (authorizing a similar rule in copyright cases).

cannot accurately calculate the probability of detection.

The Influence of Risk Aversion: In the analysis thus far, it has been assumed that the decision maker is risk-neutral, meaning that he or she compares risky alternatives solely on the basis of expected outcome.¹⁴⁷ A risk-neutral individual, in other words, will be indifferent between betting \$10 and betting \$1,000 on the flip of a fair coin, because the expected outcomes are the same. The reason such indifference strikes many as peculiar is that most individuals are risk-averse, meaning that we take into account the variance in the possible outcomes.¹⁴⁸ Faced with a choice between a \$10 bet and a \$1,000 bet on the flip of a coin, the risk averter will prefer the \$10 bet because the latter has a smaller variance, even though the expected outcomes of the two bets are the same.

If the sanction for infringing is $F = \pi_i/P$, the risk-neutral potential infringer will be indifferent between infringing and not infringing, because the expected return on infringing is zero. The risk averter, however, will look at the variances in returns as well, and infringing introduces a substantial variance. Although the expected return for the risk averter is, of course, zero, the possible outcomes are π_i with probability $(1 - P)$ and $\pi_i - F$ with probability P . To understand what this means, suppose that π_i , the profit on infringing, is \$1 million and $P = 0.25$. The range of outcomes then is a \$1 million profit and a \$3 million loss, because $F = \$4$ million. This variation in outcomes can be avoided by not infringing, and, therefore, the potential infringer will be deterred. The important point, however, is that an expected sanction that leaves a risk-neutral decision maker indifferent definitely will deter a risk-averter. In most instances, however, there may be no way of estimating the degree to which the decision maker is risk-averse.¹⁴⁹

147. See BLAIR & KENNY, *supra* note 144, at 161-69.

148. See WALTER NICHOLSON, MICROECONOMIC THEORY 250 (5th ed. 1992) ("[I]ndividuals, when faced with a choice between two gambles with the same expected value, usually will choose the one with a smaller variability of return.").

149. An additional complication arises from the fact that the patentee is just as likely as the potential infringer to be risk-averse. Suppose, for example, that a patentee suspects that someone has infringed her patent. Suing to recover the damages due to the infringement is a risky proposition because there is a chance of losing even a meritorious suit. If we let D represent the damage suffered by the patentee and C denote the cost of litigation, the expected value of litigation is:

$$E[V] = (P \cdot D) + ((1 - P) \cdot 0) - C,$$

C. Identifying the Patentee's Injury

We have seen that the expected profit of a potential investor in creative efforts must be protected if the proper incentives are to be maintained. We have also seen that potential infringement can be deterred by making infringement unprofitable, which involves expected sanctions that are at least as large as the profits from infringing. In some instances, these sums are equal, but there are times when they diverge.

In his treatise *Patent Law: Legal and Economic Principles*, John Schlicher develops some simple models that illuminate these concepts and assist in constructing optimal damages rules.¹⁵⁰ Following Schlicher, we shall consider the situation in which a patent owner directly sells her patented product to consumers within a given geographic market. For simplicity, Schlicher also assumes initially that: (1) there are no opportunities for price discrimination among these consumers;¹⁵¹ (2) there are no substitutes for the patented invention;¹⁵² and (3) "there are no information, en-

where P is the probability of winning and $(1 - P)$ is the probability of losing. This expression simplifies to:

$$E[V] = (P \cdot D) - C.$$

Litigation will not have a positive expected value unless $(P \cdot D) > C$. The smaller the probability of winning, the less likely that $E[V]$ will be positive. Moreover, the greater the cost of litigation, the less likely that $E[V]$ will be positive.

It is important to remember that the actual result of the litigation will be an award of D or a loss of C . There is thus a possible gain as well as a possible loss. This uncertainty can be avoided by not filing suit. If the patentee is risk-averse, then she avoids fair bets; consequently, the expected value of litigation must be decidedly positive for her to file suit. Thus, if we want to encourage private suits to protect intellectual property rights, the expected damages award, D , should be enhanced. See SCHLICHER, *supra* note 14, § 9.05[3][c] (discussing the possible effect of risk aversion on optimal patent damages). This consequence of the patentee's assumed desire to avoid risk, however, must be set off against the effect of the infringer's risk aversion, as described above.

150. See *id.* § 9.05. Although Schlicher's exposition deals with patents, we have concluded that the economic principles also can be applied to copyrights, trade secrets, and trademarks. See discussion *infra* Part III.F.

151. See SCHLICHER, *supra* note 14, § 9.05[2][a]. The results of this analysis hold under conditions where price discrimination can be employed to earn even larger profits than flow from a single price. The graphical treatment, however, becomes more complicated and sheds no new light on the issue at hand.

152. See *id.* In the consumer's budget, there are many substitute products. One buys a newspaper in lieu of a candy bar. Here, however, the analysis concerns close substitutes. If the patent holder held a patent on yet another breakfast cereal varia-

forcement, risk or transaction costs borne by either patent owners or potential infringers.¹⁵³ Finally, we assume that there is economic value in the patent, i.e., that the patented product is distinct and that consumer demand is sufficient for positive profits to be possible.¹⁵⁴ In order to maximize her profit, the patentee will produce that output where marginal cost equals marginal revenue. In Figure 1, demand is the straight line labeled D , the corresponding marginal revenue is MR , and marginal cost is MC . The optimal, i.e., profit maximizing, output is Q_1 . The patentee will charge a price of P_1 , which is the price on the demand curve that corresponds to an output of Q_1 . The profit that results from this process is $(P_1 - MC)Q_1$, which is area P_1ABC in Figure 1.

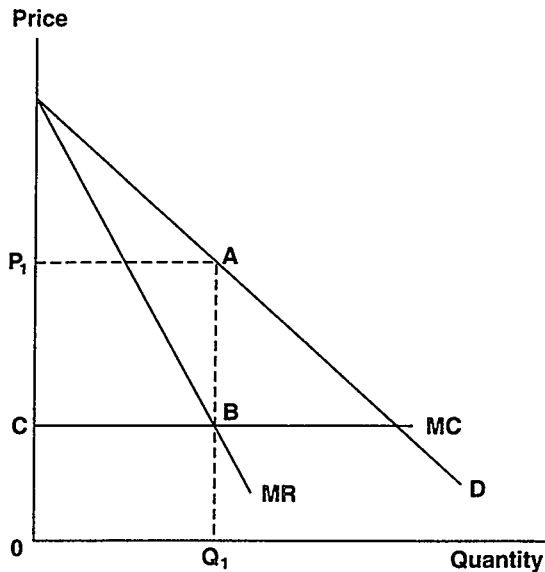


Figure 1

tion, there would be precious little profit to worry about. Assuming no close substitutes just ensures that there may be some profit that an infringer might seek.

153. *Id.* at 9-61.

154. The assumption that the patent gives rise to monopoly profits is consistent with the initial simplifying assumption that there are no substitutes for the patented product. *Cf.* Dam, *supra* note 45, at 249-51 (arguing that few patents confer sufficient market power to facilitate the monopolization of any market, but that they often do allow patentees to garner economic rents). As discussed below, the essential insights derived from the analysis based upon this assumption nevertheless remain valid even when the assumption is relaxed.

Now consider the effect upon the patentee's profit of a rival who decides to infringe the patent. Initially, we concentrate on the situation in which the infringer and the patentee are equally efficient producers of the relevant product, that is, in which their marginal cost curves are identical.¹⁵⁵ In this circumstance, the infringer's best strategy is to match the price of the patentee and produce one-half of the patentee's former output level.¹⁵⁶ The patentee's best response to the infringer's entry is to reduce output to one-half of the former level and continue to charge P_1 . In this way, the maximum profit possible will be earned, and it will be split between the patentee and the infringer. Each producer will earn a profit of $(P_1 - MC)Q_2$, where Q_2 is one-half of Q_1 . Clearly, the loss to the patentee is one-half of her former profit, which is precisely equal to the profit of the infringer. In this case, a sanction equal to the infringer's gain will make infringing unprofitable and will restore or preserve the incentive for investment in creative efforts.

These results are shown in Figure 2. In this graph, MC represents the marginal cost of the patentee or of the infringer. The patentee's new output level will be Q_2 , which is one-half of Q_1 . Since the infringer also produces Q_2 , the total output remains the same as before the infringement, Q_1 . As a result, the price stays at P_1 , and the total profit is again equal to area P_1ABC . This is divided equally between the two parties. The patentee now earns a profit equal to area P_1EFC , and the infringer earns an equal profit represented by area $EABF$.

Matters worsen if the infringer tries to gain an even bigger market share by cutting price below P_1 . This could lead to a complete deterioration of price. In this event, price could fall to the competitive level, which would be marginal cost.¹⁵⁷ Such an

155. See SCHLICHER, *supra* note 14, § 9.05[2][a], at 9-61 to -63.

156. This insight can be traced to EDWARD CHAMBERLIN, *THE THEORY OF MONOPOLISTIC COMPETITION* 46-51 (8th ed. 1962).

157. This is the result of Bertrand price competition. Even though there are only two rivals, the competitive price and quantity result. This analysis can be traced to JOSEPH BERTRAND, *THÉORIE MATHÉMATIQUE DE LA RICHESSE SOCIALE*, JOURNAL DES SAVANTS 499 (1883). For a more accessible treatment, see JAMES W. FRIEDMAN, *OLIGOPOLY THEORY* 46-47 (1983). A translation of Bertrand's famous book review is provided by JAMES W. FRIEDMAN, *COURNOT OLIGOPOLY* 73-81 (Andrew Doughety ed., 1988).

outcome would yield no profit to either party. The patentee's loss would be equal to its former profit, which was area P_1ABC in Figure 1. Here, of course, the loss to the patentee far exceeds the gain to the infringer, which is zero.

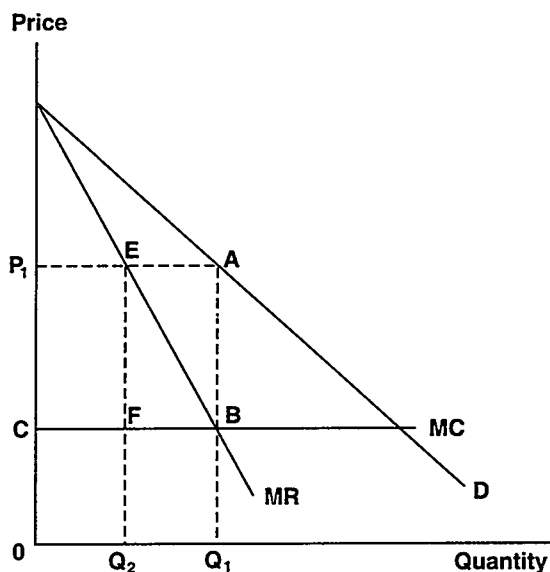


Figure 2

A second possibility is that the infringer will be a less efficient producer than the patentee, meaning that his marginal cost curve (MC_i) will be higher than the patentee's marginal cost curve (MC_p).¹⁵⁸ When this is the case, the infringer maximizes his profit by matching the patentee's selling price. Until the patentee can enjoin the infringer, she can respond in either of two ways, or by some combination of the two.

First, the patentee may decide to maintain her selling price at P_1 . Under this strategy, total output will remain the same, but the patentee's profit ($\pi_{p,2}^*$) once again will decrease from P_1ABC to P_1EFC . Because the infringer's profit ($\pi_{i,2}^*$) equals only $EAGH$, aggregate profits have diminished in the amount of $HGBF$. Note that, under this scenario, the lost aggregate

158. See SCHLICHER, *supra* note 14, § 9.05[2][a], at 9-64, 9-66.

profits $HGBF$ constitute a deadweight loss, because more resources are being used to produce Q_1 than when the patentee served as the exclusive producer.¹⁵⁹

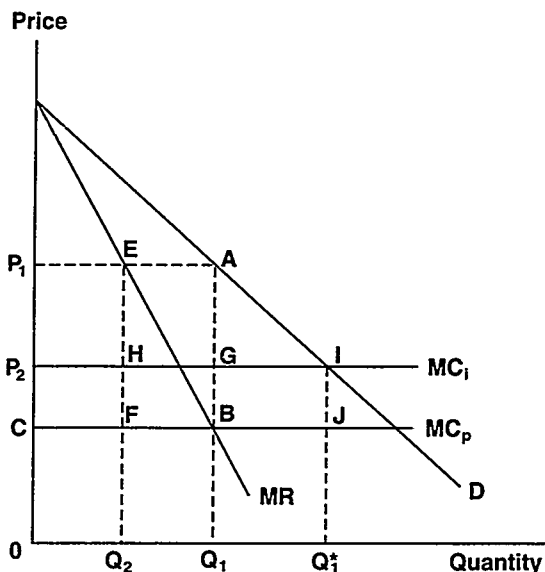


Figure 3

In the alternative, the patentee can lower her price to $P_2 = MC_i$ and increase her output to Q_i^* . This strategy eliminates the infringer's share of the monopoly profit, and hence his

159. Of course, under some circumstances this outcome could be avoided, even in the absence of enforceable intellectual property rights. For example, in a two-person economy with low bargaining costs, one would not expect this inefficiency to persist; the party we have been referring to as the patentee would find it sensible to pay the party we have been referring to as the infringer up to $EABF$ to refrain from producing, and the infringer would be better off if he received any amount larger than $EAGH$. See *Merges*, *supra* note 138, at 1304-05. Thus, a mutually beneficial bargain should be struck in which the patentee does all the producing and the infringer gets paid something between $EAGH$ and $EABF$. As the number of potential infringers increases, however, this strategy becomes untenable, unless the patentee has some method for distinguishing the bona fide would-be infringers from those who would only threaten to infringe in the hope of extorting a payment. See *id.* Indeed, one might expect the supply of potential would-be infringers to be perfectly elastic, on the theory that virtually everyone would like to acquire something for nothing! The undesirability of this inefficient outcome clearly suggests the need for allocating the right to make, use, and sell to the patentee.

incentive to infringe; it also increases consumer surplus in the amount bounded by the region P_1AIP_2 . At the same time, however, the patentee's profit falls to $(P_2 - MC_p)Q_1^*$, which is represented by area P_2IJC in Figure 3. The decrease in profit attributable to infringement is the difference between areas P_1ABC and P_2IJC . Alternatively, the loss can be expressed as $P_1AGP_2 - GIJB$. This loss of profit must be positive. When the patentee sells Q_1 at a price of P_1 , she maximizes her profit. If she could earn more by selling Q_1^* , at a price of P_2 , she would have done so. Such a change therefore must lead to lower profit.¹⁶⁰ Although this outcome increases aggregate wealth in the short term, the attendant transfer of wealth from patentee to consumers threatens to undermine long-run efficiency by weakening the patentee's incentive to invest in creative activity.

The third possibility is that the infringer will be a more efficient producer than the patentee.¹⁶¹ Under these circumstances, the infringer maximizes his profit by producing that output where his (lower) marginal cost equals marginal revenue. The infringer will attempt to sell Q_2 at price P_2 , but the patentee can respond by lowering her price from P_1 to P_2 . Because both firms are selling the same product, they will split the demand at a price of P_2 . The patentee will sell Q_2^* , which is one-half of Q_2 in Figure 4. The patentee's profit falls from its former, preinfringement, level of P_1ABC to P_2KLC . The infringer's profit is equal to area $KMNO$. Because of the infringer's superior efficiency, total profits, which are equal to the sum of P_2KLC and $KMNO$, are lower than the maximum possible profits of P_2MNT . This difference is equal to area $CLOT$ and is due to the higher production costs of the patentee. It would be more efficient and more profitable for the infringer to do all of the production. In such a case, if the patentee is able to enjoin the infringement before the infringer can earn any profit, it will be in both parties' interests to negotiate a license under which the infringer will be granted the right to use the patent in

160. As the patentee expands output beyond Q_1 , the increase in revenue, measured by marginal revenue, is less than the increase in total cost, measured by marginal cost. As a result, the net effect is to reduce profit. See SCHLICHER, *supra* note 14, § 9.05[2][a].

161. See *id.* § 9.05[2][a], at 9-66.

exchange for a royalty, R .¹⁶² In other words, under these circumstances, it is less efficient for the patentee to sell directly to consumers than it is for her to license the would-be user to sell instead of the patentee; private efficiency and social efficiency operate in the same direction. On a per-unit basis, the amount of the royalty is indeterminate, but it must provide revenues at least equal to the profit that the patentee can earn on her own. These revenues cannot exceed $(P_2 - MC_i)Q_2$, as this is the maximum profit obtainable.

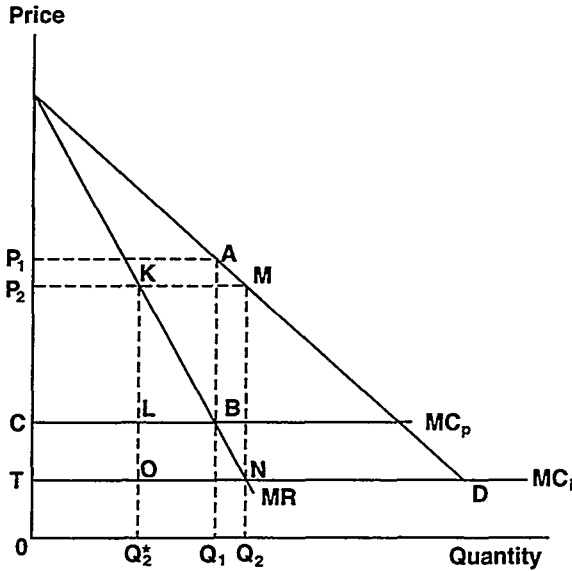


Figure 4

162. See *id.* § 9.05[2][a], at 9-66 to -67.

D. Implications of the Basic Model for Patent Damages

The table below summarizes the various possible outcomes described in the preceding subsection.

TABLE 1

		Patentee and infringer are equally efficient	Patentee is more efficient	Infringer is more efficient
Would-be infringer avoids use	Patentee profit	π_p	π_p	π_p
	Infringer profit	0	0	0
	Aggregate profit	π_p	π_p	π_p
Infringer infringes	Patentee profit	$\pi_{p,1}^*$	$\pi_{p,2}^*$	$\pi_{p,3}^*$
	Infringer profit	$\pi_{i,1}^*$	$\pi_{i,2}^*$	$\pi_{i,3}^*$
	Aggregate profit	π_p	$\pi_{p,2}^* + \pi_{i,2}^*$ ($< \pi_p$)	$\pi_{p,3}^* + \pi_{i,3}^*$ ($> \pi_p$)
Would-be infringer acquires license	Patentee profit	--	--	$R (> \pi_p)$
	Infringer profit	--	--	$\pi_{i,3}^* - R$ (> 0)
	Aggregate profit	--	--	$\pi_{i,3}^*$ ($> \pi_p$)

As the table indicates, if the infringer is a more efficient producer than the patentee, the short-term optimal result is for the infringer to use the work, either with or without the patentee's permission. To the extent that the incentive theory is correct, however, permitting the infringer to use the patent without authorization will inhibit future inventors from investing in the creation or dissemination of similar information; to the extent that the prospect theory is correct, the infringer's unauthorized use threatens to inhibit the patentee from efficiently coordinating investment in invention improvements. The better result, then, if either theory is correct, is to require that the infringer pay for a license.¹⁶³ In the alternative, if the patentee is the more efficient user of the invention, the optimal result is for the infringer to avoid using the patent altogether. This result will follow automatically because the potential infringer will not be able profitably to obtain a license from the patentee. (Moreover, since real-world transaction costs are never zero, this result should be optimal as well when the patentee and infringer are equally efficient users of the patented invention.) In the absence of enforceable patent rights, however, the infringer's incentive in either case would be to use the patent without compensation¹⁶⁴—as long as the cost of appropriating it is less than or equal to the cost of negotiating for and purchasing a license, conditions that thus far have been assumed. The question therefore arises how to craft a set of damages rules that will

163. In the real world, circumstances do arise in which one who uses another's intellectual property without permission is exempt from liability. Most of these exceptions, however, can be justified with some plausibility as responses to potential market failures. For example, the fair use doctrine can be viewed as a mechanism for permitting the uncompensated use of another's copyright in certain situations in which the cost of negotiating a license for that use would be prohibitively high. *See, e.g.,* Gordon, *supra* note 139 (arguing that the potential for market failure justifies application of the fair use doctrine); *see also* Cotter, *supra* note 108 (applying the market failure rationale to common law doctrines relating to trademarks); Merges, *supra* note 39 (applying the market failure rationale to patent law's reverse doctrine of equivalents). The discussion above assumes that the infringer's use of the patentee's property is not subject to any such exception and therefore constitutes an infringement.

164. Assuming, again, that a system under which the patentee would have to pay the would-be infringer not to infringe is unstable. *See supra* note 159 and accompanying text.

encourage the would-be infringer to purchase a license in the first instance, and to avoid use altogether in the second.

The analysis above suggests that the answer to this question will vary, depending upon whether the would-be infringer is a more or less efficient user of the patented invention than is the patentee. If the would-be infringer is less efficient than, or as efficient as, the patentee—meaning that the former's marginal cost curve is greater than or equal to the latter's—then the minimal sanction necessary to induce him to refrain from use is the profit attributable to the infringement.¹⁶⁵ Requiring the less-efficient user to disgorge his profit, in other words, should deter unauthorized use because the infringer is no better off as a result of the infringement.¹⁶⁶ Alternatively, if the infringer is the more efficient user, then the minimal sanction necessary to deter infringement (and, concomitantly, to induce the user to seek a license) is not the entire profit attributable to the infringement, but rather only the amount of the royalty R that the parties would have agreed upon *ex ante* as a condition of the more efficient party's use. As noted above, this amount will be less than or equal to the profit attributable to the infringement.¹⁶⁷ An award of the lost royalty, then, like an award of restitution in the preceding case, renders the would-be infringer no better off as a result of the infringement, and therefore should be sufficient to deter his unauthorized use.

165. More precisely, an award of profits will render the would-be infringer indifferent between infringing and avoiding use. If we relax the assumption that the risk or enforcement costs incurred by the would-be infringer are zero, then, given other assumptions, a rule requiring him to disgorge his profit will induce him to avoid using the patented invention. See SCHLICHER, *supra* note 14, § 9.05[2][a].

When the infringer and the patentee are equally efficient, of course, the infringer's profits will be equal to the patentee's lost profits. Either measure of damages therefore will be sufficient to deter under this circumstance. See *id.*

166. In the event that an infringement actually occurs, of course, an award of the defendant's profit may not be sufficient to compensate the patentee, inasmuch as the patentee's lost profit must be greater than (or, at best, equal to) the defendant's profit. See *id.* Given our assumptions of zero information and enforcement costs, however, the prospect of a restitutionary award should be sufficient to head off the infringement in the first instance. Our analysis of the optimal remedy changes somewhat when these assumptions are relaxed. See discussion *infra* Part III.E.

