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Intellectual Property Pirates: Congress Raises the Stakes in the Modern Battle to Protect Copyrights and Safeguard the United States Economy Comment.

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INTELLECTUAL PROPERTY PIRATES: CONGRESS RAISES THE STAKES IN THE MODERN BATTLE TO PROTECT COPYRIGHTS AND SAFEGUARD THE UNITED STATES ECONOMY

TIMOTHY D. HOWELL

Literary piracy, while less romantic than its nautical counterpart, has the advantage of being infinitely more in fashion. The Jolly Roger has been hauled down. In its place, as the term "piracy" is used today, we have the solemn trappings of respectability. A modern buccaneer may lunch at Sardi's and browse afterwards in the Public Library. Despite this, his offense . . . is far more villainous than robbery at sea. This is because it takes from a man what he has least of, picking not alone his pocket, but his brains.[1]

I. Introduction: Modern-Day Pirates

Following the Revolutionary War, American merchant ships no longer enjoyed the protection of the Royal Navy, and seafaring pirates along the Barbary Coast[2] began to interfere with the shipping trade of the United

1. Richard Wincor & Irving Mandell, Copyrights, Patents and Trademarks: The Protection of Intellectual and Industrial Property 1 (1980).

2. *See* Stephen Howarth, To Shining Sea: A History of the United States Navy 1775–1991, at 49 (1991) (writing that "at the junction of Europe and Africa, . . . pirates prowled from bases in Morocco, Algiers, Tunis, and Tripoli—the four Barbary states of the North African Coast"); Robert Leckie, The Wars of America 226 (1968)

States at an alarming rate.[3] Significantly disrupting trade, these pirates roamed the Mediterranean region highjacking trading vessels, enslaving their crews, and plundering their cargoes.[4] The Barbary pirates posed an especially serious threat to the young American nation, which relied heavily on a burgeoning merchant trade to build its nascent economy.[5] Recognizing this grave problem and unable to resolve it through diplomatic measures, the American government took decisive action in the early 1800s and deployed several squadrons of the United States Navy to the Mediterranean region.[6] Led by the daring exploits of Steven Deca-

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(identifying Morocco, Algiers, Tunis, and Tripoli as Moslem states from which Barbary Coast pirates operated); GEORGE B. TINDALL, AMERICA: A NARRATIVE HISTORY 346 (2d ed. 1988) (naming North African states of Morocco, Algeria, Tunis, and Tripoli as states of Barbary Coast).

3. *See* 4 EDWARD CHANNING, A HISTORY OF THE UNITED STATES 264 (1917) (commenting that merchant ships of newly independent America were openly exposed to Barbary pirates); ROBERT LECKIE, THE WARS OF AMERICA 223 (1968) (explaining that American trading vessels in Mediterranean fell victim to Barbary pirates because of lack of naval protection); GEORGE B. TINDALL, AMERICA: A NARRATIVE HISTORY 346 (2d ed. 1988) (observing that lack of British payments of tribute following Revolutionary War made American merchant ships in Mediterranean "fair game" for Barbary pirates).

4. *See* 1 THOMAS A. BAILEY & DAVID M. KENNEDY, THE AMERICAN PAGEANT 183 (8th ed. 1987) (referring to Barbary Pirates' "blackmailing and plundering" of merchant vessels in Mediterranean); ROBERT LECKIE, THE WARS OF AMERICA 223–26 (1968) (discussing common practice of capturing American seamen for ransom and other acts of Barbary pirates); GEORGE B. TINDALL, AMERICA: A NARRATIVE HISTORY 346 (2d ed. 1988) (addressing frequent acts of piracy and extortion by pirates off coast of North Africa).

5. *See* 1 THOMAS A. BAILEY & DAVID M. KENNEDY, THE AMERICAN PAGEANT 130 (8th ed. 1987) (noting economic importance of foreign commerce for United States following independence); GEORGE B. TINDALL, AMERICA: A NARRATIVE HISTORY 346 (2d ed. 1988) (indicating that increased American shipping trade in early 1800s provided significant revenues to federal treasury).

6. *See* WILLARD S. RANDALL, THOMAS JEFFERSON: A LIFE 563 (1993) (recalling President Jefferson's decision to "send[ ] a naval squadron to the Mediterranean with orders to protect American commerce"); *see also* ROBERT LECKIE, THE WARS OF AMERICA 226 (1968) (detailing efforts of United States to rebuild Navy and send ships to coast of Tripoli in 1804); GEORGE B. TINDALL, AMERICA: A NARRATIVE HISTORY 346–47, 375–76 (2d ed. 1988) (recounting deployment of American naval vessels to Barbary Coast region in early 1800s). Up until this time, the United States and many other nations had addressed the piracy problem by paying ransom and tribute to the nations along the Barbary Coast. *See* GEORGE B. TINDALL, AMERICA: A NARRATIVE HISTORY 346 (2d ed. 1988) (noting that young American nation first attempted to deal with Barbary pirates through diplomatic negotiations and payments of tribute); *see also* 1 THOMAS A. BAILEY & DAVID M. KENNEDY, THE AMERICAN PAGEANT 183 (8th ed. 1987) (commenting that administrations prior to Jefferson's "had been forced to buy protection"); ROBERT LECKIE, THE WARS OF AMERICA 226 (1968) (explaining that United States had paid $2 million in ransom and tribute to Barbary Coast states by 1801). The government and President Jefferson decisively changed their course of action in 1801, but only after the ruler of Tripoli declared war on the United States in an attempt to coerce greater tribute payments. *See* 1 THOMAS

tur,[7] this show of naval force ultimately stopped the harassment of the Barbary pirates and ended the threat to America's economy.[8]

Today, a different type of "pirate"[9] jeopardizes a vital aspect of the American economy. These modern pirates, however, do not prowl the high seas in search of merchant ships laden with goods; instead, they lurk along the communication highway and menace the intellectual property

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A. BAILEY & DAVID M. KENNEDY, THE AMERICAN PAGEANT 183 (8th ed. 1987) (asserting that 1801 "showdown" with Tripoli forced Jefferson to take unprecedented military action).

7. GEORGE B. TINDALL, AMERICA: A NARRATIVE HISTORY 346–47, 375–76 (2d ed. 1988). Decatur is perhaps best known for his daring feat of sneaking into the Tripoli harbor under the cover of night and setting fire to the captured American frigate, the *Philadelphia*. *See id.* at 346–47 (summarizing Decatur's heroic efforts); *see also* 1 THOMAS A. BAILEY & DAVID M. KENNEDY, THE AMERICAN PAGEANT 213 (8th ed. 1987) (labeling Decatur as "naval hero" of North African expeditions).

8. *See* 1 THOMAS A. BAILEY & DAVID M. KENNEDY, THE AMERICAN PAGEANT 184 (8th ed. 1987) (reporting that naval attack on Barbary Pirates caused them to develop "a wholesome respect for the United States"); ROBERT LECKIE, THE WARS OF AMERICA 227 (1968) (contending that America's show of force "taught the Barbary powers to respect the U.S. Navy and the American flag"). Following the initial conflict with Tripoli, intermittent conflicts between U.S. naval forces and the Barbary pirates actually persisted until shortly after the War of 1812. *See* GEORGE B. TINDALL, AMERICA: A NARRATIVE HISTORY 375–76 (2d ed. 1988) (explaining that Decatur led naval forces into region following War of 1812 and permanently ended piracy and extortion along Barbary Coast).

9. *See* United States v. Drebin, 557 F.2d 1316, 1332 (9th Cir. 1977) (asserting that courts view terms "pirate" and "piracy" as interchangeable with infringement), *cert. denied*, 436 U.S. 904 (1978); Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DENV. U. L. REV. 671, 671 n.2 (1994) (defining "piracy" as term popularly used "to describe the unauthorized duplication of sound recordings, films, tape cartridges, cassettes, software programs on floppy diskettes, video cassettes, and video games"). The term "bootlegging" is often viewed as synonymous with the term "piracy." Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DENV. U. L. REV. 671, 691 n.2 (1994); *see* A & M Records, Inc. v. M.V.C. Distrib. Corp., 574 F.2d 312, 313 (6th Cir. 1978) (identifying "pirated" or "bootlegged" tapes as unauthorized copies of original sound recordings marketed under different labels). *But see* Dowling v. United States, 473 U.S. 207, 209 n.2 (1985) (suggesting difference between bootlegging and piracy because bootlegging entails unauthorized copying of commercially unreleased performances and piracy involves performances that have already been commercially released). "Piracy," however, must be distinguished from "counterfeiting." *See* Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DENV. U. L. REV. 671, 671 n.3 (1994) (explaining that counterfeiting goes one step further than piracy, and involves unauthorized reproduction of not only underlying works themselves, but also packaging of works, "including color art, company labels, corporate logos and trademarks"); *see also* United States v. Shultz, 482 F.2d 1179, 1180 (6th Cir. 1973) (distinguishing "counterfeit" music tapes from "bootleg" or "pirated" music tapes). *See generally* Brief of Amicus Curiae Recording Industry Association of America, Inc. in Support of Respondent at 2 n.1, Dowling v. United States, 473 U.S. 207 (1985) (No. 84-589) (providing recording industry definitions of piracy, counterfeiting, bootlegging, and pirate compilation).

industry[10] by highjacking audio recordings, motion pictures, television broadcasts, and computer software.[11] Furthermore, while the pirates of

10. *See* DONALD S. CHISUM & MICHAEL A. JACOBS, UNDERSTANDING INTELLECTUAL PROPERTY LAW § 1B, at 1-3 (1992) (defining intellectual property to include fields of "utility patents, trade secrets, copyrights, trademarks, design patents, plant patents, plant variety protection, semiconductor mask work protection, false advertising remedies, misappropriation, and publicity rights"). Because intellectual property is said to encompass "the full spectrum of human creativity," the intellectual property industry can be said to include businesses associated with the following areas: "literature, the visual arts, music, drama, compilations of useful information, computer programs, biotechnology, electronics, mechanics, chemistry, product design, new plant varieties, semiconductor circuitry design, human identity features, and trade identity symbols." *Id.* § 1A, at 1-2. Trade secrets, copyrights, patents, and trademarks are the four distinct bodies of intellectual property law. G. GERVAISE DAVIS III, SOFTWARE PROTECTION: PRACTICAL AND LEGAL STEPS TO PROTECT AND MARKET COMPUTER PROGRAMS 22 (1985). Although the terms "intellectual property" and "copyright" are occasionally interchanged in this Comment, it is important to note that the latter term is merely a subsection of the former, and that copyrights are significantly different from other forms of intellectual property. *See id.* 24-31 (comparing and contrasting copyright laws, trade secret, patent, and trademark laws); *see also* ROBERT A. GORMAN, COPYRIGHT LAW 4 (1991) (noting that copyright law is different from other forms of intellectual property even though it is often grouped together with fields of patent and trademark). Accordingly, the copyright industries must be distinguished from the broader field of intellectual property. *See* Jennifer J. Demmon, Note, *Congress Clears the Way for Copyright Infringement Suits Against States: The Copyright Remedy Clarification Act*, 17 J. CORP. L. 833, 834 (1992) (stating that copyright industries are those that rely on sales of copyrighted goods). In his comprehensive treatise on copyrights, Professor Nimmer provided the following list of "copyright industries" in 1954: "[n]ewspapers, periodicals, book publishing, commercial printing, lithographing, greeting cards, bookbinding, phonograph record manufacturing, bookstores, newsdealers and newsstands, music stores, commercial photography, advertising, news syndicates, television and radio broadcasting, motion pictures, theaters and theatrical producers, bands, orchestras and entertainers, and amusement and recreation services." 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 1.09, at 1-61 n.5 (1995). Adding the computer and computer software industries to this 1954 list provides an accurate outline of today's copyright industries. *See* Atari Games Corp. v. Nintendo of Am., 975 F.2d 832, 838 (Fed. Cir. 1992) (holding that definition of "literary works" in § 101 of Copyright Act includes computer programs); qad., inc. v. ALN Assocs., 974 F.2d 834, 835 (7th Cir. 1992) (inferring that computer programs are copyrightable); *see also* 17 U.S.C. § 102(a)(1) (1994) (including "literary works" under categories receiving copyright protection); *id.* § 101 (defining "literary works" to include "works . . . expressed in words, numbers, or other verbal or numerical symbols or indicia"); H.R. REP. NO. 1476, 94th Cong., 2d Sess. 54 (1976) (indicating that term "literary works" encompasses "computer data bases, and computer programs"), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5667.

11. *See, e.g.*, United States v. Larracuente, 952 F.2d 672, 673 (2d Cir. 1992) (considering infringing of videocassette versions of copyrighted motion pictures); United States v. O'Reilly, 794 F.2d 613, 614 (11th Cir. 1986) (involving pirated computer video games); United States v. Shabazz, 724 F.2d 1536, 1538 (11th Cir. 1984) (considering pirated sound recordings); Entertainment & Sports Programming Network, Inc. v. Edinburg Community Hotel, 735 F. Supp. 1334, 1340-41 (S.D. Tex. 1986) (entailing piracy of copyrighted television programs); *Pirated Version of Windows 96 Posted Online*, SAN ANTONIO EXPRESS-

old relied on the brute force of cannons, swords, and other weaponry, the arsenal of modern-day pirates includes photocopiers, digital audio tape recorders, video cassette recorders, cable descramblers, and computers.[12] Although the feats of these intellectual property pirates may seem less glamorous than those of their swashbuckling predecessors, the threat posed to the American economy is equally real, for copyright infringement[13] now accounts for billions of dollars in losses annually.[14]

NEWS, Jan. 7, 1996, at J4 (reporting appearance of pirated Microsoft Windows 96 software on Internet).

12. *See* Dennis D. McDonald, *Copyright Can Survive the New Technologies* (listing "audiotape and videotape recorders, photocopying machines, satellite receiving antennas, pay-TV descramblers, and microcomputer disk drives" as modern tools for unauthorized copying), *in* MODERN COPYRIGHT FUNDAMENTALS 424, 424 (Ben H. Weil & Barbara F. Polansky eds., 1989); *see also* Lauren T. Letellier, *Copying Software: Crime in the Classroom?* (stating that modern pirates use "everything from tape recorders to satellite transmissions to steal"), *in* MODERN COPYRIGHT FUNDAMENTALS 117, 118 (Ben H. Weil & Barbara F. Polansky eds., 1989); *cf.*, *Larracuente*, 952 F.2d at 673 (pertaining to infringement "laboratory" comprised of 78 video cassette recorders and other videotape copying equipment); Cable/Home Communication Corp. v. Network Prods., 902 F.2d 829, 835–37 (11th Cir. 1990) (involving pirated devices used to descramble satellite transmissions of pay-television programming); *Shabazz*, 724 F.2d at 1538 (discussing use of "sophisticated audio equipment" to make pirated eight-track and cassette tapes); Central Point Software v. Nugent, 903 F. Supp. 1057, 1058–59 (E.D. Tex. 1995) (addressing infringement claim against individual who posted pirated software on computer bulletin board); United States v. One Sharp Photocopier, 771 F. Supp. 980, 981 (D. Minn. 1991) (concerning photocopier and typewriter used in pirating copyrighted computer software operations handbook).

13. *See* 17 U.S.C. § 501(a) (describing conduct that constitutes copyright infringement). Although the concept of copyright infringement is complex in practice, its general definition under the terms of the Copyright Act is relatively simple: "Anyone who violates any of the exclusive rights of the copyright owner as provided by sections 106 through 118, or who imports copies or phonorecords into the United States in violation of section 602, is an infringer of the copyright." *Id.* A modern pirate, therefore, is more accurately termed an "infringer." *See Drebin*, 557 F.2d at 1332 (equating piracy with infringement).

14. *See* Dwight R. Worley, *The Hard Drive: Analog Laws Can't Keep up with Digital Technology; Copyrights Offer Little Protection in Computer Age*, NEWSDAY, Apr. 30, 1995, at 2 (estimating artistic community's annual losses at between $30 billion and $100 billion due to copyright infringement); *see also* Vicky G. Neumeyer, Comment, *Software Copyright Law: The Enforceability Sham*, 35 LOY. L. REV. 485, 485 (1989) (noting that rampant illegal duplication of computer programs costs software industry between $20 and $60 billion per year in lost profits); Christopher B. Daly & Elizabeth Corcoran, *Judge Dismisses Fraud Charges Against Student in Software Case*, WASH. POST, Dec. 30, 1994, at D1 (quoting Software Publishers Association estimates that member companies face annual piracy losses of $1.5 billion nationally and $7.5 billion internationally); *cf.* Amy E. Simpson, Comment, *Copyright Law and Software Regulations in the People's Republic of China: Have the Chinese Pirates Affected World Trade?*, 20 N.C. J. INT'L L. & COM. REG. 575, 614 (1995) (reporting total losses of $23.8 billion because of worldwide intellectual property piracy). While the exact extent of copyright infringement is difficult to calculate, it is clear that the problem is widespread. *See* Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DENV. U. L. REV. 671, 678 (1994) (estimating that "for each legal

The economic threat posed by copyright piracy is particularly troublesome now that the "Information Age"[15] has arrived,[16] ushering in an era in which the United States economy relies heavily on the job opportunities and profits generated by copyright-intensive industries.[17] Economic

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or authorized software program or video game in circulation, an estimated one to three unauthorized or illegal copies have been reproduced and distributed").

15. *See* Anthony P. Miller, *Teleinformatics, Transborder Data Flows and the Emerging Struggle for Information: An Introduction to the Arrival of the New Information Age*, 20 COLUM. J.L. & SOC. PROBS. 89, 92–94 (1986) (describing manner in which technology has changed way society communicates). In his article, Miller reiterated another commentator's description of the Information Age as a "post-industrial" era "in which information activities dominate our economies and our societies." *Id.* at 92–93. The Information Age has also been defined as a "communications revolution" based upon the merger of computer and telecommunication devices, and the unprecedented use and production of such devices. *See id.* at 93–94 (discussing revolutionary importance of communication technology in modern era); *see also* John C. Lautsch, *Computers, Communications and the Wealth of Nations: Some Theoretical and Policy Considerations About an Information Economy*, 4 COMPUTER L.J. 101, 101–03 (1983) (asserting that increased use and production of computers and communication devices are defining characteristics of modern, information-based era). Interestingly, another writer pointed to a 1977 public advertisement for IBM Corporation to define the phrase "Information Age." *See* John M. Eger, *The Global Phenomenon of Teleinformatics: An Introduction*, 14 CORNELL INT'L L.J. 203, 203 n.1 (1981) (quoting IBM Corporation advertisement). In pertinent part, this advertisement read:

> Information: there's a growing agreement that it's the name of the age we live in.
>
> . . . .
>
> Today, there is growing agreement that we have entered a new era, a post-industrial stage of development in which the ability to put information to use has become critical, not only to the essential production of goods, but to efforts to provide a better life for the individual as well. This new era is being referred to with increasing frequency as the Information Age.

FORTUNE, July 1977, at 42–43 (IBM advertisement).

16. *See* April Dmytrenko, *The Information Age Has Arrived or "Much Ado About Everything,"* REC. MGMT. Q., Oct. 1, 1992, at 20 (noting that technological advances since 1960s have brought about arrival of Information Age and significantly transformed most aspects of everyday business and professional life); Thomas A. Stewart & Jane Furth, *The Information Age in Charts*, FORTUNE, Apr. 1994, at 75 (declaring that business expenditures on computers and communications equipment in 1991 exceeded amount spent on industrial, agricultural, and construction machinery, thus signifying definitive end of Industrial Age and beginning of Information Age).

17. *See* 136 CONG. REC. H13,316 (daily ed. Oct. 27, 1990) (statement of Rep. Moorhead) (approximating that lost sales due to inadequate international copyright protection could be "translated into 300,000 to 600,000 jobs lost for the American worker"); INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 10 (1995) (reporting that "[m]ore than half of the U.S. work force is in information-based jobs, and the telecommunications and information sector is growing faster than any other sector of the U.S. economy"); Thomas T. Vogel, Jr., *There's No Stimulus Like Show Business: As Production Booms, States Want to Get into the Act*, WALL ST. J., Sept. 22, 1995, at A2 (examining enormous economic impact of growing mo-

losses attributable to piracy cause significant harm to communication-based businesses that devote immense resources to the development of new technology and the production of copyrighted works.[18] Moreover,

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tion picture industry, which now employs over 600,000 United States workers and contributes billions of dollars to economy); *see also* 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 1.09, at 1–60 to 1–61 (1995) (discussing economic importance and impact of copyright industries); Jennifer J. Demmon, *Congress Clears the Way for Copyright Infringement Suits Against States: The Copyright Remedy Clarification Act*, 17 J. CORP. L. 833, 834 (1992) (indicating that copyright industries comprise over 5.7% of gross national product in United States); *cf.* 141 CONG. REC. S14,552 (daily ed. Sept. 28, 1995) (statement of Sen. Leahy) (stating that computer industries are vital to America's continued economic well-being and growth); James Kim, *Software Firms Tap Growth Potential: Global Network Likely to Give Rise to New Industry Powers*, USA TODAY, Oct. 30, 1995, at B1, B2 (predicting that businesses involved with on-line computer technology will spawn revenues exceeding $24 billion during next five years); *Demand Rising for Internet-Fluent*, SAN ANTONIO EXPRESS-NEWS, Dec. 29, 1995, at D3 (announcing high job demand for professionals familiar with on-line computer technology despite lowering of overall national employment rates).

18. *See* Christopher B. Daly & Elizabeth Corcoran, *Judge Dismisses Fraud Charges Against Student in Software Case*, WASH. POST, Dec. 30, 1994, at D1 (recognizing that software piracy is of "pressing concern to companies that spend thousands or millions of dollars to develop products"). Following the indictment of an individual suspected of software piracy, a United States attorney commented: "The pirating of commercial software through the operation of clandestine computer bulletin boards seriously jeopardizes the investment of money and personnel which software companies put into the development of new programs." Junda Woo, *Copyright Laws Enter the Fight Against Electronic Bulletin Board*, WALL ST. J., Sept. 27, 1994, at B11 (quoting United States attorney Donald K. Stern); *cf.* Vicky G. Neumeyer, Comment, *Software Copyright Law: The Enforceability Sham*, 35 LOY. L. REV. 485, 485 (1989) (asserting that software piracy deprives smaller companies of income needed to remain competitive and continue operating). Modern businesses, especially in the entertainment and computer fields, routinely spend millions of dollars to develop and promote copyrighted works. *See, e.g.*, Robert J. Kirsch & Sachi Sakthivel, *Capitalize or Expense?: Accountants Need Guidance on Software Developed for Internal Use*, MGMT. ACCT., Jan. 1, 1993, at 38 (citing survey responses of 61 businesses, which indicated average expenditures of $11.2 million on development of internal use software); Steve Alexander, *Futurevisions: Consumer Software Is the Ever-Expanding Final Frontier*, MINNEAPOLIS-ST. PAUL STAR-TRIBUNE, Oct. 8, 1995, at E1 (noting $4.5 million development budget for video game); Russ Britt, *Silver Screen, Golden Price Tag: High Production Costs Cut Film Profits*, L.A. DAILY NEWS, Oct. 3, 1995, at B1 (reporting average cost of producing major motion picture in 1995 as $53.8 million); *Microsoft Announces Third Quarter Results*, M2 PRESSWIRE, Apr. 24, 1995 (listing Microsoft's research and development costs at $596 million for nine-month period ending March 31, 1995), *available in* Westlaw, ALLNEWS Database, at 1995 WL 10420726; *Windows 95 Promo Binge: Too Much of a Good Thing*, NEWSDAY, July 6, 1995, at A39 (predicting that Microsoft will spend between $150 million and $200 million on marketing costs alone for Windows 95 program). While businesses are the most conspicuous victims of piracy, the original authors and creators of copyrighted works also suffer great losses. RECORDING INDUS. ASS'N OF AM., INC., SOUND RECORDING PIRACY: A GUIDE TO FEDERAL INVESTI-

the fiscal losses created by copyright piracy are ultimately absorbed by consumers as corporations raise the price of their goods to offset losses.[19]

In addition to monetary concerns, the law's failure to adequately safeguard the rights of copyright holders threatens the continued growth and dissemination of Information Age technology.[20] Most notably, insufficient protection under current copyright laws threatens advancements such as the National Information Infrastructure (NII), the emerging, federally backed "information superhighway."[21] This developing superhigh-

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GATIONS AND PROSECUTIONS 1.2 (1988). The recording industry accurately reflects the adverse effects of piracy upon creators of copyrighted works:

> Pirates cheat the recording artist, the producer, the composer, the publisher of the compositions, the musicians who helped make the record, and musicians' unions out of their fair share of royalties owed to them from record sales. Those people generally depend on royalties for their livelihoods. Therefore, the pirate is stealing from these people as well.

Id. at 1.3.