167. See SCHLICHER, *supra* note 14, § 9.05[2][a], at 9-66 to -67 (discussing the economic incentives when the infringer is a more efficient producer than the patentee); *supra* text accompanying notes 161-62.

To summarize, the preceding analysis suggests that, when there are no substitutes for the patented product and all information, enforcement, risk, and transaction costs are zero, the optimal damages rules are as follows: first, when the infringer's use of the patent is no more efficient than the patentee's, the minimum sanction should be the restitution of the profit attributable to the infringement; and second, when the infringer is the more efficient user, the minimum sanction should be the amount of the royalty the patentee and infringer would have agreed to *ex ante*.¹⁶⁸ In the following subsection, we consider the effect upon these conclusions of relaxing both the nonsubstitutability and zero-cost assumptions.

E. Further Refinements to the Model

For ease of exposition, the model described in the preceding subsections was based upon some fairly unrealistic assumptions, among them that the patented product had no substitutes—thus promising to reward its owner with a monopoly profit—and that information, enforcement, risk, and transaction costs were zero. Further analysis suggests, however, that relaxing the assumption of nonsubstitutability should not materially alter the basic conclusions set forth above. We may assume, as Dam asserts, that few patents confer monopoly power upon their owners, due to the existence of a variety of imperfect substitutes for most patented products; even so, most commercially successful patents probably do confer some supracompetitive profits.¹⁶⁹ To

168. A mixed recovery might be appropriate, however, in a case in which the infringer competes directly with the patentee in one market and also serves another market in which the patentee does not compete. In such a case, it is conceivable that the patentee might be the more efficient user in the market in which the two compete, and if so, she would be entitled to an award of restitution for that market. With respect to the market in which only the defendant competes, the patentee presumably would be entitled to recover only the forgone royalty.

169. See, e.g., Dam, *supra* note 45, at 249-51 (arguing that a patent may not actually give significant market power to the patent holder). In a competitive equilibrium, all profits are competed away. Revenues, however, are sufficient to cover the full opportunity costs of the firm. This includes a competitive return on the firm's assets. When revenues exceed the properly defined opportunity costs, the firm enjoys supracompetitive profits. See *id.* at 248. Monopoly profits are so characterized because the firm is a monopolist, i.e., the only producer of a product for which there

state the matter in another way, when there are substitutes for the patented invention, the elasticity of demand is altered and the patentee's monopoly power diminishes. The patentee nevertheless receives some profit, albeit in a lesser amount than was implicit in the model developed in the preceding subsection.¹⁷⁰

The result therefore should be the same, whether the patentee stands to receive a large monopoly profit or only a more modest supracompetitive return, in the absence of infringement. In either case, awarding the patentee anything less than the profit attributable to the infringement or the lost royalty, under the circumstances described above, would render the infringer better off as a result of the infringement—thereby encouraging him to use the property without permission, in contravention of the statutory incentive scheme.¹⁷¹ For purposes of assessing damages, then, the only real difference between the monopoly and supracompetitive profit scenarios resides not in the content of the optimal rule, but rather in its application. In the arguably rare case in which a patent confers monopoly power, the profit attributable to the patent will be, by definition, the entire profit derived from the sale of the product. When instead the patent confers only a supracompetitive profit, the profit attributable to the patent will be something less than this amount, given that the defendant could have lured away some of the plaintiff's customers by offering to sell them lawful substitutes for the plaintiff's product.¹⁷² Not surprisingly, determining the correct amount of the profit attributable to an act of infringement in the latter situation can present very difficult factual issues,¹⁷³ but

are no reasonable substitutes. When substitutes exist, the firm is not a monopolist, but it may still enjoy supracompetitive profits if competition is insufficient to eliminate all profit.

170. The competing price is calculated by using the Lerner Index of Monopoly Power (L),

$$L = (P - MC)/P,$$

where P is the monopoly price and MC is marginal cost, which equals price in a competitive world. See A.P. Lerner, *The Concept of Monopoly and the Measurement of Monopoly Power*, 1 REV. ECON. STUD. 157, 169 (1934). The Lerner Index measures the relative deviation from the competitive result. If the monopolist maximizes profit, the Lerner Index amounts to $L = 1/E$, where E is the elasticity of demand. The greater the elasticity of demand, the smaller the market power. See *id.*

171. See SCHLICHER, *supra* note 14, § 9.05[2][a].

172. See *id.* § 9.05[2][a], [d].

173. The accurate determination of the amount of the plaintiff's lost profit attribut-

in theory, the basic analysis is no different from the one developed above under the assumption of nonsubstitutability.

Relaxing the assumption of zero information, enforcement, and transaction costs, however, suggests the need for a substantial modification of the optimal rule, both when the infringer is the less efficient user of the patent and when he is the more efficient user. Consider first the case of the less efficient infringer. If information or enforcement costs are greater than zero, a restitutionary remedy may fail to deter some inefficient would-be users from infringing, either due to ignorance or to the expectation that their conduct will go undetected. An alternative rule requiring the less efficient infringer to compensate the patentee for the patentee's lost profit, which in this situation will exceed the amount of the infringer's profit, therefore has the advantage of providing some additional deterrence. It also guarantees that, in cases in which (for whatever reason) the would-be infringer is not deterred from infringing, the patentee will be no worse off as a result of the unauthorized use.¹⁷⁴ Insofar as the patent laws succeed in creating the optimal incentives for the creation and dissemination of inventions, then, the optimal damages rule in this situation arguably is to require the infringer to compensate the patentee in the amount of the patentee's lost profit, π_p ; the alternative of merely requiring the infringer to disgorge his own profit attributable to the infringement ($\pi_{i,2}^*$) threatens to undermine the statutory incentive scheme.¹⁷⁵

able to the patent should involve a consideration of the available substitutes and complements for the patented invention. As discussed above, the existence of substitutes suggests that the defendant could have lawfully competed with the plaintiff through the use of such substitutes, and therefore that some portion of the profits the plaintiff lost as a consequence of the defendant's unlawful conduct also would have been lost to lawful competition; the existence of complements suggests that exclusive control over the patented invention might have allowed the plaintiff to obtain additional revenue from the sale of such complements. The case law more or less recognizes these distinctions, though courts sometimes exhibit difficulty in correctly applying them. *See generally id.* § 9.05[2][d]-[f] (discussing various methods of calculating damages for patent infringements used by courts where substitutes and complements are available). In a forthcoming work, we hope to focus some attention on these methods and on the issue of why similar methodology has not been adopted in copyright and trademark law.

174. Putting aside, for the time being, the issue of whether the patentee is entitled to prejudgment interest and attorney's fees.

175. *Cf. SCHLICHER, supra* note 14, § 9.05[2][a], at 9-66 (noting that awarding dam-

Similar considerations require a modification of the rule when the infringer is the more efficient user of the patent. As discussed above, when this condition holds and other relevant costs are zero, awarding the patentee the amount of her lost royalty should be sufficient both to compensate her and to deter the infringer from engaging in unauthorized use.¹⁷⁶ We noted in Part II, however, that one of the claimed advantages of protecting intellectual property rights by means of property rules is that the owner and would-be user are capable of accurately assessing the value of these rights at a lower cost than are courts and other governmental agencies.¹⁷⁷ If correct, this argument suggests that the cost of information concerning the value of the patent is both positive and higher if borne by a court or other agency, rather than by the parties alone. Viewed in this light, a rule that requires the infringer to forfeit *all* of his profit attributable to the infringement would seem preferable to one that requires only the payment of a reasonable royalty, because the former rule avoids saddling the court with the difficult task of determining whether a license would have been forthcoming and, if so, on what terms. Whenever the infringer is the more efficient user of the patent, in other words, an award of restitutionary damages will tend to reinforce the property-like nature of patent rights by discouraging him and other would-be infringers from opting out of the licensing market.¹⁷⁸

ages based on less efficient infringer's costs would decrease the value of invention).

176. See *supra* text accompanying notes 161-62.

177. See *supra* notes 138-40 and accompanying text.

178. Compare Judge Posner's discussion of the analogous issue in a copyright infringement action:

It is true that if the infringer makes greater profits than the copyright owner lost, because the infringer is a more efficient producer than the owner or sells in a different market, the owner is allowed to capture the additional profit even though it does not represent a loss to him. It may seem wrong to penalize the infringer for his superior efficiency and give the owner a windfall. But it discourages infringement. By preventing infringers from obtaining any net profit it makes any would-be infringer negotiate directly with the owner of a copyright that he wants to use, rather than bypass the market by stealing the copyright and forcing the owner to seek compensation from the courts for his loss. Since the infringer's gain might exceed the owner's loss, especially as loss is measured by a court, limiting damages to that loss would not effectively deter this kind of forced exchange. This analysis also implies that some of

One possible objection to the preceding arguments, also based upon the assumption of positive information and enforcement costs, is that awarding a compensatory recovery when the infringer is the less efficient user of the patent, or a restitutionary recovery when he is the more efficient, might, in some instances, induce him either to refrain from lawful conduct or, perversely, to engage in even more unlawful conduct. As Landes has noted, two possible problems arising from the overdeterrence of inefficient conduct are (1) that "if all fines are large and differences between them are small relative to differences in harm, offenders tend to commit the most harmful offenses,"¹⁷⁹ and (2) that "legal error . . . combined with large fines can deter socially valuable business behavior."¹⁸⁰ It is unlikely, however, that the first of these two potential problems is of much importance to the issue at hand. The more the defendant infringes, after all, the greater his profit attributable to infringement is likely to be; one would therefore expect the resulting penalties to be sufficiently distinct to avoid encouraging the commission of more harmful offenses. The second problem may be significant, however, once the assumption of perfect enforcement of the laws is relaxed. As suggested in Part II, the substantive legal standards

the "windfall" may actually be profit that the owner would have obtained from licensing his copyright to the infringer had the infringer sought a license.

Taylor v. Meirick, 712 F.2d 1112, 1120 (7th Cir. 1983).

179. William M. Landes, *Optimal Sanctions for Antitrust Violations*, 50 U. CHI. L. REV. 652, 655 n.4 (1983) (citing George Stigler, *The Optimum Enforcement of Laws*, 78 J. POL. ECON. 526, 527-28 (1970)). This is the problem of marginal deterrence; we do not want sanctions for pickpockets to be so severe that we encourage them to kill their victims.

180. *Id.* (citing A. Mitchell Polinsky & Steven Shavell, *Contribution and Claim Reduction Among Antitrust Defendants: An Economic Analysis*, 33 STAN. L. REV. 447 (1981)); see also Craswell & Calfee, *supra* note 27, at 280-89 (demonstrating that, when legal standards are uncertain, actors may "overcomply" with legal obligations).

In his article on antitrust damages, Landes notes these two potential problems but expressly considers only a third potential problem with overdeterrence in the context of assessing antitrust violations, namely that, even in the absence of legal error, too high a penalty for monopolistic conduct will deter some wealth-creating behavior. See Landes, *supra* note 179. In the analysis above, we assume that the substantive law of intellectual property, including the various exceptions surrounding perceived instances of market failure, will, if diligently enforced, induce socially optimal behavior.

that courts apply in actions for infringement are often vague and difficult to articulate.¹⁸¹ Given this uncertainty, it is conceivable that the prospect of incurring compensatory liability in the first case, and restitutionary liability in the second, may threaten to deter some would-be users from making, using, or selling products that are only marginally beyond the patent's scope.¹⁸² Moreover, the problem is likely to be compounded if the assumption that users are risk-neutral is eliminated,¹⁸³ or if, as in *Woods v. Universal City Studios, Inc.*,¹⁸⁴ the user is likely to have incurred substantial sunk costs prior to detection.¹⁸⁵ In the latter situation in particular, the ex ante probability of having to negotiate ex post from a position of extreme disadvantage may well prompt the user to overcomply with the law.¹⁸⁶

On balance, however, we suspect (although we cannot prove) that in a world of positive detection costs, the benefits resulting from the rather modest enhancements suggested thus far are likely to outweigh any probable disadvantages. These enhancements also have the added benefit of being relatively simple to apply, in comparison with other possible alternatives. In the case of the less efficient infringer, for example, a rule entitling the patentee to recover lost profits as a form of enhancement seems much less costly to administer than a rule requiring the court to try and determine the precise amount, in excess of the defendant's profit but less than the plaintiff's lost profit, neces-

181. Consider, for example, the concepts of nonobviousness in patent law, *see supra* note 35 and accompanying text; of copying in copyright law, *see supra* note 84; and of likelihood of confusion in trademark law, *see supra* note 108.

182. In other words, the optimal scope of the patent—even under Kitch's prospect theory—is not infinite. *See supra* text accompanying note 54. A rule that in effect inflates the patent's scope beyond its efficient boundaries, by discouraging users from engaging in lawful conduct, is, by definition, inefficient. *See* Craswell & Calfee, *supra* note 27, at 280-89 (discussing the risk of overcompliance attributable to uncertainty).

183. Overdeterrence is more likely to occur with respect to risk-averse decision makers, who will turn their backs on marginally lawful conduct in order to avoid the variance in profits that sanctions for infringement create. Thus, to the extent that an infringer is risk-averse, a large enhancement may be suboptimal. *See* Craswell & Calfee, *supra* note 27, at 280-89; *supra* notes 147-49 and accompanying text.

184. 920 F. Supp. 62 (S.D.N.Y. 1996).

185. *See id.* at 65.

186. *See* Craswell & Calfee, *supra* note 27, at 292-93; *supra* note 145.

sary to deter the less efficient user. At the same time, the possibility that a court would underestimate the proper enhancement might tempt the would-be infringer to go ahead with his infringement plans, as well as reduce the patentee's incentive *ex ante* to invest in innovation. Similar considerations apply in the case of the more efficient infringer. If Merges and other scholars are correct in their assessment, the cost of having a judicial or administrative tribunal accurately determine the amount of a reasonable royalty is already quite high;¹⁸⁷ imagine trying to accurately estimate the amount of an enhancement, falling somewhere in between the amount of the reasonable royalty and the defendant's profit, necessary to induce the user to seek a license. Given that the defendant's profit in any event provides the upper limit of the royalty the parties would have negotiated, any efficiency gains attributable to a more finely-tuned calculation, even if such were feasible, would be highly unlikely to merit the additional cost.

A more difficult issue is whether the existence of positive enforcement costs requires an enhancement increasing total damages *beyond* the amount of the patentee's lost profit, in the case of the less efficient infringer, or the defendant's profit, in the case of the more efficient user. On the one hand, allowing the patentee to recover only her own lost profits or the defendant's profits attributable to the infringement may not provide her with a sufficient incentive to invest the resources necessary to discover some acts of infringement, or to attempt to remedy all of those that are discovered.¹⁸⁸ There is, moreover, an additional risk that the uncertain liability standards inherent to intellectual property law may result in some marginally un-

187. See, e.g., Merges, *supra* note 138, at 1310-16 (arguing that transaction costs are high when tribunals must determine the actual rate of royalties).

188. Of course, if the cost of detecting an act of infringement is greater than the value of the patent, it would be foolish for the law to encourage anyone to undertake that cost. Where the infringer knows about the plaintiff's patent, however, or could be put on notice of it at a reasonable cost, it makes sense to encourage the infringer to search for options other than infringement, as discussed in the text above. The patentee will behave optimally by incurring additional policing costs until the marginal benefit, in the form of expected additional recovery, equals the marginal cost of the additional policing activity. This means that the probability of undetected infringement is positive. See *supra* notes 144-45 and accompanying text.

lawful conduct going unpunished due to erroneous judicial decisions; this risk in turn threatens to reduce the deterrent value of the prospective compensatory or restitutionary award.¹⁸⁹ Some enhancement of the patentee's compensatory or restitutionary award therefore may be necessary to deter those infringers who know about the patent, or who could learn about it at a reasonable cost, but whose conduct otherwise might go undetected or undeterred.¹⁹⁰

On the other hand, for the reasons suggested above, the policymaker must be careful not to overdeter marginally lawful conduct through the imposition of draconian penalties.¹⁹¹ In this regard, the uncertain nature of the liability standards in place in intellectual property law may give rise to a countervailing risk that judicial error will result in the entry of judgment against innocent defendants; this phenomenon in turn may pose a risk of overdeterrence, even if no damages multiplier is employed.¹⁹² Unfortunately, in the absence of precise data con-

189. We thank Mark Lemley for bringing this point to our attention.

190. See SCHLICHER, *supra* note 14, § 9.05[3]; see also *supra* notes 142-47 and accompanying text (discussing multipliers); cf. Landes, *supra* note 179, at 676 (observing that trebling in antitrust law "in part reflects the belief that some price-fixing and monopolization offenses are not detected").

One possible, and counterintuitive, implication of the above analysis is that courts should award substantial enhancements in cases in which the defendant's conduct is only marginally unlawful but is difficult to detect; and that they should avoid awarding such enhancements when the infringement is flagrant but un concealed. Cf. Craswell & Calfee, *supra* note 27, at 292 (noting that, under similar analysis, "the largest multipliers would go to those defendants unlucky enough to be convicted of purely marginal violations, who presumably had a much smaller ex ante chance of being punished," and speculating that the resulting "conflict with common notions of retributive justice" provides a rationale for the use of "constant multipliers, such as the treble damage rule of antitrust law"). As discussed in the text above, however, imposing severe penalties upon conduct that is only marginally unlawful raises a substantial countervailing risk of encouraging overcompliance. Moreover, as we demonstrate herein, sometimes even blatantly unlawful acts of infringement can be very difficult to detect; in such cases, both economic analysis and "common notions of retributive justice" support the courts' practice of awarding substantial enhancements. See *infra* notes 252-81 and accompanying text.

191. See generally SCHLICHER, *supra* note 14, § 9.05[4] (arguing that a legal scheme seeking to achieve a high level of deterrence would result in excessive waste in overinvesting to obtain information on existing patents); Craswell & Calfee, *supra* note 27, at 292-98 (stressing that a strict damage regime would lead to overcompliance).

192. Again, we thank Mark Lemley for bringing this point to our attention. Yet

cerning the probabilities of detection and other variables, there is no way to determine, either in the abstract or in the setting of a specific case, precisely where the optimal balance lies. At the very least, however, the analysis suggests that a low probability of detection weighs in favor of enhancing an award, whereas a finding that the defendant's conduct is only marginally unlawful weighs against doing so—or, in an appropriate case, may even counsel in favor of limiting the recovery to an award of compensatory damages only. The model also sharpens the analysis of potential justifications for the actual rules that courts apply in litigation. As we shall see, one can then make an educated guess as to the strength of those justifications, even if they cannot be assessed with mathematical precision.¹⁹³

In summary, the foregoing analysis suggests that, when various market imperfections are taken into account, the optimal rules stated at the conclusion of the preceding subsection should be modified in three respects. First, when the infringer is the less efficient user of the patent, the base-level recovery should be the patentee's own lost profit rather than the infringer's profit attributable to the infringement. Second, when the infringer is the more efficient user, the base-level recovery should be the defendant's profit attributable to the infringement rather than the amount of the lost royalty. Third, at least in some cases, it may be appropriate to further modify the patentee's damages in some amount in order to correct for the distortions otherwise arising from the presence of information and enforcement costs. To restate these conclusions as simply as possible, the analysis thus far suggests that courts should award the prevailing patentee either her own lost profit attributable to the infringement or

another possible source of overdeterrence—or at least a countervailing factor against the risk of underdeterrence—is the risk of criminal liability. At present, this risk arises only in copyright, trademark, and trade secret law, see *supra* notes 56, 99, 117; there is no criminal sanction for patent infringement. We hope in our forthcoming work to address the additional complications arising from the risk of criminal prosecution for infringement. For an interesting perspective on criminal sanctions and copyright law, see 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 (1997).

193. See discussion *infra* Part IV.A-C (discussing possible justifications for existing damages rules in patent, copyright, and trademark law).

the defendant's profit attributable thereto, whichever is greater, and in either case suitably enhanced or diminished as necessary for the purpose of achieving optimal deterrence. In the following subsection, we extend this analysis to the law of trade secrets, copyrights, and trademarks. We then consider why the latter two bodies of law, as well as the law of patents, appear to depart in some respects from the general model.

F. Extending the Model to Trade Secrets, Copyrights, and Trademarks

Extending the model developed above to the law of trade secrets and copyright seems like a logical step, given the broadly similar policies underlying patent, trade secret, and copyright law. Like patent law, the law of trade secrets serves to reward innovators by providing them with a right, albeit of a more limited nature than the analogous right accorded under the Patent Act, to exclude others from using their innovations.¹⁹⁴ Copyright law also serves to reward innovators (as well as publishers) by providing them with a set of exclusive rights against the unauthorized copying and dissemination of copyrighted works of authorship. Moreover, the arguments in favor of protecting patent rights under the umbrella of a property rule, due largely to valuation problems, would seem to apply with equal force to trade secrets and copyrights.¹⁹⁵ Applying the same general remedial framework to all three bodies of law therefore seems reasonable, at least in the absence of some specific features peculiar to trade secrets or copyrights.¹⁹⁶

194. As noted above, a trade secret owner has the right to exclude others from using his secret only if, for example, someone has acquired it in breach of a legal duty. Acquiring another's trade secret by means of reverse engineering or independent discovery is not actionable. *See supra* notes 62-63 and accompanying text.

195. *See supra* notes 138-40 and accompanying text.

196. This is not to suggest, of course, that even at a very general level there are only insubstantial differences among the subject matter of these three bodies of law. One arguably important difference is that the typical patented invention may be more likely than the typical trade secret or copyright to confer market power upon its owner. *See, e.g.,* Lemley, *supra* note 12, at 1041-42 (noting that typical patent is more likely than typical copyright to confer market power, but also that this stereotype is not universally true). As discussed above, however, the model suggests that the same rules should apply regardless of whether ownership of the relevant intel-

Trademarks, however, initially may seem more difficult to fit within the general model because the rationale for their existence differs in some respects from the rationale that underlies the law of patents, trade secrets, and copyrights. As noted above, one justification for the latter three bodies of law is that they facilitate the optimal production and dissemination of certain types of innovations; trademark law, by contrast, clearly does not exist for the purpose of optimizing the number of catchy names for goods and services. Trademark law nevertheless does serve something of a reward function, in that it encourages the trademark owner to invest in maintaining a consistent level of quality in her products and services.¹⁹⁷ Trademarks also serve an important signaling function, which helps both to lower consumer search costs and, arguably, to facilitate the trademark owner's ability to coordinate investment in a powerful selling tool.¹⁹⁸ This latter function may be analogous to the suggested "prospect" function of patents and copyrights.¹⁹⁹ Viewed in this light, efforts to create a general theory applicable to all four bodies of law make more sense than might otherwise be apparent, although the precise manner in which trademarks fit within this general framework merits some additional consideration.

Perhaps the paradigmatic example of trademark infringement is the practice known as "passing off" or "palming off," under which a competitor uses the owner's mark to identify the competitor's (typically lower quality) goods or services.²⁰⁰ From the standpoint of consumers, this situation (initially) will *appear* to resemble that depicted above in Figure 4,²⁰¹ in that the in-

lectual property right is likely to facilitate the acquisition of monopoly profit or only some lesser, but still supracompetitive, profit. *See supra* notes 169-73 and accompanying text.

197. *See supra* text accompanying note 128.

198. *See supra* notes 127, 129 and accompanying text.

199. *See supra* notes 54-55, 102-04 and accompanying text.

200. *See, e.g.,* RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 4 (1995); 3 MCCARTHY, *supra* note 108, § 25:3; *see also* Note, *Developments in the Law: Competitive Torts*, 77 HARV. L. REV. 888, 911 (1964) (noting that, although consumers arguably are harmed only if an imitator's goods are not equal in quality to the trademark owner's, requiring the trademark owner to prove harm to consumers beyond deception as to source might generate undesirable litigation and administrative costs).

201. *See supra* p. 1629.

fringer seems to be producing the same good or service as the trademark owner but—because the infringer takes a free ride upon the owner's investment in quality control—at lower cost. The analysis above therefore suggests that the trademark owner's typical damages remedy in cases of passing off lower-quality goods probably should be the restitution of the infringer's profits.²⁰² The *actual* effect, however, of passing off goes well beyond what is depicted in Figure 4. The reality is that the infringer is selling a lower-quality product, not the same product at a lower price. By passing off his goods as those of another, then, the infringer harms two different sets of victims. First, he harms the trademark owner by threatening the owner's reputation as a purveyor of high-quality goods; and second, he perpetrates a fraud upon consumers, who pay more than they knowingly would have paid for the lower-quality goods offered by the infringer. In turn, consumers who are unable to determine whether the goods they are buying are genuine may adapt—by reducing the amount they are willing to pay for the trademarked product—to the owner's further detriment.²⁰³ The infringer will internalize these costs only if, in addition to being required to disgorge any profits attributable to the infringement, he also is liable for any actual damages resulting from injury to the owner's reputation and from the deception of consumers. In theory, this latter interest could be vindicated either by a direct action on the part of those consumers or by allowing the trademark owner to recover enhanced damages.²⁰⁴

Of course, not every act of trademark infringement fits within the paradigm suggested above. Even in some cases of genuine

202. See *supra* notes 176-78 and accompanying text.

203. See George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488, 489-92 (1970) (discussing how bad products can drive out good products).

204. A similar analysis would apply to the case of "reverse passing off," under which the infringer places his own name on the goods of another, instead of placing the other's name on the infringer's goods. See 3 MCCARTHY, *supra* note 108, §§ 25:4, 25:6. The effect of both passing off and reverse passing off, of course, is that the infringer takes a free ride upon the trademark owner's efforts. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 5 cmt. a; William M. Borchard, *Reverse Passing Off—Commercial Robbery or Permissible Competition?*, 67 TRADEMARK REP. 1, 2, 16-18 (1977).

passing off, the infringer may operate on a higher marginal cost curve than does the owner, despite the cost advantage accruing from not having to develop his own goodwill. When this occurs, the analysis presented above suggests that the trademark owner's lost profit attributable to the infringement will exceed the infringer's profit.²⁰⁵ Allowing the owner to recover her lost profit in such a case ensures that she will be no worse off as a result of the infringement, and thereby preserves her incentive to invest in quality control. In other instances, the infringer may be genuinely operating on a lower marginal cost curve than the owner, in the sense that his costs are lower even apart from any advantage conferred by the infringement;²⁰⁶ or he may be selling in a product or geographic market in which the trademark owner does not engage in direct sales.²⁰⁷ In either of these cases, the infringer's profit will be greater than or equal to the owner's lost profit. Following the analysis from the previous subsection, the principal damages remedy should be either the owner's lost royalty or—if we doubt the courts' ability to accurately estimate the value of such a royalty—the restitution of all of the defendant's profit attributable to use of the mark.

205. See *supra* notes 158-60 and accompanying text.

206. Consider, for example, the case of a large company that infringes a smaller company's mark by using that mark on a product that is superior in every respect to that of the smaller company. Presumably, in such a case the large company adopts the mark with no intent of free-riding upon the latter's goodwill, but rather in complete disregard of it. This would be an example of "reverse confusion" (not to be confused with the concept of "reverse passing off," discussed *supra* note 204), which occurs when "purchasers are likely to believe that the goods sold by the prior user are actually those of the subsequent user." RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 20 cmt. f. For further discussion of reverse confusion, see *Sands, Taylor & Wood Co. v. Quaker Oats Co.*, 978 F.2d 947, 957-58 (7th Cir. 1992); 3 MC-CARTHY, *supra* note 108, § 23:10; Cotter, *supra* note 108, at 514 n.140.

207. One example would be where the infringer sells goods or services in a product or geographic market in which the trademark owner's rights are enforceable, despite the fact that the owner has not yet begun to exploit that market through the actual use of the mark therein. Several factors may be relevant for the purpose of determining when the owner's rights will be enforceable in such markets. See generally Cotter, *supra* note 108, at 527-34 (discussing how these factors affect the owner's right to exclude others from such areas). Another example would be where the infringer sells so-called promotional goods, such as tee shirts and caps bearing the mark of a sports team, without receiving a license from the team. For discussions of the treatment of promotional goods under trademark law, see Denicola, *supra* note 132, at 605-13; Heald, *supra* note 132, at 786-803.

In summary, a simple model of intellectual property rights suggests that the prevailing plaintiff in a patent, trade secret, copyright, or trademark infringement action should be able to recover the greater of her lost profit attributable to the infringement, or the defendant's profit so attributable; and that in some cases the award should be further modified for optimal deterrent effect. As our discussion in Part II indicates, trade secret law appears to conform to this model quite closely, insofar as the court may award either actual damages or the infringer's profit—whichever is greater²⁰⁸—and may enhance the plaintiff's damages for "willful and malicious" appropriation.²⁰⁹ In many respects, the damages rules that govern in patent, copyright, and trademark law also mirror the results predicted by our model. In all three bodies of law, the prevailing plaintiff generally may recover her actual damages; the court may, under some circumstances, award damages enhancements; and in copyright, and sometimes in trademark law, it may award restitution.²¹⁰ In other material respects, however, the rules in patent, copyright, and trademark law differ both from the model and from one another. Most importantly, in patent law the prevailing plaintiff may not recover restitution;²¹¹ in copyright law, the plaintiff may choose, as an alternative to actual damages or profits, to recover "statutory" damages;²¹² and in trademark law, the plaintiff may receive restitution only in cases of willful infringement.²¹³ In the following Part, we discuss whether further inquiry into the scope and nature of these three bodies of intellectual property law suggests an efficiency rationale for these departures from the model.

208. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 45 cmt. c (stating that, with regard to damages in trade secret litigation, "[a]n award of the greater of [compensatory and restitutionary damages] . . . ordinarily serves the objectives of both forms of relief").

209. See *supra* note 68 and accompanying text.

210. See *supra* notes 42-47, 92-96, 116-24 and accompanying text.

211. See *supra* text accompanying note 44.

212. See *supra* note 95 and accompanying text.

213. See *supra* note 118 and accompanying text.

IV. EXPLAINING DEPARTURES FROM THE MODEL

In this Part, we discuss whether the principal ways in which the actual damages rules that govern intellectual property disputes depart from the above model, and from one another, are consistent with an efficiency rationale. The specific aspects of these rules that we shall address include: (1) the absence of a restitutionary remedy for patent infringement;²¹⁴ (2) the availability of statutory damages in copyright cases,²¹⁵ and (3) the limited availability of restitution in trademark cases.²¹⁶ We conclude that the statutory damages remedy in copyright law is the easiest of these three departures to explain in terms of an efficiency theory²¹⁷ and that the absence of the restitutionary remedy in patent law is the most difficult.²¹⁸ We also conclude that an analysis of search costs arguably justifies at least some limits on the availability of restitution in trademark litigation.²¹⁹

A. *Restitutionary Damages in Patent Law*

The principal way in which patent damages rules depart from the model, as well as from the rules that govern in copyright and trademark law, is by not permitting the prevailing plaintiff to recover the infringer's profits attributable to the infringement.²²⁰ The reason usually cited for prohibiting restitutionary

214. See *supra* text accompanying note 44.

215. See *supra* note 95 and accompanying text.

216. See *supra* note 118 and accompanying text. One related issue that we hope to discuss in a forthcoming work, rather than in this Article, involves the rules relating to standing to sue and the joinder of defendants and claims. These rules differ in significant ways from one body of intellectual property law to another and raise a host of interesting economic issues. This Article also does not address the interesting, but (we suspect) ultimately not very rational, differences among the four bodies of law with regard to the recovery of attorneys' fees and prejudgment interest.

217. See *infra* Part IV.B.

218. See *infra* Part IV.A.

219. See *infra* Part IV.C.

220. As noted above, prior to 1946 the Patent Act expressly authorized courts to award the defendant's profits as an element of damages. See *supra* note 45 and accompanying text. Although the statutory text resulting from the 1946 amendment that deleted this provision is not entirely clear on this point, the legislative history of that amendment suggests that the deletion was intended to remove this authority. See *infra* note 221. Since at least 1964, the courts have interpreted the text in this manner. See *supra* note 45.

awards in patent cases is one of cost. In a report on the 1946 amendments to the Patent Act, for example, the House of Representatives Committee on Patents cited the difficulty of accurately determining the amount of profits attributable to an infringement, as well as the attendant cost and delay, as reasons for limiting the prevailing plaintiff to an award of compensatory damages.²²¹ Our analysis in Part III suggests that, at least in theory, this reasoning is not altogether implausible. If these costs are high enough, they may outweigh any efficiency gains derived from permitting such a recovery and may overdeter potential users from making, using, or selling inventions that are lawful, albeit only slightly beyond the scope of the patent's claims.²²²

We nevertheless are inclined to agree with Dam²²³ that the flat prohibition of restitutionary awards in patent cases is un-

221. See H.R. REP. NO. 79-1587, at 1-2 (1946), *reprinted in* 1946 U.S.C.C.A.N. 1386, 1387. In relevant part, this report stated that:

The evil attendant upon "the law's delay" and the difficulty of adducing convincing proof of necessary facts is peculiarly exemplified in patent-infringement suits where profits are claimed.

Frequently a suit for patent infringement involves the infringement of only an improvement in a complex machine, and it is impossible to apportion profits due to the improvement. In such circumstances the proceedings before masters, which are conducted in accordance with highly technical rules and are always expensive, are often protracted for decades and in many cases result in complete failure of justice.

Although the bill would not preclude the recovery of profits as an element of general damages, yet by making it unnecessary to have proceedings before masters and empowering equity courts to assess general damages irrespective of profits, the measure represents proposed legislation which in the judgment of the committee is long overdue.

Id. The Senate Committee on Patents subsequently adopted the House report. See S. REP. NO. 79-1503, at 2, *reprinted in* 1946 U.S.C.C.A.N. 1387. Donald Chisum suggests that an alternative reading of the above passages might be that Congress only intended "to eliminate a *mandatory* accounting of profits where the patent owner is willing to have recovery based on a reasonable royalty. It was possible to construe the 1922 [Patent] Act as allowing recovery of such a royalty only if an accounting showed no basis for determining the defendant's profits." 7 CHISUM, *supra* note 11, § 20.02[4][a], at 20-66 (emphasis added). As noted above, however, courts have rejected any such narrower reading of the statutory text and legislative history. See *supra* note 45.

222. See *supra* notes 181-86, 191-92 and accompanying text.

223. See Dam, *supra* note 45, at 256-57.

warranted. Granted, the calculation of profits attributable to an infringement often will be a difficult task and very likely will involve some uncertainty in the estimation process. Awards of this nature nevertheless are permitted in cases involving design patents, trade secrets, copyrights, and trademarks; and it is not readily apparent why an award of profits should be substantially more difficult to assess in these types of cases than in utility patent litigation.²²⁴ More importantly, in cases in which the infringer is more efficient than the patentee, the alternative to awarding restitution is to award a reasonable royalty—i.e., “a hypothetical royalty resulting from arm’s length negotiations between a willing licensor and a willing licensee.”²²⁵ Any expectation that a court can more easily calculate this hypothetical figure than it can the profit attributable to the infringement strikes us as fatuous; indeed, as we suggested above, it is precisely because courts are likely to be incapable of accurately assessing the value of such hypothetical licenses that a restitutionary recovery seems preferable.²²⁶ In any event, as our analysis above indicates, in the typical case the upper limit of the hypothetical royalty will be the profit attributable to the infringement.²²⁷ Any hope that courts can avoid estimating the

224. Perhaps one could argue that the problem of apportionment is more acute in patent cases because patented inventions frequently are only component parts in other, larger products and could be substituted with nonpatented components; whereas in many trademark and copyright cases, one reasonably might assume that the defendant would not have sold any products absent the infringement. The force of this argument is not overwhelming, though. Consider, for example, the difficulty of calculating the amount of profit attributable to the defendant’s use of an infringing slogan to advertise his product; or to his unauthorized inclusion, in a motion picture, of a copy of a copyrighted drawing. *Cf. Sands, Taylor & Wood v. Quaker Oats Co.* 18 U.S.P.Q.2d (BNA) 1457, 1473-74 (N.D. Ill. 1990) (awarding plaintiff 10% of defendant’s before tax profits on sales of Gatorade as attributable to the use of a slogan infringing the plaintiff’s registered mark, THIRST-AID), *aff’d in part, rev’d and remanded in part*, 978 F.2d 947, 963 n.19 (7th Cir. 1992) (directing the district court on remand to conduct “a more precise determination’ not limited to a reasonable royalty”) (quoting *id.* at 964 (Ripple, J., concurring)); *Woods v. Universal City Studios, Inc.*, 920 F. Supp. 62, 63 (S.D.N.Y. 1996) (enjoining preliminarily the exhibition of the movie *12 Monkeys*, which contained a five-minute scene copied from the plaintiff’s drawing, but without any discussion of damages). Any such distinction between patent and trade secret law seems even less compelling.

225. *Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075, 1078 (Fed. Cir. 1983).

226. See *supra* notes 138-39 and accompanying text.

227. See *supra* text accompanying note 162. But see 7 CHISUM, *supra* note 11, §

latter, in the course of determining the amount of a reasonable royalty, therefore would seem doomed to failure.²²⁸

The good news is that the formal prohibition on restitutionary awards may have little impact upon the courts' actual behavior. Although it is usually considered erroneous to award the prevailing plaintiff 100% of the profit attributable to the infringement,²²⁹ commentators sometimes accuse courts of doing so nonetheless sub silentio.²³⁰ The availability of enhanced damages for willful infringement also limits the effect of the no-restitution rule, to the extent that a plaintiff's actual damages suitably enhanced may exceed the amount of the defendant's prof-

20.03[3][b][iv], at 20-191 ("In some circumstances, indirect benefits of the invention to the infringer may have induced him to agree to a royalty equal to or even in excess of the direct profits to be derived from adopting it.").

228. See 7 CHISUM, *supra* note 11, § 20.03[3][b][iv], at 20-188 to -189.

Courts give considerable weight to the anticipated profits or cost savings that the infringer would derive from use of the patented product or process. The theory is that a willing licensor and willing licensee in a hypothetical negotiation would have set a royalty rate that would divide between them the predicted economic benefits to be realized by the licensor's adoption of the product or process.

Id. (footnotes omitted); cf. S. REP. NO. 79-1503, at 2 (1946), reprinted in 1946 U.S.C.C.A.N. 1386, 1387 (noting that a Patent Act amendment "would not preclude the recovery of profits as an element of general damages," presumably meaning that a defendant's profits may be used as a guide in determining the amount of a plaintiff's lost profits or reasonable royalty) (quoting H.R. REP. NO. 79-1587, at 2 (1946)). But see *Georgia-Pacific Corp. v. United States Plywood Corp.*, 243 F. Supp. 500, 530 (S.D.N.Y. 1965) (citations omitted):

Although the profits made by an infringer are frequently taken into account in the fixing of a reasonable royalty, such profits are only one of many elements which are considered and, therefore, such profits need not be assessed with the same degree of exactitude that would be necessary if they were to function as the sole measure, as a matter of law, of the patent owner's monetary recovery.

229. See 7 CHISUM, *supra* note 11, § 20.03[3][b][iv], at 20-190 to -191.

230. See, e.g., Conley, *supra* note 43, at 376 (claiming that, in practice, judicially-determined royalties often "equal or exceed the entire benefit resulting from the use of the invention, notwithstanding the fact that the courts give lip service to the setting of a royalty at a level that would have been reached by negotiation between the parties"; and that courts "often just subtract the infringer's usual profit from the profit earned by the infringement, and award the entire difference to the patent owner"); cf. Laura B. Pincus, *The Computation of Damages in Patent Infringement Actions*, 5 HARV. J.L. & TECH. 95, 124 (1991) (stating that "triers of fact theorize that it would be inequitable to charge the wrongdoer/infringer only that amount that a lawful negotiation would have brought").

its.²³¹ Our analysis nevertheless suggests that the no-restitution rule by itself makes little economic sense; and that we should take solace in the fact that, thus far at least, the courts and legislatures have chosen not to extend it into the other branches of intellectual property law.

B. Statutory Damages in Copyright Law

A second set of puzzles arises from the rule of statutory damages in copyright law. As discussed above, as long as the prevailing plaintiff in a copyright infringement action has registered his copyright prior to its infringement (or within three months of his work's publication) he may choose, at any time prior to the entry of judgment,²³² to forgo recovering his actual damages or the defendant's profits and may opt instead for an award of statutory damages.²³³ In general, the court has discretion to award statutory damages ranging from \$500 to \$20,000 per work infringed,²³⁴ although it may reduce that amount to \$200 in the case of an innocent infringement²³⁵ or increase it to as much as \$100,000 in cases at the other end of the spectrum.²³⁶

As Paul Goldstein explains, the traditional justification for statutory damages is that "because actual damages are so often difficult to prove, only the promise of a statutory award will induce copyright owners to invest in and enforce their copyrights

231. See Dam, *supra* note 45, at 256.

232. See 17 U.S.C. § 504(c)(1) (1994). In other words, the plaintiff may elect to recover statutory damages even after the jury returns a verdict, as long as judgment has not yet been entered, in a case in which the jury returns a verdict in his favor but in an amount that he finds disappointing. See 4 NIMMER & NIMMER, *supra* note 73, § 14.04[A], at 14-49 (citing *Branch v. Ogilvy & Mather, Inc.*, 772 F. Supp. 1359 (S.D.N.Y. 1991) (awarding \$10,000 in statutory damages and \$116,729 in attorney's fees, after the jury returned a verdict awarding the plaintiff one dollar in nominal damages)).

233. See 17 U.S.C. § 504(c)(1). Shortly before this Article went to press, the Supreme Court held that the Seventh Amendment guarantees a right to a jury determination of statutory damages, thus resolving a split among the circuits on this issue. See *Feltner v. Columbia Pictures Television, Inc.*, No. 96-1768, 1998 WL 141154, at *1 (U.S. Mar. 31, 1998). Whether this holding will affect the patterns we discuss *infra* at notes 271-81 and accompanying text remains to be seen.

234. See 17 U.S.C. § 504(c)(1).

235. See *id.* § 504(c)(2).

236. See *id.*

and only the threat of a statutory award will deter infringers by preventing their unjust enrichment.²³⁷ Of course, this rationale begs the question of why deterring the unauthorized use of a copyright is desirable when such use causes no provable harm to the copyright owner or gain to the infringer—or why the prospect of a damages award in excess of those provable damages is necessary to induce the creation of the work. Perhaps the answer lies in the fact that every act of infringement causes some gain to the infringer (otherwise, why would she have infringed?) and some harm to the copyright owner (because in the absence of infringement, the user would have agreed to purchase the right to use the work).²³⁸ Proving the amount of that harm nevertheless may be difficult, particularly in light of apportionment problems.²³⁹ Consider, for example, Universal's use of Lebbeus Woods's drawing in the movie *12 Monkeys*, as described in the Introduction; what portion of the profit on the film is attributable to the infringement? Or, to use a more down-to-earth example, consider the case of a local bar that provides live or prerecorded music for its patrons and earns a profit of \$100,000. What part of that profit is due to the music and what part is due to its favorable location, its service, its world-class chicken wings, and so on? Answering questions of this nature is no mean feat.²⁴⁰

237. 2 PAUL GOLDSTEIN, COPYRIGHT § 12.2, at 12:34 (2d ed. 1996).

238. Suppose, however, that the defendant makes an unauthorized copy of the plaintiff's work, but that (1) the defendant incurs no profit as a result of the infringement, (2) the plaintiff loses no sales, and (3) it is very unlikely that, in the absence of infringement, the defendant would have sought, or that the plaintiff would have granted, a license for the use of the work. In such a case, the plaintiff arguably has suffered no injury, and the defendant incurred no gain. Compare *Business Trends Analysts, Inc. v. Freedonia Group, Inc.*, 887 F.2d 399, 404-07 (2d Cir. 1989) (holding that, under such circumstances, the plaintiff may not recover a hypothetical license fee for the defendant's use of a copyrighted work), with *Deltak, Inc. v. Advanced Sys., Inc.*, 767 F.2d 357, 363 (7th Cir. 1985) (awarding the plaintiff who failed to register the copyright actual damages for "value of use" of its work).

239. One advantage to the copyright owner of statutory damages is that they moot the need to apportion the defendant's profit attributable to the infringement. See *Twin Peaks Prods., Inc. v. Publications Int'l, Ltd.*, 996 F.2d 1366, 1382 (2d Cir. 1993).

240. Concerning the difficulty of apportionment, see for example, *Sheldon v. Metro-Goldwyn Pictures Corp.*, 106 F.2d 45, 48 (2d Cir. 1939) (L. Hand, J.) ("Strictly and literally, . . . the problem is insoluble."), *aff'd*, 309 U.S. 390 (1940).

Still, the fact remains that in almost every body of law, the plaintiff who can prove neither actual harm nor unjust enrichment either loses on the issue of liability²⁴¹ or recovers only nominal damages.²⁴² Just about the only other body of law with a rule at all similar to the statutory damages rule is the law of defamation.²⁴³ At common law, the prevailing plaintiff in an action for libel²⁴⁴ or slander²⁴⁵ sometimes may recover

241. In many jurisdictions, for example, actual damages are an element of the torts of negligence, *see, e.g.*, *Miller v. Foster*, 686 So. 2d 783, 783 (Fla. Dist. Ct. App. 1997), and tortious interference with contract, *see, e.g.*, *Flint v. Court Appointed Special Advocates*, 674 N.E.2d 831, 840 (Ill. App. Ct. 1996), *appeal denied*, 679 N.E.2d 379 (Ill. 1997).