19. *See* Brief of Amicus Curiae Recording Industry Association of America in Support of Respondent at 5, Dowling v. United States, 473 U.S. 207 (1985) (No. 84-589) (declaring that "financial loss incurred as a result of piracy ultimately drives up the price of legitimate products"). The adverse financial effects of piracy may also result in a diminished variety of products being available to consumers. *See id.* (theorizing that financial losses attributable to piracy diminish variety of recorded music by depriving record companies "of funds with which to subsidize less profitable (classical, jazz, etc.) types of music, new performers and composers"); *see also* Vicky G. Neumeyer, Comment, *Software Copyright Law: The Enforceability Sham*, 35 LOY. L. REV. 485, 485 (1989) (explaining that piracy adversely affects consumers by reducing number of new goods and services available to public).

20. *See* 141 CONG. REC. S14,552 (daily ed. Sept. 28, 1995) (statement of Sen. Leahy) (contending that growth of on-line technology will be stifled unless copyrighted content receives sufficient protection).

21. *See* 141 CONG. REC. S14,550 (daily ed. Sept. 28, 1995) (statement of Sen. Hatch) (warning that rampant piracy in digital communications age threatens growth and development of NII); INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 10 (1995) (stressing that "the full potential of the NII will not be realized if the education, information and entertainment products protected by intellectual property laws are not protected effectively when disseminated via the NII"); *see also* Michael D. McCoy & Needham J. Boddie, II, *Cybertheft: Will Copyright Law Prevent Digital Tyranny on the Superhighway?*, 30 WAKE FOREST L. REV. 169, 171 (1995) (writing that "industry apprehension concerning the protection of intellectual property rights could deter the development of the superhighway"); *cf.* Bill Gates, *Content Is King on the Internet*, SAN ANTONIO EXPRESS-NEWS, Jan. 7, 1996, at J4 (contending that companies creating information or entertainment content for on-line computer use have greatest long-term opportunities). The National Information Infrastructure ("NII") is the "officially sanctioned term of the Clinton administration for the so-called information superhighway." PATRICK M. DILLON & DAVID C. LEONARD, MULTIMEDIA TECHNOLOGY FROM A TO Z, at 125–26 (1995); *see* Exec. Order No. 12,864, 3 C.F.R. 634 (1993) (establishing Advisory Council regarding development of NII); *see also* Andrew Grosso, *The Na-*

way holds unbridled potential to change the world of communications and enhance our everyday lives.[22] To reach its full potential, however, this highway must first be paved with laws that adequately protect the exclusive rights of copyright owners.[23]

With so much at stake, Congress has launched a direct attack on copyright pirates, analogous to the government's decisive response to the Barbary pirates over two hundred years ago.[24] Recognizing the need to

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tional Information Infrastructure, 41 FED. B. NEWS & J. 481, 481 (1994) (indicating that Clinton administration has formally endorsed development of NII). More specifically, the NII or information superhighway is the emerging communications network premised upon "the integration of hardware, software, and skills that will make it easy and affordable to connect people with each other, with computers, and with a vast array of services and information resources." Exec. Order No. 12,864, 3 C.F.R. 634 (1993). For a comprehensive examination of the NII, its potential, and its projected legal ramifications, see INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS (1995). Additionally, for current on-line information about the NII, see the United States National Information Infrastructure Virtual Library, at http://nii.nist.gov/nii.html, a World Wide Web site sponsored by the United States government.

22. *See* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 8–10 (1995) (contending that NII will change way we communicate; provide unprecedented and affordable access to information, entertainment, educational, and cultural resources; improve educational and health care systems; facilitate democratic participation in government; foster economic growth; and create job opportunities); United States National Information Infrastructure Virtual Library, at http://nii.nist.gov/what.html (providing extensive examination of important potential applications of NII and related technology in regard to environment, education, libraries, electronic commerce, manufacturing, government, and health care); *see also* 141 CONG. REC. S14,550 (daily ed. Sept. 28, 1995) (statement of Sen. Hatch) (emphasizing tremendous potential of NII).

23. *See* 141 CONG. REC. S14,550 (daily ed. Sept. 28, 1995) (statement of Sen. Hatch) (commenting on need to enact "rules of the road" to protect copyrighted works traveling on information superhighway); INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 17 (1995) (recommending clarification and amendment of Copyright Act to ensure that NII reaches its full potential).

24. *See, e.g.*, Criminal Copyright Improvement Act of 1995, S. 1122, 104th Cong., 1st Sess. (1995) (seeking to amend criminal copyright infringement provisions to provide greater deterrence to modern copyright pirates); National Information Infrastructure Copyright Protection Act of 1995, S. 1284, 104th Cong., 1st Sess. (1995) (proposing updates to copyright laws to provide stronger copyright protection in NII and modern technological environment). Just as President Jefferson's decision to build up the Navy and send ships to the Mediterranean departed from his normally pacifist ways, so too can Congress's effort to bolster criminal copyright infringement provisions be seen to diverge from its traditional aversion to the use of criminal sanctions to combat infringement. *Compare* 1 THOMAS A. BAILEY & DAVID M. KENNEDY, THE AMERICAN PAGEANT 183 (8th ed. 1987) (describing Jefferson's uncharacteristic choice of force in dealing with the Barbary Coast pirates) *with* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01[C], at 15–14

address the legal "loophole"[25] in the copyright law identified by the recent decision in *United States v. LaMacchia*,[26] and appreciating the important role intellectual property will play in the continued advancement of the Information Age,[27] Congress now contemplates expansion of the criminal copyright infringement laws.[28] The proposed Criminal Copyright Improvement Act of 1995[29] (Improvement Act) attempts to close the "loophole" exposed by the *LaMacchia* case and provide a more effective means for deterring copyright piracy.[30]

(1995) (explaining that criminal sanctions generally have not been chosen method to combat copyright infringement).

25. *See* United States v. LaMacchia, 871 F. Supp. 535, 545 (D. Mass. 1994) (allowing criminal defendant to escape conviction under current federal copyright law on theory that statute limits convictions to persons acting with commercial motives); *see also* 141 CONG. REC. S11,452 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy) (introducing bill to "close a significant loophole" in current copyright law).

26. 871 F. Supp. 535 (D. Mass. 1994). The *LaMacchia* court acknowledged that an individual who facilitates extensive infringement of computer software on an Internet bulletin board may not be prosecuted under the criminal infringement provisions of the Copyright Act, and held the wire fraud statute inapplicable as an alternative method of criminal prosecution. *LaMacchia*, 871 F. Supp. at 545. The controversial *LaMacchia* decision has garnered the attention of legislators and spurred reform of criminal provisions of the Copyright Act. *See* 141 CONG. REC. S11,452 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy) (referring to *LaMacchia* case during introduction of Improvement Act); *Legislation: Bill Would Strengthen Penalties for Criminal Infringement on Internet*, 50 Pat. Trademark & Copyright J. (BNA) No. 1240, at 368 (Aug. 10, 1995) (indicating that Senator Leahy introduced criminal copyright infringement legislation "with the *LaMacchia* case in mind"); *see also* ProCD, Inc. v. Zeidenberg, 908 F. Supp. 640, 646 (W.D. Wis. 1996) (commenting that *LaMacchia* decision has attracted attention of executive and legislative branches).

27. *See* 141 CONG. REC. S11,452 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy) (supporting Improvement Act by arguing that protection of copyrighted goods is essential to continued growth of NII).

28. *See* Criminal Copyright Improvement Act of 1995, S. 1122, 104th Cong., 1st Sess. (1995) (seeking to amend criminal copyright infringement provisions to provide greater deterrence to modern copyright pirates). A summary of the bill is printed in the Congressional Record. 141 CONG. REC. S11,452-54 (daily ed. Aug. 4, 1995). For the readers's convenience, this Comment references the Criminal Copyright Improvement Act of 1995 with parallel cites to both the official Senate Bill and the Congressional Record Summary.

29. S. 1122, 104th Cong., 1st Sess. (1995), 141 CONG. REC. S11,452-54. The proposed act was jointly submitted on August 4, 1995, by Senators Leahy and Feingold. 141 CONG. REC. S11,452 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy). The bill was assigned to the Committee on the Judiciary for review. *Id.* For the sake of clarification within this Comment, this author uses the term "Improvement Act" when referring to the proposed criminal copyright legislation. This terminology is necessary to distinguish references to the bill from the overall 1976 "Copyright Act."

30. *See* 141 CONG. REC. S14,550 (daily ed. Sept. 28, 1995) (statement of Sen. Leahy) (announcing that Improvement Act is designed to provide increased protection for copyrighted works available on-line); 141 CONG. REC. S11,452 (daily ed. Aug. 4, 1995) (state-

This Comment examines recent legislative attempts to combat information piracy through the increased criminalization of copyright infringement, focusing primarily on the Improvement Act. Part II of this Comment provides a historical overview of United States copyright laws and introduces the concepts of civil and criminal copyright infringement. Part III focuses on a discussion of factors influencing the recent move to bolster the scope and deterrent effects of criminal infringement laws. Part IV explores the options available to combat modern piracy, and concludes that passage of the proposed Improvement Act represents the best solution because the Act would significantly update current copyright laws to more effectively confront today's piracy problems.

II. General Concepts and the Shaping of American Copyright Law

A. *Basic Copyright Principles*

A peek inside the treasure chest of a traditional buccaneer likely revealed a stash of gold, silver, jewels, or other valuable property. While the "booty" of today's copyright pirate is just as valuable,[31] it does not consist of such tangible chattels.[32] Instead, the items infringed upon by a modern copyright pirate are a specialized type of property[33] involving the

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ment of Sen. Leahy) (stressing that Improvement Act was drafted to ensure effective protection of works distributed in NII context).

31. *Compare* Jamie Murphy, *Down into the Deep: Using High Tech. to Explore the Lost Treasures of the Seas*, TIME, Aug. 11, 1986, at 48, 52 (valuing treasure recovered from sunken pirate ship at over $15 million) *with Data General Corp.: Court Refuses to Overturn Award Owed by Grumman*, WALL ST. J., May 14, 1993, at B4 (reporting award of $52.3 million for infringement of computer software). The total award in the *Grumman* case involved damages for both copyright infringement and misappropriation of trade secrets. Data Gen. Corp. v. Grumman Sys. Support Corp., 36 F.3d 1147, 1152 (1st Cir. 1994). The First Circuit upheld the jury award, which included over $20 million in actual damages for the copyright infringement claim alone. *Id.* at 1155, 1173.

32. *See* Dowling v. United States, 473 U.S. 207, 216 (1985) (indicating that copyright owner "holds no ordinary chattel"); United States v. Smith, 686 F.2d 234, 241 (5th Cir. 1982) (explaining that although copyright may be "commonly bought and sold," it does not qualify for protection under National Stolen Property Act because "it is not in the nature of personal property or chattels"); Italiani v. Metro-Goldwyn-Mayer Corp., 114 P.2d 370, 372 (Cal. Dist. Ct. App. 1941) (declaring that literary property, such as copyright, does not fall into category of "goods and chattels").

33. *See* G. GERVAISE DAVIS III, SOFTWARE PROTECTION: PRACTICAL AND LEGAL STEPS TO PROTECT AND MARKET COMPUTER PROGRAMS 21–22 (1985) (classifying intellectual property rights as "special" and "unique" type of property). *But see* L. Ray Patterson, *Free Speech, Copyright, and Fair Use*, 40 VAND. L. REV. 1, 58–62 (1987) (arguing that it is erroneous for courts to equate copyright with property and stressing that Copyright Clause of Constitution confers no proprietary rights).

representation and communication of ideas.[34] In many respects, copyrights mirror the rights inherent in other types of property interests.[35] For example, as with tangible property, copyright property can be transferred, sold, leased, and divided.[36] Despite the similarities, however, courts have interpreted the "bundle of rights" secured by a copyright to be distinguishable from those ownership rights traditionally recognized in real or personal property.[37]

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34. *See* WILLIAM S. STRONG, THE COPYRIGHT BOOK: A PRACTICAL GUIDE 1 (3d ed. 1990) (declaring that "[t]he province of copyright is communication" because it concerns works, such as art and literature, "whose purpose is to convey information or ideas"); *see also* EARL W. KINTNER & JACK LAHR, AN INTELLECTUAL PROPERTY LAW PRIMER: A SURVEY OF THE LAW OF PATENTS, TRADE SECRETS, TRADEMARKS, FRANCHISES, COPYRIGHTS, AND PERSONALITY AND ENTERTAINMENT RIGHTS 2 (2d ed. 1982) (noting that ideas and information can receive recognition and protection as "intellectual property" only if they are communicated). While copyrighted works deal with the communication of ideas, it is clear that the ideas themselves are not capable of copyright protection because of the idea-expression dichotomy of copyright law. *See* 17 U.S.C. § 102(b) (1994) (establishing that copyright protection does not extend to "any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied"); H.R. REP. NO. 1476, 94th Cong., 2d Sess. 57 (1976) (interpreting 17 U.S.C. § 102(b) to affirm "that the basic dichotomy between expression and idea remains unchanged"), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5670; *see also* Feist Publications v. Rural Tel. Serv. Co., 499 U.S. 340, 350 (1991) (recognizing that idea-expression dichotomy prevents copyright protection of facts or ideas); Mazer v. Stein, 347 U.S. 201, 217 (1954) (stressing that copyright protection does not extend to ideas themselves, but to expression of ideas); Infodek, Inc. v. Meredith-Webb Printing Co., 830 F. Supp. 614, 621 (N.D. Ga. 1993) (clarifying idea-expression dichotomy to mean that "the expression of an idea is copyrightable, but the underlying idea is not"); DONALD S. CHISUM & MICHAEL A. JACOBS, UNDERSTANDING INTELLECTUAL PROPERTY LAW § 1B[3], at 1–5 (1992) (specifying that copyright protects only expression of ideas and not ideas themselves).

35. *See* WILLIAM S. STRONG, THE COPYRIGHT BOOK: A PRACTICAL GUIDE 1 (3d ed. 1990) (analogizing copyright law to system of property); Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 970 (1990) (recognizing that federal copyright system "creates legal rights akin to property rights").

36. *See* WILLIAM S. STRONG, THE COPYRIGHT BOOK: A PRACTICAL GUIDE 1 (3d ed. 1990) (noting similarities between real and copyright property). Strong explains some of the similarities between copyright and property by stating:

> Like property in land, you can sell it, leave it to your heirs, donate it, or lease it under any sort of conditions; you can divide it into separate parts; you can protect it from almost every kind of trespass. Also, like property in land, copyrights can be subjected to certain kinds of public use that are considered to be in the public interest.

Id.

37. *See Dowling*, 473 U.S. at 216–17 (holding that rights of copyright holder do not equate to normal property interests); United States v. LaMacchia, 871 F. Supp. 535, 543–44 (D. Mass. 1994) (finding "bundle of rights" secured by copyright to be "unique and distinguishable" from traditional property interests covered under wire fraud statute); United States v. Riggs, 739 F. Supp. 414, 422–23 (N.D. Ill. 1990) (explaining that copyright's "bundle of rights" are intangible and cannot be recognized as typical property capable of being

B. *Constitutional Basis*

Because the courts have recognized that traditional property concepts developed to protect tangible property do not apply to the protection of the intangible forms of property involved in copyright piracy, the interests of a copyright holder must be protected by means different from those governing traditional proprietary interests.[38] The Framers of the United States Constitution recognized this need to create specific copyright protection when they granted Congress the power "[t]o promote the

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"stolen or converted"); *see also* G. GERVAISE DAVIS III, SOFTWARE PROTECTION: PRACTICAL AND LEGAL STEPS TO PROTECT AND MARKET COMPUTER PROGRAMS 22 (1985) (emphasizing that mental concepts protected as "property" are distinct from traditionally recognized physical forms of property); Barbara Ringer, *The Demonology of Copyright*, Bowker Memorial Lecture (Oct. 24, 1974) (emphasizing copyright as unique legal concept incapable of precise classification as property because it also exhibits characteristics of monopoly and personal rights), *in* MODERN COPYRIGHT FUNDAMENTALS 24, 26 (Ben H. Weil & Barbara F. Polansky eds., 1989); *cf.* L. Ray Patterson, *Free Speech, Copyright, and Fair Use*, 40 VAND. L. REV. 1, 58–62 (1987) (criticizing courts for applying property concepts in copyright cases). *But see* Rohmer v. Commissioner of Internal Revenue, 153 F.2d 61, 63 (2d Cir.) (questioning whether property of copyright owner is truly different from other types of property), *cert. denied*, 328 U.S. 862 (1946); 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT, § 1.03[A], at 1–44.22 to 1–44.25 (1995) (questioning long-standing conceptual differences between copyright and property); BEN H. WEIL & BARBARA F. POLANSKY, *Introduction* to MODERN COPYRIGHT FUNDAMENTALS 1 (Ben H. Weil & Barbara F. Polansky eds., 1989) (indicating that copyright is property interest created by law); Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 971 (1990) (contending that real property serves as "model" for legal rights embodied in copyright). Section 202 of the Copyright Act clarifies the distinction between copyrights and tangible property by providing that "[o]wnership of a copyright, or of any of the exclusive rights under a copyright, is distinct from ownership of any material object in which the work is embodied." 17 U.S.C. § 202. Thus, the copyrighted material is separate and distinct from the actual physical medium in which it is "fixed." *See id.* (explaining that "[t]ransfer of ownership of any material object, including the copy or phonorecord in which the work is first fixed, does not of itself convey any rights in the copyrighted work embodied in the object"); *see also* DONALD S. CHISUM & MICHAEL A. JACOBS, UNDERSTANDING INTELLECTUAL PROPERTY LAW § 1A, at 1–3 (1992) (explaining that property rights in intellectual creations are intangible in nature and "must be carefully distinguished from property in tangible materials that either make the creation possible or that the creation makes possible").

38. *See* 1 PAUL GOLDSTEIN, COPYRIGHT: PRINCIPLES, LAW AND PRACTICE § 1.2, at 9 (1989) (writing that property rights attendant to tangible goods provide insufficient protection for intangible copyrighted information); *cf.* Dowling v. United States, 473 U.S. 207, 228–29 (1985) (holding that National Stolen Property Act was not appropriate means to prosecute copyright violation); United States v. LaMacchia, 871 F. Supp. 535, 545 (D. Mass. 1994) (precluding use of wire fraud statute to prosecute criminal copyright infringement); 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.05, at 15–24 (1995) (interpreting *Dowling* to limit copyright prosecutions "to Section 506 of the Act, and other incidental statutes that explicitly refer to copyright and copyrighted works").

Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."[39] The development of a comprehensive American copyright "scheme" has flowed directly from this Copyright Clause of the Constitution.[40]

C. *Statutory Development of the American Copyright System*

The First Congress took little time to act upon the enumerated copyright power, instituting the initial federal copyright statute in 1790.[41] Although this original legislation pertained only to "maps, charts, and books,"[42] copyright protection has since expanded to encompass a wide range of items.[43] The modern copyright statute, the Copyright Act of

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39. U.S. CONST. art. I, § 8, cl. 8. The first documented mention of copyrights at the Constitutional Convention can be traced to James Madison and Charles Pinckney, each of whom submitted a list on August 18, 1787 suggesting copyright as an appropriate subject to include among the general powers of the legislative branch. JAMES MADISON, NOTES OF DEBATES IN THE FEDERAL CONVENTION OF 1787, at 477–78 (Ohio Univ. Press ed. 1984). On September 5, 1787, the Copyright Clause was adopted in its final form without debate. *Id.* at 579–81; LYMAN R. PATTERSON, COPYRIGHT IN HISTORICAL PERSPECTIVE 193 (1968). For an indepth discussion of the constitutional origins of the copyright power, see Karl Fenning, *The Origin of the Patent and Copyright Clause of the Constitution*, 17 GEO. L.J. 109, 109–17 (1929).

40. *See, e.g.*, qad., inc. v. ALN Assocs., 974 F.2d 834, 835 (7th Cir. 1992) (declaring that basis for American copyright system is Article I, § 8, Clause 8 of Constitution); Morley Music Co. v. Cafe Continental, 777 F. Supp. 1579, 1582 (S.D. Fla. 1991) (denoting Article I, § 8 of United States Constitution as source of federal authority to promulgate copyright laws); *see also* Karl Fenning, *The Origin of the Patent and Copyright Clause of the Constitution*, 17 GEO. L.J. 109, 109 (1929) (stating that United States copyright laws are based on Article I, § 8, Clause 8 even though clause does not employ word "copyright"). It should be noted that this clause also grants Congress the power to authorize patent legislation. *See* 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 1.02, at 1–44.26 (1995) (noting that so-called Copyright Clause is also source of federal authority to enact patent legislation); Karl Fenning, *The Origin of the Patent and Copyright Clause of the Constitution*, 17 GEO. L.J. 109, 109 (1929) (recognizing that Article I, § 8, Clause 8 has been interpreted to vest Congress with authority to enact both copyright and patent laws).

41. Act of May 31, 1790, ch. 15, 1 Stat. 124 (1790), *repealed by* Act of Feb. 3, 1831, ch. 16, 4 Stat. 436. Congress enacted four omnibus revisions to the Copyright Act: (1) Act of Feb. 3, 1831, ch. 16, 4 Stat. 436 (1831); (2) Act of July 8, 1870, ch. 230, 16 Stat. 198 (1870); (3) Act of Mar. 4, 1909, ch. 320, 35 Stat. 1075 (1909); and (4) Act of Oct. 19, 1976 (codified at 17 U.S.C. § 101 (1994)). Notably, Congress enacted copyright legislation quickly because the First Congress "was presented with numerous petitions by authors for the protection of their literary works," including George Washington, who urged them to "pass a law that would promote literature." WILLIAM O. DOUGLAS, AN ALMANAC OF LIBERTY 348 (1954).

42. Act of May 31, 1790, ch. 15, 1 Stat. 124.

43. *See* H.R. REP. NO. 1476, 94th Cong., 2d Sess. 54 (1976) (explaining that "[t]he history of copyright law has been one of gradual expansion in the types of works accorded

1976 (Copyright Act),[44] provides protection to eight broad categories of "original works of authorship," thereby including not only traditional literary works, but also creations ranging from music to architectural works.[45]

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protection"), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5664; *see also* Mazer v. Stein, 347 U.S. 201, 208–10 (1954) (examining legislation that has expanded scope of copyright law); *cf.* DONALD S. CHISUM & MICHAEL A. JACOBS, UNDERSTANDING INTELLECTUAL PROPERTY LAW § 4C[1], at 4–10 (1992) (noting that wide spectrum of copyrightable material includes "fiction and nonfictional verbal works, periodicals, dictionaries, directories, technical drawings, maps, paintings, prints, translations, sculptures, photographs, musical compositions, sound recordings, plays, motion pictures, cartoon characters, toys, dolls, fabric designs, choreography, pantomimes, video games, data bases, computer programs, and architectural drawings"). Over the years, the Copyright Act has been amended repeatedly to incorporate new categories of works. *See, e.g.*, Act of Apr. 29, 1802, ch. 36, 2 Stat. 171 (amending scope of copyright protection to include prints, cuts, and engravings) (repealed 1831); Act of Feb. 3, 1831, ch. 16, 4 Stat. 436 (adding musical compositions) (amended 1856); Act of Aug. 18, 1856, ch. 169, 11 Stat. 138, 139 (adding dramatic compositions) (amended 1865); Act of Mar. 3, 1865, ch. 126, 13 Stat. 540 (adding photographs) (repealed 1870); Act of July 8, 1870, ch. 230, 16 Stat. 198, 212 (adding paintings, drawings, chromolithographs, statues, and models or designs for art works) (repealed 1909); Act of Aug. 24, 1912, ch. 356, 37 Stat. 488 (adding motion pictures) (repealed 1976); Sound Recording Amendment Act of 1971, Pub. L. No. 92–140, 85 Stat. 391 (codified as amended at 17 U.S.C. §§ 102-307) (adding sound recordings) (repealed 1978); Computer Software Copyright Act of 1980, Pub. L. No. 96–517, § 10, 94 Stat. 3028 (codified at 17 U.S.C. § 117 (1994)) (adding computer software).

44. 17 U.S.C. §§ 101–1101 (1994). The Copyright Act, which substantially revised the 1909 Act, was implemented on January 1, 1978 and continues to serve as the touchstone of federal copyright protection. *See* 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT OV-2 to OV-3 (1995) (providing chronological overview of development of copyright protection in United States). Subsequent amendments to the Copyright Act have brought the federal copyright system to its current form. *See id.* (listing subsequent amendments to Copyright Act of 1976); *see also, e.g.*, Computer Software Copyright Act of 1980, Pub. L. 96–517, § 10, 94 Stat. 3028 (codified at 17 U.S.C. § 117) (amending copyright statutes to apply to computer software); Record Rental Amendment of 1984, Pub. L. No. 98–450, 98 Stat. 1727 (codified at 17 U.S.C. § 109(b)(1994)) (amending Copyright Act to address rental of phonorecords); The Berne Convention Implementation Act of 1988, Pub. L. 100–568, 102 Stat. 2853 (codified as amended at 17 U.S.C. § 504 (1994)) (amending copyright law to incorporate requirements of Berne Convention); Satellite Home Viewer Act of 1988, Pub. L. 100–667, 102 Stat. 3949 (codified in scattered sections of 17 & 47 U.S.C.) (outlining reporting requirements of satellite broadcasting companies for purposes of royalty payments); Computer Software Rental Amendments Act of 1990, Pub. L. 101–650, 104 Stat. 5134, Title VIII (codified at 17 U.S.C. § 109(b) (1994)) (amending Copyright Act to prohibit rental of computer software); Audio Home Recording Act of 1992, Pub. L. 102–563, § 1, 106 Stat. 4248 (codified at 17 U.S.C. § 1001) (amending Copyright Act to address home taping).