242. *See, e.g.*, *United States Football League v. National Football League*, 644 F. Supp. 1040, 1054-55 (S.D.N.Y. 1986), *aff'd*, 842 F.2d 1335 (2d Cir. 1988) (upholding jury award of nominal damages of one dollar to prevailing antitrust plaintiff). The plaintiff's ability to recover punitive damages also may be constrained by his inability to prove any actual damages. *See* DAN B. DOBBS, *LAW OF REMEDIES* § 3.11(11), at 343 (2d ed. 1993) (noting that some courts require relationship between actual and punitive damages). In copyright law, by contrast, the prevailing plaintiff who has timely registered his copyright is entitled to some award of statutory damages in all cases, no matter how egregious (or innocent) the defendant's conduct. *See* 17 U.S.C. § 504(a)(2), (c) (1994).

243. There is also a line of cases, dating back to the eighteenth century, holding that a plaintiff may recover presumed damages for a violation of the right to vote. *See* *Memphis Community Sch. Dist. v. Stachura*, 477 U.S. 299, 311 n.14 (1986) (collecting cases). On rare occasions, presumed damages may be awarded in other cases as well. *See* *Baumgardner v. Secretary, U.S. Dep't of Hous. & Urban Dev.*, 960 F.2d 572, 583 (6th Cir. 1992) (suggesting that presumed damages might be appropriate in civil rights cases where actual harm is difficult to measure). A few other federal statutes also provide for statutory damages under some circumstances. *See, e.g.*, 47 U.S.C.A. § 605(e)(3)(C) (West 1991 & Supp. 1998) (authorizing statutory damages for interception of wire communications).

244. "Libel consists of the publication of defamatory matter by written or printed words, by its embodiment in physical form or by any other form of communication that has the potentially harmful qualities characteristic of written or printed words." *RESTATEMENT (SECOND) OF TORTS* § 568(1) (1977). A "defamatory" communication is one that "tends so to harm the reputation of another as to lower him in the estimation of the community or to deter third persons from associating or dealing with him." *Id.* § 559. A statement is "libelous per se" if it tends unambiguously to defame another. *See* RODNEY A. SMOLLA, *LAW OF DEFAMATION* § 7.06[3][a] (1996). The term for a statement that is libelous only in light of extrinsic information is "libel per quod." *See* W. PAGE KEETON ET AL., *PROSSER AND KEETON ON THE LAW OF TORTS* § 112, at 795-96 (5th ed. 1984); SMOLLA, *supra*, § 7.06[3][b].

245. Section 568(2) of the *Restatement (Second) of Torts* defines slander as "the publication of defamatory matter by spoken words, transitory gestures or by any form of communication other than those stated in [§ 568(1)]." *RESTATEMENT (SECOND) OF TORTS* § 568(2). A statement is "slandorous per se" if it (1) imputes to the plain-

"presumed damages," meaning that the jury may award damages as compensation for the harm to the plaintiff's reputation, even though the plaintiff neither pleads nor proves any quantifiable injury.²⁴⁶ The availability of presumed damages in defamation law, however, hardly constitutes a ringing endorsement for the recovery of statutory damages in copyright. In recent years, the Supreme Court²⁴⁷ and scholars²⁴⁸ have

tiff conduct that constitutes a crime punishable by imprisonment or involving moral turpitude; (2) claims that the plaintiff has a loathsome and communicable disease; (3) adversely affects the plaintiff in his or her business, trade, profession, or office; or (4) attributes to the plaintiff serious sexual misconduct. *See id.* §§ 570-74; SMOLLA, *supra* note 244, § 7.05. All other slanderous statements are "slander per quod." *See* SMOLLA, *supra* note 244, § 7.06[3][d]; *see also* KEETON ET AL., *supra* note 244, § 112, at 788 (discussing slander per se).

246. To be more precise, the prevailing plaintiff in an action for libel per se or for slander per se may recover "general damages" which include "compensatory damages other than pecuniary losses," *see* SMOLLA, *supra* note 244, § 9.04[1], and "special damages," which consist of pecuniary losses caused by the injury to reputation attributable to the defamation. *See id.* § 9.07. Presumed damages are a subset of general damages. *See id.* § 9.05[1]. A plaintiff in an action for libel per quod or for slander per quod must prove some amount of special damages or else he cannot recover any general damages, including presumed damages. *See* RESTATEMENT (SECOND) OF TORTS §§ 575, 621 cmt. a; SMOLLA, *supra* note 244, § 7.06[3][b], [d]; David A. Anderson, *Reputation, Compensation, and Proof*, 25 WM. & MARY L. REV. 747, 748 (1984).

The traditional justification for presumed damages in defamation law is that an actionable libel or slander is likely to cause injury to the plaintiff's reputation, but that this injury, like the actual harm attributable to an act of copyright infringement, may be difficult to quantify. *See, e.g.,* Dun & Bradstreet, Inc. v. Greenmoss Builders, Inc., 472 U.S. 749, 760 (1985); *cf.* Robert C. Post, *The Social Foundations of Defamation Law: Reputation and the Constitution*, 74 CAL. L. REV. 691, 706 (1986) (arguing that "the common law presumption of damages, which in a market society is simply an undeserved windfall to the plaintiff, can be conceived as empowering juries to pursue the 'noncompensatory' end of vindicating the plaintiff's honor in the community") (citing Anderson, *supra*, at 750).

247. The Supreme Court has stated:

[t]he largely uncontrolled discretion of juries to award damages where there is no loss unnecessarily compounds the potential of any system of liability for defamatory falsehood to inhibit the vigorous exercise of First Amendment freedoms. Additionally, the doctrine of presumed damages invites juries to punish unpopular opinion rather than to compensate individuals for injury sustained by the publication of a false fact.

Gertz v. Robert Welch, Inc., 418 U.S. 323, 349 (1974). Supreme Court case law appears to permit the recovery of presumed damages only under two circumstances. The first is when the defendant has made the defamatory statement with "actual malice." *See id.* at 348-50; SMOLLA, *supra* note 244, § 9.05[2][a]. The second is when (1) the plaintiff is not a public official or public figure, *see Gertz*, 418 U.S. at 334

advocated narrowing the presumed damages rule on the grounds, among others, that in practice, the rule provides juries with almost unfettered discretion to award damages far in excess of the value of the plaintiff's injury (or even when there is no injury) in order to punish the defendant or to censor unpopular views.²⁴⁹ Similar grounds for concern might be raised in response to the statutory damages rule in copyright law.²⁵⁰ Even in the absence of such concerns, it remains unclear why statutory damages should be permitted in copyright and not in other bodies of law, such as patents, trade secrets, and trademarks,²⁵¹ in which the calculation and apportionment of damages or profits also might prove to be very difficult.

An argument nevertheless can be made for permitting statutory damages within the context of copyright law alone, although

n.6, 351, and (2) the statement does not involve an issue of public concern. See *Dun & Bradstreet*, 472 U.S. at 757-61; SMOLLA, *supra* note 244, § 9.05[2][b]. The Court also has declined to extend the doctrine of presumed damages into other areas of the law. See *Stachura*, 477 U.S. at 311-12 (stating that, in a case involving an alleged violation of the First Amendment, presumed damages were not appropriate in light of the fact that "the jury was fully authorized to compensate respondent for both monetary and nonmonetary harms caused by petitioners' conduct"); *Carey v. Phipus*, 435 U.S. 247, 262, 263-64 (1978) (describing presumed damages as "an oddity of tort law," and rejecting the argument that presumed damages are an appropriate remedy for mental distress resulting from the deprivation of constitutional rights) (quoting *Gertz*, 418 U.S. at 349).

248. See, e.g., Anderson, *supra* note 246, at 749-56 (arguing, *inter alia*, that "presumed damages may be more pernicious than punitive damages" because "punishment in the guise of presumed compensatory damages is entirely subterranean and, therefore, difficult to identify and control"); Lyrissa Barnett Lidsky, *Defamation, Reputation, and the Myth of Community*, 71 WASH. L. REV. 1, 44-45 (1996) (arguing that abolition of the presumed damages rule would force courts to rely upon objective criteria in determining the amount of damages awards).

249. See *supra* notes 246-48.

250. Of course, in jurisdictions in which the judge, not the jury, calculates statutory damages, see *supra* note 233, there may be less reason for concern over the use of statutory damages to achieve an improper purpose, such as punishing an unpopular defendant or censoring her speech.

251. As noted above, however, a recent amendment to the Lanham Act authorizes the court, in cases involving counterfeiting, to award statutory damages ranging from \$500 to \$100,000 per counterfeit mark per type of goods or services sold, or in cases of willful counterfeiting up to \$1 million. See 15 U.S.C.A. § 1117(c) (West 1998); *supra* note 117. In the typical case involving trademark infringement that falls short of counterfeiting, however, there is no counterpart to the Copyright Act's statutory damages provision. See *supra* notes 114-26 and accompanying text.

in the absence of substantial empirical evidence the argument remains somewhat conjectural. Common observation, however, suggests that the cost of detecting the vast number of more or less private acts of copyright infringement that occur every day—ranging from the casual reproduction of newspaper and magazine articles and cartoons on office photocopy machines, to the videotaping of television programs for the purpose of building a home videotape library,²⁵² to the unauthorized copying of software onto one's home computer—must be enormous. The cost of detecting a host of somewhat more "public" uses—ranging from the unauthorized performance of a musical composition in a nightclub, to the posting of copyrighted materials on the Internet, to the manufacture and sale of bootleg compact discs—is probably somewhat lower. Even so, the actual damages or profits attributable to any single act of infringement often may be insufficient to justify the cost of detection: a single unauthorized performance or reproduction, after all, is likely to have little impact on the owner's financial well-being (although a large number of infringements very well may). Perhaps the statutory damages rule provides a response to the potential underenforcement problem arising from this set of presumed facts. By offering the copyright owner the possibility of recovering damages in excess of his actual loss or the defendant's gain, and by providing a minimum damages "floor" below which his recovery may not fall, the rule provides the owner with a greater incentive to detect violations and to enforce his rights than would otherwise exist.²⁵³ Of course, a rule authorizing an

252. The Supreme Court has held that home videotaping for the purpose of viewing a free network-broadcast program at a more convenient time is a noninfringing fair use of the work. See *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984). Home videotaping of cable or pay-TV programs, however, or of free television programs for archival purposes such as building a home videotape library, may not constitute fair use. See WILLIAM F. PATRY, *THE FAIR USE PRIVILEGE IN COPYRIGHT LAW* 413-14 (1985) (arguing that these practices probably do not constitute fair use even after *Sony*).

253. Certainly, the most private acts of copyright infringement such as home videotaping and office photocopying, probably still will go undetected even under a statutory damages regime; but the owner may have sufficient incentive to assert his rights vis-à-vis those acts that are susceptible of detection, such as unlawful public performance.

award of double or treble damages, like the rules in place in patent, trade secret, and trademark law, also would increase that incentive. If we are correct in assuming, however, that a single act of copyright infringement often causes only minimal harm or gain, then even a treble damages rule might provide too weak an incentive for detection and enforcement—even though the aggregate harm caused by many such individual acts of infringement may be great.²⁵⁴ Perhaps only the threat of a statutory damages award, which may be *many* times greater than the actual harm or benefit derived from the defendant's unauthorized use, will be sufficient to prevent the value of the owner's copyright from being destroyed by a multitude of small-scale infringing acts.²⁵⁵

The preceding analysis still does not explain why the law of patents, trade secrets, and trademarks has no corresponding damages rule. We suspect, however, that the lack of such a rule may be attributable both to the lower average cost of detection and to the greater average magnitude of the harm caused by a single act of infringement in these other bodies of law. Consider first the law of trademarks: the very essence of a successful claim for trademark infringement is that a substantial portion of the relevant class of consumers is likely to be confused by the

254. Suppose, for example, that the profit derived from an infringement is five dollars, but the probability of detection is only one percent. Our analysis above, *see supra* notes 144-45 and accompanying text, suggests that the minimum sanction needed to deter the infringement is that which reduces the infringer's expected profit to zero. Using these assumed facts, that sanction is \$500, i.e., five dollars divided by one percent, which is one hundred times the infringer's profit.

255. One might argue that a rule authorizing the court to award punitive damages would have a similar effect. According to some courts, however, the value of a punitive award must bear some relationship to the value of the plaintiff's actual damages. *See* DOBBS, *supra* note 242, § 3-11(11), at 343. Moreover, unless the traditional standard for awarding punitive damages is revised, the conduct of many copyright defendants most likely would not be sufficiently egregious to merit a punitive award. Similarly, a rule facilitating the expanded use of class actions by the copyright owner, but limiting his recovery to actual damages or profits, would be ineffective in cases in which the copyright owner can locate only one or a handful of infringers. *See* Jayashri Srikantiah, Note, *The Response of Copyright to the Enforcement Strain of Inexpensive Copying Technology*, 71 N.Y.U. L. REV. 1634, 1652 (1996). One would also have to carefully consider the potential costs, including the possible increase in nonmeritorious litigation and the potential harm to nonparticipating class members, of a more expansive class action rule.

infringer's use of the owner's mark.²⁵⁶ Unlike copyright law, then, trademark law recognizes no "private" acts of infringement, and this omission suggests that the average cost of detecting trademark infringement should be lower than the corresponding average cost in copyright actions. At the same time, the actual (or at least potential) harm flowing from the typical act of trademark infringement may exceed that attributable to the typical act of copyright infringement because the former, by definition, is expected to affect a substantial number of consumers. A similar analysis arguably applies to patents and trade secrets, inasmuch as the public sale of a product embodying a patented invention or trade secret necessarily risks disclosing the infringer's activities to the owner. On the other hand, some acts of patent infringement or trade secret misappropriation, like some acts of copyright infringement, can occur in private and may be difficult to detect.²⁵⁷ One might also expect, however, that the majority of patent infringements and trade secret misappropriations involve inventions or other information having substantial commercial value, on the ground that there is little point in bothering to infringe a patent or trade secret *without* such value. But if the subject information is of substantial value to the infringer in his business, the actual harm resulting from the act of infringement also will be high, at least compared to the harm resulting from the typical copyright infringement; as a consequence, the former context should provide a greater corresponding incentive to detect and enforce than the latter. In summary, then, we would expect that a right to recover actual damages or profits might come closer to providing a sufficient incentive for detection and enforcement in the typical case involving patent, trade secret, or trademark rights, though not in the typical case involving copyright infringement; hence, the need in copyright, but arguably not in these other bodies of law, for a mechanism that allows for the recovery of damages that may not be closely related to the actual harm or gain attributable to the wrongful act.

256. See *supra* note 108 and accompanying text.

257. This fact is particularly true when the infringement involves the production process and not the product itself. The process may occur behind closed doors.

We hasten to add, once again, that the foregoing analysis is largely conjectural. We know of no rigorous empirical studies indicating how frequently acts of copyright infringement go undetected, either absolutely or in comparison with acts of patent or trademark infringement or trade secret misappropriation; nor do we expect that any such study would be feasible, given the impossibility of monitoring every possible act of infringement.²⁵⁸ Whether the balance struck by the statutory damages rule in fact is efficient, given the potential costs of overdeterrence,²⁵⁹ therefore remains unknown. Our analysis nevertheless provides a plausible explanation for an otherwise puzzling distinction between copyright and other bodies of intellectual property law. It also suggests that, if technological improvements increase the copyright owner's ability to discover infringements that currently go undetected,²⁶⁰ the desirability

258. Less rigorous evidence suggests, however, that huge numbers of acts of copyright infringement remain undetected even under a regime of statutory damages. See, e.g., Robert S. Greenberger & Craig S. Smith, *Double Trouble: CD Piracy Flourishes in China, and West Supplies Equipment*, WALL ST. J., Apr. 24, 1997, at A1 (stating that the International Federation of the Phonographic Industry claims annual losses to pirates of \$2.2 billion); Robert S. Greenberger, *The Outlook: Software Theft Extends Well Beyond China*, WALL ST. J., May 20, 1996, at A1 (stating that, according to some estimates, the theft of software, movies, music, and other intellectual property costs U.S. business \$15 billion annually; and that a 1994 survey by the Business Software Alliance indicated that the percentage of pirated business software ranges from 35% in the United States to 98% in China); Sarah Koenig, *Academic Discourse, Internet Style*, N.Y. TIMES, Mar. 17, 1997, at D8 (discussing the uncertain legality of certain Internet postings); Steve Levin, *Genius Is Its Own Reward, Plus*, PITTSBURGH POST-GAZETTE, June 18, 1997, at A1, available in 1997 WL 4533764 (stating that, according to the International Intellectual Property Alliance, theft of intellectual property cost U.S. companies between \$18 billion and \$20 billion in 1996); Anita M. Samuels, *New Urban Art Form, Old Copyright Problem*, N.Y. TIMES, Nov. 4, 1996, at D8 (noting the widespread performance and sale of unauthorized compilations of sound records known as "mix tapes" or "deejay compilations"); Neil Strauss, *The Pop Life: Seeking a Cease-Fire in Bootlegging*, N.Y. TIMES, Apr. 23, 1997, at C10 (discussing widespread sales of illegal live recordings of popular bands); John Tagliabue, *Fakes Blot a Nation's Good Names*, N.Y. TIMES, July 3, 1997, at D1 (stating that infringement in Italy alone costs software companies an estimated \$350 million annually and that the music industry claims to lose \$100 million).

259. See *supra* notes 145, 179-86, 191-92 and accompanying text.

260. For example, some scholars believe that improvements to digital technology will facilitate the ability of copyright owners to track the uses of their works in cyberspace. See GOLDSTEIN, *supra* note 102, at 200 ("[B]ecause the celestial jukebox can keep a record of every selection a subscriber makes, and the price he paid for

of retaining the statutory damages rule in its current form may be open to question, at least with respect to those more easily detected infringements.

Finally, our analysis appears to be largely consistent with the ways in which courts actually apply the statutory damages rule. Among the factors courts consider in determining the amount of statutory damages are "the expenses saved and profits reaped by the defendants in connection with the infringements, the revenues lost by the plaintiffs as a result of the defendant's conduct, and the infringers' state of mind—whether willful, knowing, or merely innocent";²⁶¹ the fair market value of the rights in-

it, copyright owners will have a far more precise measure of the demand for their products than they do today."); cf. INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 82 (1995) (noting that "it may be that technological means of tracking transactions and licensing will lead to reduced application and scope of the fair use doctrine."); Tom W. Bell, *Fair Use vs. Fared Use: The Impact of Automated Rights Management on Copyright's Fair Use Doctrine*, 76 N.C. L. REV. 557 (1998) (discussing potential impact of tracking technology on fair use).

Some more traditional methods for cutting down on detection costs have been in place for a long time. For example, authors of musical compositions often authorize organizations such as the American Society of Composers, Authors, and Performers (ASCAP) and Broadcast Music, Inc. (BMI) to license the public performance of their works. See *Broadcast Music, Inc. v. Columbia Broad. Sys., Inc.*, 441 U.S. 1, 5 (1979). ASCAP and BMI then monitor the performance of these works over the airwaves and in public establishments in order to determine whether composers' rights are being honored. See *id.* at 4-5 (noting that ASCAP was formed because "as a practical matter it was impossible for the many individual copyright owners to negotiate with and license the users and to detect unauthorized uses."); *American Soc'y of Composers, Authors, & Publishers v. Pataki*, 930 F. Supp. 873, 875-76 (S.D.N.Y. 1996) (describing ASCAP and BMI policing efforts). It is doubtful, however, that even ASCAP and BMI can come close to detecting every infringing performance.

261. *N.A.S. Import, Corp. v. Chenson Enters., Inc.*, 968 F.2d 250, 252 (2d Cir. 1992) (quoting 3 NIMMER & NIMMER, *supra* note 73, § 14.04[B], at 14-41 (1991) (quoting *Boz Scaggs Music v. KIND Corp.*, 491 F. Supp. 908, 914 (D. Conn. 1980)); see also 2 GOLDSTEIN, *supra* note 237, § 12.2.1.1.a, at 12:37 & n.17 (setting forth above factors); 4 NIMMER & NIMMER, *supra* note 73, § 14.04[B][1][a], at 14-51 to -52 (setting forth factors). For purposes of the statutory damages rule:

an infringement is willful if the defendant had knowledge that its actions constitute an infringement. This knowledge may be actual or constructive. In other words, it need not be proven directly but may be inferred from the defendant's conduct.

While an infringement may not be willful when a party, despite warnings to the contrary, reasonably and in good faith believes that its

fringed;²⁶² “whether each party has complied with its contractual obligations to the other”,²⁶³ the interests in adequately compensating the plaintiff, preventing the defendant’s unjust enrichment, and deterring future infringements;²⁶⁴ and the interest in punishing the infringer.²⁶⁵ Courts have substantial leeway²⁶⁶ in deciding precisely how to weigh these factors, however, and as a consequence we cannot formulate any precise rules for accurately predicting the amount of a statutory award. Some general trends or patterns nevertheless can be detected. In the course of preparing this Article, we asked our research assistant to collect and categorize every reported decision from 1992 to 1997 in which a court has awarded statutory damages. Three observations based upon this analysis, as well as upon some

conduct is innocent, this analysis is subject to the corollary that reckless disregard of the copyright holder’s rights (rather than actual knowledge of infringement) suffices to warrant award of the enhanced damages.

N.A.S. Import, 968 F.2d at 252-53 (citations and internal quotation marks omitted); see also 4 NIMMER & NIMMER, *supra* note 73, § 14.04[B][2][b][3], at 14-59 to -61 (discussing the meaning of willfulness in connection with statutory damages). A finding of willful infringement authorizes, but does not compel, the court to award statutory damages in excess of \$20,000. See 17 U.S.C. § 504(c) (1994); see also *Nintendo of Am., Inc. v. Dragon Pacific Int’l*, 40 F.3d 1007, 1010 (9th Cir. 1994) (affirming a total statutory award of \$65,000—\$5000 for each of the thirteen copyrighted works willfully infringed).

262. See, e.g., *Branch v. Ogilvy & Mather, Inc.*, 772 F. Supp. 1359, 1365 (S.D.N.Y. 1991); 2 GOLDSTEIN, *supra* note 237, § 12.2.1.1.a, at 12:37 (citing *Quinto v. Legal Times of Washington, Inc.*, 511 F. Supp. 579, 582 (D.D.C. 1981)).

263. 4 NIMMER & NIMMER, *supra* note 73, § 14.04[B][1][a], at 14-52 (citing *Frankel v. Stein & Day Inc.*, 470 F. Supp. 209 (S.D.N.Y. 1979), *aff’d*, 646 F.2d 560 (2d Cir. 1980)).

264. See, e.g., *Walt Disney Co. v. Video 47 Inc.*, 40 U.S.P.Q.2d (BNA) 1747, 1753 (S.D. Fla. July 9, 1996); see also *Songmaker v. Forward of Kansas, Inc.*, No. 90-4156-SAC, 1993 WL 484210, at *4 (D. Kan. Sept. 13, 1993) (suggesting that statutory damages should exceed the amount of the plaintiff’s forgone license fees, and that a court should consider “the effectiveness of the damages in deterring future violations”).

265. See, e.g., *Chi-Boy Music v. Charlie Club, Inc.*, 930 F.2d 1224, 1229-30 (7th Cir. 1991); see also 4 NIMMER & NIMMER, *supra* note 73, § 14.04[B][1][a], at 14-52 & nn.19-20 (noting that some cases approve and some disapprove of a punitive approach).

266. See, e.g., *Chi-Boy Music*, 930 F.2d at 1229-30 (indicating that the standard of review of the amount of statutory damages awarded is abuse of discretion); see also 4 NIMMER & NIMMER, *supra* note 73, § 14.04[B][1][a], at 14-52 (“[A]s long as the district court acts within the prescribed statutory limits, its discretion will probably be upheld on appeal.”).

earlier case law, are of particular interest.

The first observation concerns the statutory language that limits the plaintiff to one award of statutory damages "for all infringements involved in the action, with respect to any one work,"²⁶⁷ as opposed to one award for every act of infringement. On its face, this language appears to create a pair of perverse incentives: first, for the defendant to infringe a single work many times, as opposed to just once, given that she can be liable for only one set of damages in any one action; and second, for the plaintiff to file successive lawsuits in order to recover multiple awards.²⁶⁸ Recall, however, the substantial range within which a statutory award may lie: in general, the court may award anywhere from \$500 to \$20,000 for each work infringed;²⁶⁹ and it may reduce the award to as low as \$200 for an innocent infringement or increase it to as much as \$100,000 for a willful infringement.²⁷⁰ In light of these facts, one might expect courts to minimize the potential undesirable effects of the rule limiting the plaintiff to one award for every work infringed by awarding damages at the higher end of the spectrum in cases involving multiple infringements of a single work. Although the

267. 17 U.S.C. § 504(c)(1) (1994).

268. Some commentators have suggested, in other words, that although section 504(c)(1) restricts plaintiffs to one award "for all infringements involved in the action, with respect to any one work," *id.*, plaintiffs may obtain multiple awards by filing multiple actions for repeated infringements. See 2 GOLDSTEIN, *supra* note 237, § 12.2.2.2(a), at 12:53; 4 NIMMER & NIMMER, *supra* note 73, § 14.04[E][2][b], at 14-75 to -77. Arguably, this strategy would entitle the plaintiff, in each action, to an award of statutory damages for all infringements involved in that action, even if the same work is at issue in each instance. See 4 NIMMER & NIMMER, *supra* note 73, § 14.04[E][2][b], at 14-75 to -77. As Goldstein points out, however, the efficacy of this strategy is questionable, given that, in the first action filed, the plaintiff normally has an interest in requesting injunctive relief against further acts of infringement. See 2 GOLDSTEIN, *supra* note 237, § 12.2.2.2(a), at 12:53.

[I]f the copyright owner prevails, this will forestall any future infringements and will circumscribe the copyright owner's statutory damage award [in a subsequent action] by all infringements occurring before the injunction was entered. In any event, the rare copyright owner who pursues this route should expect to receive a smaller statutory award in its successive actions than if it sought to recover for these infringements in a single action.

Id. (footnote omitted).

269. See 17 U.S.C. § 504(c)(1).

270. See *id.* § 504(c)(2).

data provided by the reported decisions are not sufficient to permit us rigorously to test this hypothesis, the case law appears to be at least roughly consistent with it. Awards tend to be relatively high in cases in which the defendant has infringed a single work over a long period of time or on many occasions.²⁷¹

271. See, e.g., *Wildlife Express Corp. v. Carol Wright Sales, Inc.*, 18 F.3d 502, 511-13 (7th Cir. 1994) (affirming a statutory award of \$50,000 for each of three sculptural works infringed, where the defendant, a major mail order company, sold infringing items for over two years); *Video Aided Instruction, Inc. v. Y & S Express, Inc.*, No. 96-CV-518-CBA, 1996 WL 711513, at *4 (E.D.N.Y. Oct. 29, 1996) (recommending statutory award of \$40,000 for each of four copyrighted books, where defendants aggressively marketed and advertised counterfeits); *Central Point Software, Inc. v. Nugent*, 903 F. Supp. 1057, 1060-61 (E.D. Tex. 1995) (awarding \$10,000 for each of three software works infringed, where the defendant, an operator of a for-profit computer bulletin board, encouraged subscribers to download infringing software); *Peer Int'l Corp. v. Luna Records, Inc.*, 887 F. Supp. 560, 568-69 (S.D.N.Y. 1995) (awarding \$15,000 and \$25,000 for infringement of two musical compositions, where the defendant knowingly made and distributed infringing phonorecords of these compositions for at least three years); *Dive N' Surf, Inc. v. Anselowitz*, 834 F. Supp. 379, 382, 384 (M.D. Fla. 1993) (awarding \$250,000 for ten counterfeited graphic designs, where the defendant ordered his employees to recreate infringing designs "in large quantities"); *Schwartz-Liebman Textiles v. Last Exit Corp.*, 815 F. Supp. 106, 108-09 (S.D.N.Y. 1992) (awarding \$20,000 for infringement of a fabric design, where the court concluded that the defendant manufactured at least 25,000 yards of infringing fabric); *Liberace Revocable Trust v. Silver Screen Video, Inc.*, 25 U.S.P.Q.2d (BNA) 1938, 1941-42 (D.N.J. 1992) (awarding \$15,000 for each of four musical compositions infringed, where the defendant sold 10,000 videotapes embodying infringing works); *Childress v. Taylor*, 798 F. Supp. 981, 986-87, 993-97 (S.D.N.Y. 1992) (awarding \$30,000 for infringement of a stage play performed over a seven-month period); *Branch v. Ogilvy & Mather, Inc.*, 772 F. Supp. 1359, 1363-65 (S.D.N.Y. 1991) (awarding \$10,000—at the time, the maximum amount permissible for nonwillful infringement—where the defendant infringed plaintiff's cookbook in connection with what was apparently a nationwide advertising campaign); *Stein & Day Inc. v. Red Letter Books, Inc.*, 83 Civ. 4918 (RJW), 1984 WL 2199, at *4-*6 (S.D.N.Y. June 21, 1984) (awarding \$20,000, where the defendant committed one act of infringement by unlawfully distributing approximately 9400 copies of plaintiff's book and also unlawfully converted 6717 copies of other titles); cf. *Playboy Enters. v. Webbworld, Inc.*, 968 F. Supp. 1171, 1175-76 (N.D. Tex. 1997) (awarding \$5000 for each of 62 photographs the defendant made available on its website over a period of several months).

To be sure, not all of the reported cases fit this apparent pattern. See, e.g., *JBJ Fabrics Inc. v. India Garments Inc.*, No. 92 Civ. 8324 (LMM), 1994 WL 4443, at *2 (S.D.N.Y. Jan. 4, 1994) (awarding only \$2900, where the defendant sold 588 garments incorporating an infringing fabric pattern). Moreover, when the defendant's conduct simultaneously constitutes both an act of copyright infringement and also another wrongful act, such as trademark infringement, courts sometimes award fairly low statutory damages in addition to a substantial award of lost profits or restitution attributable to that other wrongful act. See, e.g., *Nintendo of Am., Inc. v. Drag-*

We shall refer to decisions adhering to this pattern as "Category One" cases.

A second observation is that, when sufficient evidence is presented to estimate the value of the plaintiff's actual damages, or the amount the defendant saved in licensing fees, but the plaintiff decides to request an award of statutory damages instead of actual damages or profits, courts tend to award statutory dam-

on Pacific Int'l, 40 F.3d 1007, 1010-12 (9th Cir. 1994) (affirming statutory award of only \$5000 for each of 13 copyrights infringed by counterfeit video cartridges, even though infringement of some of these copyrights occurred thousands of times; court also affirmed the district court's award of \$186,000 for concomitant trademark infringement). *But see* Microsoft Corp. v. Grey Computer, 910 F. Supp. 1077, 1082, 1091-93 (D. Md. 1995) (awarding \$100,000 for each of three software works infringed, where the defendants had distributed 45,848 copies of infringing products, and awarding treble damages of \$3,889,565 for concomitant trademark infringement). Whether awarding both copyright and trademark damages is proper when the defendant's conduct simultaneously infringes both sets of rights is an issue that divides the courts. *Compare* Nintendo, 40 F.3d at 1011-12 (concluding that such awards are proper), with CTG Prods. Corp. v. Pegasus Luggage, Inc., 776 F.2d 1007, 1014 n.4 (Fed. Cir. 1985), and Manufacturers Techs., Inc. v. Cams, Inc. 728 F. Supp. 75, 85 (D. Conn. 1989) (reaching the opposite conclusion). For further discussion, see Sheri A. Byrne, Note, Nintendo of America, Inc. v. Dragon Pacific International: Double Trouble—When Do Awards of Both Copyright and Trademark Damages Constitute Double Recovery?, 31 U.S.F. L. REV. 257 (1996). We also hope to address this issue in our forthcoming work.

The point made in the text above is also slightly different from the more common observation that "[t]he fact that the infringer is a repeat offender may also lead a court to increase the size of the award." 2 GOLDSTEIN, *supra* note 237, § 12.2.1.2.a, at 12:42 (discussing cases in which courts have assessed enhanced damages against copyright "recidivists"); *see also* Superior Form Builders, Inc. v. Chase Taxidermy Supply Co., 74 F.3d 488, 496-97 (4th Cir.) (affirming award of \$100,000 for each of four infringing taxidermy mannequins, where other plaintiffs had sued the defendant for infringement on at least three other occasions), *cert. denied*, 117 S. Ct. 53 (1996); Walt Disney Co. v. Video 47 Inc., 40 U.S.P.Q.2d (BNA) 1747, 1748-50, 1752-54 (S.D. Fla. 1996) (awarding statutory damages of \$50,000 each for unlawful distribution of 16 motion pictures on video-cassette, where plaintiffs had successfully filed three previous infringement actions against the defendants); Songmaker v. Forward of Kansas, Inc., No. 90-4156-SAC, 1993 WL 484210, at *3-*5 (D. Kan. Sept. 13, 1993) (awarding statutory damages of \$20,000 each for unlawful public performance of musical compositions, where the defendant had a long history of failing to pay ASCAP license fees); Nintendo of Am., Inc. v. NTDEC, 822 F. Supp. 1462, 1465, 1467 (D. Ariz. 1993) (awarding \$100,000 for each of 28 video games infringed, where the defendant had previously paid the plaintiff a stipulated judgment of \$110,000 for sales of counterfeit games), *aff'd mem.*, 51 F.3d 281 (9th Cir. 1995). Of course, it is extremely likely that in some or all of these cases the defendants engaged in multiple infringements of single works as well.

ages ranging from approximately the same amount as those actual damages or fees²⁷² to (more commonly) roughly double²⁷³ or tri-

272. See, e.g., *Jordan v. Time, Inc.*, 111 F.3d 102, 103-04 (11th Cir. 1997) (affirming a statutory award of \$5500, where the plaintiffs' actual damages totaled \$5000); *Knitwaves Inc. v. Lollytogs Ltd.*, 71 F.3d 996, 1001, 1012 (2d Cir. 1996) (affirming a statutory award of \$25,000 per infringement, where the plaintiffs' actual damages attributable to the infringement of its "Squirrel Cardigan" fabric design were \$23,469.51); *Nintendo*, 40 F.3d at 1009-10 (affirming a statutory award of \$65,000, where the plaintiffs' actual damages totaled \$62,000); *Twin Peaks Prods. v. Publications Int'l, Ltd.*, 996 F.2d 1366, 1380-82 (2d Cir. 1993) (affirming a statutory award of \$120,000, where actual damages totaled \$125,000); *Itar-Tass Russian News Agency v. Russian Kurier, Inc.*, 42 U.S.P.Q.2d (BNA) 1810, 1821-23 (S.D.N.Y. 1997) (awarding statutory damages equal to the estimated portion of the defendants' profits attributable to the infringement of works registered prior to the infringement); *Broadcast Music, Inc. v. Hampton Beach Casino Ballroom Inc.*, No. CV-94-248-B, 1995 WL 803576, at *7-*8 (D.N.H. Aug. 30, 1995) (awarding statutory damages of \$16,000, where lost license fees totaled approximately \$16,000); *New York Chinese TV Programs, Inc. v. U.E. Enters., Inc.*, No. 89-Civ.-6082RWS (KAR), 1991 WL 113283, at *16 (S.D.N.Y. June 14, 1991) (awarding statutory damages of \$762,500, whereas actual damages and profits totaled \$718,707.85), *aff'd on other grounds*, 954 F.2d 847 (2d Cir. 1992); cf. *Almo Music Corp. v. T & W Communications Corp.*, 798 F. Supp. 392, 393-94 (N.D. Miss. 1992) (awarding statutory damages of \$28,000, where the court estimated the plaintiffs' lost license fees at \$21,729.52); *Ackee Music, Inc. v. Williams*, 650 F. Supp. 653, 656-57 (D. Kan. 1986) (awarding statutory damages of \$3000, where the lost license fees totaled \$2123.48).

273. See, e.g., *Broadcast Music, Inc. v. Star Amusements, Inc.*, 44 F.3d 485, 487-89 (7th Cir. 1995) (affirming a statutory award of \$140,000, where the defendant avoided paying license fees of approximately \$75,000); *Canopy Music, Inc. v. Harbor Cities Broad., Inc.*, 950 F. Supp. 913, 916-17 (E.D. Wis. 1997) (awarding statutory damages of \$40,000, where lost license fees totaled approximately \$23,000); *Ram's Horn Music v. Nelson*, File No. 1:94:CV:114, 1994 U.S. Dist. LEXIS 13528, at *4-*7 (W.D. Mich. July 18, 1994) (awarding \$4500; lost license fees totaled \$2500); *Unicity Music, Inc. v. Omni Communications, Inc.*, 844 F. Supp. 504, 509-10 (E.D. Ark. 1994) (awarding \$50,000; lost license fees totaled \$23,200); *Marvin Music Co. v. BHC Partnership*, 830 F. Supp. 651, 655-57 (D. Mass. 1993) (awarding \$15,000; lost license fees totaled \$6800); *Tempo Music, Inc. v. Christenson Food & Mercantile Co.*, 806 F. Supp. 816, 820-21 (D. Minn. 1992) (awarding \$4000; plaintiffs claimed that the lost license fees totaled \$1805); *Ram's Horn Music v. Foundry Entertainment, Inc.*, 24 U.S.P.Q.2d (BNA) 1719, 1720 (E.D. La. 1992) (awarding \$7500; lost license fees totaled approximately \$3541.36); *Quartet Music v. Kissimmee Broad., Inc.*, 795 F. Supp. 1100, 1105-06 (M.D. Fla. 1992) (awarding \$22,500; lost license fees totaled \$9734); cf. *Moose Music v. K & D of Battle Creek, Inc.*, No. 1:94:CV:171, 1995 WL 548721, at *2-*3 (W.D. Mich. Feb. 8, 1995) (awarding \$7500; lost license fees totaled \$2900); *Big Tree Enter., Ltd. v. Mabrey*, 33 U.S.P.Q.2d (BNA) 1210, 1215-16 (D. Kan. 1994) (awarding \$4000; lost license fees and investigative costs totaled \$1365), *aff'd mem.*, 45 F.3d 439 (10th Cir. 1994); *Somerset Songs Publ'g, Inc. v. Wykes*, No. CIV A. 92-6907, 1993 WL 437705, at *4 (E.D. Pa. Oct. 29, 1993) (awarding \$5000; lost license fees and investigative expenses totaled \$3085.15); see also C & F En-

ple²⁷⁴ that amount. In most of the cases falling within this category,

ters., Inc. v. Barringtons, Inc., No. Civ.A.96-1108-A, 1997 WL 626569, at *4 (E.D. Va. May 29, 1997) (awarding statutory damages of \$70,000—\$10,000 for each of seven infringing works—against defendant whose profits attributable to the infringement totaled approximately \$37,000); Murray v. Shaw Indus., No. Civ.A.96-11007-WGY, 1997 WL 815165, at *1 (D. Mass. Dec. 31, 1997) (awarding statutory damages of \$300,000—\$100,000 for each of three infringing works—against defendant whose profits attributable to the infringement totaled approximately \$150,000).

274. See, e.g., Chi-Boy Music v. Charlie Club, Inc., 930 F.2d 1224, 1227, 1229-30 (7th Cir. 1991) (affirming a statutory award approximately three times the amount of the lost license fees); Dream Dealers Music v. Parker, 924 F. Supp. 1146, 1153 (S.D. Ala. 1996) (awarding \$20,000, where the lost license fees totaled approximately \$7000); Walden Music, Inc. v. C.H.W., Inc., No. 95-4023-SAC, 1996 WL 254654, at *5-*6 (D. Kan. Apr. 19, 1996) (awarding statutory damages of \$8000, where lost license fees and investigative expenses totaled less than \$3000); Cross Keys Publ'g Co. v. Wee, Inc., 921 F. Supp. 479, 481-82 (W.D. Mich. 1995) (awarding \$8750, where the lost license fees totaled \$2800); New Perspective Publ'g Inc. v. Simon, No. 94cv366, 1994 WL 776088, at *2 (E.D. Tex. Nov. 17, 1994) (awarding \$7500, where the lost license fees totaled \$2280.17); Sailor Music v. IML Corp., 867 F. Supp. 565, 570 & n.8 (E.D. Mich. 1994) (inferring from other cases a "de facto treble rule," and awarding statutory damages accordingly); Major Bob Music v. Stubbs, 851 F. Supp. 475, 480-81 (S.D. Ga. 1994) (awarding statutory damages of approximately three times the amount of lost license fees); Full Keel Music, Inc. v. Donna's Pub, Inc., Civ. A. No. 93-11954-RCL, 1994 WL 264054, at *3 (D. Mass. Feb. 18, 1994) (awarding \$1000 for each of six works infringed, where the lost license fees and investigative expenses totaled \$2276.77); Badco Music, Inc. v. W.M.M., Inc., No. Civ-92-118-R, 1992 WL 407299, at *3-*5 (W.D. Okla. Sept. 11, 1992) (awarding \$6000, where the lost fees and costs totaled \$2177); cf. Blue Seas Music, Inc. v. Fitness Surveys, Inc., 831 F. Supp. 863, 866 (N.D. Ga. 1993) (awarding \$7500, where the lost license fees totaled \$1900). On occasion, courts have awarded statutory damages well in excess of three times the amount of the plaintiff's actual damages or lost royalties. See, e.g., Broadcast Music, Inc. v. R Bar of Manhattan, Inc., 919 F. Supp. 656, 659-60 (S.D.N.Y. 1996) (awarding \$12,000, where lost fees and costs totaled \$2662); Broadcast Music, Inc. v. Beach Ball Benny's, Inc., Civ. A. No. 93-300, 1993 WL 483478, at *3-*4 (E.D. La. Nov. 12, 1993) (awarding the statutory minimum of \$500 for each infringement, for a total of \$11,500, where the lost license fees totaled only \$1260); Coleman v. Payne, 698 F. Supp. 704, 707-08 (W.D. Mich. 1988) (awarding statutory damages of \$50,000; lost license fees totaled less than \$6000).

Most of the cases falling into Category Two involved the unauthorized public performance of musical compositions licensed by ASCAP and BMI. Presumably, in such cases, the amount the plaintiff composer would have earned from licensing her work would have been some percentage of the amount of the ASCAP or BMI license fee used as a reference point in calculating the award. ASCAP and BMI themselves—as *nonexclusive* licensees of composers' performance rights—do not have standing to sue for infringement, see, e.g., *Ocasek v. Hegglund*, 116 F.R.D. 154, 156-57 (D. Wyo. 1987); *Broadcast Music, Inc. v. CBS Inc.*, 221 U.S.P.Q.2d (BNA) 246, 250-52 (S.D.N.Y. 1983), although in some instances the courts and parties apparently have ignored this fact. The issue of whether *nonexclusive* licensees should have standing is beyond the scope of the present Article; we hope to address it, however,

ry ("Category Two") the defendant had made a commercial use of a popular copyrighted work that was subject to a standard licensing agreement, with the result that the amount of lost profits, or at least lost licensing revenue, was largely quantifiable. In a few of these cases, the defendant's activity appears to have been reasonably susceptible of detection,²⁷⁵ but in many of them the small scale or evanescent nature of the infringement rendered detection somewhat difficult.²⁷⁶ Not surprisingly, in most of these latter cases, the court awarded statutory damages in excess of the plaintiff's provable loss.²⁷⁷ In short, the evidence suggests that, when (1) some basis exists upon which to quantify the plaintiff's loss, and (2) detection costs are high, courts tend to award statutory damages roughly equal to double or treble damages.²⁷⁸ In both their factual nature and their legal treatment, then, these cases are not radically different from the typical case involving patent, trade secret, or trademark infringement.

Third, when the plaintiff either presents no evidence as to his actual damages or the defendant's profit (or presents evidence that is insufficient as a matter of law to establish the amount of those damages or profits attributable to the infringement), courts tend to award low statutory damages—unless the defendant infringes the work often enough, or for a long enough period of time, for her conduct to fall into Category One instead.²⁷⁹

in a forthcoming work.

275. See, e.g., *Knitwaves*, 71 F.3d at 999-1000 (involving infringement of girls' sweaters by a large manufacturer of children's clothing); *Twin Peaks*, 996 F.2d at 1370-71 (involving a book that infringed television episodes by providing detailed summaries of plots).

276. Most of the cases cited *supra* at notes 273-74 involve the unauthorized public performance of musical compositions, either in public establishments or over the radio, and therefore fall into this subcategory. Even with the assistance of ASCAP and BMI, the cost to the plaintiff of detecting these performances can be high. See, e.g., *R Bar*, 919 F. Supp. at 660 (noting that plaintiff incurred investigative expenses of \$417, an amount equal to 18% of lost fees); *Rilting Music Inc. v. Speakeasy Enters., Inc.*, 706 F. Supp. 550, 557 (S.D. Ohio 1988) (noting investigative expenses of \$570.92, equal to 29% of lost fees).