45. 17 U.S.C. § 102(a). Section 102(a) reads:

> Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly

At its most basic level, copyright protection in the United States is primarily a federal[46] statutory creation[47] that guards specifically delineated

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or with the aid of a machine or device. Works of authorship include the following categories:

(1) literary works;
(2) musical works, including any accompanying words;
(3) dramatic works, including any accompanying music;
(4) pantomimes and choreographic works;
(5) pictorial, graphic, and sculptural works;
(6) motion pictures and other audiovisual works;
(7) sound recordings; and
(8) architectural works.

Id. The categories of copyrightable subject matter listed in § 102 are not all-inclusive, and Congress clearly intended for them to be read broadly. *See* H.R. REP. NO. 1476, 94th Cong., 2d Sess. 53 (1976) (announcing that § 102's categories are "illustrative and not limitative"), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5666; *see also* WILLIAM S. STRONG, THE COPYRIGHT BOOK: A PRACTICAL GUIDE 13 (3d ed. 1990) (explaining that scope of copyright protection is extremely broad); Jessica Litman, *The Exclusive Right to Read*, 13 CARDOZO ARTS & ENT. L.J. 29, 34 (1994) (considering broad reach of modern copyright law). *But see Mazer*, 347 U.S. at 220–21 (Douglas, J., dissenting) (questioning overly broad reading of protected "writings" under Copyright Act). Five of the categories of protected works are specifically defined in § 101 of the Act: (1) architectural works; (2) literary works; (3) motion pictures and audiovisual works; (4) pictorial, graphic, and sculptural works; and (5) sound recordings. 17 U.S.C. § 101. An architectural work is defined as "the design of a building as embodied in any tangible medium of expression, including a building, architectural plans, or drawings." *Id.* The literary works category is the widest in scope, and is defined to include: "works, other than audiovisual works, expressed in words, numbers, or other verbal or numerical symbols or indicia, regardless of the nature of the material objects, such as books, periodicals, manuscripts, phonorecords, film, tapes, disks, or cards in which they are embodied." *Id.*; *see* H.R. REP. NO. 1476, 94th Cong., 2d Sess. 54 (1976) (recognizing "literary works" as broad copyright category), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5667. A motion picture is described as a type of audiovisual work "consisting of a series of related images which, when shown in succession, impart an impression of motion, together with accompanying sounds, if any." 17 U.S.C. § 101. In comparison, audiovisual works are defined to include "works that consist of a series of related images which are intrinsically intended to be shown by the use of machines, or devices such as projectors, viewers, or electronic equipment, together with accompanying sounds." *Id.* The category of pictorial, graphic, and sculptural works includes "two-dimensional and three-dimensional works of fine, graphic, and applied art, photographs, prints and art reproductions, maps, globes, charts, diagrams, models, and technical drawings, including architectural plans." *Id.* Finally, sound recordings "are works that result from the fixation of a series of musical, spoken, or other sounds, but not including the sounds accompanying a motion picture or other audiovisual work, regardless of the nature of the material objects, such as disks, tapes, or other phonorecords, in which they are embodied." *Id.* The categories not defined in § 101—dramatic works, musical works, and pantomimes and choreographic works—are considered to have "fairly settled meanings." H.R. REP. NO. 1476, 94th Cong., 2d Sess. 54 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5666–67.

46. *See* 17 U.S.C. § 301(a) (announcing preemptive effects of 1976 Copyright Act). Specifically, § 301 states:

ownership rights in certain literary or artistic works. A work falling within the scope of copyrightable subject matter[48] qualifies for the protection available under the federal copyright laws if it displays three fun-

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> On and after January 1, 1978, all legal or equitable rights that are equivalent to any of the exclusive rights within the general scope of copyright . . . and come within the subject matter of copyright . . . , whether created before or after that date and whether published or unpublished, are governed exclusively by this title. Thereafter, no person is entitled to any such right or equivalent right in any such work under the common law or statutes of any State.

Id.; *see also* 28 U.S.C. § 1338(a) (1994) (assigning exclusive jurisdiction to federal courts for civil actions "arising under any Act of Congress relating to . . . copyrights"); Miss Am. Org. v. Mattel, Inc., 945 F.2d 536, 542 (2d Cir. 1991) (indicating federal nature of copyright); 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 8C.01, at 8C–3 (1995) (emphasizing that United States copyright law is primarily federal). Enactment of the Copyright Act of 1976 eliminated a historical "dual system" of copyright protection, in which unpublished works received protection under the common law and published works under the federal statute. *See* RICHARD WINCOR & IRVING MANDELL, COPYRIGHT, PATENTS & TRADEMARKS: THE PROTECTION OF INTELLECTUAL AND INDUSTRIAL PROPERTY 26 (1980) (explaining that 1976 Copyright Act basically abolished dual system in favor of "[a] single system of statutory protection for all copyrightable works"). Paul Goldstein has asserted that preemption of state law under § 301(a) requires three conditions to be met:

> First, the state right in question must be 'equivalent to any of the exclusive rights within the general scope of copyright as specified by section 106.' Second, the right must be in a work of authorship that is fixed in a tangible medium of expression. Third, the work of authorship must come within 'the subject matter of copyright as specified by sections 102 and 103.'

2 PAUL GOLDSTEIN, COPYRIGHT: PRINCIPLES, LAW AND PRACTICE § 15.2, at 473 (1989).

Although this Comment focuses primarily on federal copyright laws, limited copyright protection also exists at the state level. *See* RECORDING INDUS. ASS'N OF AM., INC., SOUND RECORDING PIRACY: A GUIDE TO STATE INVESTIGATIONS AND PROSECUTIONS 1.8–.9 (1991) (on file with the *St. Mary's Law Journal*) (summarizing matters not preempted by federal Copyright Act). For a discussion of federal preemption in regard to state criminal efforts to combat copyright infringement, see *infra* note 198.

47. *See, e.g.*, Sony Corp. of Am. v. Universal City Studios, 464 U.S. 417, 431 (1984) (emphasizing that copyright protection is statutory); *Mazer*, 347 U.S. at 214 (noting that copyright is statutory creation); American Tobacco Co. v. Werckmeister, 207 U.S. 284, 291 (1907) (explaining that property interest in copyright is creation of federal legislation passed pursuant to Article I, § 8 of Constitution); Krafft v. Cohen, 117 F.2d 579, 580 (3d Cir. 1941) (designating copyright as "wholly a creature of statute"); *see also* Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 970 (1990) (defining copyright law as "a legal scheme, prescribed in the Constitution and put in place by Congress"). The Supreme Court has further emphasized this statutory nature of copyright, describing the American copyright scheme as "a series of carefully defined and carefully delimited interests to which the law affords correspondingly exact protections." Dowling v. United States, 473 U.S. 207, 216 (1985); *cf.* White v. Samsung Electronics Am., Inc., 989 F.2d 1512, 1514 (9th Cir.) (Kozinski, J., dissenting) (indicating that intellectual property laws "cast no penumbras, [and] emit no emanations" but "protect only against certain specific kinds of appropriation"), *cert. denied*, 508 U.S. 951 (1993).

48. *See* 17 U.S.C. § 102(a) (listing categories of works of authorship).

damental qualities: (1) fixation; (2) originality; and (3) expression.[49] Assuming that a work satisfies the foregoing requirements, Section 106 of

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49. *Id.* Section 102(a) of the Copyright Act provides copyright protection to "*original* works of authorship *fixed* in any tangible medium of *expression*." *Id.* (emphasis added); *see* WILLIAM S. STRONG, THE COPYRIGHT BOOK: A PRACTICAL GUIDE 2–13 (3d ed. 1990) (discussing originality, fixation, and expression as basic concepts required for copyright protection). Specifically, Goldstein expanded on these requirements by writing that the Copyright Act

> impose[s] three requirements as a condition to protection for all forms of otherwise copyrightable works: the work must be original in the sense that it was not copied from some other source; the work must consist of 'expression' and not just 'ideas'; and the work must be embodied in a tangible medium of expression, specifically a 'copy' or 'phonorecord.

1 PAUL GOLDSTEIN, COPYRIGHT: PRINCIPLES, LAW AND PRACTICE § 1.3, at 24–5 (1989) (footnotes omitted). In basic terms, the originality requirement is said to be met when the author's work is an independent creation that displays a minimum level of creativity. Feist Publications v. Rural Tel. Serv. Co., 499 U.S. 340, 345 (1991); Baltimore Orioles v. Major League Baseball Players Ass'n, 805 F.2d 663, 668 n.6 (7th Cir. 1986), *cert. denied*, 480 U.S. 941 (1987); *see* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 24 n.50 (1995) (explaining that many courts view creativity as element of originality). The Copyright Act explains the second requirement for copyright protection, the concept of fixation, as follows:

> A work is 'fixed' in a tangible medium of expression when its embodiment in a copy or phonorecord, by or under the authority of the author, is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration. A work consisting of sounds, images, or both, that are being transmitted, is 'fixed' for purposes of this title if a fixation of the work is being made simultaneously with its transmission.

17 U.S.C. § 101; *see* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 25–28 (1995) (expanding upon fixation requirement and explaining that forms of fixation, including manner, method, or medium used, are virtually unlimited). The Copyright Act expressly states that a work can be fixed in either a "copy" or a "phonorecord." 17 U.S.C. § 101. The statute defines "copies" as "material objects, other than phonorecords, in which a work is fixed by any method now known or later developed, and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device." *Id.* In comparison, "phonorecords" are designated as "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.* Expression, the final requirement for copyright protection, is basically a restatement of copyright's idea-expression dichotomy. *See* Harper & Row, Publishers v. Nation Enters., 471 U.S. 539, 547 (1985) (indicating that copyright protection does not affix to facts or ideas, but only to their expression). Other authorities articulate the prerequisites for copyright protection somewhat differently. *See, e.g., Baltimore Orioles*, 805 F.2d at 668 (listing fixation, originality, and subject matter within scope of copyright as basic requirements for copyright protection); DONALD S. CHISUM & MICHAEL A. JACOBS, UNDERSTANDING INTELLECTUAL PROPERTY LAW § 4C, at 4–9 (1992) (summarizing requirements

the Copyright Act generally affords a copyright owner[50] protection of the exclusive rights of reproduction, adaptation, distribution of copies, public performance, and public display.[51] In addition, a recent amendment to

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for work's copyrightability as "(1) within the constitutional and statutory definitions of a work of authorship, (2) fixed in a tangible medium of expression, and (3) original").

50. *See* 17 U.S.C. § 101 (clarifying that "'[c]opyright owner', with respect to any one of the exclusive rights comprised in a copyright, refers to the owner of that particular right"); *id.* § 201 (describing copyright ownership and transfer); *cf. id.* § 202 (differentiating between copyright ownership and ownership of copy of work). The copyright owner is generally the "author" of the work. *See* U.S. CONST. art. I, § 8, cl. 8 (granting copyright protection to "Authors and Inventors"); 17 U.S.C. § 201(a) (establishing that "[c]opyright in a work protected under this title vests initially in the author or authors of the work"). Two variations of traditional authorship, "joint works" and "works made for hire," are statutorily recognized by the Copyright Act. *See id.* § 101 (defining "joint works" and "works made for hire"); *id.* § 201(b) (explaining that "authors of a joint work are coowners of copyright in the work," and providing that "[i]n the case of a work made for hire, the employer or other person for whom the work was prepared is considered the author for purposes of this title, and . . . owns all of the rights comprised in the copyright"); *see also* 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT §§ 5.03[A]–[E], 6.01–6.13 (1995) (providing thorough overview of issues with respect to works made for hire and co-ownership of copyrights). Copyright ownership can also be transferred. *See* 17 U.S.C. § 201(d)(2) (providing for transfer of ownership in copyright or any of its exclusive rights). Section 101 defines "transfer of copyright ownership" as "an assignment, mortgage, exclusive license, or any other conveyance, alienation, or hypothecation of a copyright or of any of the exclusive rights comprised in a copyright, whether or not it is limited in time or place of effect, but not including a nonexclusive license." *Id.* § 101. *See generally* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT §§ 10.01–10.15 (1995) (examining transfer of copyright ownership rights). The person alleging entitlement to copyright protection, therefore, "must either himself be the author, or he must have succeeded to the rights of the author." 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 5.01[A], at 5–4 (1995).

51. *See* 17 U.S.C. § 106 (defining exclusive rights of copyright owner). 17 U.S.C. § 106 reads:

> Subject to sections 107 through 120, the owner of copyright under this title has the exclusive rights to do and to authorize any of the following:
>
> (1) to reproduce the copyrighted work in copies or phonorecords;
>
> (2) to prepare derivative works based upon the copyrighted work;
>
> (3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending;
>
> (4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly; and
>
> (5) in the case of 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, to display the copyrighted work publicly.

Id.; *see also Harper & Row, Publishers*, 471 U.S. at 546–47 (restating copyright owner's "bundle of exclusive rights" as set forth in § 106). A copyright owner may also authorize or prevent others from exercising those exclusive rights associated with copyright ownership. *See* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND

the Copyright Act adds a sixth provision that grants the owner of a copyrighted sound recording the exclusive right to perform the work "publicly by means of a digital audio transmission."[52] Together, these six exclusive privileges constitute a copyright owner's bundle of protected rights.

D. *Civil Copyright Infringement*

1. Elements and Proof of Civil Infringement

A violation of any one or combination of the exclusive rights set forth in Section 106 of the Copyright Act is considered copyright infringement.[53] Although both civil[54] and criminal[55] actions may be brought for infringement, a copyright infringer usually faces a civil lawsuit in federal court.[56]

THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 46 (1995) (listing entitlements of copyright ownership). The rights of a copyright holder are not unlimited, however, and are subject to several clearly designated exceptions. *See* 17 U.S.C. §§ 107–119 (setting forth specific limitations on rights of copyright holders); *Harper & Row, Publishers*, 471 U.S. at 547 (reiterating that copyright holder's exclusive rights are limited); *Sony Corp. of Am.*, 464 U.S. at 432–33 (recognizing that exclusive rights of copyright holder are "qualified"). Perhaps the most common limitation on copyright protection involves the doctrine of "fair use," which creates a privilege to use copyrighted works without the consent of the copyright owner if used in a reasonable manner. 17 U.S.C. § 107; *see Harper & Row, Publishers*, 471 U.S. at 549–55 (providing detailed examination of fair-use doctrine); *see also* Campbell v. Acuff-Rose Music, 114 S. Ct. 1164, 1170–78 (1994) (analyzing applicability of fair-use doctrine in infringement case involving parody of copyrighted song). Copyrights are also limited by their finite duration. 17 U.S.C. §§ 302–304; *see* U.S. CONST. art. I, § 8, cl. 8 (granting Congress power to enact laws protecting exclusive rights of authors "for limited [t]imes"); *see also* HARRY G. HENN, HENN ON COPYRIGHT LAW: A PRACTITIONER'S GUIDE § 1.2[4], at 8 (3d ed. 1991) (explaining that copyright duration under federal law has several variations, but is typically for author's life plus fifty years). For a more specific discussion of the rights and limitations of copyright owners, see generally 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT §§ 8.01–8.20 (1995).

52. Digital Performance Right in Sound Recordings Act of 1995, Pub. L. No. 104–39, 109 Stat. 336 (to be codified at 17 U.S.C. § 106(6)).

53. 17 U.S.C. § 501(a) (1994). Section 501(a) states that "[a]nyone who violates any of the exclusive rights of the copyright owner as provided by sections 106 through 118, or who imports copies or phonorecords into the United States in violation of section 602, is an infringer of the copyright." *Id.*

54. *Id.*

55. *Id.*.

56. *See id.* § 301 (establishing federal preemption in most copyright matters); Kent Walker, *Federal Criminal Remedies for the Theft of Intellectual Property*, 16 HASTINGS COMM. & ENT. L.J. 681, 682 (1994) (identifying traditional preference of civil remedies to protect intellectual property).

To prevail in civil infringement litigation, the plaintiff must prove[57] two elements: "(1) ownership of a valid copyright, and (2) copying of constituent elements of the work that are original."[58] Though courts have articulated that a plaintiff must establish "originality" and "compliance with statutory formalities" to satisfy the first element of this test,[59] in practice, the plaintiff usually meets this requirement by submitting a certificate of copyright registration, which is considered *prima facie* evidence of valid

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57. *See* Gamma Audio & Video, Inc. v. Ean-Chea, 11 F.3d 1106, 1114 (1st Cir. 1993) (declaring that plaintiff carries burden of proof in copyright infringement case); Motta v. Samuel Weiser, Inc., 768 F.2d 481, 483 (1st Cir.) (placing burden of proof in copyright infringement on plaintiff), *cert. denied*, 474 U.S. 1033 (1985); *see also* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.01, at 13–5 to 13–6 (1995) (addressing elements for which plaintiff carries burden of proof in civil copyright infringement action). As in most civil actions, the plaintiff alleging copyright infringement must prove his or her case by a preponderance of the evidence. *See* Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DENV. U. L. REV. 671, 681 (1994) (contrasting civil infringement's "preponderance of the evidence" standard with higher burden in criminal infringement cases).

58. Feist Publications v. Rural Tel. Serv. Co., 499 U.S. 340, 361 (1991); Bateman v. Mnemonics, Inc., 79 F.3d 1532, 1541 (11th Cir. 1996); Mid Am. Title Co. v. Kirk, 59 F.3d 719, 721 (7th Cir. 1995); Hi-Tech Video Prods. v. Capital Cities/ABC, Inc., 58 F.3d 1093, 1095 (6th Cir. 1995); Lotus Dev. Corp. v. Borland Int'l, 49 F.3d 807, 813 (1st Cir. 1995); Engineering Dynamics v. Structural Software, Inc., 26 F.3d 1335, 1340 (5th Cir. 1994); Bellsouth Advertising & Publishing Corp. v. Donnelley Info. Publishing, 999 F.2d 1436, 1440 (11th Cir. 1993), *cert. denied*, 114 S. Ct. 943 (1994); *see* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.01, at 13–6 & n.5.1 (1995) (indicating that *Feist*'s two-prong test governs infringement actions).

59. *Bateman*, 79 F.3d at 1541; *Lotus Dev. Corp.*, 49 F.3d at 813; *see Engineering Dynamics*, 26 F.3d at 1340 (listing elements for proof of copyright ownership as originality, copyrightability, and compliance with applicable statutory formalities). In comparison, Professor Nimmer has identified five components of the ownership issue. *See* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.01[A], at 13–6 to 13–7 (1995) (designating elements of plaintiff's copyright ownership as: (1) originality, (2) copyrightability, (3) author's citizenship, (4) statutory formalities, and (5) transfer of rights if plaintiff is not author); *see also* Atari, Inc. v. Amusement World, 547 F. Supp. 222, 225 (D. Md. 1981) (citing Nimmer's five elements of copyright ownership). If the plaintiff is not the author of the allegedly infringed work, he must supply proof of a transfer of ownership rights to establish himself as an appropriate copyright claimant. *See* 17 U.S.C. § 501(b) (providing that only "the legal or beneficial owner of an exclusive right under a copyright . . . is entitled . . . to institute an action for any infringement"); *Motta*, 768 F.2d at 484 (explaining that standing of non-author to bring copyright action must be established by proof of "a proprietary right through the chain of title"); *see also* HARRY G. HENN, HENN ON COPYRIGHT: A PRACTITIONER'S GUIDE § 28.3, at 368 (3d ed. 1991) (listing "recordation of transfer" as prerequisite to infringement action when there has been alleged transfer of copyright ownership); 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.01[A], at 13–6 to 13–7 (1995) (discussing proof of ownership requirement when there has been transfer of ownership rights).

copyright ownership.[60] Proving the second element of the infringement test—that the defendant improperly "copied" original elements of the work—involves a two-stage inquiry. First, the plaintiff must prove copying as a factual matter.[61] Because actual or direct proof of copying is

60. 17 U.S.C. § 410(c). Section 410(c) reads:

> In any judicial proceedings the certificate of a registration made before or within five years after first publication of the work shall constitute *prima facie* evidence of the validity of the copyright and of the facts stated in the certificate. The evidentiary weight to be accorded the certificate of a registration made thereafter shall be within the discretion of the court.

Id.; *see Hi-Tech Video Prods.*, 58 F.3d at 1095 (presuming plaintiff's certificate of copyright registration to establish ownership of valid copyright); *Lotus Dev. Corp.*, 49 F.3d at 813 (recognizing copyright registration certificate as "*prima facie* evidence of copyrightability"); Southern Bell Tel. & Tel. Co. v. Associated Tel. Directory Publishers, 756 F.2d 801, 811 (11th Cir. 1985) (accepting registration certificate as *prima facie* proof of valid copyright ownership); *see also* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.01[A], at 13–7 (1995) (noting presumptive establishment of ownership through production of copyright registration certificate); Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DEN. U. L. REV. 671, 681 (1994) (explaining that ownership is usually established through copyright registration certificates). In fact, although not a prerequisite for copyright protection, copyright registration is generally required to bring an infringement claim. 17 U.S.C. §§ 408(a), 411(a); *see* HARRY G. HENN, HENN ON COPYRIGHT LAW: A PRACTITIONER'S GUIDE 28.3, at 368 (3d ed. 1991) (denoting copyright registration as general condition precedent to institution of infringement suit). Obviously, the defendant may challenge the presumption of ownership that a certificate of copyright registration creates. *See Hi-Tech Video Prods.*, 58 F.3d at 1095 (describing ownership presumption as rebuttable); *Lotus Dev. Corp.*, 49 F.3d at 813 (contending that presumption "shifts the burden to the defendant to demonstrate why the copyright is not valid").

61. *See Bateman*, 79 F.3d at 1541 (indicating that proof of actionable copying first requires plaintiff to show copying as factual matter); *Lotus Dev. Corp.*, 49 F.3d at 813 (naming factual copying as necessary element of actionable copying under second prong of *Feist* test); *see also Engineering Dynamics*, 26 F.3d at 1340 (designating factual copying as component of actionable copying). Factual copying implies that the accused infringer "actually used the copyrighted material to create his own work." *Bateman*, 79 F.3d at 1541 (quoting Engineering Dynamics v. Structural Software, 26 F.3d 1335, 1340 (5th Cir. 1994)) (internal quotation marks omitted); *see* 2 PAUL GOLDSTEIN, COPYRIGHT: PRINCIPLES, LAW AND PRACTICE § 7.1, at 3–3 to 3–4 (1989) (declaring that plaintiff establishes factual copying by showing "directly or by inference that the defendant mechanically copied plaintiff's work, such as by photocopying it, or that the defendant had plaintiff's work in mind when it composed the allegedly infringing work"); 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.01[B], at 13–9 (1995) (explaining that factual copying requires proof that "the defendant, in creating his work, used the plaintiff's material as a model, template, or even inspiration"); *see also* Daniel R. Kimbell, *Intellectual Property: An Attorney's Guide*, 27 BEVERLY HILLS B. ASS'N J. 109, 114 (1993) (specifying required proof for factual copying as direct or inferred evidence "that the defendant mechanically copied plaintiff's work, or that the defendant had plaintiff's work in mind when he or she composed the infringing work").

rarely available,[62] the plaintiff must typically rely on circumstantial evidence to establish this element.[63] Consequently, factual copying is often evidenced by proof of: (1) access to the copyrighted work, and (2) "probative similarity" between the copyrighted work and the alleged infringement.[64] Second, if factual copying is demonstrated, the plaintiff must then prove that the copying amounted to an improper appropriation.[65] Establishing improper appropriation requires the plaintiff to show that the allegedly infringing work bears a "substantial similarity" to protected, original elements of the legitimate work.[66]

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62. *See Gamma Audio & Video*, 11 F.3d at 1114 (remarking that direct proof of copying is improbable because actual copying is rarely observed or recorded); Gates Rubber Co. v. Chemical Indus., 9 F.3d 823, 833 (10th Cir. 1993) (recognizing that direct evidence of copying is rare); Concrete Mach. Co. v. Classic Lawn Ornaments, Inc., 843 F.2d 600, 606 (1st Cir. 1988) (explaining how direct proof of infringement is unlikely because infringing acts are rarely witnessed or recorded, and because physical evidence is usually limited to unauthorized items themselves); Sherri C. Hampel, Note, *Are Samplers Getting a Bum Rap?: Copyright Infringement or Technological Creativity?*, 1992 U. ILL. L. REV. 559, 564 (commenting that direct evidence of copying is almost never available).