277. See *supra* notes 273-74.

278. See *id.*

279. See, e.g., *Playboy Enter. v. Webbworld, Inc.*, 45 U.S.P.Q.2d (BNA) 1641 (N.D. Tex. 1997) (awarding \$1000 for each of 29 photographs infringed by placement on defendant's web site; court awarded an additional \$20,000, however, for each of five

How many times the defendant must infringe a single work or for how long the infringements must continue before the defendant's conduct will be deemed to fall into Category One instead of this third category ("Category Three") is somewhat unclear.²⁸⁰ To a certain extent, then, the statutory scheme may

works willfully infringed); *Columbia Pictures, Inc. v. Tucker*, No. 94 CV 5542, 1997 WL 779093, at *12 (N.D. Ill. Dec. 11, 1997) (awarding \$1000 for each of 115 motion pictures infringed, where defendants had made available for rental 261 unauthorized copies); *Columbia Pictures Indus. v. Babella*, No. 95 C 1610, 1996 WL 328015, at *3 (N.D. Ill. June 11, 1996) (awarding \$500 for each of 145 motion pictures offered for rental at plaintiffs request; no indication in the opinion as to how long the defendants' scheme operated, or how many unauthorized rentals were actually made); *Antenna Television, A.E. v. Aegean Video Inc.*, No. 95-CV-2328 ERK, 1996 WL 298252, at *8-12 (E.D.N.Y. Apr. 23, 1996) (awarding \$500 for each of 113 Greek television programs that the defendants copied and offered for sale or rental); *Florentine Art Studio, Inc. v. Vedet K. Corp.*, 891 F. Supp. 532, 540-41 (C.D. Cal. 1995) (awarding \$200 for each of two innocent infringements of sculpture); *Columbia Pictures Indus. v. Zuniga*, 38 U.S.P.Q.2d (BNA) 1360, 1361-64 (N.D. Ill. 1995) (awarding \$500 for each work infringed on facts similar to *Babella*, except that 334 works were at issue); *Mirage Studios v. Yong*, No. C-93-2684-VRW, 1994 WL 184613, at *2 (N.D. Cal. Apr. 22, 1994) (awarding \$500 for infringement of Teenage Mutant Ninja Turtles merchandise by each of four defendants); *Walt Disney Co. v. Collins*, Civ. A. No. 92-2013-GTV, 1993 WL 256926, at *3 (D. Kan. June 16, 1993) (awarding \$500 for each of 169 bootleg motion pictures defendants offered for rental); *Columbia Pictures Indus. v. Mirza*, No. 91 C 2385, 1993 WL 118492, at *5-6 (N.D. Ill. Mar. 29, 1993) (awarding \$1000 for each of 34 bootleg motion pictures defendants offered for rental); see also 2 GOLDSTEIN, *supra* note 237, § 12.2.1.1.a, at 12:37 ("Where it is clear that the plaintiff suffered no actual damages, and defendant earned little if any profits from the infringement, courts tend to limit recovery to the minimum statutory sum.") (citations omitted); cf. *Columbia Pictures Indus. v. Landa*, 974 F. Supp. 1 (C.D. Ill. 1997) (awarding \$1000 for each of 207 motion pictures infringed, where defendants had made available for rental over 4000 unauthorized copies, some of them for over one year). Again, not every case fits the pattern. See, e.g., *Lamb v. Starks*, No. CV-95-1732-JLQ, 1997 U.S. Dist. LEXIS 11369, at *3-8 (N.D. Cal. July 2, 1997) (awarding \$7500 for the sale of 10 demonstration tapes containing an infringing advertisement, where the plaintiff admitted he lost no revenue and the defendant earned little, if any, profit from the infringement); *Odegard, Inc. v. Costikyan Classic Carpets, Inc.*, 963 F. Supp. 1328, 1341 (S.D.N.Y. 1997) (awarding \$25,000 for the willful infringement of a carpet design); *National Football League v. White*, 45 U.S.P.Q.2d (BNA) 1063, 1064 (W.D.N.Y. 1997) (awarding \$20,000 against defendant who assisted two commercial establishments in receiving a "blacked-out" football game); *Video Cafe, Inc. v. De Tal*, 961 F. Supp. 23, 25-27 (D.P.R. 1997) (awarding damages ranging from \$10,000 to \$22,000 for unauthorized public broadcasts of a boxing match); *Spencer Promotions Inc. v. 5th Quarter Enters. Inc.*, 38 U.S.P.Q.2d (BNA) 1893, 1896-97 (N.D. Cal. 1996) (awarding \$25,000 for a single unauthorized broadcast of a boxing match).

280. For example, in *Collins*—a Category Three case—the court concluded that the

provide some incentive to infringe a single work more than once, as long as the number of infringements remains small enough to avoid having the case characterized as Category One. On the other hand, the minimum \$500 award for noninnocent infringement probably far exceeds the actual gain or loss at issue in most of the cases that fall into Category Three, even if multiple infringements were involved; most of these cases involved the offering for rental of bootleg videocassettes, legitimate copies of which videocassettes the defendants undoubtedly could have purchased for much less than \$500 each.²⁸¹ The patterns we detected therefore seem to make some rough economic sense: in awarding statutory damages, courts appear to have at least some general idea of the probable harm or gain involved, and to be sensitive to the need to set an award high enough to encourage the detection and enforcement of small-scale infringements.

One final issue is why the Copyright Act mandates that the copyright owner may not recover statutory damages or attorney's fees unless he registers his work prior to its infringement or within three months of its publication.²⁸² We can think of two possible reasons for this rule. The first is that the rule encourages owners to register, and therefore advances whatever purposes are served by having a registration system in place. Among the purposes sometimes suggested in favor of retaining a

defendants' conduct was "knowing and deliberate," in that they "had a systematic plan" under which "they would make several unauthorized copies" of a videocassette, "then rent the duplicated movies to the public." 1993 WL 256926, at *3. Similarly, in *Antenna Television*, although the plaintiffs alleged that the defendants reproduced and copied videocassettes of the plaintiff's television programs over a five-year period, see 1996 WL 298252, at *2, the court nevertheless concluded that the defendants' conduct—copying broadcasts of television programs emanating from Greece—was not willful. See *id.* at *10.

281. See *supra* note 279.

282. Under the Copyright Act:

no award of statutory damages or of attorney's fees . . . shall be made for-

- (1) any infringement of copyright in an unpublished work commenced before the effective date of its registration; or
- (2) any infringement of copyright commenced after first publication of the work and before the effective date of its registration, unless such registration is made within three months after the first publication of the work.

17 U.S.C. § 412 (1994).

registration system are that registration facilitates negotiations with the copyright owner by putting the world on notice of his identity and his claim to copyright;²⁸³ that registration cuts down on frivolous litigation by allowing the Copyright Office to screen unmeritorious claims of copyright;²⁸⁴ and that, because registration requires the copyright owner to deposit two copies of the work with the Copyright Office, it ensures that the Library of Congress will continue to maintain a comprehensive collection.²⁸⁵ To the extent one views these purposes as compelling, one might view the rule conditioning an award of statutory damages upon registration as advancing a worthwhile goal. It nevertheless should be apparent that none of these justifications for retaining a registration system is directly related to any of the reasons we have identified as possibly underlying the statutory

283. Compare John B. Koegel, *Bamboozlement: The Repeal of Copyright Registration Incentives*, 13 CARDOZO ARTS & ENT. L.J. 529, 538-39 (1995) (advocating registration for this reason), with Shira Perlmutter, *Freeing Copyright from Formalities*, 13 CARDOZO ARTS & ENT. L.J. 565, 583-84, 586-87 (1995) (disputing the necessity of mandatory formalities for effecting this purpose). No guarantee exists, however, that the person who registers the copyright will be the copyright owner at the time the later user wishes to obtain permission to use the work. Transferees are encouraged to record their interests with the Copyright Office but are not required to do so. See 17 U.S.C. § 205 (concerning recordation of transfers).

284. Compare Koegel, *supra* note 283, at 549-50 (advocating registration for this reason), with Perlmutter, *supra* note 283, at 569 n.22 (stating that Congress has repudiated this argument).

285. See 17 U.S.C. § 408(b)(2). The requirement is subject to various exceptions. See *id.* § 408(b)(1), (3), (4) (specifying works for which one copy suffices); *id.* § 408(c) (authorizing the Register of Copyrights to alter deposit requirements under some circumstances).

Commentators have divided on the validity of this purpose. Compare Koegel, *supra* note 283, at 542-48 (advocating registration for this reason), with Perlmutter, *supra* note 283, at 569, 575-76, 579 (arguing that registration is not necessary to achieve this purpose and noting that the Library of Congress itself had withdrawn opposition to the proposal to repeal section 412). Under current law (subject to certain exceptions), regardless of whether the copyright owner seeks to register the work, he is obligated to deposit, within three months of publication, two complete copies of the best edition of the work with the Copyright Office for use or disposition of the Library of Congress. See 17 U.S.C. § 407(a)-(b). Failure to comply with the deposit requirement, however, results only in a fine, not in forfeiture of copyright. See *id.* § 407(d). Proponents of retaining registration argue that the section 407 deposit requirement by itself may not be sufficient to induce copyright owners to transmit copies of their work to the Library of Congress, presumably because of the difficulty of ensuring compliance with section 407. See, e.g., Koegel, *supra* note 283, at 542-48.

damages rule itself.²⁸⁶

Aside from the general purposes arguably served by a voluntary registration system, however, is one additional purpose that does tie in more directly with the concept of statutory damages: namely, that registration provides a signaling function. Although the registration process is fairly simple and inexpensive,²⁸⁷ and the Copyright Office denies very few registration applications,²⁸⁸ the fact that the copyright owner takes even the minimal steps necessary to register his work suggests that he believes the work has at least some economic value. Our analysis above suggests that permitting the recovery of statutory damages (potentially in excess of actual damages or profits) in cases involving works of such value makes sense because their infringement, in the aggregate, threatens to undermine the statutory incentive scheme. The infringement of works of little or no aggregate value, on the other hand, does not threaten to undermine incentives and thus provides little reason for bestowing a windfall upon the copyright owner. In a rough sense, then, perhaps the registration requirement serves as a method for distin-

286. See *supra* notes 237-55 and accompanying text (discussing possible reasons for statutory damages rule); cf. Perlmutter, *supra* note 283, at 575 (noting "no . . . obvious link between purpose [of registration] and means").

287. See 17 U.S.C. §§ 408-09 (establishing general procedures for registration); *id.* § 708(a)(1) (mandating a \$20 fee for registration); 37 C.F.R. Part 202 (1997) (outlining procedures for registering specific types of works). But see Charles Ossola, *Registration and Remedies: Recovery of Attorney's Fees and Statutory Damages Under the Copyright Reform Act*, 13 CARDOZO ARTS & ENT. L.J. 559, 560 (1995) (arguing that, because "the time, difficulty, and expense required to register is simply too burdensome for most individual artists and small copyright owners . . . many do not comply, and the vast majority of copyrightable works created in this country are, therefore, never registered").

288. In reviewing registration applications, the Copyright Office attempts to determine whether the work for which the applicant seeks registration constitutes copyrightable subject matter, but not whether it is original. See 2 NIMMER & NIMMER, *supra* note 73, § 7.21[A], at 7-208 to -209; 3 *id.* § 12.11[B][3], at 12-171. As a result, the Office rejects only a small portion of the over 100,000 applications it receives every year. See 2 *id.* § 7.21[B], at 7-211. Although a registration made before or within five years of first publication constitutes "prima facie evidence of the validity of the copyright and of the facts stated in the certificate," 17 U.S.C. § 410(c), an accused infringer may rebut this presumption of validity by demonstrating that the Office erred in determining that the work was copyrightable, or by showing that the work is not, in fact, original. See 3 NIMMER & NIMMER, *supra* note 73, § 12.11[B][1], at 12-164 to -167.

guishing between works whose infringement merits a statutory award and works whose infringement does not. Whether registration is a sufficiently accurate screening device to justify its costs—including not only the resulting administrative burden, but also the uncertainty generated by creating a trap for unwary copyright owners—remains open to question.

C. *Limitations on Restitutionary Damages in Trademark Law*

Three observations relevant to trademark law follow from the analysis we presented above in Part III. The first is that, in order to preserve the trademark owner's incentive to lower search costs for consumers and to maintain a consistent level of quality, the successful plaintiff in a trademark infringement action should never recover less than her actual damages, i.e., her lost profits or licensing fees.²⁸⁹ The Lanham Act is consistent with the model in this regard, in that it authorizes the court to award the prevailing plaintiff her actual damages.²⁹⁰ A

289. See *supra* text accompanying note 205. As we have seen, when the owner is a more efficient user of the relevant intellectual property right than is the infringer, the owner's lost profits will exceed the infringer's profits attributable to the infringement; when the owner is less efficient, they will not. See *supra* notes 155-62 and accompanying text. We also argue in the text above that, as a consequence of the courts' comparative disadvantage in determining the amount of a plaintiff's forgone licensing fee, it is preferable to award restitution as opposed to a reasonable royalty in the latter situation. See *supra* notes 138-41, 176-78 and accompanying text. We return to this issue below, see *infra* notes 314-17 and accompanying text.

290. See 15 U.S.C. § 1117(a) (1994). Note, however, that the case law conditions the right to recover lost profits on the plaintiff's ability to prove not only likelihood of confusion, which is all that is necessary to establish liability, but also actual confusion, e.g., actual instances in which consumers have purchased the wrong product. See *International Star Class Yacht Racing Ass'n v. Tommy Hilfiger, U.S.A., Inc.*, 80 F.3d 749, 753 (2d Cir. 1996) (citing RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 36 cmt. i (1995)). Proof of actual confusion can be difficult to obtain. See 3 MCCARTHY, *supra* note 108, § 23:12, at 23-32; 4 *id.* § 30:58, at 30-96.

We should note that a few cases state or imply that a court may choose not to award *any* damages—including the plaintiff's actual damages—when the defendant has not infringed “willfully” or in “bad faith.” See, e.g., *Carl Zeiss Stiftung v. VEB Carl Zeiss Jena*, 433 F.2d 686, 706-07 (2d Cir. 1970). This appears to be a minority view, however. See, e.g., RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 36 cmt. c (“The relative equities between an injured plaintiff and even an unintentional wrongdoer suggest that an award of proven damages is appropriate in most cases.”); 4 MCCARTHY, *supra* note 108, § 30:58, at 30-96 (stating that “[m]onetary liability in trademark cases without fault or knowingly performing illegal acts seems to give

second observation is that a court should enhance the plaintiff's damages in cases in which the infringement is of a type that is difficult to detect or causes substantial injury to consumers as well as to the trademark owner; but that awarding enhanced damages under other circumstances threatens to expand the scope of the owner's rights beyond their optimal level by encouraging would-be users to overcomply with their legal obligations.²⁹¹ Once again, the applicable law is largely consistent with expectations. As we have seen, the Lanham Act authorizes courts to award treble actual damages or (theoretically) unlimited multiples of restitutionary damages;²⁹² and although the Act itself does not provide much guidance concerning the circum-

most judges considerable pause," but that "evidence of actual confusion of some customers or evidence of actual losses suffered by plaintiff will often supply the missing element even where defendant ignorantly blundered into an infringing act"); *see also* *General Elec. Co. v. Speicher*, 877 F.2d 531, 535 (7th Cir. 1989) (Posner, J.) (stating that "even . . . an innocent infringer . . . ought at least [to] reimburse the plaintiff's losses"); *Louis Vuitton S.A. v. Lee*, 875 F.2d 584, 588-89 (7th Cir. 1989) (Posner, J.) (stating that "principles of equity . . . do not . . . justify withholding all monetary relief from the victim of a trade mark infringement merely because the infringement was innocent").

291. *See supra* notes 179-86, 191-92 and accompanying text.

292. *See* 15 U.S.C. § 1117(a). With one possible exception, however, we are not aware of any cases in which a court has awarded a multiple greater than three times the amount of the defendant's profits attributable to the infringement. *Cf.* 4 MCCARTHY, *supra* note 108, § 30:92, at 30-151 n.3 (discussing cases in which courts awarded treble the defendant's profits). The one possible exception is a recent Sixth Circuit decision in which the court affirmed an award of \$2,155, representing the defendant's profit attributable to the infringement, and an additional \$6,465, purportedly "representing treble damages under 15 U.S.C. § 1117(a) and (b)." *U.S. Structures, Inc. v. J.P. Structures, Inc.*, 130 F.3d 1185, 1188 (6th Cir. 1997). Because the amount awarded as treble damages was exactly three times the amount of the defendant's profit, this case may stand for the proposition that a court may award quadruple profits in an appropriate case. But, the fact that the court characterized the \$6,465 as treble "damages" instead of as treble profits may mean instead that the court viewed the award as consisting of profits plus an award of treble actual damages. This latter interpretation, however, may be inconsistent with the rule against double counting. *See supra* note 117 and accompanying text. Some language from the opinion suggests that the best explanation for the result may be simply that the court was confused:

This section [§ 1117(a)] should be read as vesting the district court with discretion to increase a damages award up to three times the actual damages sustained. Thus, the district court did not err in computing damages as an amount equal to four times actual damages.

Id. at 1191-92.

stances under which such awards are appropriate, in practice courts award enhanced damages only when they find that the defendant has "willfully" infringed.²⁹³ The effect of this self-imposed limitation is that courts tend to award enhanced damages only when they find that the defendant used the infringing mark as a means of diverting some portion of the plaintiff's goodwill to himself or has otherwise intentionally injured the plaintiff.²⁹⁴

A third observation is that the model generally advises courts to award restitutionary damages whenever the defendant is, or appears to consumers to be, the more efficient user of the property,²⁹⁵ i.e., whenever the defendant's profit attributable to the infringement exceed the plaintiff's lost profit.²⁹⁶ In this regard, however, trademark law departs from the model in that courts do not award restitution as a matter of course, but only if the infringement implies "some connotation of 'intent,' or a knowing act denoting an intent, to infringe or reap the harvest of another's mark and advertising."²⁹⁷ The issue we discuss in

293. See 4 MCCARTHY, *supra* note 108, § 30:91, at 30-148 ("Where damages have been increased, the reason usually given is some variation of the 'knowing and willful' infringement theme.") (footnote omitted). Patent law follows a similar rule. See *supra* text accompanying notes 46-47. In cases involving the use of counterfeit marks, however, the court must, absent extenuating circumstances, award three times the plaintiff's actual damages or the defendant's profits, see 15 U.S.C. § 1117(b), or the court may award statutory damages, see 15 U.S.C.A. § 1117(c) (West 1998).

294. See 4 MCCARTHY, *supra* note 108, § 30:92, at 30-151 ("In most cases of judicial increases in damages or profits, the infringer has been a counterfeiter or at least a knowing and intentional infringer or false advertiser.") (footnotes omitted).

295. See *supra* notes 201-07 and accompanying text.

296. See *supra* text accompanying notes 161-62.

297. 4 MCCARTHY, *supra* note 108, § 30:62, at 30-101 (footnote omitted); see also *Champion Spark Plug Co. v. Sanders*, 331 U.S. 125, 131 (1947) (suggesting that restitution is inappropriate, absent a showing of fraud or palming off); *George Basch Co. v. Blue Coral, Inc.*, 968 F.2d 1532, 1540 (2d Cir. 1992) (holding that "a plaintiff must prove that an infringer acted with willful deception before the infringer's profits are recoverable by way of an accounting"); RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 37(1) (1995) (stating that one who is liable for trademark infringement "is liable for the net profits earned on profitable transactions resulting from the unlawful conduct, but only if . . . the actor engaged in the conduct with the intention of causing confusion or deception"); *id.* § 37 cmt. f (stating that "bad faith is a prerequisite to the recovery of the defendant's profits," but that restitution "is not necessarily appropriate in every case in which bad faith is established"). A few cases suggest to the contrary that a court may award restitution even if the defendant did not act willfully or in bad faith. In all or most of these decisions, however, the

this subsection is whether this limitation on the availability of restitutionary awards—which falls somewhere between patent law's flat prohibition of such awards and copyright law's general acceptance of them—is economically efficient.

In attempting to answer this question, it is useful to articulate the somewhat elusive distinction between intentional and unintentional infringement. This analysis also may shed some light upon the applicability of the enhancement rule as well. In a very real sense, one can argue that all types of infringement—patent, copyright, and trademark, as well as trade secret misappropriation—are intentional.²⁹⁸ All patents, for example, are public documents. At least in theory, one can always avoid infringing a patent by conducting a thorough search beforehand.²⁹⁹ Many copyrights and trademarks also are registered; and, as previously discussed, one of the justifications for retaining the copyright registration system is that it facilitates negotiations between owners and users.³⁰⁰ Of course, many other copyrights and trademarks are not registered (and no trade secrets are); but this hardly means that discovering their existence is impossible. Private trademark search firms, for example, for a fee will search the federal registry, state registries, and other relevant databases to determine if a given mark is already in use.³⁰¹ Thus, the act of using a particular work of

statement arguably is dictum, in light of the evidence that the defendant had adopted the infringing mark in bad faith. *See, e.g.,* Sands, Taylor & Wood Co. v. Quaker Oats Co., 978 F.2d 947, 961-63 (7th Cir. 1992); Wynn Oil Co. v. American Way Serv. Corp., 943 F.2d 595, 607 (6th Cir. 1991); Roulo v. Russ Berrie & Co., 886 F.2d 931, 941 (7th Cir. 1989); Burger King Corp. v. Mason, 855 F.2d 779, 781 (11th Cir. 1988) (per curiam); Wolfe v. National Lead Co., 272 F.2d 867, 871 (9th Cir. 1959), *overruled in part on other grounds by* Maier Brewing Co. v. Fleischmann Distilling Corp., 359 F.2d 156, 165 (9th Cir. 1966).

298. See RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* § 6.15, at 206 (4th ed. 1992), for an analogous discussion on this point with respect to torts.

299. Of course, the reality of the situation is more complicated. Even if one were to conduct a thorough search, difficult issues of patent interpretation and scope often would remain.

300. *See supra* note 283 and accompanying text.

301. For example, a firm may search for previous uses of a word as a trademark or trade name by examining computerized databases containing information compiled from sources such as the Federal Registry, state registries, trade directories, and telephone books. *See, e.g.,* Corsearch, Inc. v. Thomson & Thomson, 792 F. Supp. 305, 307-10 (S.D.N.Y. 1992) (discussing trademark search techniques). The fee charged

authorship, trademark, or trade secret, without full knowledge that no one else has a superior claim to that work, mark, or secret, is in some sense always an intentional act.³⁰²

To illustrate, consider the recent dispute involving Coca-Cola's use of the mark SURGE for a soft drink. A small firm in Arkansas filed suit against Coca-Cola claiming that the latter's use of that mark violates the plaintiff's preexisting common-law right to use the name SURGE for a beverage product.³⁰³ Coca-Cola

may depend upon the extent of the desired search. See Cotter, *supra* note 108, at 520 n.148. In cases in which the user wishes to adopt a nonverbal source identifier such as a distinctive product configuration, however, determining whether someone else already uses that identifier as a mark may be more difficult. See *supra* note 107 (discussing nonverbal marks). We thank Paul Heald for bringing this latter point to our attention.

302. Most acts of copyright infringement probably are intentional in the everyday sense as well. As noted above, one of the elements of copyright infringement is copying; independent discovery is not actionable in copyright law. See *supra* note 86 and accompanying text. Subconscious copying can constitute copyright infringement, however. See *Bright Tunes Music Corp. v. Harrisongs Music, Ltd.*, 420 F. Supp. 177, 180-81 (S.D.N.Y. 1976) (concluding that the defendant subconsciously infringed a popular song), *aff'd sub nom. Abkco Music, Inc. v. Harrisongs Music, Ltd.*, 722 F.2d 988 (2d Cir. 1983). And sometimes users may not know for sure whether a work is still under copyright protection or has fallen into the public domain, or whether their own use is protected by some exception such as fair use. See 2 GOLDSTEIN, *supra* note 237, §§ 9.4.1, 10.2, for discussion of public domain and fair use defenses to copyright infringement.

Most acts of trade secret misappropriation probably also are intentional in the everyday sense because independent discovery is not actionable in trade secret law either. See *supra* text accompanying note 63. Sometimes, however, a user may acquire knowledge of another's trade secret innocently, through an intermediary or by mistake. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 40 cmt. e. The continued use of the secret after learning that it belongs to another nevertheless may be actionable. See *id.* And in cases in which the person who developed the secret did so while working for one employer, and thereafter went off to work for another, determining which party owns or otherwise has the right to use the secret sometimes can be difficult. See Cotter, *supra* note 137, at 593-94, 599-604.

303. See *Federal Complaint Targets Coca-Cola Product; Use of the Name 'Surge' Is at Issue*, TULSA WORLD, July 1, 1997, at E2, available in 1997 WL 3641449. Coca-Cola previously settled with a company that had registered the name SURGE for use in connection with dairy machinery and other items. See M.A. Stapleton, *Settlement Calms the Waters over Use of 'Surge' Trademark*, CHI. DAILY L. BULL., Jan. 23, 1997, at 3. Another company, owner of the federally-registered mark GINSENG RUSH for use in connection with soft drinks, was unsuccessful in obtaining a preliminary injunction against Coca-Cola's use of the slogan FEED THE RUSH in connection with the SURGE beverage. See *R.J. Corr Naturals, Inc. v. Coca-Cola Co.*, No. 97 C 1059, 1997 WL 223058, at *8, (N.D. Ill. Apr. 29, 1997).

may well have adopted the name SURGE without knowledge of the small firm's alleged earlier use of the mark, and if so Coca-Cola's conduct was unintentional in the everyday sense of the word.³⁰⁴ One could refer to Coca-Cola's conduct as intentional in a probabilistic sense, however, because some risk always exists that someone else has made a previous use of the desired mark. As noted, the would-be user can reduce this risk by retaining a search firm to acquire information concerning possible earlier uses.³⁰⁵ The cost of the search will depend in part upon its scope,³⁰⁶ and it will seldom be optimal, or even possible, to acquire complete information concerning earlier use. Instead, a potential infringer should be expected to search efficiently, which means in a cost-effective fashion. A simple model of optimal search provides an illustration.

Suppose that the cost of searching records and registries is linear and takes the following form:

$$C = cS,$$

where C denotes the total search cost; c is the cost per unit of search activity; and S represents the search activity. The benefit of searching is the reduction in the expected penalties for infringing the intellectual property rights of another. We shall let F represent the sanction for infringement and P the probability of infringing. The potential infringer can reduce the probability of infringing through a search and, therefore, the probability of infringing declines as search activity continues:

$$P = P(S) \text{ and } dP/dS < 0.$$

The expected penalty for infringing an intellectual property right is thus the probability of infringing times the sanction for infringing:

$$E[\text{Penalty}] = P(S)F.$$

For the potential infringer, the expected total cost $E[\text{TC}]$, is the

304. According to press accounts, the plaintiff lacks a federal registration of the mark but has an Arkansas state registration. See, e.g., *Federal Complaint Targets Coca-Cola Product; Use of the Name 'Surge' Is at Issue*, *supra* note 303, at E2. Unlike federal registrations, state registrations generally confer no substantive rights beyond those that exist at common law. See 3 MCCARTHY, *supra* note 108, § 22:1, at 22-2. They do, however, provide a method for putting subsequent would-be users on notice of the owner's claim of right. See *id.* at 22-24.

305. See *supra* note 301 and accompanying text.

306. See *supra* note 301.

sum of the expected penalty, $P(S) \cdot F$, plus the cost of whatever search is done, cS :

$$E[TC] = (P(S) \cdot F) + cS.$$

The potential infringer will minimize the expected total cost by increasing its search activity until the marginal benefit of additional search activity equals the marginal cost of additional search activity. This occurs where:

$$dE[TC]/dS = FdP(S)/dS - c = 0$$

The marginal cost of additional search activity is c , while the marginal benefit equals the penalty if one infringes, F , times the decrease in the probability of infringing resulting from the additional search activity $dP(S)/dS$.

In Figure 5, the expected total cost to the potential infringer is the vertical sum of the expected penalty for infringing, $P(S) \cdot F$, plus the cost of searching, cS . The firm minimizes the total cost by engaging in S^* units of search. At this intensity level, the probability of infringing is $P(S^*)$, which is greater than zero. Consequently, a rational firm will incur expected infringement penalties equal to $P(S^*) \cdot F$, which is also positive. In this sense, one can conclude that infringement is intentional because the firm did not search until the probability of infringing was zero. But to search this much would be economically irrational, because the private benefit of additional search beyond S^* is less than the added cost.

Cost

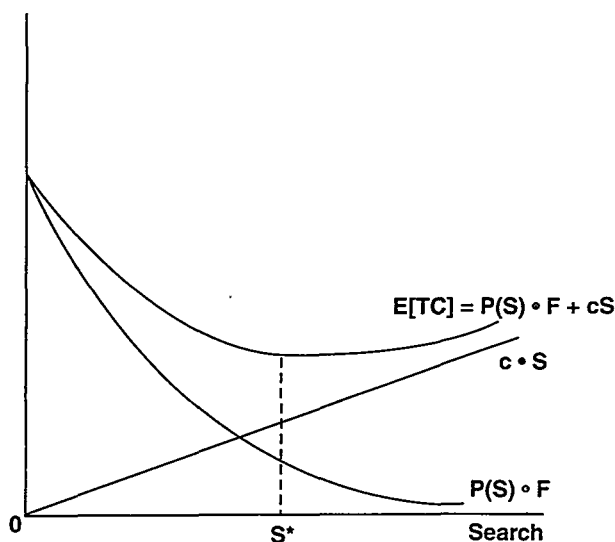


Figure 5

Two additional matters of particular interest emerge from this model. First, the policymaker can induce the potential infringer to invest more heavily in searching by increasing the amount of the penalty, F . If the marginal cost of searching, c , is high compared to the decrease in the probability of infringement attributable to an increase in search costs, $dP(S)/dS$, however, a very large increase in the amount of the penalty may be necessary to have a substantial effect upon the amount of search activity undertaken.³⁰⁷ Second, the same model illustrates a slightly different, though analogous, problem faced by some potential infringers. Suppose that a firm wishes to use a mark that it knows to be similar, though not identical, to a mark that is already in use by another—or that it wants to use a mark that it knows to be similar or identical to a mark already in use, but for an entirely different type of good or service. Whether a court will deem the contemplated use of the mark an infringement can be very difficult to predict.³⁰⁸ In order to minimize its exposure, then, this second type of potential infringer can incur additional search costs—though in this case, where the potential infringer already knows of another's use of the mark, the "search" would be for legal advice as to whether its projected use is infringing. As before, however, a rational party will invest only so much in searching. Given the considerable uncertainty involved in determining whether a given use infringes,³⁰⁹ the potential user

307. For an example, see *infra* note 313 and accompanying text.

308. In other words, determining all of the various product markets within which a trademark owner is entitled to the exclusive use of her mark can be problematic. In general, she is entitled to exclusive use of the mark in any product market in which another's use would be likely to cause confusion. See 3 MCCARTHY, *supra* note 108, § 24:6. Thus, at a minimum, the owner can exclude another from using a confusingly similar mark for the same class of goods or services as those upon which the owner affixes her mark. See 3 *id.* § 24:1. At a maximum, the owner may be able to prove that another's use of a mark on any good or service is likely to cause confusion. See 3 *id.* § 24:6, at 24-23 to 24-13 ("The modern rule of law gives the trademark owner protection against use of its mark on any product or service which would reasonably be thought by the buying public to come from the same source, or thought to be affiliated with, connected with, or sponsored by, the trademark owner."). As noted above, a famous mark is likely to be enforceable within a much larger product market than a nonfamous mark, all other things being equal. See *supra* note 109 and accompanying text.

309. As noted above, in determining whether there is a likelihood of confusion the courts consider eight or more factors. See *supra* note 108. As a result, in "close" cas-

may decide that the minimal increase in certainty attributable to an additional search is not worth the expense.³¹⁰

To understand the connection between the preceding analysis and our discussion of damages, assume again that the defendant is a more efficient user of the mark than is the plaintiff. The analysis in Part III suggests that, under these circumstances and in the absence of information costs, an award of actual damages consisting of the plaintiff's lost licensing fee will be sufficient both to preserve the owner's incentives to lower search costs and maintain quality and to deter the defendant from infringing;³¹¹ but that, if information costs are present, a restitutionary award may be preferable because (1) the parties can accurately assess the value (to them) of a trademark license at lower cost than can the court, and (2) a restitutionary award will deter the defendant from infringing.³¹² In a world of uncertainty, however, it may be that neither a compensatory nor a restitutionary award will deter infringement. Using the analysis presented in the preceding paragraphs, let us assume that a firm wishes to adopt mark *X* to identify its brand of gizmos, and that it either does not know of any other users of a similar mark, or that those of which it is aware use mark *X* for products other than gizmos. Assume further that it would cost the firm fifty dollars to conduct an additional search activity (directed

es one may not be able to discern, other than through litigation, whether the defendant's use is lawful.

310. One additional cost the potential infringer must consider in this latter situation is the opportunity cost of forgoing the use of the desired mark and using a different mark in its place. In other words, the use of a different mark—one that is not similar to any other mark of which the firm is aware—should decrease the likelihood of infringement. The potential infringer obtains this "benefit," however, only by forgoing the use of the desired mark, and the desired mark may be preferable to other alternatives for any number of reasons. As Stephen Carter has noted, some marks may be better than others in terms of conveying a positive or memorable image, such that "the same firm selling the same product can build goodwill more cheaply with mark A than with mark B." Stephen L. Carter, *The Trouble with Trademark*, 99 YALE L.J. 759, 770 (1990); see also Cotter, *supra* note 108, at 502-03 (discussing Carter's theory of "better" marks).

311. See *supra* text accompanying notes 161-62, 176.

312. See *supra* notes 177-78 and accompanying text. As noted, the policymaker must weigh these assumed advantages of restitution against the potential risk that restitution will induce overdeterrence. See *supra* notes 179-86, 191-92 and accompanying text.

either to learn about other possible users of mark *X*, or to clarify whether the use of mark *X* for gizmos is likely to cause confusion with another known use of mark *X* for widgets); that the decrease in the probability of infringement attributable to that additional search is only .01; and that, if the firm's use of mark *X* is found to be infringing, the damages awarded will be either \$1000 (if the plaintiff recovers his lost profit) or \$2000 (if restitution is ordered). On these facts, the expected award will be $.01 \cdot \$1000 = \10 if lost profits are the basis, or $.01 \cdot \$2000 = \20 if restitution is the basis. Because the expected awards are less than the marginal cost of further search, neither penalty will deter the firm from using mark *X*. Under these circumstances, the prospect of incurring restitutionary liability based upon the failure to conduct the additional search activity will not induce the firm to conduct the search, and the ex post recovery of restitutionary damages by definition will not compensate the plaintiff for any actual loss.³¹³ In a case in which restitution would serve neither a compensatory nor a deterrence rationale, awarding it has little point.

The preceding analysis offers a plausible, but not airtight, argument in favor of restricting restitutionary damages in some cases. The principal counterargument is that a restitutionary award may in fact be necessary to provide adequate compensation, due to the courts' presumed lack of ability to accurately determine the terms of the license to which the parties would have agreed ex ante.³¹⁴ If the court cannot determine the correct licensing fee, in other words, it may be better to award the plaintiff all of the defendant's profit, because this amount will be certain to provide adequate compensation.³¹⁵ On one hand, to

313. Of course, the prospect of incurring restitutionary liability might be necessary to induce the firm to undertake *some* additional search activities. Using the example above, suppose that lost profits equal \$4000 and that restitution equals \$6000. If the law does not allow restitutionary awards, the firm would have to pay \$50 to reduce its expected damages exposure by only \$40 ($\$4000 \cdot .01$). A risk-averse firm might undertake the expenditure, but a risk-neutral firm would not. If the law allows restitutionary awards, however, the additional search is cost-justified even for a risk-neutral firm, because the \$50 cost of the search is less than the \$60 decrease in expected damages ($\$6000 \cdot .01$). Under some circumstances, therefore, the prospect of incurring restitutionary liability will be insufficient to induce additional search activity.

314. See *supra* notes 138-40 and accompanying text.

315. This argument assumes that the correct measure of compensatory damages, in

say that courts can ascertain the terms of the hypothetical license at higher cost than the parties themselves is not to say that courts are altogether incapable of determining those terms when necessary; and perhaps the task is no more difficult than the alternative job of determining what portion of the defendant's profit is attributable to the infringement.³¹⁶ On the other, as we have argued above, a court trying to determine the value of the hypothetical royalty must have at least some idea how much of the defendant's profit is attributable to the infringement, inasmuch as this amount provides the upper limit of the royalty.³¹⁷ Moreover, in cases in which the prospect of a restitutionary recovery would not have deterred the defendant from going forward, one cannot argue that overdeterrence is a risk.

a case in which the defendant is the more efficient user of the mark, will be the plaintiff's forgone licensing fee—that is, in the absence of infringement, the plaintiff would have licensed to the defendant for a fee exceeding the value of the plaintiff's lost profit, if any.

316. The profit attributable to infringement, of course, is only that portion of the defendant's profit over and above what he would have earned from the lawful use of a different mark. See 4 MCCARTHY, *supra* note 108, § 30:59. One might argue that the difficulty encountered in calculating this amount provides an additional reason for not awarding restitution in cases of non-willful infringement. Consider first the fact that, in the typical case involving willful infringement such as passing off or counterfeiting, the profit attributable to infringement may constitute virtually all of the profit derived from the sale of the defendant's low-quality goods. In a case involving infringement that is "nonintentional," however, the defendant probably could have earned some positive profit from the sale of goods under a different mark. Moreover, if no evidence exists in the latter case that consumers actually have been confused—a strong possibility, given that liability follows from a showing only of *likely* confusion—the only profit attributable to infringement is the profit attributable to the mark's comparative efficiency in building up goodwill. See *supra* note 310 (discussing comparative efficiency of marks). But who knows what this amount is in any given case? A strong possibility therefore may arise that the court will overestimate the profit due to infringement, by failing to take into account the profit the defendant would have earned from the use of a noninfringing alternative. Cf. *Sands, Taylor & Wood Co. v. Quaker Oats Co.*, 978 F.2d 947, 961-63 (7th Cir. 1992) (reversing lower court award of 10% profit for infringement of trademark and holding that such an award was a windfall absent a showing of the relationship between an award of profit and unjust enrichment). In short, perhaps another reason for courts to shy away from awarding restitutionary damages in cases involving "nonintentional" infringement is simply the inherent difficulty of calculating damages correctly in these types of cases, coupled with the consequent risk that calculating them incorrectly may result in the overdeterrence of marginally lawful conduct. See *supra* notes 179-86 and accompanying text.

317. See *supra* text accompanying note 162.

At the very least, however, the above analysis suggests that if courts are going to limit restitution in some class of cases, the best candidates for any such limitation will be those in which the ex ante probability of incurring restitutionary liability probably would not have deterred the unauthorized adoption of the allegedly infringing mark. To state the matter another way, one would expect a court to be more likely to characterize a defendant's conduct as being in "bad faith" or "willful"—and therefore as deserving of a restitutionary or other enhanced penalty—when the ex ante prospect of such a penalty would induce the would-be user to engage in additional search activity. Of course, the majority of cases in which courts so characterize the defendant's conduct probably are those involving "intentional" conduct in the everyday sense, such as palming off and counterfeiting.³¹⁸ The more interesting cases are those in which the defendant adopts a mark with knowledge of another's earlier use but claims to have had a good-faith basis for believing that his conduct nevertheless was lawful, or in which the defendant adopts a mark without conducting any search. The analysis above suggests that the arguments against awarding restitutionary damages (and, clearly, the case against awarding enhanced damages) will be strongest in cases of this nature. As discussed below, many of the reported decisions agree.

First, with regard to the second user who adopts a mark with knowledge of another's prior use, the traditional statement of the law is that he necessarily adopts the mark in bad faith.³¹⁹

318. See 15 U.S.C. § 1117(b) (1994) (requiring an award of treble damages for using a counterfeit mark); see also 4 MCCARTHY, *supra* note 108, § 30:92, at 30-151 ("In most cases of judicial increases in damages or profits, the infringer has been a counterfeiter or at least a knowing and intentional infringer or false advertiser.") (footnotes omitted).

319. See 3 MCCARTHY, *supra* note 108, § 23:115, at 23-217 to -218.

Proof that defendant knew of plaintiff's mark at the time defendant chose its mark has often been relied upon as evidence of bad faith and an intention to trade upon another's good will. A wrongful intent appears easy to infer where defendant knew of plaintiff's mark, had freedom to choose any mark, and "just happened" to choose a mark confusingly similar to plaintiff's mark.

...
... Where we can perceive freedom of choice with full knowledge of a senior user's mark, we can readily read into defendant's choice of a

Under the standards described above, then, he should be liable for restitutionary or enhanced damages in all or most cases.³²⁰ As one of us has demonstrated in previous work, however, cases taking this hard-line approach tend to involve relatively famous marks; as a result, any claim that the defendant adopted a similar mark for reasons unrelated to the famous user's goodwill seems rather suspect.³²¹ Moreover, a good deal of more recent authority holds that adoption with knowledge of another's prior use does not necessarily constitute bad faith.³²² In particular, judges are reluctant to infer bad faith when the second user had what appears to have been a reasonable belief that his use of a mark similar to one already in use would not constitute an infringement, either because of differences between the two marks or between the goods or services with which they are identified.³²³ To the extent, therefore, that the defendant reasonably

confusingly similar mark the intent to get a free ride upon the reputation of a well-known mark.

Id. at 23-217 to -219 (footnotes omitted).

320. See *supra* notes 293-94, 297 and accompanying text.

321. See Cotter, *supra* note 108, at 539-41.

322. See *id.* at 539-40 & n.212 (collecting cases); see also *Cadbury Beverages, Inc. v. Cott Corp.*, 73 F.3d 474, 483 (2d Cir. 1996) (noting that adoption with knowledge "is not necessarily inconsistent with a finding of good faith"); *Arrow Fastener Co. v. Stanley Works*, 59 F.3d 384, 397 (2d Cir. 1995) ("Prior knowledge of a senior user's trade mark does not necessarily give rise to an inference of bad faith and may be consistent with good faith."); *Lang v. Retirement Living Publ'g Co.*, 949 F.2d 576, 584 (2d Cir. 1991) ("[A]doption of a trademark with actual knowledge of another's prior registration of a very similar mark may be consistent with good faith."); *Ringling Bros.-Barnum & Bailey Combined Shows, Inc. v. Utah Div. of Travel Dev.*, 955 F. Supp. 598, 604 (E.D. Va. 1997) ("[W]hile knowledge of a famous mark is necessary to demonstrate that a subsequent mark was adopted deliberately to dilute or trade upon the owner's reputation, that knowledge, by itself, is not sufficient to demonstrate that a defendant 'willfully intended' to violate the protection granted by the [Lanham] Act."); *Copy Cop Inc. v. Task Printing, Inc.*, 908 F. Supp. 37, 46 (D. Mass. 1995) (stating that "[m]ere knowledge of the existence of a competitor's mark is insufficient to prove bad faith") (quoting *NEC Elecs., Inc. v. New England Circuit Sales, Inc.* 722 F. Supp. 861, 866 (D. Mass. 1989)).

323. See *Cadbury*, 73 F.3d at 483 ("Full knowledge of a prior use of a protected mark is not necessarily inconsistent with a finding of good faith, particularly where the alleged infringer is unsure as to the scope of protection.") (citations omitted); *Arrow*, 59 F.3d at 397 (stating that adoption with knowledge is more likely to be consistent with good faith when the defendant uses a mark for a different class of goods or services than those covered by the plaintiffs registration certificate); *W.W.W. Pharmaceutical Co. v. Gillette Co.*, 984 F.2d 567, 575 (2d Cir. 1993) (noting

believed that his use would not be infringing, a court is unlikely to assess a restitutionary or enhanced award, even if it concludes that the defendant was mistaken and that his use does, in fact, infringe.³²⁴ Of course, the plausibility of the defendant's claim that his knowing use was in "good faith" will depend in part on the strength of the evidence of likely (or actual) confusion.³²⁵

that "[g]ood faith can be found," notwithstanding the defendant's adoption with knowledge of the plaintiff's prior use, "if a defendant has selected a mark which reflects the product's characteristics, has requested a trademark search or has relied on the advice of counsel" (citing *E.S. Originals Inc. v. Stride Rite Corp.*, 656 F. Supp. 484, 490 (S.D.N.Y. 1987)).