63. *See Gates Rubber Co.*, 9 F.3d at 833 (indicating that plaintiffs typically use indirect proof to establish factual copying); 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.01[B], at 13–12 (1995) (referring to plaintiff's frequent need to resort to indirect evidence to establish factual copying); Sherri C. Hampel, Note, *Are Samplers Getting a Bum Rap?: Copyright Infringement or Technological Creativity?*, 1992 U. ILL. L. REV. 559, 564 (recognizing frequent need to rely on circumstantial evidence to prove copying in infringement actions).

64. *Bateman*, 79 F.3d at 1541; *Lotus Dev. Corp.*, 49 F.3d at 813; *Engineering Dynamics*, 26 F.3d at 1340; Plains Cotton Coop. Ass'n v. Goodpasture Computer Serv., Inc., 807 F.2d 1256, 1260 (5th Cir.), *cert. denied*, 484 U.S. 821 (1987). "Probative similarity" means that "the offending and copyrighted works are so similar that the court may infer that there was factual copying." *Lotus Dev. Corp.*, 49 F.3d at 813; *see also* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.01[B], at 13–12 (1995) (discussing "probative similarity" requirement).

65. *See* Arnstein v. Porter, 154 F.2d 464, 468 (2d Cir. 1946) (establishing two-part infringement test, which requires proof of factual copying to be followed by proof of improper appropriation); *see also* Laureyssens v. Idea Group, Inc., 964 F.2d 131, 139–40 (2d Cir. 1992) (acknowledging need to show impropriety or unlawfulness of appropriation after actual copying is proved); 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.01[B], at 13–9 (1995) (explaining that once factual copying is established, "the question still remains whether such copying is actionable"); *cf. Feist Publications*, 499 U.S. at 361 (stating that "[n]ot all copying . . . is copyright infringement"); *Engineering Dynamics*, 26 F.3d at 1340 (reaffirming that not all cases of copying constitute infringement).

66. *See Bateman*, 79 F.3d at 1541 (noting that legally actionably infringement or improper appropriation occurs when "there is 'substantial similarity' between the allegedly offending program and the protectable, original elements of the copyrighted work"); Szabo v. Errisson, 68 F.3d 940, 944 (5th Cir. 1995) (equating actionable copying with substantial similarity between infringed work and original copyrighted material); *Lotus Dev. Corp.*, 49 F.3d at 813 (describing plaintiff's need to establish "that the copying of copyrighted mate-

2. Civil Infringement Remedies

During the pendency of a civil infringement action, the Copyright Act provides several preventative remedies, including injunctions[67] and court-ordered impounding[68] of allegedly infringing articles. Once infringement is proved, the court may also order the destruction or appropriate disposition of all infringing copies or phonorecords and all equipment used in making the unauthorized duplications.[69] Additionally, an infringer may be liable for actual damages[70] and profits,[71] or for statutory damages,[72] as well as for court costs[73] and attorneys fees.[74]

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rial was so extensive that it rendered the offending and copyrighted works substantially similar"); *see also* 2 PAUL GOLDSTEIN, COPYRIGHT: PRINCIPLES, LAW AND PRACTICE § 7.1, at 3–4 (1989) (explaining that improper appropriation requires proof that some copied elements were protected subject matter and that such copied elements were similar to elements of original work). The substantial similarity requirement refers only to the expression of ideas, as opposed to the ideas themselves. *Concrete Mach. Co.*, 843 F.2d at 606; *see* 17 U.S.C. § 102(b) (summarizing idea-expression dichotomy).

67. 17 U.S.C. § 502.

68. *Id.* § 503(a).

69. *Id.* § 503(b); *see* Central Point Software v. Nugent, 903 F. Supp. 1057, 1061 (E.D. Tex. 1995) (finding delivery to plaintiff of computer hardware and software used in infringement to be appropriate disposition under § 503(b)); *see also* United States v. One Sharp Photocopier, 771 F. Supp. 980, 981 (D. Minn. 1991) (involving forfeiture proceeding against photocopier used for infringement).

70. 17 U.S.C. § 504(a)(1), (b); *see* Nintendo of Am. v. Dragon Pac. Int'l, 40 F.3d 1007, 1011 (9th Cir. 1994) (defining actual damages and explaining their purpose in copyright infringement cases), *cert. denied*, 115 S. Ct. 2256 (1995); Data Gen. Corp. v. Grumman Sys. Support Corp., 36 F.3d 1147, 1170–71 (1st Cir. 1994) (outlining requirements for award of actual damages in infringement action); Frank Music Corp. v. Metro-Goldwyn-Mayer, 772 F.2d 505, 512–13 (9th Cir. 1985) (analyzing computation and award of actual damages in copyright infringement context), *cert. denied*, 494 U.S. 1017 (1990).

71. 17 U.S.C. § 504(a)(1), (b); *see Data Gen. Corp.*, 36 F.3d at 1173–74 (discussing award of infringer's profits in copyright infringement claim); *Frank Music Corp.*, 772 F.2d at 514–15 (considering criteria for awarding infringer's profits).

72. 17 U.S.C. § 504(a)(2), (c); *see Nintendo of Am.*, 40 F.3d at 1011 (purporting role of statutory damages to be penalty and deterrence). Civil statutory damages range between $500 and $20,000 in cases of nonwillful infringement, and are as high as $100,000 per willful infringement. 17 U.S.C. § 504(c)(1)–(2); Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DENV. U. L. REV. 671, 673 (1994).

73. 17 U.S.C. § 505.

74. *Id.*

E. *Criminal Copyright Infringement*

1. Basic Elements and Burden of Proof: Differentiating Criminal Infringement from Its Civil Counterpart

The Copyright Act also provides for the instigation of criminal proceedings to protect the rights of copyright owners.[75] Although civil and criminal infringement are similar in many respects,[76] the laws establishing criminal copyright violations "cast[ ] a smaller net."[77] Specifically, establishing criminal infringement under the Copyright Act requires a higher burden of proof and includes a *mens rea*, or intent, requirement. As with typical criminal prosecutions, the government must establish each element of criminal copyright infringement beyond a reasonable doubt.[78] Moreover, to warrant criminal sanctions under the current federal laws, the prosecution must show that the copyright infringer acted "willfully and for purposes of commercial advantage or private financial gain."[79]

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75. 17 U.S.C. § 506 (1994); *see* United States v. Powell, 701 F.2d 70, 72 (8th Cir. 1983) (acknowledging that § 506(a) "creates criminal liability" in certain cases of copyright infringement). This Comment focuses on the provisions concerning criminal copyright infringement. *See* 17 U.S.C. § 506(a) (designating criminal infringement as willful infringement "for purposes of commercial advantage or private financial gain"). Although not specifically addressed in this Comment, it should be noted that the Copyright Act also specifies three other criminal copyright offenses. *See id.* § 506(c) (establishing crime of fraudulent use of copyright notice); *id.* § 506(d) (establishing crime of "fraudulent removal of copyright notice"); *id.* § 506(e) (establishing crime of false representation in connection with copyright application). For a discussion of these additional copyright-related crimes, see 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT §§ 15.02–15.04, at 15–16 to 15–20 (1995).

76. *See* Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DENV. U. L. REV. 671, 681 (recognizing common elements of civil and criminal copyright infringement claims). Specifically, the elements of civil infringement comprise the first element necessary to establish criminal infringement. *Id.* at 681–82; *see also* United States v. Cross, 816 F.2d 297, 303 (7th Cir. 1987) (declaring that understanding of criminal copyright infringement requires "resort to the civil law of copyright").

77. United States v. Bily, 406 F. Supp. 726, 733 (E.D. Pa. 1975).

78. *See* United States v. Larracuente, 952 F.2d 672, 673 (2d Cir. 1992) (clarifying that government's burden of proof in cases concerning criminal copyright infringement is "beyond a reasonable doubt"); United States v. Shabazz, 724 F.2d 1536, 1539 (11th Cir. 1984) (explaining that proof beyond reasonable doubt is required in criminal copyright infringement cases); *Bily*, 406 F. Supp. at 733 (asserting that government carries burden of proving each element of criminal infringement beyond reasonable doubt); *cf. In re* Winship, 397 U.S. 358, 364 (1970) (holding that prosecution must prove beyond reasonable doubt every fact needed to constitute crime charged).

79. 17 U.S.C. § 506(a); United States v. LaMacchia, 871 F. Supp. 535, 540 (D. Mass. 1994); Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DENV. U. L. REV. 671, 687 (1994). Prior to the Copyright Act of 1976, the *mens rea* requirement for criminal infringement mandated that the conduct be "willful" and "for profit." *See* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT

Accordingly, the elements of criminal infringement may be stated as: (1) infringement of a copyright; (2) done willfully; and (3) for purposes of commercial advantage or private financial gain.[80]

2. Proving Criminal Copyright Infringement

Establishing the first element of criminal infringement requires the same proof needed to establish civil infringement.[81] The prosecutor must show that the allegedly infringed work was legally owned by another, and that the defendant copied constituent elements of the original work. The second and third elements, which comprise the requisite *mens rea*, distinguish criminal from civil copyright law. To prove willfulness under the second element, the prosecution must show that the defendant acted with the specific intent to infringe a copyrighted work in violation of copyright laws.[82] Establishing that the infringement was financially motivated under the third element merely requires the prosecution to show that the

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§ 15.01[C], at 15–11 n.16 (1995) (explaining that 1976 Act amended criminal intent requirement to its present state from previous "willful" and "for profit" requirement). Since its inception, therefore, the requirement of a "profit" motive has differentiated criminal infringement from its civil counterpart. *See LaMacchia*, 871 F. Supp. at 539 (observing that since first criminal copyright infringement act, "the concept differentiating criminal from civil copyright violations has been that the infringement must be pursued for purposes of commercial exploitation"). Because the phrase "commercial advantage or private financial gain" is apparently the equivalent of the term "for profit," case law prior to institution of the 1976 Act may also be used in interpreting the present statutory language. 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01[C], at 15–11 n.16 (1995). *But cf. LaMacchia*, 871 F. Supp. at 539 (suggesting that *mens rea* requirement was *eased* by substituting "for profit" language with phrase "for purposes of commercial advantage or private financial gain").

80. United States v. Goss, 803 F.2d 638, 642 (11th Cir. 1989); *see* United States v. Wise, 550 F.2d 1180, 1188 (9th Cir.) (interpreting successor statute to § 506(a) to require proof of infringement done wilfully and for profit), *cert. denied* 434 U.S. 929 (1977); *see also* United States v. Manzer, 69 F.3d 222, 227 (8th Cir. 1995) (listing elements of criminal infringement as: valid copyright, infringed by unauthorized reproduction or copying, with willful intent, and for purposes of commercial advantage or private financial gain).

81. *See Cross*, 816 F.2d at 303 (finding no error in court's use of civil definitions in criminal infringement jury instructions); United States v. Wells, 176 F. Supp. 630, 633 (S.D. Tex. 1959) (explaining first element of criminal infringement claim to be showing of basic civil infringement); *see also* 2 PAUL GOLDSTEIN, COPYRIGHT: PRINCIPLES, LAW AND PRACTICE § 11.4.1, at 290 (1989) (specifying that prosecution for criminal infringement encompasses same elements as civil infringement case); 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01[C], at 15–8 (1995) (asserting that "[c]onduct which does not give rise to civil liability for copyright infringement cannot constitute criminal conduct under Section 506(a)").

82. *See* United States v. Moran, 757 F. Supp. 1046, 1049 (D. Neb. 1991) (defining "willful" infringement as "a voluntary, intentional violation of a known legal duty" (quoting Cheek v. United States, 498 U.S. 192, 201 (1991))); *see also Manzer*, 69 F.3d at 227 (inferring "willfulness" where "a reasonable jury could [find] . . . notice sufficient to alert

defendant "hoped to make a profit," and not that a profit was actually realized.[83] Once these elements are established beyond a reasonable doubt, a criminal infringement action progresses to its punishment phase.

3. Criminal Infringement Penalties and the Misdemeanor-Felony Distinction

The main penalties for criminal copyright infringement are set forth in Title 18 of the United States Code.[84] Under the current provisions, various levels of fines and prison sentences may be assessed for criminal infringement offenses.[85] For more severe infractions, a defendant may be sanctioned with a fine as high as $250,000, and a prison sentence of up to five years for a first-time offense.[86] A conviction in any other criminal

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Manzer to the fact that the contents of the U-30 chip were copyrighted"). More specifically, the willfulness requirement has been explained as follows:

> [T]he government must prove not only that the infringer knew that the work in issue was the subject of a valid copyright and that he was copying, distributing, performing or displaying it without the copyright owner's permission; the government must also prove that the defendant knew that his acts constituted copyright infringement or, at least, knew that there was a high probability that his acts constituted copyright infringement.

2 PAUL GOLDSTEIN, COPYRIGHT: PRINCIPLES, LAW AND PRACTICE § 11.4.1, at 294 (1989); *see* Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DENV. U. L. REV. 671, 687–88 (1994) (interpreting "willfulness" requirement).

83. 2 PAUL GOLDSTEIN, COPYRIGHT: PRINCIPLES, LAW AND PRACTICE § 11.4.1, at 296 (1989); *see Shabazz*, 724 F.2d at 1540 (finding "commercial advantage" when evidence was sufficient to show that infringed tapes were produced with intent to make profit); United States v. Moore, 604 F.2d 1228, 1235 (9th Cir. 1979) (explaining that "for profit" requirement of criminal infringement did not require showing of exchange for value "so long as there existed the hope of some pecuniary gain"); *see also* 138 CONG. REC. S17,958, S17,959 (daily ed. Oct. 8, 1992) (statement of Sen. Hatch) (illustrating that "the copying must be undertaken to make money, and even incidental financial benefits that might accrue as a result of the copying should not contravene the law where the achievement of those benefits [was] not the motivation behind the copying").

84. 18 U.S.C. § 2319 (1994); *see* 17 U.S.C. § 506(a) (providing that "[a]ny person who infringes a copyright willfully and for purposes of commercial advantage or private financial gain shall be punished as provided in section 2319 of title 18"); Greg Short, Comment, *Combatting Software Piracy: Can Felony Penalties for Copyright Infringement Curtail the Copying of Computer Software?*, 10 SANTA CLARA COMPUTER & HIGH TECH. L.J. 221, 230 (1994) (noting that copyrighted materials in 18 U.S.C. § 2319 include computer programs).

85. *See* 18 U.S.C. § 2319 (establishing penalties for criminal copyright violations); 2 PAUL GOLDSTEIN, COPYRIGHT: PRINCIPLES, LAW AND PRACTICE §§ 11.4, 11.4.1.2 (1989) (discussing prison sentences and fines available in criminal infringement actions); 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01[A]–[B] (outlining criminal infringement penalties).

86. 18 U.S.C. § 2319(b)(1); *id.* § 3571(b). *See generally* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01[B] (1995) (detailing current criminal copyright infringement penalties); RECORDING INDUS. ASS'N OF AM., INC., SOUND RE-

infringement case results in a fine not exceeding $25,000, or up to one year imprisonment, or both.[87] In addition, a conviction for criminal infringement will result in a court-ordered "forfeiture and destruction or other disposition" of all fruits and instrumentalities of the infringement.[88]

Historically, copyright law treated infringement as a misdemeanor offense, limiting felony sanctions to certain types and thresholds of infringement.[89] Prior to 1992, the misdemeanor-felony distinction was based

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CORDING PIRACY: A GUIDE TO FEDERAL INVESTIGATIONS AND PROSECUTIONS 5.1 (1988) (on file with the *St. Mary's Law Journal*) (listing sanctions available under 18 U.S.C. § 2319). To warrant the harsher sanctions available under § 2319(b)(1), the offense must meet a threshold standard involving "the reproduction or distribution, during any 180-day period, of at least 10 copies or phonorecords, or 1 or more copyrighted works, with a retail value of more than $2,500"). 18 U.S.C. § 2319(b). A second or subsequent infringement violation that meets the threshold provisions of § 2319(b)(1) is punishable by a prison sentence of up to 10 years. *Id.* § 2319(b)(2). An organization or corporation convicted of felony infringement faces fines of up to $500,000 for a first time offense. 18 U.S.C. § 3571(c); *see* Jennifer M. Bagley et al., *Tenth Survey of White Collar Crime: Intellectual Property*, 32 AM. CRIM. L. REV. 457, 469 (1995) (mentioning fines for criminal copyright infringement by organizations). Alternatively, when the infringement "derives pecuniary gain" or "results in pecuniary loss to a person other than the defendant," the infringer may be fined in an amount no greater than two times the gross gain or loss. 18 U.S.C. § 3571(d).

87. 18 U.S.C. § 2319(b)(3); *see* RECORDING INDUS. ASS'N OF AM., INC., SOUND RECORDING PIRACY: A GUIDE TO FEDERAL INVESTIGATIONS AND PROSECUTIONS 5.1 (1988) (on file with the *St. Mary's Law Journal*) (outlining applicable fines and prison sentences in cases not meeting threshold standards under § 506(a)). Since § 2319 merely establishes fines in "the amount set forth in [Title 18]," resort must also be made to 18 U.S.C. § 3571. 18 U.S.C. §§ 2319, 3571; 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01[B], at 15–5 (1995).

88. 17 U.S.C. § 506(b); *see* Sony Corp. of Am. v. Universal City Studios, 464 U.S. 417, 434 n.15 (1984) (explaining that criminal copyright infringement conviction results in forfeiture of "fruits and instrumentalities of the crime"). Section 506(b) identifies the fruits and instrumentalities of infringement as: "infringing copies or phonorecords and all implements, devices, or equipment used in the manufacture of such infringing copies or phonorecords." 17 U.S.C. § 506(b). The criminal forfeiture provision, although similar to the forfeiture remedy in a civil infringement case, is differentiated based on its mandatory nature. *See* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01[C] (1995) (distinguishing mandatory criminal forfeiture remedy from its corresponding discretionary civil forfeiture remedy). *Compare* 17 U.S.C. § 506(b) (calling for mandatory sanction of forfeiture and destruction in criminal infringement context) *with* 17 U.S.C. § 503(b) (allowing discretionary remedy of forfeiture and destruction in civil infringement cases).

89. *See* Dowling v. United States, 473 U.S. 207, 225 (1985) (recognizing that Congress "hesitated long before imposing felony sanctions on copyright infringers" and then "carefully chose those areas of infringement that required severe response"); 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01[A], at 15–3 to 15–5 (1995) (detailing past criminal infringement laws under which felony sanctions were limited in scope); Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DEN. U. L. REV. 671, 674 (1994) (indicating that only misdemeanor punishments were

primarily on the type of work infringed, with felony penalties applying only to the piracy of motion pictures and sound recordings.[90] A 1992 amendment to the Copyright Act,[91] however, eliminated the "type-of-work" distinction by extending application of felony sanctions to certain threshold infringements of *all* works.[92] Specifically, under the Copyright Act's current provisions, felony sanctions attach to infractions involving (1) the unauthorized reproduction or distribution,[93] (2) of ten or more works, (3) with a combined value of over $2,500, and (4) occurring during a 180-day period.[94] In comparison, "any other case" involving willful infringement for commercial advantage or private financial gain is classified as a misdemeanor.[95] In sum, while both misdemeanor and felony sanctions require a showing of infringement accompanied by the requisite

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available for criminal offenses under 1909 Copyright Act). In fact, criminal infringement was treated exclusively as a misdemeanor until 1982. *See* Piracy and Counterfeiting Amendments Act of 1982, Pub. L. No. 97-180, 96 Stat. 91 (1982) (codified as amended at 17 U.S.C. § 506 (1994)) (extending felony sanctions to certain threshold infringements of sound recordings, motion pictures, and other audiovisual works); *see also Dowling*, 473 U.S. at 224 (indicating that Congress first enacted felony copyright infringement provisions in 1982).

90. 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01, at 15-2 (1995); *see* Jennifer M. Bagley et al., *Tenth Survey of White Collar Crime: Intellectual Property*, 32 AM. CRIM. L. REV. 457, 469 (1995) (indicating that prior to 1992 amendments, only infringements of "sound recordings, motion pictures, or audiovisual works" warranted felony sanctions); Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DEN. U. L. REV. 671, 674-75 (1994) (explaining that Copyright Act's original felony provisions for infringement applied only to certain threshold reproductions or distributions of motion pictures, audiovisual works, or sound recordings).

91. Copyright Felony Act of 1992, Pub. L. No. 102-561, 106 Stat. 4233 (1992) (codified at 18 U.S.C. § 2319(b)-(c) (1994)).

92. *Id.*; *see LaMacchia*, 871 F. Supp. at 540 (identifying Copyright Felony Act as extending felony sanctions to certain infringements of "all copyrighted works[,] including computer software"); 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01, at 15-2 (1995) (explaining that 1992 amendment altered criminal infringement penalties "to apply equally to all types of works, rather than simply sound recordings and audiovisual works").

93. *See* 17 U.S.C. § 106(1), (3) (protecting copyright owner's exclusive right to reproduce and distribute copyrighted works). As was the case under prior law, only violations of reproduction or distribution rights are classified as felonies under the current system. 18 U.S.C. § 2319(c)(2).

94. 18 U.S.C. § 2319(b)(1); *see also* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01, at 15-2 (1995) (detailing current threshold requirements for felony copyright infringement).

95. 18 U.S.C. § 2319(b)(3). In effect, the penalties available for "any other case" under § 2319(b)(3), apply to criminal infringements that involve violations of exclusive rights other than reproduction or distribution, or that fail to meet the threshold standards established in § 2319(b)(1). 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01[A], at 15-4 (1995).

mens rea, felony status only attaches in cases meeting the statutorily designated threshold requirements.

These monetary and numerical thresholds for felony classification perform an important function. In enacting the threshold standards, Congress acted under the logical presumption that repetitive duplication of copyrighted items during a fairly short time frame is indicative of a willful intent to infringe.[96] Congress also realized, however, that such a "presumption" was potentially overinclusive.[97] As a result, the current standards protect against the imposition of severe penalties in inappropriate situations by requiring that the infringement involve a substantial number of works and a significant monetary amount before imposing felony sanctions.[98] Because repetitive, large-scale duplication of protected works is the type of infringement most disconcerting to copyright industries, the felony threshold requirements are designed to ensure that these more serious infractions are met with stiffer penalties, thus providing greater deterrence of severe copyright violations.[99]

Unfortunately, modern pirates now avoid criminal sanctions by circumventing the basic requirement that infringement be "for purposes of com-

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96. *See* H.R. REP. No. 997, 102d Cong., 2d Sess. 6 (1992) (explaining correlation between number of offenses and time frame within which offenses occur), *reprinted in* 1992 U.S.C.C.A.N. 3569, 3574.

97. *See id.* (addressing potential for unwarranted felony prosecutions in cases such as incidental copying, children, or reverse engineering of software); *cf.* 138 CONG. REC. S17,959 (daily ed. Oct. 8, 1992) (statement of Sen. Hatch) (reassuring that felony provisions are not intended to reach permissible home copying).

98. *See* H.R. REP. No. 997 (explaining that threshold requirement of 10 copies guards against attaching felony liability to events such as reverse engineering of software, which occasions "the reproduction of no more than a handful of copies"), *reprinted in* 1992 U.S.C.C.A.N. at 3574; 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01[A], at 15–4 (1995) (justifying role of threshold standards). *But see* Greg Short, Comment, *Combating Software Piracy: Can Felony Penalties for Copyright Infringement Curtail the Copying of Computer Software*, 10 SANTA CLARA COMPUTER & HIGH TECH. L.J. 221, 234 (1994) (expressing some concern over "low" threshold requirements of only 10 copies and $2500). Requiring that the threshold standards be met within the 180-day time period further ensures that felony sanctions will not be applied improperly. *See* H.R. REP. No. 997 (supporting 180-day time period as means to "exclude[ ] from felony prosecution children making copies for friends as well as other incidental copying of copyrighted works having a relatively low retail value"), *reprinted in* 1992 U.S.C.C.A.N. at 3574.

99. *See* Greg Short, Comment, *Combating Software Piracy: Can Felony Penalties for Copyright Infringement Curtail the Copying of Computer Software?*, 10 SANTA CLARA COMPUTER & HIGH TECH. L.J. 221, 235 (1994) (listing intended targets of felony infringement provisions as "professional software pirates who make many copies of software and resell them at low prices; illegal bulletin board operators who distribute pirated software; and PC dealers who offer free but illegal software to hardware purchasers").

mercial advantage or private financial gain."[100] Modern pirates successfully avoid the "profit" requirement of the current criminal *mens rea* standard in two ways: (1) infringing works without financial motivation; and (2) bartering infringed works for other infringed items instead of money.[101] When either of these situations exist, prosecutors are unable to successfully argue for the imposition of criminal copyright sanctions even when the number or value of works involved is substantial.[102] As a result, not-for-profit infringement renders the current *mens rea* standard inconsequential, and forces prosecutors to look to other avenues for deterrence of copyright infringement.