324. See, e.g., *Lindy Pen Co. v. Bic Pen Corp.*, 982 F.2d 1400, 1403-09 (9th Cir. 1993) (affirming a lower court judgment that declined to award the prevailing plaintiff restitution, where the defendant's use of a mark after its attorney learned of plaintiff's earlier use was not willful); *Nalpac, Ltd. v. Corning Glass Works*, 784 F.2d 752, 753-56 (6th Cir. 1986) (affirming a judgment that declined to award the prevailing plaintiff the defendant's profits, even though the defendant continued selling the infringing product for a short time after learning of the plaintiff's earlier use of the mark); *Foxtrap, Inc. v. Foxtrap, Inc.*, 671 F.2d 636, 641-42 (D.C. Cir. 1982) (*per curiam*) (vacating and remanding for further consideration a judgment that awarded the prevailing plaintiff monetary damages, where the defendant's use of a mark with knowledge of the plaintiff's earlier use did not necessarily constitute bad faith); *Carl Zeiss Stiftung v. VEB Carl Zeiss Jena*, 433 F.2d 686, 706-08 (2d Cir. 1970) (affirming a judgment that declined to award the prevailing plaintiff monetary damages, when the defendant used a mark in the good-faith but erroneous belief that its claim to the mark was superior to plaintiff's claim); *S & S Invs., Inc. v. Hooper Enters., Ltd.*, 862 P.2d 1252, 1256 (N.M. Ct. App. 1993) (affirming a judgment not to award restitution, where the defendant used a mark in the good-faith but erroneous belief that its use was lawful); *Plains Tire & Battery Co., Inc. v. Plains A to Z Tire Co., Inc.*, 622 P.2d 917, 929 (Wyo. 1981) (affirming a judgment not to award damages, when the defendant used a mark in the good-faith but erroneous belief that its use was lawful); see also *Dorr-Oliver Inc. v. Fluid-Quip, Inc.*, 894 F. Supp. 1190, 1203, 1205-06 (N.D. Ill. 1995) (declining to award the prevailing plaintiff attorneys' fees, when the defendant's use of an infringing trade dress was attributable to a good-faith belief that the plaintiff lacked protectable rights in the trade dress), *rev'd on other grounds*, 94 F.3d 376 (7th Cir. 1996).

A similar rationale could perhaps be employed to limit the availability of restitutionary damages in cases involving "good faith" copyright or patent infringement (assuming, in the latter instance, that restitution were allowed in patent cases).

325. See 3 MCCARTHY, *supra* note 108, § 23:119, at 23-223; *id.* § 23:123, at 23-233. McCarthy notes:

Some courts have observed that an element of circularity enters into the traditional "intent" analysis. That is, that likely confusion of customers is proven by intent to confuse and that this intent is proven by the similarity of the marks. "The obvious flaw in this argument is that it

In contrast to the knowing second user problem, the question of whether a second user's failure to search prior to adopting an infringing mark constitutes bad faith has given rise to very few reported decisions. One line of cases, however, holds that, with regard to the analogous issue of whether a party must investigate prior uses before applying for a federal registration, the answer is "no." In *Money Store v. Harriscorp Finance, Inc.*,³²⁶ for example, the defendant sought to cancel the plaintiff's federal registration of the MONEY STORE mark for financial services on the ground that the plaintiff had stated falsely in its application to the Patent and Trademark Office that "no person, to the best of its knowledge and belief, had the right to use the mark in [interstate] commerce."³²⁷ Prior to filing the application, the plaintiff's attorney had conducted a limited search that revealed, among other things, three other companies using the name MONEY STORE for financial services in the states of Minnesota, Utah, and Virginia.³²⁸ The district court canceled the plaintiff's registration on the ground, inter alia, that "the plaintiff had no reason to believe that these prior users were not using the mark in commerce, and that [the plaintiff] 'intentionally failed to make the simple inquiries that would have revealed the facts.'"³²⁹ Noting that the Lanham Act does not expressly require any preapplication search on the part of the applicant, however, the Seventh Circuit reversed, holding that the plaintiff did not have a duty to further investigate whether the other companies revealed by its search had made a prior use of

requires the court to assume that which is to be proved." If intent is presumed by nothing more than similarity of the marks alone, this may be true. But in most cases, the courts find other facts of similarity which lead to the conclusion of knowing copying or simulation. The more the elements of similarity, the stronger the inference of copying and the conclusion of intent to confuse.

3 *id.* § 23:124, at 23-234 (quoting *Holiday Inns, Inc. v. Holiday Out in Am.*, 481 F.2d 445, 449 (5th Cir. 1973)).

326. 689 F.2d 666 (7th Cir. 1982).

327. *Id.* at 670 (quoting *Money Store v. Harriscorp Finance, Inc.*, No. 77 C 3175, 1980 WL 39074, at *3 (N.D. Ill. Dec. 4, 1980)).

328. *See id.* at 668-69. None of the three companies using the mark for financial services had a federal registration. *See id.* at 668. A fourth company had a pending federal application to register the name for advertising services. *See id.*

329. *Id.* at 670 (quoting *Money Store*, 1980 WL 39074, at *2-3).

the mark in interstate commerce.³³⁰ A few other decisions similarly state that there is no duty to conduct a preapplication search.³³¹

A recent decision from the Second Circuit, however, takes a decidedly contrary view. At issue in *International Star Class Yacht Racing Ass'n v. Tommy Hilfiger, U.S.A., Inc.*³³² was the right to use the mark STAR CLASS on clothing. The plaintiff, a corporation that governs and promotes the sport of "Star Class" yacht racing,³³³ for many years had used a red star and the STAR CLASS mark to identify merchandise such as yachting hats and clothing.³³⁴ It also "permits yacht clubs hosting regattas to use the insignia and 'STAR CLASS' on promotional items,

330. See *id.* at 670-72. An applicant must disclose whether she knows of any other person who has a right to use a confusingly similar mark in commerce. See 15 U.S.C. § 1051(a)(1)(A) (1994). As the court in *Money Store* noted, however, the federal trademark examiner makes the initial determination whether the mark is registrable. See *Money Store*, 689 F.2d at 670-71. If she believes that it is, the Patent and Trademark Office publishes the mark in its Official Gazette. See *id.* at 671 (citing 15 U.S.C. § 1062(a) (1976)). Within thirty days, anyone who believes that he may be injured by the registration may commence an opposition proceeding to prevent registration of the mark. See *id.* (citing 15 U.S.C. § 1063 (1976)). The court also noted that, even after the registration issues, an interested party may seek to cancel the registration pursuant to section 14 of the Lanham Act. See *id.* (citing 15 U.S.C. § 1064). The court concluded that "[t]his three-tiered scrutiny encourages the disclosure of conflicting uses as early as possible," and that "[p]lacing a burden of investigation on one seeking registration disturbs this scheme." *Id.*

331. See, e.g., *Rosso & Mastracco, Inc. v. Giant Food Inc.*, 720 F.2d 1263, 1266 (Fed. Cir. 1983); see also *Hasbro, Inc. v. Lanard Toys, Ltd.*, 858 F.2d 70, 78 (2d Cir. 1988) (affirming a lower court finding that the defendant did not adopt in bad faith, where the defendant limited its preadoption search to marks found in the Federal Registry); *Pizzazz Pizza & Restaurant v. Taco Bell Corp.*, 642 F. Supp. 88, 94 (N.D. Ohio 1986) (citing *Money Store* for the proposition that a "defendant is under no duty to conduct a search before selecting a trademark"); *Programmed Tax Sys., Inc. v. Raytheon Co.*, 439 F. Supp. 1128, 1133 (S.D.N.Y. 1977) (stating that the plaintiff cited no authority for the proposition that defendants had a duty to perform a preadoption search). But see *Louis Vuitton S.A. v. Lee*, 875 F.2d 584, 590 (7th Cir. 1989) (holding that the seller of counterfeit merchandise was liable for treble damages under 15 U.S.C. § 1117(b), when the seller failed to make reasonable inquiries of its supplier concerning the shoddy nature of supposed "designer" goods, and noting that "[w]illful blindness is knowledge enough").

332. 80 F.3d 749 (2d Cir. 1996).

333. See *id.* at 751. According to the opinion, "Star Class sailboats are sophisticated one-design racing craft sailed in high-profile regattas and championship series around the world, including the Summer Olympics." *Id.*

334. See *id.*

and has collected royalties for their use in jewelry and posters."³³⁵ In 1994, the defendant, Tommy Hilfiger, U.S.A., Inc. (Hilfiger), began marketing "garments bearing the words 'STAR CLASS' with a solid red five-pointed star"³³⁶ as "classical nautical sportswear" with 'authentic details taken from the sport of competitive sailing' and 'elements and patterns taken directly from actual racing sails.'³³⁷ Prior to adopting the mark, Hilfiger asked its attorneys to conduct a trademark search for the words STAR CLASS, but it did not disclose to them that it intended to use those words on "nautical" clothing.³³⁸ It also requested that its attorneys limit their search to federally-registered marks in class 25, a clothing classification.³³⁹ When the search failed to turn up the plaintiff's common-law marks, Hilfiger began marketing products bearing the STAR CLASS mark.³⁴⁰ The plaintiff then filed an infringement action in federal district court.³⁴¹

The district court enjoined Hilfiger from using the Star Class mark³⁴² but denied the plaintiff's request for monetary relief, reasoning, *inter alia*, that the plaintiff was not entitled to restitution or attorneys' fees because Hilfiger had not acted in bad faith.³⁴³ On appeal, however, the Second Circuit vacated and remanded on the issue of whether the plaintiff was entitled to restitution and fees.³⁴⁴ Describing Hilfiger's investigation into other uses of the STAR CLASS as "limited"³⁴⁵ and "minimal,"³⁴⁶ the court concluded:

335. *Id.*

336. *Id.*

337. *Id.* (quoting the defendant's marketing claims).

338. *See id.* at 752.

339. *See id.* The court of appeals characterized this decision to limit the search to federally-registered marks as being against the advice of Hilfiger's attorneys. *See id.* As we note below, however, the district court on remand resisted this characterization of the evidence. *See infra* text accompanying notes 350-56.

340. *See Hilfiger*, 80 F.3d at 752.

341. *See id.*

342. *See id.* The court denied injunctive relief against Hilfiger's use of the red star, however, *see id.*, and the court of appeals affirmed this conclusion. *See id.* at 754-55.

343. *See id.* at 752-53.

344. *See id.* at 753-54.

345. *Id.* at 753.

346. *Id.*

[T]he district court clearly erred in finding Hilfiger guilty only of simple copying and not of intent to copy a mark. Given Hilfiger's awareness that it was copying "authentic details . . . from the sport of competitive sailing," it should have shown greater concern for the possibility that it was infringing on another's mark. Hilfiger's choice not to perform a full search under these circumstances reminds us of two of the famous trio of monkeys who, by covering their eyes and ears, neither saw nor heard any evil. Such willful ignorance should not provide a means by which Hilfiger can evade its obligations under trademark law.³⁴⁷

The court also found that Hilfiger had sold more than \$3 million worth of STAR CLASS merchandise after the plaintiff filed suit, and suggested that this factor also weighed in favor of a finding of bad faith.³⁴⁸

The ultimate disposition of the *Hilfiger* saga nevertheless remains pending as of this writing.³⁴⁹ In March 1997, on remand from the Second Circuit, the district court judge adhered to his earlier decision that the defendant had not adopted the mark in bad faith.³⁵⁰ In reaching this conclusion, Judge Patterson relied heavily upon the findings of fact he had entered in *Corsearch, Inc. v. Thomson & Thomson*,³⁵¹ a 1992 case involving an antitrust dispute between two of the nation's leading trademark search firms.³⁵² In *Corsearch*, Judge Patterson had found that it is a common practice for firms to file federal trademark applications without conducting anything more than

347. *Id.* at 753-54. In the context of our model, the court essentially is saying that Hilfiger did not search optimally; rather, it stopped short of the point at which the marginal benefits equal the marginal cost of added search. *See supra* text accompanying note 306. Hilfiger's truncated search thus was not sufficient.

348. *See Hilfiger*, 80 F.3d at 754.

349. *See infra* text accompanying note 357.

350. *See International Star Class Yacht Racing Ass'n v. Tommy Hilfiger U.S.A., Inc.*, 959 F. Supp. 623, 629 (S.D.N.Y. 1997). The district court subsequently denied both parties' motions for reconsideration of the decision. *See International Star Class Yacht Racing Ass'n v. Tommy Hilfiger U.S.A., Inc.*, No. 94 Civ. 2663 (RPP), 1997 WL 297031, at *1 (S.D.N.Y. June 4, 1997).

351. 792 F. Supp. 305 (S.D.N.Y. 1992).

352. *See Hilfiger*, 959 F. Supp. at 625-27.

a search of the federal database, as was the case in *Hilfiger*.³⁵³ He also noted that, until the Second Circuit's decision in *Hilfiger*, no case law required trademark applicants to conduct searches of state and common-law trademark databases.³⁵⁴ On the basis of these findings, the court concluded that Hilfiger's "efforts to ascertain whether 'Star Class' was a mark of another" were adequate³⁵⁵ and that Hilfiger had not acted in bad faith.³⁵⁶ A second appeal is now pending.³⁵⁷

Because the ultimate disposition of *Hilfiger* remains unknown as of this writing, it is difficult to predict the case's long-range

353. See *id.* at 625-26 (citing *Corsearch*, 792 F. Supp. at 307). The judge noted, among other things, that in 1990 the two search firms that were parties to the *Corsearch* litigation performed only 60,000 "comprehensive" searches, i.e., searches of databases not limited to the Federal Registry, whereas applicants filed 127,000 federal trademark applications that year. See *id.* at 626 n.4.

354. See *id.* at 626. In *Sands, Taylor & Wood Co. v. Quaker Oats Co.*, 978 F.2d 947 (7th Cir. 1992), however, the Seventh Circuit affirmed a finding that the defendant had adopted the mark "THIRST AID" in bad faith on the basis of evidence that, among other things, the defendant had not conducted "a basic trademark search until days before the airing" of its first commercial using that slogan, *id.* at 961 (quoting *Sands, Taylor & Wood v. Quaker Oats Co.*, 18 U.S.P.Q.2d (BNA) 1457, 1473 (N.D. Ill. 1990), *aff'd in part and rev'd in part*, *Quaker Oats*, 978 F.2d 947 (7th Cir. 1992)), and that it "did not seek a formal legal opinion regarding potential trademark issues until after" the airing of the first commercials. *Id.* at 961. In that case, however, unlike *Hilfiger*, a search of the Federal Registry would have uncovered the plaintiff's mark, which was registered federally for use in connection with beverages and syrups. See *Quaker Oats*, 18 U.S.P.Q.2d (BNA) at 1458. As a consequence, Judge Patterson read the Seventh Circuit's *Quaker Oats* decision as standing for the proposition only that an applicant has a duty, at most, to search for "existing registered marks." *Hilfiger*, 959 F. Supp. at 626.

355. *Hilfiger*, 959 F. Supp. at 626.

356. See *id.* at 626-29. The district court also concluded that there was "no evidence . . . that Hilfiger had reason to believe that the designation 'Star Class' was anything other than a certain type of sailboat used in racing," *id.* at 626; that Hilfiger's attorneys had not advised Hilfiger to conduct a more thorough search, given Hilfiger's limited use of the words STAR CLASS as mere decoration and not as a trademark, see *id.* at 627-28; that Hilfiger's decision to continue selling the merchandise after the plaintiff filed suit was reasonable, in light of the weakness of the mark, see *id.* at 628-29; and that Hilfiger shipped only \$818,419.85 worth of goods bearing the words STAR CLASS—not \$3 million, as found by the court of appeals—from a period beginning two weeks before the commencement of the action, see *id.* at 629.

357. See E-mail message from John G. McCarthy, Counsel for International Star Class Yacht Racing Association, to Thomas F. Cotter (Feb. 17, 1998) (stating that oral argument had been rescheduled for March 5, 1998) (on file with authors).

significance. Even if the Second Circuit again reverses Judge Patterson's conclusion that *Hilfiger* acted in good faith, the specific facts at issue—among them, that the defendant used the plaintiff's mark on goods very closely related to the plaintiff's principal business, that (as the Second Circuit viewed the evidence) it ignored its own attorneys' advice to conduct a more thorough search, and that it continued to infringe even after the onset of litigation—will make the case's impact difficult to ascertain. Will the case come to stand for the broad proposition that an extensive search is henceforth necessary to dispel any suggestion of bad faith, or only for the narrower proposition that the failure to search can be a factor in the bad faith determination? Whichever interpretation is correct, the analysis above suggests that a rule requiring some level of search activity prior to commencing use of a mark makes more sense than does a rule absolutely excusing second users from any duty to investigate. Even if some defendants should be immune from restitutionary liability when their failure to investigate causes them to infringe, as the analysis above arguably suggests, it would seem reasonably clear that not *all* such defendants should be so immune. In a case like *Hilfiger*, for example, one reasonably could conclude that the prospect of a restitutionary award may induce the would-be user to undertake an additional search activity and thereby avoid "unintentionally" infringing another's mark. The same logic suggests the wisdom of awarding restitution (and enhanced damages) against at least some class of "knowing" second users. For reasons discussed above, however, the case against awarding restitution in all such cases of "unintentional" infringement is far from overpowering, notwithstanding the very real possibility that restitution has very little deterrent value in some instances.³⁵⁸

One final puzzle is why the new federal trademark dilution statute limits the award of any damages recovery—even actual damages—to cases of willful conduct.³⁵⁹ Because an action for

358. See *supra* notes 311-17 and accompanying text.

359. Under the Act:

[T]he owner of a famous mark shall be entitled only to injunctive relief unless the person against whom the injunction is sought willfully intended to trade on the owner's reputation or to cause dilution of the famous

dilution is available only with respect to "famous" marks,³⁶⁰ one would expect that in most cases the evidence will show that the defendant was aware of the plaintiff's mark before engaging in the conduct at issue. By restricting the availability of damages relief to acts of "willful" dilution, however, the statute appears to contemplate that not all such acts of "knowing" dilution should be considered willful. In assessing the availability of damages relief, then, courts most likely will apply a standard similar to that which is used in cases involving knowing second users, as previously described.³⁶¹ Nothing in the legislative history or the case law thus far, however, suggests a reason for making actual damages unavailable in cases of nonwillful dilution.³⁶² One might nevertheless speculate that this limitation is at least partially attributable to long-standing concerns over the potential for courts to use the dilution doctrine as a means of expanding trademark owners' rights beyond their optimal scope³⁶³ or of inhibiting free speech.³⁶⁴ In any event, it

mark. If such willful intent is proven, the owner of the famous mark shall also be entitled to the remedies set forth in sections 1117(a) and 1118 of this title, subject to the discretion of the court and principles of equity.

15 U.S.C.A. § 1125(c)(2) (West 1998).

360. *See id.* § 1125(c)(1); *see also supra* note 134 (discussing state antidilution laws).

361. *See supra* notes 319-25 and accompanying text. At least one court already has applied this standard. *See* Ringling Bros.-Barnum & Bailey Combined Shows, Inc. v. Utah Div. of Travel Dev., 955 F. Supp. 598, 603-04 (E.D. Va. 1997) (granting summary judgment in favor of the defendant on the issue of whether the defendant's alleged dilution was willful, on grounds that knowledge alone is insufficient to establish willfulness, and that the evidence proved the defendant had a reasonable basis for believing its use of its allegedly diluting slogan was lawful).

362. *See, e.g.,* Terry R. Bowen, *The Federal Trademark Dilution Act of 1995—Does It Address the Dilution Doctrine's Most Serious Problems?*, 7 DEPAUL-LCA J. ART & ENT. L. 75, 84 (1996) (noting that "neither the language of the Act nor the legislative history . . . define[s] the term 'willfully intended'").

363. *See, e.g.,* 3 MCCARTHY, *supra* note 108, § 24:114 (noting, though rejecting, the argument that misuse of the dilution concept is inevitable, and that it will unduly inhibit competition); Kenneth L. Port, *The "Unnatural" Expansion of Trademark Rights: Is a Federal Dilution Statute Necessary?*, 18 SETON HALL LEGIS. J. 433, 482-87 (1994) (discussing the "unnatural" expansion of trademark rights).

364. *See, e.g.,* Robert C. Denicola, *Trademarks as Speech: Constitutional Implications of the Emerging Rationales for the Protection of Trade Symbols*, 1982 WIS. L. REV. 158, 190-206 (discussing First Amendment implications of dilution claims).

may be the rare case in which the plaintiff would be able to demonstrate any actual damages attributable to the dilution of her mark, whether the defendant's conduct is willful or not.³⁶⁵

V. CONCLUSION

We have demonstrated above that, in order to preserve the intellectual property owner's incentives to create, distribute, or lower consumer search costs, and to encourage voluntary bargaining between intellectual property owners and those with an interest in using their property, the general baseline recovery in intellectual property cases should be the greater of the plaintiff's actual damages or the defendant's profits attributable to the infringement. Moreover, due to the presence of enforcement costs, it may be optimal in some cases to enhance the plaintiff's damages by a multiplier in order to reduce the defendant's ex ante expected profits to zero; at the same time, however, a court or other policymaker must be wary of the danger of encouraging would-be users of intellectual property to overcomply with their legal obligations in such a fashion as to expand the intellectual property owner's rights beyond their optimal scope.

We also have demonstrated that, in large part, the actual rules followed in intellectual property litigation adhere to this model. Of the four major bodies of intellectual property law,

365. See 3 MCCARTHY, *supra* note 108, § 24:99, at 24-160 (noting that "the dilution that triggers a statutory violation is defined as 'the lessening of the capacity' of a famous mark to be strong," but that "recovery of damages for dilution requires some proof that the famous mark was in fact weakened by the defendant's conduct"); Letter from Paul J. Heald, Associate Professor of Law, University of Georgia School of Law, to Thomas F. Cotter 3-4 (Aug. 6, 1997) (suggesting that, "with the rare exception of certain tarnishment cases, dilution causes no damage to the trademark owner") (on file with authors).

Heald also suggests that the availability of dilution relief raises the cost of searching in states in which protection from dilution is accorded to nonfamous marks. See *id.* As noted above, however, most of the cases interpret state antidilution statutes as providing relief only for the owners of famous marks, see *supra* note 134, although in some cases it may be sufficient if the mark is famous only in a limited geographic area, see 3 MCCARTHY, *supra* note 108, § 24:112. We nevertheless agree that the possibility of incurring liability for the dilution of a locally famous mark will raise the would-be user's search costs. Our analysis above suggests that in some cases, avoiding this additional cost may be efficient for the would-be user, even if doing so poses a risk of incurring damages liability.

trade secret law appears to adhere most closely. Patent law diverges from the model by not permitting the plaintiff to recover restitutionary damages, and there appears to be no compelling economic justification for this departure. Copyright law departs from the model by permitting the prevailing plaintiff under some circumstances to recover "statutory" damages. Despite some surface similarity between this rule and the much-maligned doctrine of presumed damages in the law of defamation, however, statutory damages arguably constitute a rational response to some peculiarly vexing problems of detection and deterrence that arise in connection with the use of copyrighted works. Finally, trademark law departs from the model by restricting the right to recover restitution to cases involving "willful" or "bad-faith" infringement. Our analysis of the problem of search costs leads us to suggest that courts should reject a prevailing trademark plaintiff's request for restitutionary damages (and accordingly, should characterize the infringement as "nonwillful" or in "good faith") when the deterrent value of the restitutionary remedy is sufficiently low—specifically, in cases in which the probability of incurring restitutionary liability is unlikely to induce the additional search activity that would lead to the timely discovery of another's superior right to a mark. In most other cases, our model suggests that trademark (and patent) law generally should permit the prevailing plaintiff the option of recovering the defendant's profit attributable to the infringement.