4. Criminal Copyright Improvement Act of 1995

The huge losses attributable to modern copyright piracy demonstrate that the current criminal copyright scheme no longer provides an effective deterrent to infringement. Consequently, economic and social effects of rampant copyright piracy now garner increased congressional attention.[103] To combat this information-piracy threat, Congress is currently deliberating an amendment to the Copyright Act that would significantly expand the availability and impact of criminal sanctions in infringement actions.[104] Introduced by Senators Leahy and Feingold,[105] the Criminal Copyright Improvement Act of 1995[106] proposes several noteworthy changes to the current criminal-infringement provisions. The Improvement Act encompasses several proposed amendments and represents a

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100. *See* 141 CONG. REC. S11,453 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy) (stating that "the requirement in criminal copyright infringement actions under 17 U.S.C. § 506(a) that the defendant's willful copyright infringement be 'for purpose of commercial advantage or private financial gain,' has allowed serious incidents of copyright infringement to escape successful prosecution").

101. *See* Greg Short, Comment, *Combating Software Piracy: Can Felony Penalties for Copyright Infringement Curtail the Copying of Computer Software?*, 10 SANTA CLARA COMPUTER & HIGH TECH. L.J. 221, 235–36 (1994) (discussing methods employed by modern pirates to get around *mens rea* standard).

102. 141 CONG. REC. S11,452 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy); *see* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 228 (1995) (acknowledging that current criminal provisions of Copyright Act fail to reach even largest infringements unless profit motive is present).

103. *See* Stephen Keating, *Software Laws Fall Short in Court*, DENV. POST, Dec. 10, 1995, at G1 (discussing scope of economic losses caused by computer software piracy and noting congressional response in introducing bill to tighten copyright protection).

104. *See* 141 CONG. REC. S11,452 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy) (introducing bill to provide greater copyright protection).

105. *Id.*

106. S. 1122, 104th Cong., 1st Sess. (1995), 141 CONG. REC. S11,452–54.

cautious and measured attempt to expand the protection afforded under the current copyright system.[107] The bill, which is discussed more fully in Part IV of this Comment, would significantly rework criminal copyright laws to better comport with the advances in information technology.

III. Reasons for the Recent Emergence of New Criminal Copyright Laws

A. *Traditional Reluctance to Extend Criminal Penalties to Infringement Actions*

Considering the federal government's historical reluctance to recognize copyright infringement as a crime, it is somewhat surprising that Congress now contemplates a further extension of criminal sanctions to combat infringement. Unlike piracy on the high seas, which has long been recognized as a criminal offense,[108] piracy of copyrighted works[109] was not recognized by Congress as a criminal offense until 1897,[110] more than 100 years after the first civil copyright statute was enacted.[111] Since 1897, criminal copyright laws have broadened in both their scope and use,[112]

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107. 141 Cong. Rec. S11,452-54 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy) (recognizing need to act with "exceeding caution" in expanding scope of criminal copyright infringement).

108. *See* United States v. Smith, 18 U.S. (5 Wheat.) 153, 161–63 (1820) (discussing historical recognition of piracy as crime). In *Smith*, the Court revealed piracy's ancient common-law roots as a crime against nations by citing Blackstone. *Id.* at 162–80 n.g (citing 4 William Blackstone, Commentaries *73). Generally, piracy may be defined as "robbery [or another felony] committed on the high seas and within the jurisdiction of admiralty." 1 Martin J. Norris, The Law of Seamen § 10:37, at 395 (4th ed. 1985).

109. *See* Dowling v. United States, 473 U.S. 207, 221–24 (1985) (studying Congress's historically cautious approach to expansion of criminal copyright infringement).

110. *See* Act of Jan. 6, 1897, ch. 4, 29 Stat. 481–82 (adding criminal copyright infringement provision to federal copyright laws) (repealed 1909); *see also Dowling*, 473 U.S. at 221–22 n.14 (citing 1897 law as first criminal copyright provision); Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 Den. U. L. Rev. 671, 673 (1994) (noting adoption of first United States criminal copyright infringement provisions in 1897).

111. Act of May 31, 1790, ch. 15, 1 Stat. 124 (repealed 1831). Convention delegates signed the Constitution's final draft on September 17, 1787. 1 Thomas A. Bailey & David M. Kennedy, The American Pageant 141 (8th ed. 1987). The Constitution was ratified by the requisite number of states in 1788. William Cohen & Jonathan D. Varat, Constitutional Law: Cases and Materials 16 (9th ed. 1993).

112. *See* William F. Patry, Latman's the Copyright Law 294 (6th ed. 1986) (reporting that treatment of copyright infringement as criminal matter increased dramatically during 1970s and 1980s); *see also* Michael D. McCoy & Needham J. Boddie, II, *Cybertheft: Will Copyright Law Prevent Digital Tyranny on the Superhighway?*, 30 Wake Forest L. Rev. 169, 189–90 (1995) (predicting that criminal copyright infringement prosecutions will serve increasingly important function in protecting works on information superhighway); *cf.* Kent Walker, *Federal Criminal Remedies for the Theft of Intellectual Property*, 16 Has-

but the treatment of copyright infringement as a crime has remained less utilized than traditional civil remedies.[113] Today, critics oppose further expansion of criminal copyright laws for the same reason that Congress has historically been reluctant to extend them—concern that such laws may unnecessarily restrict public access to copyrighted works.[114]

B. *Purpose of American Copyright Scheme: How Criminalization of Infringement Threatens the Delicate Copyright Balance*

1. Economic Philosophy of United States Copyright System

Opposition to an extension of criminal copyright infringement laws is chiefly attributable to the underlying philosophy behind copyright protec-

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TINGS COMM. & ENT. L.J. 681, 684–86 (1994) (pointing to increased law enforcement efforts and use of criminal prosecutions of copyright infringement); Greg Short, Comment, *Combating Software Piracy: Can Felony Penalties for Copyright Infringement Curtail the Copying of Computer Software?*, 10 SANTA CLARA COMPUTER & HIGH TECH. L.J. 221, 236 (1994) (suggesting that law enforcement agencies have become more active in enforcement of criminal copyright infringement laws). For a thorough overview of the historical expansion of criminal copyright law, see *Dowling*, 473 U.S. at 221–25 (detailing development of criminal infringement laws) and Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DEN. U. L. REV. 671, 673–80 (1994) (exploring history of American criminal copyright laws).

113. *See Dowling*, 473 U.S. at 221 (emphasizing that Congress has primarily relied on civil remedies to deter copyright infringement); *see also* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01[C], at 15–14 (1995) (stating that Copyright Act's criminal sanctions are "invoked relatively rarely, and then usually with respect to large-scale sound recording or film piracy"); Sharon B. Soffer, *Criminal Copyright Infringement*, 24 AM. CRIM. L. REV. 491, 491 (1987) (pointing out infrequency of criminal copyright prosecutions in cases that are not severe); Bruce Zagaris & Alvaro J. Aguilar, *Enforcement of Intellectual Property Protection Between Mexico and the United States: A Precursor of Criminal Enforcement for Western Hemispheric Integration?*, 5 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 41, 74 (1994) (noting infrequency of prosecutions under criminal copyright statutes).

114. *See, e.g.*, Niva Elkin-Koren, *Copyright Law and Social Dialogue on the Information Superhighway: The Case Against Copyright Liability of Bulletin Board Operators*, 13 CARDOZO ARTS & ENT. L.J. 345, 405–06 (1995) (arguing that strict liability rules against operators of on-line computer bulletin boards restrict public access to information and means of expression and participation); David Gordon, *Taking the First Amendment on the Road: A Rationale for Broad Protection for Freedom of Expression on the Information Superhighway*, 3 COMM. LAW COSPECTUS 135, 136 (1995) (arguing that increased criminilazation of copyright laws unduly restricts information otherwise available for public use); Alan Goldstein, *Copyright Confusion: Rapid Change Makes for a Long, Strange Trip on the Information Highway*, DALLAS MORNING NEWS, Apr. 16, 1995, at H1 (noting arguments of Cyberspace proponents who assert that increasing scope of criminal copyright laws adversely affects public access to information and development of information superhighway).

tion in the United States.[115] In 1954, the Supreme Court detailed the purpose of the American copyright system when it wrote: "The economic philosophy behind the clause empowering Congress to grant . . . copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors in 'Science and useful Arts.'"[116] This language represents a "balance" that the American copyright scheme attempts to maintain between (1) ensuring maximum public access to copyrighted works and (2) sufficiently protecting the exclusive rights of authors to encourage maximum creation and dissemination of their works.[117]

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115. *See* United States v. Bily, 406 F. Supp. 726, 729 (E.D. Pa. 1975) (reasoning that criminal copyright laws must be carefully applied to avoid upsetting copyright balance); *cf.* Dowling v. United States, 473 U.S. 207, 225 (1985) (finding Congress's careful approach to criminal copyright laws consistent with its "traditional sensitivity to the special concerns implicated by the copyright laws").

116. Mazer v. Stein, 347 U.S. 201, 219 (1954). The Supreme Court also addressed the purpose of copyright:

> The primary objective of copyright is not to reward the labor of authors, but '[t]o promote the Progress of Science and useful Arts.' To this end, copyright assures authors the right in their original expression, but encourages others to build freely upon the ideas and information conveyed by a work.

Feist Publications v. Rural Tel. Serv. Co., 499 U.S. 340, 349–50 (1991). For an overview of the espoused purpose of the American copyright scheme, see INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 19–23 (1995) (examining purpose of American copyright law). One modern commentator applied the copyright balance to the Information Age context by noting: "The introduction of these new technologies has enabled learning and invention to be spread more widely to the masses. The intriguing corollary of this dynamic arrangement is that proper remuneration should accrue to its creators." R.S. TALAB, COMMONSENSE COPYRIGHT: A GUIDE TO THE NEW TECHNOLOGIES 3 (1986). Although reward to the author is a secondary consideration of copyright law, it is axiomatic that authors deserve to be rewarded for their creative endeavors. *See Mazer*, 347 U.S. at 219 (asserting that "[s]acrificial days devoted to such creative activities deserve rewards commensurate with the services rendered").

117. *See* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 178 (1995) (asserting importance of recognizing "that access needs of users of the NII have to be considered in context with the needs of copyright owners to ensure that their rights in their works are recognized and protected"); *see also* 141 CONG. REC. S11,452 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy) (addressing balance of public and private interests that shapes copyright law); *Bily*, 406 F. Supp. at 730 (denoting copyright law as "a compromise between competing social policies, one favoring the widest possible dissemination of new ideas and new forms of expression, and the other giving writers and artists enough of a monopoly over their works to ensure their receipt of fair material rewards"); DONALD S. CHISUM & MICHAEL A. JACOBS, UNDERSTANDING INTELLECTUAL PROPERTY LAW § 1A, at 1–2 (1992) (theorizing

2. Criticisms of Expanded Criminal Copyright Laws

The need to maintain this balance makes the application of criminal penalties to copyright violations extremely difficult.[118] Some critics have noted that the threat of excessive criminal penalties creates the risk of "chilling" the dissemination of copyrighted products, which may stifle the "[p]rogress of Science and the useful Arts"[119] that copyright laws are designed to promote. In today's increasingly media-driven world, Americans are constantly confronted with copyrighted works, ranging from the newspapers they read each morning to the computer programs they use at work or at home. This increased exposure to copyrighted works has been generated to some extent by the continued growth of on-line technology and has resulted in increased opportunities for inadvertent, unknowing copyright violations.[120] Because copyright pervades almost all aspects of everyday life, legislators must carefully draft copyright laws in

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that copyright law "is concerned with fostering human creativity without unduly restricting dissemination of its fruits").

118. *See* Andrew Grosso, *The National Information Infrastructure*, 41 FED. B. NEWS & J. 481, 484 (1994) (noting difficulty of adapting criminal laws to technological changes). Specifically, Grosso explained:

> Whenever new technology becomes prevalent, the law enters a period of struggle to find adequate means for resolving disputes involving that technology, and for protecting the rights of people affected by it. We are now in such a period. Of all legal fields, the struggle concerning the criminal law is the most pronounced, because old statutes must be narrowly construed to protect civil liberties, yet must be enforced in a creative manner to deter malevolent acts never before seen.

Id.

119. *See Bily*, 406 F. Supp. at 730–31 (stressing that application of fundamental copyright principles calls for extreme care so as not to "chill" dissemination of creative works); *see also* 141 CONG. REC. S11,452 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy) (recognizing need to use "exceeding caution" in area of criminal copyright laws so as not to intrude upon public's First Amendment rights); *cf.* THORNE D. HARRIS, THE LEGAL GUIDE TO COMPUTER SOFTWARE PROTECTION 27 (1984) (hinting that over-protection of exclusive rights may hinder progress).

120. *See* Timothy F. Bliss, *Computer Bulletin Boards and the Green Paper*, 2 J. INTELL. PROP. L. 537, 537–38 (1995) (discussing problems associated with regulating computer bulletin board services and explaining ease with which copyrighted programs are illegally uploaded and downloaded, sometimes without knowledge that copyright laws are being violated); *cf.* Alicia S. Myara, *An Attorney's Duty to Advise a Corporate Client Concerning Computer Software Copying: The Ethical Considerations*, 2 J.L. & TECH. 81, 88 (1987) (discussing need for in-house counsel to advise corporation when copyright laws may be violated through use and distribution of computer software, because of ease of inadvertent violations).

a manner calculated to avoid criminalizing the daily activities of millions of people.[121]

Commentators have also attacked the concept of laws that protect copyrights as a self-defeating concept that actually restricts the free-flow and use of creative works.[122] These critics have opposed the further extension of either civil or criminal copyright laws, instead preferring an unrestricted marketplace for works of authorship.[123] Further, these critics have contended that application of copyright laws in the emerging society of "cyberspace"[124] is largely inappropriate.[125] Rather than

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121. *See* United States v. LaMacchia, 871 F. Supp. 535, 544 (D. Mass. 1994) (cautioning against criminalizing conduct of "the myriad of home computer users who succumb to the temptation to copy even a single software program for private use").

122. *See* Dale J. Ream, *Copyrighted Works & Computer Networks: Is Protection Possible?*, 4 KAN. J.L. & PUB. POL'Y 115, 116 (1995) (discussing adverse effect copyright laws can have on acquisition and flow of creative works); Richard H. Jones, Comment, *Is There a Property Interest in Scientific Research Data?*, 1 HIGH TECH. L.J. 447, 470 (1987) (arguing that in some situations, copyright laws can have effect of hindering progress of knowledge and access to important information); *see also* Roberta R. Kwall, *Copyright and the Moral Right: Is an American Marriage Possible?*, 38 VAND. L. REV. 1, 65 (1985) (noting argument that copyright laws which restrict use of creative works can actually inhibit, rather than promote, creativity). *But see* Andrea Simon, Note, *A Constitutional Analysis of Copyrighting Government-Commissioned Work*, 84 COLUM. L. REV. 425, 447 (1984) (arguing that First Amendment and copyright laws can be reconciled because freedom of speech "does not require absolute freedom from restrictions").

123. *See* David Gordon, *Taking the First Amendment on the Road: A Rationale for Broad Protection for Freedom of Expression on the Information Superhighway*, 3 COMM. LAW CONSPECTUS 135, 136 (1995) (opposing restrictions in on-line environment in favor of expanded "marketplace of ideas"); *see also* Religious Technology Ctr. v. Netcom On-Line Communication Servs., 907 F. Supp. 1361, 1367–68 (N.D. Cal. 1995) (addressing Internet access provider's argument that it should not be held liable for infringed works posted through its systems). Specifically, the *Religious Technology Ctr.* court stated that placing heavy burdens on access providers "could have a serious chilling effect on what some say may turn out to be the best public forum for free speech yet devised." *Religious Technology Ctr.*, 907 F. Supp. at 1367–68. These arguments for allowing unrestricted speech to flourish in an on-line environment mirror Justice Holmes's classic "marketplace of ideas" theory. *See* Abrams v. United States, 250 U.S. 616, 630 (1919) (Holmes, J., dissenting) (arguing that "the ultimate good desired is better reached by free trade in ideas . . . [because] the best test of truth is the power of the thought to get itself accepted in the competition of the market").

124. *See Religious Technology Ctr.*, 907 F. Supp. at 1365 n.1 (defining "cyberspace" as "popular term for the world of electronic communications over computer networks"); *see also* William S. Byassee, *Jurisdiction of Cyberspace: Applying Real World Precedent to the Virtual Community*, 30 WAKE FOREST L. REV. 197, 198–99 (1995) (portraying cyberspace as elusive, "non-physical universe" of "virtual communities" created by computers linked together through telephone networks); Eric Schlachter, *Cyberspace, The Free Market and the Free Marketplace of Ideas: Recognizing Legal Differences in Computer Bulletin Board Functions*, 16 HASTINGS COMM. & ENT. L.J. 87, 150 n.1 (1994) (defining cyperspace and later referring to it as "the electronic version of physical space").

attempting to adapt the external legal system to the specific needs of the on-line environment, these copyright critics have argued that courts and legislatures should allow cyberspace to develop its own "legal system" to govern the use and dissemination of original works—a system which the critics have termed "netiquette."[126]

C. *The Need for Revision of Current Laws*

Despite the criticisms associated with expanding the application of criminal penalties to copyright violations, the criminal provisions of the Copyright Act must be revised. Although "netiquette" is conceptually appealing, so far it has failed to provide any semblance of copyright protection. Modern technology has upset the delicate balance upon which traditional copyright protection is premised,[127] and copyright pirates are eagerly taking advantage of this imbalance.[128] Congress's recent move to broaden criminal infringement represents an effort to restore the copyright equilibrium and address issues raised by three interrelated factors: (1) case law that has revealed shortcomings in the present system of copy-

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125. INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 15 (1995). A growing number of cyberspace advocates now contend that restrictive copyright laws impede the development of the information superhighway. *See* Alan Goldstein, *Copyright Confusion: Rapid Change Makes for a Long, Strange Trip on the Information Highway*, DALLAS MORNING NEWS, Apr. 16, 1995, at H1 (noting criticisms of proposed copyright laws by on-line activists who fear such legislation will tip "delicate balance away from rights of public to have easy access to information"). These advocates further contend that copyright law has no place in the digital environment. *See id.* (reporting that leaders of cyberspace, such as John Perry Barlow, now advocate radical idea that "copyright law is dead" in digital environment).

126. *See* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 15 (1995) (describing concept of "netiquette").

127. R.S. TALAB, COMMONSENSE COPYRIGHT: A GUIDE TO THE NEW TECHNOLOGIES 3 (1986). Talab has stressed the importance of maintaining the copyright balance in light of modern technology:

> The photoduplicating machine, videocassette and videodisk players, cable television, the personal computer, the satellite, and the modem have enabled more people to have access to knowledge, information, and entertainment. For these reasons the balance between public access and individual rights has achieved greater importance. It is now possible for an author to take a year to complete a work and anyone who is interested five minutes to duplicate it.

Id. (footnotes omitted).

128. *See* Dwight R. Worley, *The Hard Drive: Analog Laws Can't Keep up with Digital Technology; Copyrights Offer Little Protection in Computer Age*, NEWSDAY, Apr. 30, 1995, at 2 (illustrating huge losses attributable to copyright piracy).

right protection; (2) rampant piracy due to the ineffective deterrence of current laws; and (3) technology's habit of outpacing the law.

1. Case Law—Revealing the Loopholes

a. *LaMacchia* As a Microcosm of Modern Piracy Concerns

Recent case law demonstrates that revisions to the current copyright scheme are needed to keep pace with Information Age technology. *United States v. LaMacchia*[129] spotlights the ineffectiveness of the current federal copyright scheme and provides a microcosmic view of the modern piracy threat. In *LaMacchia*, a federal grand jury indicted David LaMacchia for wire fraud,[130] stemming from his creation of a bulletin board[131] on the Internet[132] from which subscribers uploaded[133] and

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129. 871 F. Supp. 535 (D. Mass. 1994).

130. United States v. LaMacchia, 871 F. Supp. 535, 536 (D. Mass. 1994). Specifically, LaMacchia was charged with "conspiring with 'persons unknown' to violate 18 U.S.C. § 1343." *Id.* The federal wire fraud statute under which LaMacchia was indicted reads:

> Whoever, having devised . . . any scheme or artifice to defraud, or for obtaining money or property by means of false or fraudulent pretenses, representations, or promises, transmits . . . by means of wire, radio, or television communication in interstate or foreign commerce, any writings, signs, [or] signals . . . for the purpose of executing such scheme or artifice, shall be fined under this title or imprisoned not more than five years, or both.

18 U.S.C. § 1343 (1994).

131. *See* IBM DICTIONARY OF COMPUTING 76–77 (George McDaniel ed., 10th ed. 1994) (defining bulletin board as "[a] graphic object that simulates a real-life bulletin board in that it displays text and graphic information in the form of messages to the user from client applications that are currently running"). More specifically, a bulletin board system, or BBS, is defined as follows: "[A] computer system used as an information source and message switching system for a particular interest group. Users dial into the BBS, review and leave messages for other users as well as communicate to other users on the system at the same time." ALAN FREEDMAN, THE COMPUTER GLOSSARY 37 (6th ed. 1993).

132. *See* ERIC BRAUN, THE INTERNET DIRECTORY at xi (1994) (defining Internet generally as "the collection of information services available on the interconnected computer networks that span the globe"); IBM DICTIONARY OF COMPUTING 354 (George McDaniel ed., 10th ed. 1994) (defining Internet as "[a] wide area network connecting thousands of disparate networks in industry, education, government and research" and explaining that "[t]he Internet network uses TCP/IP as the standard for transmitting information"). More specifically, the Internet has been described as follows:

> The successor of an experimental network built by the U.S. Department of Defense in the 1960s, this communications system links at least three million computers. A good portion of the connections belong to universities and research and development organizations. Today, many users connect to the Internet by phone (modem) to share information or tap into many rich data banks.

PATRICK M. DILLON & DAVID C. LEONARD, MULTIMEDIA TECHNOLOGY FROM A TO Z 95 (1995). Most experts view the Internet as the model upon which the NII is based. *See id.* (referring to Internet as "prototype and origin" for information superhighway); ANDREW GROSSO, *The National Information Infrastructure*, 41 FED. B. & NEWS J. 481, 481 (1994)

downloaded[134] copies of pirated computer software.[135] Although the unauthorized distribution of software facilitated by LaMacchia allegedly generated[136] over one million dollars in losses,[137] the district court con-

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(hailing Internet as forerunner of NII); *see also* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 2 n.5 (1995) (indicating that report utilized Internet as model for its study). *But cf.* 141 CONG. REC. S14,549 (daily ed. Sept. 28, 1995) (statement of Sen. Hatch) (opining that existing on-line services such as Internet "are only dirt roads compared to the superhighway of information-sharing" offered by NII). For a more complete discussion of the Internet, how it works, and its practical applications, see Rick Ayre, *Making the Internet Connection*, PC MAGAZINE, Oct. 11, 1994, at 118.

133. *See* ALAN FREEDMAN, THE COMPUTER GLOSSARY 196 (6th ed. 1993) (explaining that to "upload" during computer session is "[t]o transmit a file from one computer to another"); IBM DICTIONARY OF COMPUTING 722 (George McDaniel ed., 10th ed. 1994) (defining "upload" as "[t]o transfer programs or data from a connected device, typically a personal computer, to a computer with greater resources"); *see also* Aaron D. Hoag, Note, *Defrauding the Wire Fraud Statute*: United States v. LaMacchia, 8 HARV. J.L. & TECH. 509, 509 n.2 (1995) (clarifying that "'[u]ploading' occurs when a user copies files from her computer to a BBS so that others can access them").

134. *See* ALAN FREEDMAN, THE COMPUTER GLOSSARY 196 (6th ed. 1993) (explaining that to "download" during computer session means to "receive" a file from another computer); IBM DICTIONARY OF COMPUTING 217 (George McDaniel ed., 10th ed. 1994) (noting that term "download" means "[t]o transfer programs or data from a computer to a connected device, typically a personal computer"); *see also* Aaron D. Hoag, Note, *Defrauding the Wire Fraud Statute*: United States v. LaMacchia, 8 HARV. J.L. & TECH. 509, 509 n.2 (1995) (clarifying that "'[d]ownloading' occurs when a user copies files from a BBS to her own computer").

135. *LaMacchia*, 871 F. Supp. at 536.

136. The federal grand jury's indictment alleged that LaMacchia "devised a scheme to defraud that had as its object the facilitation 'on an international scale' of the 'illegal copying and distribution of copyrighted software' without payment of licensing fees and royalties to software manufacturers and vendors." *Id.* Specifically, LaMacchia was accused of encouraging subscribers to upload software to his bulletin board, which he subsequently transferred to another location for downloading by other subscribers. *Id.* LaMacchia's role was also said to include warning his subscribers of the need to act cautiously to avoid detection. *See id.* (explaining that LaMacchia "was at pains to impress the need for circumspection on the part of his subscribers"); *see also* Aaron D. Hoag, Note, *Defrauding the Wire Fraud Statute*: United States v. LaMacchia, 8 HARV. J.L. & TECH. 509, 509 (1995) (stating that LaMacchia stressed importance of secrecy by users to prevent "net.cops," or network and system administrators, from detecting and shutting down BBS).

137. *See LaMacchia*, 871 F. Supp. at 536–37 (reporting that grand jury indictment alleged over $1 million of losses to software copyright holders); William S. Byassee, *Jurisdiction of Cyberspace: Applying Real World Precedent to the Virtual Community*, 30 WAKE FOREST L. REV. 197, 215 (1995) (reporting that LaMacchia was accused of pirating computer software valued at over $1 million).

ceded that LaMacchia's actions were not criminally sanctionable because of a "loophole" in current copyright laws.[138]

LaMacchia's activities, the court explained, were not subject to criminal prosecution under § 506(a) of the Copyright Act because there was no indication that he operated his computer bulletin board "for purposes of commercial advantage or private financial gain."[139] While LaMacchia's faciliatory role in the incident was likely sufficient to constitute civil infringement,[140] the evidence failed to indicate that he had profited from his activities.[141] On these facts, LaMacchia could not be prosecuted under the existing criminal infringement provisions.

Seeking to deter future conduct similar to that of LaMacchia, federal prosecutors alternatively chose to pursue a conviction based on a violation of the federal wire fraud statute.[142] The district court, however, reluctantly dismissed the wire fraud charge,[143] holding that the Copyright Act provides the sole means for criminal prosecution of infringement.[144] Accordingly, LaMacchia walked away virtually unscathed despite his

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138. *LaMacchia*, 871 F. Supp. at 545; *see* 141 CONG. REC. S11,452 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy) (describing "loophole" exposed by *LaMacchia* case); *see* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 228 (1995) (asserting that *LaMacchia* shows "serious lacuna" in criminal copyright laws).

139. *See LaMacchia*, 871 F. Supp. at 537 (indicating that LaMacchia's indictment failed to allege any type of financial incentive or gain).

140. *See* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 127 (1995) (commenting that LaMacchia's actions appeared to constitute civil infringements); *cf.* Central Point Software v. Nugent, 903 F. Supp. 1057, 1058–59, 1061 (E.D. Tex. 1995) (finding defendant who operated computer Bulletin Board System liable for civil copyright infringement because he allowed or encouraged users to download pirated software).

141. *See LaMacchia*, 871 F. Supp. at 537 (indicating that LaMacchia's indictment did not show that he profited from his activities).

142. *Id.*; *cf.* Kent Walker, *Federal Criminal Remedies for the Theft of Intellectual Property*, 16 HASTINGS COMM. & ENT. L.J. 681, 689 (1994) (contending that criminal prosecutions of copyright offenses are more likely in "case[s] with novel or interesting facts" because such cases "often appeal[ ] to law enforcement entities hoping to deter other potential infringers in the community"). The serious losses attributed to LaMacchia's actions and the interesting facts of the case made it an attractive target for criminal prosecution. *See Software Piracy Case Thrown out: Judge Says Law Used Against College Student Is Too Broad*, CHI. TRIB., Dec. 30, 1994, at 4 (reporting *LaMacchia* to be "largest computer piracy case in U.S. history").

143. *LaMacchia*, 871 F. Supp. at 545. Judge Stearns labelled LaMacchia's actions as "heedlessly irresponsible, and at worst nihilistic, self-indulgent, and lacking in any fundamental sense of values." *Id.* Judge Stearns also acknowledged that both criminal and civil penalties should probably apply. *Id.*

144. *Id.*

large-scale infringement. This result has prompted an attempt by legislators to close the *LaMacchia* loophole, which demonstrates the inability of present criminal copyright laws to reach "even the most wanton and malicious large-scale endeavors to copy and provide . . . limitless numbers of unauthorized copies of valuable copyrighted works unless the copier seeks profits."[145]

b. *Dowling*—The "King" Case

In large part, the *LaMacchia* court based its decision on Justice Brennan's reasoning in *Dowling v. United States*.[146] This 1985 Supreme Court case involved individuals charged with making and distributing bootlegged[147] phonorecords of Elvis Presley performances.[148] In addition to pursuing criminal copyright infringement claims,[149] the government charged Dowling under the National Stolen Property Act[150] in an attempt to attach more severe criminal sanctions to his illegal activities.[151] In overturning Dowling's conviction under 18 U.S.C. § 2314, Justice Brennan thoroughly examined the history of both the National Stolen Property Act and criminal copyright infringement laws.[152] Based on this historical analysis, Justice Brennan reached two pertinent conclusions. First, he reasoned that a copyright is not the type of property interest

145. INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 228 (1995).

146. 473 U.S. 207 (1985).

147. *See Dowling*, 473 U.S. at 209–10 n.2 (distinguishing bootlegging from piracy and counterfeiting).

148. *Id.* at 208–11.

149. *Id.* at 209. At the district court level, Dowling was convicted on nine counts of criminal copyright infringement, as well as one count of conspiracy to transport stolen property in interstate commerce, eight counts of interstate transportation of stolen property, and three counts of mail fraud. *Id.* at 208–09. The Ninth Circuit affirmed the convictions on all counts. *Id.* at 212. The Supreme Court granted certiorari regarding only the convictions for interstate transportation of stolen property. *Id.* at 213.

150. 18 U.S.C. § 2314 (1994). The National Stolen Property Act designates it a criminal violation to "transport[ ], transmit[ ], or transfer[ ] in interstate or foreign commerce any goods, wares, merchandise, securities or money, of the value of $5,000 or more, knowing the same to have been stolen, converted or taken by fraud." *Id.*

151. *See* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.05, at 15–26 (1995) (reasoning that government sought felony convictions under National Stolen Property Act because Dowling's activities took place in 1976, at which time only misdemeanor penalties were available for copyright violations).

152. *Dowling*, 473 U.S. at 214–26; *see* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.05, at 15–23 (1995) (explaining that *Dowling* Court relied on historical review of National Stolen Property Act and criminal infringement laws in reaching its decision).

Congress intended to protect under the National Stolen Property Act.[153] Second, he observed that Congress has historically taken a "step-by-step, carefully considered approach" in extending criminal sanctions to copyright infringement.[154] Comparing these two areas of law, Justice Brennan concluded that the National Stolen Property Act could not be used as an alternative method to penalize a copyright offense.[155] Justice Brennan's decision focused largely on the contention that a copyright is not a "traditional property interest."[156] In other words, Justice Brennan reasoned that copyrights exist wholly as a creation of federal statute, and that remedies for copyright infringement must be specifically designated by Congress.[157]

c. Congress Pays Heed to the Lessons of *Dowling* and *LaMacchia*

Dowling and *LaMacchia* represent the kind of unsatisfactory results that the current criminal copyright provisions can produce. Because of legal technicalities, many large-scale infringements may escape criminal sanctions.[158] At first glance, these two holdings might appear antithetical to Congress's proposed amendments to criminal copyright provisions because they express an aversion to extending the criminalization of copy-

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153. *Dowling*, 473 U.S. at 221.

154. *Id.* at 225.

155. *See id.* at 225–26 (concluding that government's attempt to apply National Stolen Property Act to copyright offense was "an indirect but blunderbuss solution to a problem treated with precision when considered directly"). More specifically, the *Dowling* Court concluded that 18 U.S.C. § 2314 was not the "proper means by which to counter the spread of copyright infringement in sound recordings and motion pictures." *Id.* at 229 n.21.

156. *See id.* at 229 (summarizing majority's decision as predicated upon belief that "rights of a copyright holder are 'different' from the rights of owners of other kinds of property").

157. *Dowling*, 473 U.S. at 228–29. The *LaMacchia* court echoed Brennan's reasoning in announcing that "copyright prosecutions should be limited to Section 506 of the Act, and other incidental statutes that explicitly refer to copyright and copyrighted works." *LaMacchia*, 871 F. Supp. at 545 (quoting 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.05, at 15–20 (1993)) (internal quotation marks omitted). The first sentence of the *LaMacchia* opinion makes it apparent that Judge Stearns viewed the *Dowling* case as directly controlling. *See LaMacchia*, 871 F. Supp. at 536 (writing that "[t]his case presents the issue of whether new wine can be poured into an old bottle").

158. INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 228 (1995) (lamenting that large-scale infringements may escape prosecution because of "a serious lacuna in the criminal copyright provisions"). Senator Leahy has also addressed this problem, noting that "[n]ot-for-profit or noncommercial copyright infringement is not subject to criminal law enforcement, no matter how great the loss to the copyright holder." 141 CONG. REC. S11,452 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy).

right infringement. Closer examination, however, discloses that these opinions actually explain, and arguably encourage, Congress's current push to amend the criminal copyright laws.

It is important to note that neither the *LaMacchia* nor the *Dowling* court argued that criminal sanctions were inapplicable to the respective infringements. Instead, these courts reached their decisions only because they found no legislative intent to support the extension of coverage of criminal copyright laws to the facts before them.[159] Despite the unsatisfactory consequences of their holdings, both the *LaMacchia* and *Dowling* courts acknowledged that it is the province of the Legislature to make any changes in the scope of copyright protection.[160] Indeed, the *LaMacchia* court actually implored Congress to reexamine the current state of criminal copyright laws and suggested that criminal sanctions *should* apply to blatantly wilful, large-scale infringements, even in the absence of a financial incentive.[161] Congress's recent actions to amend current copyright laws embody an initiative intended to prevent the reoccurrence of copyright "failures" such as *LaMacchia* and *Dowling*.[162]

2. Ineffective Deterrence

a. Cost-Benefit Analysis

In addition to the loopholes disclosed by *LaMacchia* and *Dowling*, the current copyright system's failure to provide an adequate deterrent to infringement serves as a strong motivating force behind the recent move to expand criminal prosecution of copyright infringement. Although the Copyright Act's penalty system attempts to dissuade future copyright violations,[163] rampant piracy now plagues American copyright industries.

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159. *Dowling*, 473 U.S. at 228–29; *LaMacchia*, 871 F. Supp. at 545.

160. *See Dowling*, 473 U.S. at 214 (emphasizing that "[i]t is the legislature, not the Court, which is to define a crime, and ordain its punishment" (quoting United States v. Wiltberger, 18 U.S. (5 Wheat.) 76, 95 (1820))) (internal quotation marks omitted); *LaMacchia*, 871 F. Supp. at 545 (reaffirming expansion of criminal copyright laws as role of legislative branch).

161. *LaMacchia*, 871 F. Supp. at 545. In dictum, Judge Stearns wrote that "[c]riminal as well as civil penalties should probably attach to willful, multiple infringements of copyrighted software even absent a commercial motive on the part of the infringer. One can envision ways that the copyright law could be modified to permit such prosecution." *Id.* Although not as direct, the *Dowling* Court implied its displeasure by recognizing Congress as the proper source for expansion of copyright laws. *Dowling*, 473 U.S. at 228 (emphasizing "the wisdom of leaving it to the legislature to define crime and prescribe penalties" for copyright infringement).

162. *See* 141 CONG. REC. S11,452, S11,452 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy) (citing *LaMacchia* court's "invitation" to reexamine copyright laws).

163. *See* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.01[C], at 15–14 to 15–15 (1995) (noting deterrent role of criminal copyright sanctions);

With billions of dollars being lost each year to piracy, it is apparent that the present statutory remedies are not producing their intended deterrent effects.

Copyright piracy has emerged as a "big business"[164] due to a combination of the low cost and negligible risk of detection associated with modern infringement methods and the relatively high benefits inuring to pirates. On the one hand, the costs, or risks, of modern infringement are very low. In many cases, for example, modern technology reduces copyright infringement to a task as simple as the push of a button.[165] Moreover, Information Age devices such as computers, modems, fax machines, and photocopiers are a common part of everyday life, thus rendering the "tools" of infringement readily accessible to pirates.[166] As a result, modern copyright piracy often requires little time, effort, or expense.[167] Ad-

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see also F.W. Woolworth Co. v. Contemporary Arts, Inc., 344 U.S. 228, 233 (1952) (defining role of civil copyright damages as discouragement of wrongful conduct); Frank Music Corp. v. Metro-Goldwyn-Mayer, 772 F.2d 505, 520 (9th Cir. 1985) (recognizing that one of main underlying purposes of Copyright Act's remedy provisions is "to discourage wrongful conduct and deter infringements"), *cert. denied*, 494 U.S. 1017 (1990).

164. *See* William Nix, *Video Piracy Is Big Business* (identifying piracy of motion pictures as "big business"), *in* TRADEMARK & COPYRIGHT INFRINGEMENT 131, 132 (Gerald J. Mossinghoff & Bruce A. Lehman eds., 1985); *see also* Bruce A. Lehman, *The New Anti-Counterfeiting Legislation and Piracy Issues: An Overview* (describing intellectual property infringement as "big business"), *in* TRADEMARK & COPYRIGHT INFRINGEMENT 3, 5 (Gerald J. Mossinghoff & Bruce A. Lehman eds., 1985).

165. *See* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 12 (1995) (recognizing that modern technology enables "one individual, with a few key strokes, to deliver perfect copies of digitized works to scores of other individuals"); Junda Woo, *Digital Data Puts Some New Twists on Copyright Laws*, SAN DIEGO UNION-TRIBUNE, Dec. 29, 1994, at E2 (writing that copyright owners are concerned because their works "can be copied by consumers with a simple push of a computer key").

166. *See* Dennis D. McDonald, *Copyright Can Survive the New Technologies* (noting widespread availability of recording and copying technology), *in* MODERN COPYRIGHT FUNDAMENTALS 424, 425 (Ben H. Weil & Barbara F. Polansky eds., 1989). Not only is the technological equipment of an infringer more pervasive in modern society, but it is also more "cost efficient." *See* RECORDING INDUS. ASS'N OF AM., INC., SOUND RECORDING PIRACY: A GUIDE TO STATE INVESTIGATIONS AND PROSECUTIONS 4 (1991) (on file with the *St. Mary's Law Journal*) (contending that modern pirate's equipment and material costs are low).

167. *See* Jon A. Baumgarten, *Will Copyright Survive the New Technologies?, Should It?* (commenting that modern infringement is simple and inexpensive), *in* MODERN COPYRIGHT FUNDAMENTALS 421, 422 (Ben H. Weil & Barbara F. Polansky eds., 1989); Don E. Tomlinson, *Journalism and Entertainment As Intellectual Property on the Information Superhighway: The Challenge of the Digital Domain*, 6 STAN. L. & POL'Y REV. 61, 63–64 (1994) (focusing on ease of replication as significant reason for rampant piracy); *see also* RECORDING INDUS. ASS'N OF AM., INC., SOUND RECORDING PIRACY: A GUIDE TO STATE

ditionally, technology has made piracy much harder to detect, consequently lowering the infringer's potential risk of detection.[168]

While today's infringement costs decline, the attendant "benefits" of infringement climb to all-time highs. First, the very devices that make infringement easier and faster, also make it more profitable.[169] Modern technology has raised infringers' potential for financial gain by greatly increasing the ease with which numerous illicit copies can be made.[170]

INVESTIGATIONS AND PROSECUTIONS 4 (1991) (on file with the *St. Mary's Law Journal*) (correlating rise in piracy to introduction of tape cartridges and cassettes, which made copying easier and less costly); Bill Gates, *Content Is King on the Internet*, SAN ANTONIO EXPRESS-NEWS, Jan. 7, 1996, at J4 (dubbing Internet "the multimedia equivalent of the photocopier" because it allows low cost duplication and distribution of material regardless of audience size); David Germain, *As Technology Advances, Pirates Lay Siege to Software Industry*, AP, Mar. 5, 1995 (recognizing that better and less expensive home computer technology has made piracy of copyrighted games easier and cheaper), *available in* Westlaw, ASSOCPR Database. A copyright industry spokesman has been credited with saying: "It used to be you needed a factory to be an effective pirate. Now anybody with equipment that's easily available can do it." David Germain, *As Technology Advances, Pirates Lay Siege to Software Industry*, AP, Mar. 5, 1995 (quoting Steve Metalitz, Vice President, International Intellectual Property Alliance), *available in* Westlaw, ASSOCPR Database.

168. *See* Jon A. Baumgarten, *Will Copyright Survive the New Technologies?, Should It?* (listing "practical problems of detection and enforcement" as troubling effects of technology in relation to copyright), *in* MODERN COPYRIGHT FUNDAMENTALS 421, 422 (Ben H. Weil & Barbara F. Polansky eds., 1989); Greg Short, Comment, *Combating Software Piracy: Can Felony Penalties for Copyright Infringement Curtail the Copying of Computer Software*, 10 COMPUTER & HIGH TECH. L.J. 221, 223 (1994) (mentioning low risk of detection as contributing factor to piracy problem); Junda Woo, *Copyright Laws Enter the Fight Against Electronic Bulletin Board*, WALL ST. J., Sept. 27, 1994, at B11 (explaining that copyright enforcement on highly trafficked computer bulletin boards is difficult because no central monitoring system exists); *see also* Andrew Grosso, *The National Information Infrastructure*, 41 FED. B. NEWS & J. 481, 485 (1994) (acknowledging that evidence of infringement involving computer technology is very difficult to obtain); Don E. Tomlinson, *Journalism and Entertainment As Intellectual Property on the Information Superhighway: The Challenge of the Digital Domain*, 6 STAN. L. & POL'Y REV. 61, 67 (1994) (noting "virtual undetectability" of infringement on Internet).

169. *See* RICHARD WINCOR & IRVING MANDELL, COPYRIGHT, PATENTS AND TRADEMARKS: THE PROTECTION OF INTELLECTUAL AND INDUSTRIAL PROPERTY 1 (1980) (writing that "the development of motion pictures, television and other forms of transmission has greatly increased the value and the vulnerability of works of art"); Don E. Tomlinson, *Journalism and Entertainment As Intellectual Property on the Information Superhighway: The Challenge of the Digital Domain*, 6 STAN. L. & POL'Y REV. 61, 66 (1994) (attributing easier infringement of copyrighted works to "the same innovative technologies used to enhance the[ir] quality and diseminability").

170. *See* Dennis D. McDonald, *Copyright Can Survive the New Technologies* (stressing ease of unauthorized copying), *in* MODERN COPYRIGHT FUNDAMENTALS 424, 425 (Ben H. Weil & Barbara F. Polansky eds., 1989); Jessica Litman, *Copyright in the Twenty-First Century: The Exclusive Right to Read*, 13 CARDOZO ARTS & ENT. L.J. 29, 34 (1994) (professing that "[t]echnology, heedless of law, has developed modes that insert multiple acts of

Second, digital technology has increased the quality of pirated goods, thereby enhancing their resale attractiveness.[171] Finally, the items typically infringed by a modern pirate hold considerable value and retain high demand as commodities in today's information-based society.[172] In sum, the combined low costs and high profits of pirating copyrighted

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reproduction and transmission—potentially actionable events under the copyright statute—into commonplace daily transactions").

171. *See* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 12 (1995) (asserting that digital technology and electronic networks considerably "raise the stakes" of piracy by facilitating storage and use, increasing ease and speed of reproduction, and heightening quality of copies). Specifically, Professor Nimmer explained the repercussions of digital technology's high quality reproductions of sound recordings:

> In years past, home taping of long-playing albums undoubtedly decreased overall record sales to some extent. Nonetheless, such copying could not satisfy audiophiles—each time a copy was made, the reproduction process necessarily occasioned a loss in fidelity; making a copy of a copy resulted in further degradation of sound quality. Therefore, a true music buff had the incentive to buy a factory original, rather than settle for a home tape recording.
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> When manufacturers announced the imminent availability of DAT-digital audio tape-recorders, the foregoing equilibrium tottered. Unlike traditional (analog) recordings, digital recordings produce perfect fidelity no matter how many times they are copied. One original—if taped by its buyer who in turn passed copies to three friends who in turn each made four copies for their own friends, an so on—could therefore supplant thousands of factory sales.

2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 8B.01[A], at 8B–6 to 8B–7 (1995); *see also* 138 CONG. REC. H9035 (daily ed. Sept. 22, 1992) (statement of Rep. Collins) (pointing to capability of digital audio technology to produce multigenerational copies of almost perfect sound quality); RECORDING INDUS. ASS'N OF AM., INC., SOUND RECORDING PIRACY: A GUIDE TO FEDERAL INVESTIGATIONS AND PROSECUTIONS 1.2 (1988) (on file with the *St. Mary's Law Journal*) (attributing growth of recording piracy to developments in tape technology); David Germain, *As Technology Advances, Pirates Lay Siege To Software Industry*, AP, March 5, 1995 (contending that digital equipment can make copies possessing same quality as originals), *available in* Westlaw, ASSOCPR Database.

172. *See* Jon A. Baumgarten, *Will Copyright Survive the New Technologies?, Should It?* (contending that technology "has created an enormous public appetite for immediate 'access' to copyrighted works"), *in* MODERN COPYRIGHT FUNDAMENTALS 421, 422 (Ben H. Weil & Barbara F. Polansky eds., 1989); David Ladd, The Harm of the Concept of Harm in Copyright, Thirteenth Donald C. Brace Memorial Lecture (Apr. 13, 1983) (discussing strong public desire and need for copyrighted works), *in* MODERN COPYRIGHT FUNDAMENTALS 206, 209 (Ben H. Weil & Barbara F. Polansky eds., 1989); Bruce A. Lehman, *The New Anti-Counterfeiting Legislation and Piracy Issues: An Overview* (asserting that advances in technology and communications have rendered intellectual property considerably more valuable), *in* TRADEMARK & COPYRIGHT INFRINGEMENT 3, 4 (Gerald J. Mossinghoff & Bruce A. Lehman, eds., 1985); *cf.* James Cox, *Bootlegging Billions: U.S. Loses Ground in Crackdown*, USA TODAY, Mar. 9, 1993, at B1 (identifying high demand for bootleg movies, sound recordings, and computer software).

commodities create barriers to effective deterrence of criminal copyright laws.[173]

b. Cyberspace: A New Piracy Frontier

While the current system of copyright laws has proved to be an ineffective deterrent to profit-seeking pirates, it also fosters another insidious type of information piracy.[174] Currently prevalent in cyberspace, this new type of piracy concerns itself not with profit, but with simply making copyrighted items readily available to others without cost.[175] In particular, these cyberspace pirates display their indifference for the copyright system by repeatedly uploading and downloading works on the information superhighway.[176] As the *LaMacchia* case exemplifies, current crimi-

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173. *See* Don E. Tomlinson, *Journalism and Entertainment As Intellectual Property on the Information Superhighway: The Challenge of the Digital Domain*, 6 STAN. L. & POL'Y REV. 61, 80–81 n.169 (1994) (quoting copyright attorney as saying that "Cyberspace is so vast that there's a[n excellent] risk-reward ratio [for infringement]").

174. *See id.* at 61 (discussing novel form of piracy taking place on Internet).

175. William S. Byassee, *Jurisdiction of Cyberspace: Applying Real World Precedent to the Virtual Community*, 30 WAKE FOREST L. REV. 197, 215 (1995); *see* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 228–29 (1995) (illustrating that low cost of infringement on NII may prompt infringement for reasons such as belief "that all works should be free in Cyberspace"); Don E. Tomlinson, *Journalism and Entertainment As Intellectual Property on the Information Superhighway: The Challenge of the Digital Domain*, 6 STAN. L. & POL'Y REV. 61, 67 (1994) (explaining that Internet pirates "routinely deposit copyrighted materials, not for economic gain, but because they enjoy the process"). David Ladd's statements regarding noncommercial piracy groups are applicable to the modern copyright "rebels":

> As new technologies of use appear, they create their own commercial interests, constituencies, and pressure groups whose fortunes are furthered by maximum public use of copyrighted works, whether compensated or not. . . . These groups have often resisted the historic trend of extending and expanding copyright to new technologies, under pleas of special needs. Such resistance is never claimed to be justified in terms of self-interest, but of consumer interests in maximum distribution of goods and services at the lowest cost.

David Ladd, The Harm of the Concept of Harm in Copyright, Thirteenth Donald C. Brace Memorial Lecture (Apr. 13, 1983), *in* MODERN COPYRIGHT FUNDAMENTALS 206, 206 (Ben H. Weil & Barbara F. Polansky eds., 1989).

176. *See* Don E. Tomlinson, *Journalism and Entertainment As Intellectual Property on the Information Superhighway: The Challenge of the Digital Domain*, 6 STAN. L. & POL'Y REV. 61, 67 (1994) (discussing practices of Internet pirates); Ross Kerber, *Vigilant Copyright Holders Patrol the Internet*, WALL ST. J., Dec. 13, 1995, at B1 (citing numerous instances of copyrighted images and materials being posted on Internet). This movement has created scorn for the application of infringement laws in cyberspace, with critics arguing that it impedes the free flow of ideas and information. *Cf.* David Ladd, The Harm of the Concept of Harm in Copyright, Thirteenth Donald C. Brace Memorial Lecture (Apr. 13, 1983) (alleging that technological advancements give rise to "non-commercial groups who

nal infringement laws are ill-suited to address this type of piracy, and provide little, if any, deterrence on the cyberspace "frontier."[177]

c. Raising the Costs

Whatever the motivation, copyright piracy will continue as long as the incentive to infringe protected works outweighs the deterrent effects of current laws. The increasing value of copyrighted works as commodities in our information-based society[178] makes it unlikely that the benefits attendant to modern piracy will subside in the near future. Therefore, increasing the risks associated with copyright piracy to clearly unattractive levels is the most logical way to dissuade modern pirates.[179] Along these

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see copyright as hobbling their mission by placing unacceptable strains on their budgets, or complicating their work"), *in* MODERN COPYRIGHT FUNDAMENTALS 206, 206 (Ben H. Weil & Barbara F. Polansky eds., 1989).

177. INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 228–29 (1995); Vic Sussman, *Policing Cyberspace: Cops Want More Power to Fight Cybercriminals: As Their Techno-Battle Escalates, What Will Happen to American Traditions of Privacy and Property?*, U.S. NEWS & WORLD REP., Jan. 23, 1995, at 55, 56 (attributing a "frontier culture" to many inhabitants of cyberspace).

178. *See* Andrew Grosso, *The National Information Infrastructure*, 41 FED. B. NEWS & J. 481, 481 (1994) (recognizing increasingly important role of information as 21st century nears); Deborah Reilly, *The National Information Infrastructure and Copyright: Intersections and Tensions*, 76 J. PAT. & TRADEMARK OFF. SOC'Y 903, 914 (1994) (recognizing truthfulness of Office of Technology Assessment predictions that "information will increasingly be treated as a commodity and that conflicts will be most pronounced where the economic value of information is high"); Bill Gates, *Content Is King on the Internet*, SAN ANTONIO EXPRESS-NEWS, Jan. 7, 1996, at J4 (extolling content as Internet's most valuable economic asset); *cf.* Thomas A. Stewart & Jane Furth, *The Information Age in Charts*, FORTUNE, Apr. 1994, at 75, 75 (reporting that United States "infotainment" industries are nearing $1 trillion in yearly sales and estimating that data communications industries will generate revenues of $40 billion per year by 1998).

179. *Cf.* NATIONAL COMM'N ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS, FINAL REPORT 10 (1978) (emphasizing need to increase protection of computer programs). The National Commission on New Technological Uses of Copyrighted Works (CONTU) Report summarized the need to pass more deterrent copyright laws through a succinct analogy:

> Just as there was little need to protect the rigid brass wheel in a nineteenth-century music box, so too there was little reason to protect the wired circuit or plug boards of early computers. The cost of making the wheel was inseparable from the cost of producing the ridged final product. The cost of copying a reel of magnetic tape, whether it contains a Chopin etude or a computer program, is small. Thus, the following proposition seems sound: *if the cost of duplicating information is small, then it is simple for a less than scrupulous person to duplicate it. This means that legal as well as physical protection for the information is a necessary incentive if such information is to be created and disseminated.*

Id. (emphasis added).

lines, increased criminal sanctions offer one viable avenue for raising the risks of copyright infringement and, ultimately, deterring infringement.

3. Technology Stays One Step Ahead of the Law

a. History of Copyright's Reaction to Technological Change

The rapid technological growth and information explosion of the Information Age stand out as the greatest catalysts for Congress's efforts to amend the criminal copyright infringement statutes. The American copyright scheme has attained its present scope through a process of gradual evolution, often in response to technological advances.[180] Because of this constant evolution, "copyright" often eludes precise definition, which leaves courts with the difficult task of determining the exact "interests" to which copyright protection should extend.[181] Courts have been reluctant

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180. *See* H.R. REP. No. 1476, 94th Cong., 2d Sess. 51 (1976) (acknowledging gradual expansion of copyright law to encompass new technology), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5664; Sony Corp. of Am. v. Universal City Studios, 464 U.S. 417, 430–31 (1984) (discussing influence of technology on development of copyright law). The expansion of the scope of copyright law has generally affected two categories:

> In the first, scientific discoveries and technological developments have made possible new forms of creative expression that never existed before. In some of these cases the new expressive forms—electronic music, filmstrips, and computer programs, for example—could be regarded as an extension of copyrightable subject matter Congress had already intended to protect, and were thus considered copyrightable from the outset without the need of new legislation. In other cases, such as photographs, sound recordings, and motion pictures, statutory enactment was deemed necessary to give them full recognition as copyrightable works.
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> . . . .
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> The historic expansion of copyright has also applied to forms of expression which, although in existence for generations or centuries, have only gradually come to be recognized as creative and worthy of protection.

H.R. REP NO. 1476, 94th Cong., 2d Sess. 51 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5664–65. Indeed, technology has shaped copyright law from its beginning, as the first copyright laws addressed legal issues arising from the advent of the printing press. *See Sony Corp. of Am.*, 464 U.S. at 430 (noting that invention of printing press "gave rise to the original need for copyright protection"); *see also* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 7 n.17 (1995) (noting that "[t]he original copyright law upon which our system was based . . . was a reaction to the invention of the printing press"); LYMAN R. PATTERSON, COPYRIGHT IN HISTORICAL PERSPECTIVE 20 (1968) (contending that introduction of printing press in England assured creation of copyright laws).

181. *See* Shapiro, Bernstein & Co. v. H.L. Green Co., 316 F.2d 304, 305 (2d Cir. 1963) (noting frequent lack of precedent and inadequate guidance in copyright actions); Folsom v. Marsh, 9 F. Cas. 342, 344–45 (C.C.D. Mass. 1841) (No. 4,901) (noting difficulty in assigning general or basic principles of law applicable to all copyright cases). In the *Folsom* opinion, Supreme Court Justice Story commented that "copyrights approach, nearer than any other class of cases belonging to forensic discussions, what may be called the meta-

to extend the provisions of copyright statutes without explicit legislative guidance, because copyright law has emerged as a statutory creation.[182] Unfortunately, this reluctance has led to unsatisfactory results, as technological advancements have exposed various "loopholes" in copyright statutes before Congress has had the opportunity to remedy the situation.[183]

The recent *LaMacchia* case stands as only one example of the failure of copyright law to adequately keep pace with changes brought about by new technology. For example, during the early 1900s, mechanical player pianos using perforated rolls of music emerged as a new form of entertainment throughout the United States.[184] In 1908, the Supreme Court rejected a music publishing company's infringement claim regarding two copyrighted songs that the defendant reproduced on perforated music rolls.[185] Regretting that its decision potentially allowed makers of "mechanized music" to profit from the "use of musical compositions for which they pa[id] no value,"[186] the Court nevertheless concluded that the

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physics of the law, where the distinctions are, or at least may be, very subtle and refined, and, sometimes, almost evanescent." *Folsom*, 9 F. Cas. at 344; *see* WILLIAM S. STRONG, THE COPYRIGHT BOOK 128 (3d ed. 1990) (lamenting that copyright "boundaries" are often unclear); U.S. COPYRIGHT OFFICE, COPYRIGHT IN CONGRESS, 1789–1904, at 7 (1904) (writing that copyright laws "fail to give the protection required, are difficult of interpretation, application, and administration, leading to misapprehension and misunderstanding, and in some directions are open to abuses"); Jessica Litman, *The Exclusive Right to Read*, 13 CARDOZO ARTS & ENT. L.J. 29, 34 (1994) (commenting that early copyright law was "technical, inconsistent, and difficult to understand").

182. *See Sony Corp. of Am.*, 464 U.S. at 431 (pronouncing that "[t]he judiciary's reluctance to expand the protections afforded by the copyright without explicit legislative guidance is a recurring theme"); *LaMacchia*, 871 F. Supp. at 544 (reiterating courts' unwillingness to extend reach of copyright protection absent clear congressional intent).

183. *See* LYMAN R. PATTERSON, COPYRIGHT IN HISTORICAL PERSPECTIVE 213–14 (1968) (referring to numerous examples of congressional discontent with copyright law); *see also, e.g.*, Holmes v. Hurst, 174 U.S. 82, 90 (1899) (denying copyright protection to Oliver Wendell Holmes's book, *The Autocrat of the Breakfast Table*, because it was serially published in monthly magazine); Stowe v. Thomas, 23 F. Cas. 201, 208 (C.C.E.D. Pa. 1853) (No. 13,514) (finding no infringement of author Harriet Beecher Stowe's rights in action against individual who translated *Uncle Tom's Cabin* into German); Chamberlain v. Feldman, 89 N.E.2d 863, 865 (N.Y. 1949) (enjoining publication of long lost manuscript authored by Mark Twain). More recent cases also reflect disappointing results in the fight against infringement. *See Dowling*, 473 U.S. at 228–29 (refusing to extend National Stolen Property Act to cover copyright related offenses); *LaMacchia*, 871 F. Supp. at 545 (dismissing federal wire fraud charge in case involving large-scale infringement of computer software on electronic bulletin board).

184. *See* White-Smith Music Publishing Co. v. Apollo, 209 U.S. 1, 9 (1908) (noting that over 70,000 player pianos and 1 million perforated music rolls were in use in United States as of 1902).

185. *Id.* at 9, 18.

186. *Id.* at 18.

perforated rolls did not constitute an unauthorized "copy" under the terms of the copyright statute.[187]

Throughout history, copyright laws have slowly reacted to the changing world of technology.[188] The decades following the player piano case provide countless examples of copyright law's sometimes painful adaptation to technological innovations. For instance, radio, television, and

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187. *Id.* Hence, a violation of copyright law depended upon a sight comparison of the two works without an analysis of the music itself. *See id.* (construing terms of Copyright Act strictly and holding that musical composition was not "copied" until "put in a form which others can see and read"); THORNE D. HARRIS, THE LEGAL GUIDE TO COMPUTER SOFTWARE PROTECTION 45 (1984) (explaining that 1909 Copyright Act posed problems for machine-readable materials, thus limiting copyright protection to items "reduced to a form intelligible to humans"); *see also* LYMAN R. PATTERSON, COPYRIGHT IN HISTORICAL PERSPECTIVE 214 (1968) (discussing *White-Smith Music Publishing Co.* case briefly in context of historically inconsistent and disappointing results in copyright infringement claims); *cf.* Stern v. Rosey, 17 App. D.C. 562, 564–65 (1901) (refusing to "stretch" copyright statute to include wax cylinders for phonographs as copies or publications of musical compositions). Interestingly, while the player piano revealed the ineffectiveness of the copyright laws in dealing with unprecedented forms of "copying," it was over 65 years later before Congress conclusively resolved this problem and acknowledged a more expansive reading of copyright protection. *See* Alan C. Rose, *Protection of Intellectual Property Rights in Computers and Computer Programs: Recent Developments*, 9 PEPP. L. REV. 547, 558, 561 (1982) (noting that 1976 Copyright Act and subsequent amendments expanded scope of copyright and overruled *White-Smith Music Publishing Co.*'s outdated concepts). In the end, it took another technological advancement, the computer, to compel Congress to "update" this outdated definition of a "copy." *See id.* (claiming that 1980 amendment to § 117 of Copyright Act officially eliminated "eye-readable" requirement as to computer programs); *see also* FREDERIC W. NEITZKE, A SOFTWARE LAW PRIMER 13 (1984) (contending that 1980 amendments to Copyright Act eliminated "eye-readable" concept and clarified copyrightability of computer programs). *But see* THORNE D. HARRIS, THE LEGAL GUIDE TO COMPUTER SOFTWARE PROTECTION 46 (1984) (asserting that it was 1971 Sound Recordings Amendment which remedied lingering *White-Smith Music Publishing Co.* problem).

188. *See* H.R. REP. NO. 1476, 94th Cong., 2d Sess. 54 (1976) (reviewing technological advancements that prompted copyright amendments), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5660–63; *Sony Corp. of Am.*, 464 U.S. at 430–31 n.11 (listing numerous examples of technological advances that necessitated changes in copyright laws); INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 7 (1995) (acknowledging that copyright law has changed in response to technological advances "from Gutenberg's moveable type printing press to digital audio recorders and everything in between—photocopiers, radio, television, videocassette recorders, cable television and satellites"); *see also* DONALD S. CHISUM AND MICHAEL A. JACOBS, UNDERSTANDING INTELLECTUAL PROPERTY LAW § 4C[1][e], at 4–38 (1992) (noting that Congress initially broadened copyright protection to include sound recordings because new sound reproduction technology exacerbated piracy problem in record and tape industry); 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 8B.02[A][1], at 8B–27 (1995) (commenting that digital recording technologies led to passage of Audio Home Recording Act of 1992).

photocopier technology all prompted changes to copyright law.[189] More recently, during the 1970s, copyright laws responded to the advent of improved sound recording devices that had elevated record piracy to crisis levels.[190] Another recent example involves the struggle to articulate the copyrightability of computer programs and software.[191] Today, modern on-line services and computer networks present yet another challenge for the Copyright Act.[192]

b. Keeping Pace with the Times

In order to retain their efficacy, copyright laws must be flexible enough to evolve and embrace new technology.[193] Thomas Jefferson once expressed this concept when he wrote:

> I am certainly not an advocate for frequent and untried changes in laws and constitutions. . . . But . . . laws and institutions must go hand in hand with the progress of the human mind. As that becomes more developed, more enlightened, as new discoveries are made, new truths disclosed, and manners and opinions change with the change of circumstances, institutions must advance also, and keep

189. Jon A. Baumgarten, *Will Copyright Survive the New Technologies?, Should It?* (illustrating copyright's adaptation to long list of technological advancements), *in* MODERN COPYRIGHT FUNDAMENTALS 421, 421 (Ben H. Weil & Barbara F. Polansky eds., 1989).

190. RECORDING INDUS. ASS'N OF AM., INC., SOUND RECORDING PIRACY: A GUIDE TO FEDERAL INVESTIGATIONS AND PROSECUTIONS 1.7 (1988) (on file with the *St. Mary's Law Journal*); *see* Sound Recording Act of 1971, Pub. L. No. 92–140, 85 Stat. 391 (codified as amended at 17 U.S.C. §§ 102-307) (1994) (extending copyright protection to sound recordings).

191. *See* Richard H. Stern, *The Bundle of Rights Suited to New Technology*, 47 U. PITT. L. REV. 1229, 1238–46 (1986) (discussing problems in application of copyright law to source code and computer software).

192. *See* INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 12 (1995) (discussing copyright challenges presented by digital technology and high speed communications networks); Ross Kerber, *Vigilant Copyright Holders Patrol the Internet*, WALL ST. J., Dec. 13, 1995, at B1 (recognizing that Internet poses significant threat to copyright holders).

193. *Cf.* H.R. REP. NO. 1476, 94th Cong., 2d Sess. 54 (1976) (acknowledging that it is impossible to predict future forms of creative expression, but stressing that Copyright Act "does not intend . . . to freeze the scope of copyrightable subject matter at the present stage of communications technology"), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5664. Congress has attempted to codify the necessary copyright flexibility in § 102 of the Copyright Act. *See* 17 U.S.C. § 102 (1994) (extending copyright protection to "original works of authorship fixed in any tangible medium of expression, *now known or later developed*") (emphasis added).

> pace with the times. We might as well require a man to wear still the coat which fitted him when a boy . . . .[194]

Though articulated over 180 years ago, Jefferson's legal reasoning remains equally relevant today, for the Copyright Act must now advance to keep in step with the times. In particular, the fast-moving technological expansion of the Information Age, especially as manifested in the convergence of modern computer and communication devices, reveals that copyright laws must once again play "catch-up" to a multitude of technological advances and an array of new legal challenges.[195]

IV. Potential Solutions

Recent case law, insufficient deterrence, and modern technology explain not only the need to strengthen criminal infringement laws, but also the reasoning behind Congress's chosen method to do so. Although commentators have suggested a sweeping variety of tactics to combat rampant infringement,[196] in practice, prosecutors have explored three different approaches in their attempts to expand the use of criminal sanctions against infringers: (1) state actions for criminal infringement; (2) expanded use of currently existing criminal statutes, such as mail or wire

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194. Letter from Thomas Jefferson to Samuel Kercheval (July 12, 1816), *in* 15 The Writings of Thomas Jefferson 32, 40–41 (Andrew A. Lipscomb & Albert E. Bergh eds., 1903); *see* Dumas Malone, Jefferson and His Time: The Sage of Monticello 348 (1981) (quoting and discussing Jefferson's letter); *see also* Information Infrastructure Task Force, Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights 13 (quoting passage as inscribed at Jefferson Memorial in Washington, D.C.).

195. *See, e.g.*, Religious Technology Ctr. v. Netcom On-Line Communication Servs., 907 F. Supp. 1361, 1361 (N.D. Cal. 1995) (involving case of first impression in regard to liability of access provider for infringing activities of subscriber); *LaMacchia*, 871 F. Supp. at 544 (recognizing that current criminal copyright laws do not reach mass infringement of computer software absent profit incentive); Playboy Enters. v. Frena, 839 F. Supp. 1552, 1554 (M.D. Fla. 1993) (addressing liability of BBS operator for display of copyrighted images on his service).

196. *See* Don E. Tomlinson, *Journalism and Entertainment As Intellectual Property on the Information Superhighway: The Challenge of the Digital Domain*, 6 Stan. L. & Pol'y Rev. 61, 70 (1994) (listing "[e]ducation, pricing policies, encryption, new royalty bases, assistance from the bulletin board operators, on-line services, and networks" as potential methods to combat modern piracy); Dwight R. Worley, *The Hard Drive: Analog Laws Can't Keep up with Digital Technology; Copyrights Offer Little Protection in Computer Age*, Newsday, Apr. 30, 1995, at 2 (discussing "watermark" and encryption techniques used in attempts to thwart infringers); *see also* Information Infrastructure Task Force, Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights 17 (1995) (stressing that changes in law, technology, and education are necessary to maintain copyright balance).

fraud; and (3) amendment of the federal copyright statute. This Comment concludes that the third approach—amendment of the federal copyright statute through the proposed Improvement Act—is the most appealing of the three options.

A. *State Laws*

Although most states have enacted laws to protect against copyright infringement,[197] such legislation does not provide an entirely effective method to combat piracy because of the preemptive effects of federal copyright law.[198] State anti-piracy laws undeniably play an important role in some areas of copyright enforcement, especially with regard to sound recordings.[199] In the most basic terms, however, the limited cover-

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197. *See* 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 8C.03, at 8C–10 (1995) (reporting that almost every state has laws that provide copyright-like protection in areas such as record piracy and video and audio labeling). State laws used to combat piracy are usually not labelled as "copyright laws" per se, but instead fall under headings such as "fraud, consumer protection statutes, trademark statutes, and anti-bootleg statutes." RECORDING INDUS. ASS'N OF AM., INC., SOUND RECORDING PIRACY: A GUIDE TO STATE INVESTIGATIONS AND PROSECUTIONS 8 (1991) (on file with the *St. Mary's Law Journal*); *see also* 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 8C.03, at 8C–9 to 8C–10 (1995) (acknowledging that state laws to combat infringement technically proceed under different theories than copyright).

198. *See* 17 U.S.C. § 301 (1994) (providing for federal preemption pertaining to duration of copyright); 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 8C.02, at 8C–4 (1995) (indicating that Copyright Act of 1976 largely preempts state copyright laws). One copyright expert has explained that "[s]tate prosecutions for criminal activity with respect to copyright infringement are, of course, preempted, except as regards pre-1972 sound recordings." WILLIAM F. PATRY, LATMAN'S THE COPYRIGHT LAW 295 (6th ed. 1986). In general, federal preemption is based upon the Constitution's Supremacy Clause, and works to "deprive[ ] a state of jurisdiction over matters embraced by a U.S. Congressional Act." RECORDING INDUS. ASS'N OF AM., INC., SOUND RECORDING PIRACY: A GUIDE TO STATE INVESTIGATIONS AND PROSECUTIONS 6 (1991) (on file with the *St. Mary's Law Journal*). Federal preemption of state copyright law, however, is actually based on a combination of the Supremacy Clause, statutory preemption, and case law. *See id.* (naming Supremacy Clause, § 301 of Copyright Act, and decision in *Goldstein v. California* as three sources that clarify federal preemption of state copyright laws); *see also* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.05, at 15–26 to 15–27 (1995) (indicating that both 17 U.S.C. § 301 and Supremacy Clause serve to preempt state laws relating to "subject matter of copyright where such conduct also constitutes civil (or criminal) infringement under the Copyright Act").

199. *See* RECORDING INDUS. ASS'N OF AM., INC., SOUND RECORDING PIRACY: A GUIDE TO STATE INVESTIGATIONS AND PROSECUTIONS 8 (1991) (on file with the *St. Mary's Law Journal*) (declaring that numerous state laws are available to prosecute piracy of sound recordings). In particular, federal preemption does not apply to sound recordings fixed earlier than February 15, 1972; therefore, most states have enacted statutes to protect copyright interests in pre-1972 recordings. *Id.* at 6. Although states combat piracy of sound recordings through several different methods, statutes prohibiting the unauthorized

age of state laws is best described as an attempt to fill the gaps not covered by the federal copyright protection scheme.[200] For example, states

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distribution of sound recordings, or "UD" laws, seem to be the most common approach. *See id.* at 9 (identifying state efforts to combat record piracy and noting that vast majority of states have UD laws). Such state laws include: ALA. CODE §§ 13A-8-81, 13A-8-86 (1995); ALASKA STAT. § 45.50.900 (1986); ARIZ. REV. STAT. ANN. § 13-3705 (1995); ARK. CODE ANN. § 5-37-510(b)(2) (1993); CAL. PENAL CODE § 653(h), (v) (West Supp. 1989); COLO. REV. STAT. ANN. §§ 18-4-601 to 18-605 (1986 & Supp. 1995); CONN. GEN. STAT. ANN. § 53-142b (1994 & Supp. 1996); DEL. CODE ANN. tit. 11, §§ 920-924 (1995); D.C. CODE ANN. § 22-3814 (1989 & Supp. 1995); FLA. STAT. ANN. § 540.11 (West Supp. 1996); GA. CODE ANN. § 16-8-60 (1992); HAW. REV. STAT. §§ 482C-1 to 482C-5 (1995); IDAHO CODE §§ 18-7601 to 18-7608 (1987); ILL. ANN. STAT. ch. 720, para. 5/16-7 to 5/16-8, 43-1, 43-2 (Smith-Hurd 1993); IOWA CODE ANN. § 714.15 (West 1993); KAN. STAT. ANN. §§ 21-3748 to 21-3751 (1995); KY. REV. STAT. ANN. § 434.445 (Michie/Bobbs-Merrill 1985 & Supp. 1994); LA. REV. STAT. ANN. §§ 14:223 to 14:223.4 (West Supp. 1996); ME. REV. STAT. ANN. tit. 10, § 1261 (1980); MD. CODE ANN., CRIM. LAW § 467A (Supp. 1994); MASS. GEN. LAWS ANN. ch. 266, § 143 (West 1992); MICH. COMP. LAWS ANN. §§ 18.610(1) to 18.610(5) (West 1995); MINN. STAT. ANN. §§ 325E.17 to 325E.20 (West 1995); MISS. CODE ANN. §§ 97-23-87 to 97-23-89, 97-23-91 (1994); MO. ANN. STAT. §§ 570.225 to 570.255 (Vernon 1979 & Supp. 1996); MONT. CODE ANN. §§ 30-13-141 to 30-13-147 (1995); NEB. REV. STAT. §§ 28-1323 to 28-1326 (Supp. 1994); NEV. REV. STAT. § 205.217 (1991); N.H. REV. STAT. ANN. §§ 352-A:1 to 352-A:5, 352:1 (1995); N.J. STAT. ANN. § 2C:21-21 (West 1995); N.M. STAT. ANN. §§ 30-16B-1 to 30-16B-9 (Michie 1994); N.Y. PENAL LAW §§ 275.00 to 275.25, 420.00 to 420.05 (McKinney 1989 & Supp. 1996); N.C. GEN. STAT. §§ 14-433, 14-437 (1995); OHIO REV. CODE ANN. §§ 1333.52, 1333.99, 2913.32(A)(2)(3) (Anderson 1992); OKLA. STAT. ANN. tit. 21, §§ 1975 to 1978 (West Supp. 1996); OR. REV. STAT. § 164.865 (1995); 18 PA. CONS. STAT. ANN. ch. 18 § 4116 (1984); R.I. GEN. LAWS § 6-13.1-15 (1992); S.C. CODE ANN. §§ 16-11-910, 16-11-920 (Law. Co-op. Supp. 1995); S.D. CODIFIED LAWS ANN. §§ 43-43A-1 to 43-43A-7 (1983); TEX. BUS. & COM. CODE ANN. § 35.92 (Vernon Supp. 1990); UTAH CODE ANN. §§ 13-10-1 to 13-10-6 (1996); VA. CODE ANN. §§ 59.1-41.2, 59-1-41.6 (Michie 1992); WASH. REV. CODE ANN. §§ 19.25.010 to 19.25.900, 19.26.010 to 19.26.020 (West 1989 & Supp. 1996); W. VA. CODE § 61-3-50 (1996); WIS. STAT. ANN. § 943.207 (West 1996); WYO. STAT. §§ 40-13-201 to 40-13-206 (1995). Other states have enacted and later repealed UD laws. *See* N.D. CENT. CODE §§ 47-21.1-01 to 47-21.1-06 (1978) (repealed 1987) (outlawing unauthorized duplication from enactment in 1977 until repeal in 1987 by N.D. Laws ch. 558, § 2); OKLA. STAT. ANN. tit. 21, §§ 1865-1869 (West 1983); RECORDING INDUS. OF AM., INC., SOUND RECORDING PIRACY: A GUIDE TO STATE INVESTIGATIONS AND PROSECUTIONS 9 (1991) (on file with the *St. Mary's Law Journal*) (noting that Indiana repealed UD laws because state larceny statute "covers and protects the same activities which the former UD law had prohibited").

200. *See* 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 8C.02, at 8C-4 to 8C-5 (1995) (listing areas in which state copyright law remains pertinent). Specifically, state laws are relevant to protect works falling within three distinct "gaps" in the federal copyright scheme:

> (1) State unauthorized duplication statutes and other similar state copyright statutes apply only to sound recordings fixed prior to February 15, 1972; (2) state law may not be subject to federal preemption if the rights under state law involve subject matter that does not come within the subject matter of copyright; (3) state law may not be subject to federal preemption if the state law creates equitable or legal rights that are not equivalent to the exclusive rights under Copyright.

may enact copyright laws that protect certain subject matter not currently protected under federal copyright law.[201] When the infringement involves subject matter of a type protected under federal law, however, the state law does not apply.[202] As a result, state efforts to criminalize infringement must play only a supporting role in combatting the nationwide piracy epidemic.[203]

Furthermore, individual state efforts risk creating discordant laws throughout the United States. In some respects, variance of state criminal laws is a natural and often desirable consequence of state sovereignty, for it ensures that state laws reflect local customs and beliefs.[204] Such disparity, however, spurs trouble in today's communications era, in which information is faxed or transmitted across state lines at the push of a button.[205] This trouble was exemplified by a case in late 1994, in which a

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RECORDING INDUS. ASS'N OF AM., INC., SOUND RECORDING PIRACY: A GUIDE TO STATE INVESTIGATIONS AND PROSECUTIONS 8 (1991) (on file with the *St. Mary's Law Journal*).

201. 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 8C.01, at 8C–4 to 8C–5 (1995).

202. *Id.*

203. *Cf.* Jerome v. United States, 318 U.S. 101, 104 (1943) (citing desirability of uniformity as factor behind enactment of federal criminal statutes); Laurie L. Levenson, *The Future of State and Federal Civil Rights Prosecutions: The Lessons of the Rodney King Trial*, 41 UCLA L. REV. 509, 607–08 (1994) (professing that federal criminal laws are better suited to target offenses with potential national impact while state laws should be concerned with locally significant issues).

204. *See* Wisconsin v. Baker, 698 F.2d 1323, 1334 (7th Cir.) (announcing that state sovereignty reflects belief that "local government is better able than a national government to promote public welfare in matters of local concern"), *cert. denied*, 463 U.S. 1207 (1983); *see also* Laurie L. Levenson, *The Future of State and Federal Civil Rights Prosecutions: The Lessons of the Rodney King Trial*, 41 UCLA L. REV. 509, 591–92 (1994) (stressing important role of state criminal laws in protecting local community interests); Daniel W. Van Ness, *Preserving a Community Voice: The Case for Half-and-Half Juries in Racially-Charged Criminal Cases*, 28 J. MARSHALL L. REV. 1, 29–30 (1994) (proclaiming importance of protecting community standards in criminal law).

205. *See* H.R. REP. NO. 1476, 94th Cong., 2d Sess. 51 (1976) (arguing in favor of single federal system of copyright protection), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5745–46. In a particularly pertinent argument for the uniformity of a federal copyright scheme, House Report 1476 asserted:

> One of the fundamental purposes behind the copyright clause of the Constitution . . . was to promote national uniformity and to avoid the practical difficulties of determining and enforcing an author's rights under the differing laws and in the separate courts of various States. Today, when the methods for dissemination of an author's work are incomparably broader and faster than they were in 1789, national uniformity in copyright protection is even more essential than it was to carry out the constitutional intent.

Id.; *see* Glenn Henderson, *Conviction Only Pauses On-Line Porn*, NASHVILLE BANNER, June 6, 1995, at B1 (declaring that "electronic transmissions have blurred past ideas of local community").

married couple operating a computer bulletin board system out of their home in Milpitas, California, was convicted of violating local obscenity laws in Memphis, Tennessee.[206] In light of such developments, some commentators have argued that community standards pose a threat to the dissemination of copyrighted works and the growth of the NII, because the strictest standard is likely to prevail.[207] In sum, while increased state efforts play an important role, their inherent limitations and shortcomings prevent them from adequately addressing modern piracy problems.

B. *Expanded Use of Other Criminal Statutes*

Another approach to increasing criminal enforcement of copyright infringement lies in the expanded use of other traditional criminal statutes. In the past, these actions usually involved broad-reaching felony actions, such as mail and wire fraud, RICO, and transportation of stolen property acts.[208] This approach, however, is unworkable, for it has been rejected by the Supreme Court in *Dowling* and, more recently, by the district court in *LaMacchia*. Therefore, although criticized by some as unsound,[209] the precedent established by *LaMacchia* and *Dowling* under-

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206. Andrew Grosso, *The National Information Infrastructure*, 41 FED. B. NEWS & J. 481, 484 (1994); Rajiv Chandrasekaran, *On-Line and out of Bounds; States Beating Congress to the Punch on Porn*, WASH. POST, June 15, 1995, at A1; Glenn Henderson, *Conviction Only Pauses On-Line Porn*, NASHVILLE BANNER, June 6, 1995, at B1.

207. *See* Andrew Grosso, *The National Information Infrastructure*, 41 FED. B. NEWS & J. 481, 484 (1994) (questioning "whether the most restrictive standard of the most conservative community is to become the de facto standard for the entire country"); Rajiv Chandrasekaran, *On-Line and out of Bounds; States Beating Congress to the Punch on Porn*, WASH. POST, June 15, 1995, at A1 (lamenting that varied state laws "will create an impractical patchwork of regulation" in which "the strictest state law will dictate on-line activity and conduct"). Interestingly, prior to the proliferation of on-line and digital technology, the Supreme Court did not identify any problems with having dissimilar state copyright laws. *See* Goldstein v. California, 412 U.S. 546, 559 (1973) (analyzing state copyright laws and spotting no "need for uniformity such as that which may apply to the regulation of interstate shipments").

208. *See* Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DENV. U. L. REV. 671, 675–76 (1994) (explaining that prior lack of felony provisions under Copyright Act forced federal prosecutors to look to "related felony offenses such as mail fraud, wire fraud, interstate transportation of stolen property, RICO, and even customs violations"); *see also* 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 15.05, at 15–21 to 15–28 (1995) (analyzing use of other criminal statutes in prosecution of copyright-related activities).

209. *See* Dowling v. United States, 473 U.S. 207, 229–32 (1985) (Powell, J., dissenting) (asserting that copyrights should fall under protection of National Stolen Property Act); Aaron D. Hoag, Note, *Defrauding the Wire Fraud Statute*: United States v. LaMacchia, 8 HARV. J.L. & TECH. 509, 514–15 (1995) (criticizing *LaMacchia* opinion and explaining that "intangible rights doctrine" as described in *Dowling* was irrelevant to issues in *LaMacchia*).

scores the reason why the proposed Improvement Act presents the most viable solution to closing the "*LaMacchia* loophole" and enhancing criminal infringement laws. The courts' refusal to expand general criminal statutes to encompass copyright infringement sends a strong message to Congress that the existing statutes are incapable of providing the much-needed deterrence produced by the legitimate threat of felony penalties.[210]

C. *Amendment of the Federal Copyright Act Through the Criminal Copyright Improvement Act of 1995: A Step in the Right Direction*

Amendment of the existing Copyright Act provides the logical starting point in Congress's search to increase the deterrent effect of criminal infringement penalties. The history of American copyright law reflects a successful trend of periodically increasing both civil and criminal penalties to deter infringement.[211] The Improvement Act represents a continuation of this trend. Specifically, the proposed Improvement Act attacks modern piracy by aiming to close current loopholes, strengthen penalties, and cautiously expand the scope of criminal infringement provisions.

1. Closing the Loopholes

Three of the bill's provisions directly address issues raised by the *LaMacchia* fiasco, and serve the sole purpose of deterring willful mass infringements undertaken without financial incentive. First, the bill would amend Section 101 of the Copyright Act to clarify the definition of "financial gain" as it is currently used in the standard criminal infringement provision.[212] Specifically, the definition would explain that financial gain includes the "receipt of anything of value, including the receipt of other copyrighted works."[213] Such clarification would be relevant in future situations analogous to *LaMacchia*. For example, based on the current financial incentive language, it is unclear whether an individual

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210. *See* 141 CONG. REC. S11,453 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy) (recognizing failure of general criminal statutes to protect intellectual property rights as factor to consider in regard to proposed copyright legislation).

211. INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 11-14 (1995).

212. *Compare* 17 U.S.C. § 506(a) (1994) (requiring that criminal infringement be "for purposes of commercial advantage or private *financial gain*") (emphasis added) *with* Criminal Copyright Improvement Act of 1995, S. 1122, 104th Cong., 1st Sess. § 2(A) (1995), 141 CONG. REC. S11,452-53 (daily ed. Aug. 4, 1995) (proposing to amend 17 U.S.C. § 101 to include definition of "financial gain").

213. S. 1122, § 2(A), 141 CONG. REC. at S11,453.

could be held criminally liable for trading copyrighted works on a computer bulletin board in exchange for other protected works.[214] The Improvement Act would eliminate this uncertainty by clarifying that the term encompasses activities such as the "bartering for, and the trading of, pirated software."[215]

Second, the bill would amend the Copyright Act to include a new criminal infringement offense that would substitute a pure monetary threshold for the traditional *mens rea* requirements.[216] While a showing of willful intent would still be required, the establishment of criminal liability would rely primarily on the retail value of works infringed. In other words, this new offense would not require a showing of financial incentive, nor would it include the ten-work numerical threshold and 180-day time period requirements of the current criminal infringement provision.[217]

Misdemeanor sanctions under the Improvement Act would apply to willful infringements of works exceeding $5,000 in value, with felony status attaching to the theft of over $10,000 of copyrighted works.[218] Senator Leahy indicated that this new provision is specifically tailored toward preventing the reoccurrence of situations such as that in *LaMacchia*.[219] Along these lines, elimination of the "for profit" requirement eases the burden for the prosecution and closes the door on future avoidance of

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214. *See* 138 CONG. REC. S17,958, S17,959 (daily ed. Oct. 8, 1992) (statement of Sen. Hatch) (stressing that "the copying must be undertaken to make money, and even incidental financial benefits that might accrue as a result of the copying should not contravene the law where the achievement of those benefits [was] not the motivation behind the copying").

215. 141 CONG. REC. S11,453 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy); *see Bill Would Strengthen Penalties for Criminal Infringement on Internet*, 50 Pat. Trademark & Copyright J. (BNA) No. 1240, at 368 (Aug. 10, 1995) (reporting that bill would clarify applicability of "financial gain" to trading of computer software), *available in* Westlaw, BNA-PTCJ Database.

216. S. 1122, § 2(B), 141 CONG. REC. at S11,453. The new criminal offense would be codified as 17 U.S.C. § 506(a)(2) and would prohibit willful copyright infringements involving the reproduction or distribution of copyrighted material with an aggregate retail value of $5,000 or greater. *Id.* In addition, 18 U.S.C. § 2319(c) would be amended to provide penalties for the new infringement offense. *Id.*

217. *See* 141 CONG. REC. S11,452, S11,453 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy) (providing that proposed § 506(a)(2) "does not contain a numerical threshold or requisite time period during which the infringement must occur").

218. S. 1122, §§ 2(B)–(D), 141 CONG REC. at S11,453.

219. *See* 141 CONG. REC. S11,452, S11,453 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy) (discussing proposed § 506(a)(2) as solution to *LaMacchia* loophole).

criminal sanctions in cases involving large-scale copyright infringement without evidence of financial gain.[220]

Despite the benefits inherent in eliminating the numerical threshold and requisite time period, the proposal may open the door to misuse of the criminal copyright statute. For example, the new offense is potentially overinclusive, as almost any infringement in the current on-line environment could easily exceed the $5,000 monetary threshold through wide-scale and possibly inadvertent repetition.[221] In addition, removal of the traditional threshold requirements could lead to misapplication of criminal copyright laws to situations such as the reverse engineering of software[222] or scientific research on the Internet.[223] Unless these potential problems are addressed in the bill's final form, through either express limiting language or clear congressional intent, prosecutorial discretion will provide the only protection against overinclusive use of the Improvement Act's new criminal provision.

The third and final provision aimed at deterring willful, not-for-profit infringement would prohibit the willful infringement of a copyright accomplished "by assisting others in the reproduction or distribution, including by transmission[,] of an infringed work."[224] Essentially, the purpose of this amendment is to clarify that operators of computer bulletin boards may face criminal charges in situations such as *LaMacchia*, in which they assist the digital transmission of infringed works.[225] This provision, along with the two previously outlined, denotes Congress's efforts to modify existing copyright laws to adequately deal with instances of mass, not-for-profit infringement that do not fall within the technical

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220. *See id.* (providing that "since cases reflect that intellectual property rights may not be protected by general criminal statutes, the bill would amend the copyright law to ensure such protection exists").

221. *See* Deborah Reilly, *The National Information Infrastructure and Copyright: Intersections and Tensions*, 76 J. PAT. & TRADEMARK OFF. SOC'Y 903, 918 (1994) (illustrating that "[c]ontrol over distribution of one's own e-mail messages becomes problematic at best when a particularly apt (or funny, or scandalous) expression can be shared with thousands more in a matter of minutes and can crop up all over the Internet within a day").

222. *See* H.R. REP. NO. 997, 102d Cong., 2d Sess. 6 (1992) (explaining one purpose of threshold requirements to be safeguarding against imposition of criminal sanctions in situations such as reverse engineering of software), *reprinted in* 1992 U.S.C.C.A.N. 3569, 3574.

223. *See* Ross Kerber, *Vigilant Copyright Holders Patrol the Internet*, WALL ST. J., Dec. 13, 1995, at B1 (expressing concern that proposed copyright laws may be "written so narrowly [that] they could impede scientists from using the Internet to browse through research materials").

224. S. 1122, §§ 2(B), 2(D)(1), 141 CONG. REC. at S11,453.

225. 141 CONG. REC. S11,452, S11,453 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy).

scope of existing copyright laws, such as the type of infringement activity exemplified in *LaMacchia*.[226]

2. Bolstering Criminal Sanctions and Raising the Infringers' Risks

As another of its goals, the Improvement Act aims to deter infringement by raising the presently negligible risk factor associated with modern piracy. To increase the risks of piracy, the Improvement Act initially addresses the penalty structure of the current criminal copyright system. First, the bill would add a provision calling for harsher punishment of repeat felony infringement offenders.[227] In addition, the Improvement Act directs the Sentencing Commission to reexamine the penalties currently available for criminal infringement.[228] This directive reveals a desire to ensure that the risks associated with modern piracy are sufficient to discourage the huge potential for profit.

Another way the bill seeks to increase the risks attendant to copyright infringement is by lengthening the statute of limitations for criminal infringement actions.[229] Specifically, the Improvement Act proposes an extension of the statute of limitations for criminal copyright infringement from its current three years to a period of five years.[230] Although this proposal garners less attention than other sections of the bill, it plays a potentially important role in increasing the reach of criminal infringement penalties. Notably, by allowing a longer time frame to bring a criminal infringement action, this proposed change recognizes the difficulty of detecting the activities of modern copyright pirates.[231] In an era in which enforcement of copyright laws is often frustrated by the difficulty of detecting infringers, an additional two years may provide invaluable time for criminal investigation and identification of information pirates. In effect, an increase of the limitations period to five years would extend the time line for potential criminal liability and raise the risk associated with modern piracy.

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226. *See id.* (explaining that express prohibition of willful infringement by *assisting* others and through *transmission* "would further ensure coverage of activities such as those . . . alleged in *LaMacchia*") (emphasis added).

227. S. 1122, § 2(D)(2), 141 CONG. REC. at S11,453. Specifically, 18 U.S.C. § 2319(a) would be amended so that repeat offenders under either § 506(a)(1) or § 506(a)(2) would face a prison sentence of up to 10 years plus a fine. *Id.*

228. S. 1122, § 2(G), 141 CONG. REC. at S11,454.

229. S. 1122, § 2(C), 141 CONG. REC. at S11,453.

230. *Id.* By amending 17 U.S.C. § 507(a) to increase the statute of limitations, the Improvement Act would extend the limitations period for criminal copyright infringement to that of most other federal criminal offenses. *Id.*

231. *See* Greg Short, *Combatting Software Piracy: Can Felony Penalties for Copyright Infringement Curtail the Copying of Computer Software?*, 10 SANTA CLARA COMPUTER & HIGH TECH. L.J. 221, 223 (1994) (noting difficulty of detecting software piracy).

Increasing the statute of limitations, however, creates at least one troublesome side effect. Obviously, an extension of the limitations period for criminal cases without a corresponding amendment to the civil statute will result in a two year time difference between the two.[232] Not so obvious, however, is the potential downside to this time "gap." Under the current system, several pragmatic considerations dictate the advantages of bringing civil actions for copyright infringement *after* the conclusion of a criminal infringement prosecution. Most importantly, while the burden of proof in a criminal infringement claim is higher, the elements to be proved are the same, for proof of criminal infringement necessarily requires a showing of civil infringement.[233] Therefore, a successful conviction in a criminal infringement proceeding would significantly reduce the plaintiff's burden in a subsequent civil action by establishing a *prima facie* case of civil infringement.[234] Bringing the civil case after the criminal proceeding also allows the infringement victim to take advantage of the superior resources and investigative techniques normally employed during the course of federal criminal investigations.[235] Finally, from a practical perspective, copyright owners should favor resolution of the criminal action before the corresponding civil action because criminal prosecutions provide a more efficient means of halting infringing activities.[236]

Based upon such practical benefits, the current parity between the civil and criminal infringement statutes of limitations likely plays an important strategical role in cases against large-scale commercial pirates. If the civil statute of limitations is not extended to correspond with the criminal limitations period, the possibility that the civil statute of limitations will lapse before or during the pendency of a criminal infringement proceeding be-

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232. *Compare* S. 1122, § 2(C), 141 CONG. REC. at S11,453 (proposing increase in criminal limitations period from three to five years) *with* 17 U.S.C. § 507(b) (establishing three-year statute of limitations in civil copyright actions).

233. Mary J. Saunders, *Criminal Copyright Infringement and the Copyright Felony Act*, 71 DENV. U. L. REV. 671, 681 (1994). Saunders explained: "In a criminal infringement proceeding the elements to be proved beyond a reasonable doubt are the same as those that must be proved by a preponderance of the evidence in a civil copyright infringement action." *Id.*

234. *Cf.* FED. R. EVID. 803(22) (authorizing admissibility of judgment of previous felony conviction "to prove any fact essential to sustain the judgment").

235. *See* Kent Walker, *Federal Criminal Remedies for the Theft of Intellectual Property*, 16 HASTINGS COMM. & ENT. L.J. 681, 688–89 (1994) (acknowledging high quality of resources, expertise, and investigative techniques used in federal and state investigations of intellectual property crimes).

236. *See* Michael D. McCoy & Needham J. Boddie, II, *Cybertheft: Will Copyright Law Prevent Digital Tyranny on the Superhighway*, 30 WAKE FOREST L. REV. 169, 190 (1995) (noting that criminal actions are likely to halt infringing activities more quickly than civil actions and listing advantages of criminal actions, including quicker resolution, monetary savings, and greater deterrence).

comes more likely. As a result, if the criminal infringement proceeding is not brought until the fourth or fifth year, some copyright owners may be deprived of the strategical advantages that flow from pursuing a civil damages claim after the conclusion of a criminal infringement prosecution.

3. Other Considerations—Maintaining Copyright's Balance

The Improvement Act's proposed changes also reflect the underlying balance that shapes American copyright law. First, the proposed bill would alter the standards of the existing felony infringement offense by raising the requisite threshold value of works infringed from $2,500 to $5,000.[237] This proposed change to the current monetary threshold should be viewed as a countermeasure to the Improvement Act's new offense under Section 506(a)(2). In other words, while the new offense expands the potential reach of felony infringement sanctions in one area, the heightened monetary threshold correspondingly limits its reach in others. This give-and-take scenario aptly demonstrates the "balanced approach" of the Improvement Act.[238]

The Improvement Act also endeavors to maintain the copyright balance by including a provision that would allow infringement victims to give impact statements prior to the defendant's final sentencing.[239] Under the bill's terms, these impact statements could be used to "identif[y] the victim of the offense and the extent and scope of the injury and loss suffered by the victim, including the estimated economic impact of the offense on that victim."[240] Proposing such impact statements reveals a heightened concern for protecting the interests of authors and other creators of copyrighted works.[241] The proposal also acknowledges the reality of piracy's damaging economic effects and provides assurance to infringement victims that their rights will be protected. Consequently,

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237. S. 1122, § 2(D), 141 CONG. REC. at S11,453.

238. *See* 141 CONG. REC. S11,452 (daily ed. Aug. 4, 1995) (statement of Sen. Leahy) (stressing need to maintain copyright balance).

239. S. 1122, § 2(D), 141 CONG. REC. at S11,453. The authorization for victim impact statements would be codified at 18 U.S.C. § 2319(e). *Id.* In addition, identical impact statement provisions would be added at 18 U.S.C. § 2319A(d) in regard to unauthorized fixation and trafficking of live musical performances, and at 18 U.S.C. § 2320(d) in regard to trafficking in counterfeit goods or services. S. 1122, §§ 2(E)-(F), 141 CONG. REC. at S11,453.

240. S. 1122, § 2(E), 141 CONG. REC. at S11,453.

241. *Cf.* Keith D. Nicholson, *Would You Like More Salt with that Wound?: Post-sentence Victim Allocution in Texas*, 26 ST. MARY'S L.J. 1103, 1116-17 (1995) (explaining that one purpose of Texas's post-sentence victim allocution statute is to benefit crime victims by allowing greater participation in legal process).

permitting victim impact statements would play a role in strengthening the essential creativity-reward balance of copyright law.

As a whole, the proposed Improvement Act recognizes the need to restore the underlying balance to copyright law. Although the overriding concern of the American copyright system is ultimately to promote the arts and sciences, the means to achieve this end is through protection of authors' rights. Therefore, while modern technology has shifted the balance in favor of infringers by easing the processes and lowering the costs of copying, the Improvement Act strives to level the playing field for authors and inventors who are now hesitant to place their creations in the largely unmonitored on-line environment.[242] Accordingly, passage of the Improvement Act, with minor alterations designed to protect against overinclusive use of the Act, represents the best solution to today's piracy problems.

V. CONCLUSION

When American merchant ships sailed into the Mediterranean following the Revolutionary War, they embarked into unchartered waters. Never before had they ventured into the region without the protection of the Royal Navy, and they soon found that they were not prepared to deal with the Barbary pirates. Similarly, today's vessels of modern technology, such as computer software programs that carry the creative works of authors and inventors, are equally ill-equipped to navigate through the unprotected seas of Cyberspace. As a result, just as Barbary pirates eagerly took advantage of the unprotected merchant ships, modern pirates are navigating the "uncharted waters" of Cyberspace to exploit the information superhighway and its Information Age technologies.

Similar situations have existed throughout history, in which technological innovations have exposed loopholes and shortcomings in the American copyright scheme. Time and again, Congress has reacted successfully to these situations by amending the Copyright Act in scope or form. Although constantly forced to play "catch up" to technology, Congress has managed to keep the basic foundations of American copyright law intact.

Modern technology signals that the time has come once again to update the Copyright Act. Human ingenuity will inevitably continue to produce creations that upset the balance of copyright laws, leaving them ill-suited to protect authors' creations. Paradoxically, this constant progres-

242. *See* Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 965–66 (1990) (writing that "[a]rguments for strengthening copyright protection . . . often begin with the premise that copyright should adjust the balance between the creative individuals who bring new works into being and the greedy public who would steal the fruits of their genius").

sion of new technology signifies not that the copyright system is untenable in modern society, but rather that the copyright laws are performing their avowed function—promoting the arts and sciences. Today, the same creativity that advances technology should be used in fashioning appropriate laws to protect it. The Improvement Act represents such an effort, and provides a strong step in the process toward conforming the copyright system to the modern technological world.