

## COMBATING SOFTWARE PIRACY: THE SOFTLIFTING PROBLEM

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### INTRODUCTION

Today, somewhere between one quarter and one third of all American households have a computer of some kind or another.<sup>1</sup> That translates to approximately twenty-four to thirty-six million households that have entered the computer age, to date. And there is no indication that the number of computers being purchased has leveled off.<sup>2</sup>

Not only has the hardware market for personal computers ("PCs") become big business,<sup>3</sup> but the success of home computing has created a gigantic market for personal software. In 1992 alone the software publishing industry generated \$17.8 billion in income.<sup>4</sup> While a great deal of that software is purchased by corporations, educational institutions, and governments, more and more software is being purchased by individuals for use in the home.<sup>5</sup> And, as the demand for software has increased, more and more individuals are *pirating* software for use in the home.<sup>6</sup>

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1. Nathan Cobb, *Where There's a Home PC, Odds are There's a Software Pirate*, THE BOSTON GLOBE, March 2, 1994, at 61 [hereinafter *Where There's a PC*].

2. A study performed by the Connecticut marketing research firm Inteco Corp. in August of 1993 found that of those households which do not presently have a personal computer, 31% intend to buy one in the next year or so. And of those non-computer households with school-aged children, a full 62% intend to get a computer in the next year or so. James Coates, *Computing Focus is Turning Toward the Home*, THE CHICAGO TRIBUNE, Jan. 9, 1994, Business Section at 2. See also *IBM Offers Powerful PCs for Home, Small Business Use*, THE ATLANTA JOURNAL & CONSTITUTION, Oct. 5, 1993, at F7 ("More than 25 million U.S. households have computers, and an additional 25 percent to 30 percent intend to purchase them....").

3. The personal computer industry brings in \$70 billion in annual revenues. According to a study by Computer Intelligence InfoCorp., the three leading PC hardware producers shipped approximately 5 million computers in 1993 alone—Apple sold 1.8 million, IBM sold 1.7 million, and Compaq sold 1.5 million. Pat Guy, *Compaq Nibbles on Apple's PC Lead*, USA TODAY, Feb. 2, 1994, at 4B.

4. Jonathan Chevreau, *SoftCop Tackles the Software Pirates*, THE FINANCIAL POST, March 12, 1994, at 16.

5. Sales of PC application software continues to grow. First quarter personal software sales in 1993 (\$1.46 billion) increased 20% from first quarter sales in 1992. *Windows Applications Out-sell DOS Applications for First Time in North America*, BUSINESS WIRE, June 21, 1993.

6. *Where There's a PC*, *supra* note 1. The extent of home piracy is discussed in further

"Software piracy" to a large extent has become a generic term for the illicit duplication of copyrighted computer software.<sup>7</sup> This general use of the term "piracy, however, encompasses what can be seen as three distinct categories of piracy: 1) commercial piracy; 2) corporate piracy; and 3) softlifting. Commercial piracy refers to the illicit duplication of software for the purpose of distribution and sale.<sup>8</sup> Corporate piracy, on the other hand, rarely entails copying software for direct financial gain. Rather, corporate pirates often find that the size and scope of their company's software usage makes tracking and enforcement of software copyrights exceedingly difficult.<sup>9</sup> The category of corporate piracy encompasses the activities of not only corporations and businesses, but also educational institutions, government entities, etc.<sup>10</sup>

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detail, *infra* notes 92-106.

7. See, e.g., *Sega Enterprises Ltd. v. Accolade, Inc.*, No. 92-15655, 1993 U.S.App. LEXIS 78, at \*7 (9th Cir. Jan 6, 1993) (using "piracy" in a strictly commercial sense, referring to international software counterfeiting); *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255, 261 n.13 (5th Cir. 1988) (using "piracy" broadly to refer to any illicit copying that may result in a lost sale).

8. See *Trade Losses Due to Piracy and Other Market Access Barriers Affecting the U.S. Copyright Industries*, THE INTERNATIONAL INTELLECTUAL PROPERTY ALLIANCE, April, 1989. Commercial piracy is big business. Commercial pirates save millions of dollars in research and development costs by simply making perfect copies of other publisher's software, repackaging it and selling it as a legitimate version of the original. It is just such commercial piracy at which the recent felony provisions of the copyright laws were enacted. 18 U.S.C. § 2319 (1993). The felony provisions are discussed further *infra* at notes 86-88. See also H.R. Rep. No. 997, 102d Cong., 2nd Sess., reprinted in 1992 USCCAN 3569, 3572 (discussing scope and aim of bill felonizing commercial piracy)[hereinafter *Commercial Piracy Report*].

The vast majority of commercial piracy takes place outside of the United States, primarily in Taiwan, Indonesia, Singapore, and Thailand. Alice Bredin, *How to Spot Bogus Software*, COMPUTERWORLD, March 8, 1993, at 128. For example, after a concerted effort by the Business Software Alliance, the percentage of software in Taiwan that is counterfeit still remains at 83%, down from 90%. *Taiwan Working to Eliminate Software Piracy*, CENTRAL NEWS AGENCY, April 16, 1994. Despite its prevalence abroad, commercial piracy also takes place in the United States. In 1992, Microsoft seized 150,000 counterfeit copies of its program, MS DOS, version 5. The estimated street value of the pirated software was over \$9 million. *Microsoft Raids Lead to Largest Counterfeit Software Seizure in History*, BUSINESS WIRE, Oct. 7, 1992.

9. The problem of corporate piracy has decreased substantially over the past few years. Corporations and other similarly situated institutions have begun taking the job of compliance with the copyright laws seriously, by hiring software managers to ensure compliance, incorporating technical means by which to track software, enacting anti-piracy policies, budgeting sufficient funds for software, etc. See Sherman and Hornik, *How to Avoid the Software Police and What to do When They Knock on Your Door*, 15TH ANNUAL COMPUTER LAW INSTITUTE, vol. 1, 495, 528-547 (1993)[hereinafter *Software Police*].

10. These corporate pirates have been the primary targets of recent enforcement efforts by the Software Publishers Association, the industry trade organization charged with the task of copyright enforcement. See, e.g., *SPA Made 1993 a Bad Year for Software Pirates*, BUSINESS WIRE, Jan. 25, 1994 [hereinafter *Bad Year for Pirates*]. Typical corporate piracy

The final category of software piracy is that upon which this paper focuses: softlifting. Softlifting is the software equivalent of shoplifting.<sup>11</sup> When one copies a friend's software package, or brings a backup copy home from work for personal use, or borrows a program from the library and makes a copy of it, each of these acts amounts to softlifting. In the words of John Robards, a staff member of the Boston Computer Society, softlifting is "one of life's quiet little cheats."<sup>12</sup> Softlifting is that piracy which goes on in our homes, behind closed doors, where no one can see it happening; it is not intended for direct financial gain, and is believed by many to be perfectly legal.<sup>13</sup>

Software publishers have expended significant resources over the past dozen or so years in an effort to combat all forms of piracy. They have banded together in such trade organizations as the Software Publishers Association ("SPA"), the Association of Data Processing Service Organizations ("ADAPSO"),<sup>14</sup> and the Business Software Alliance ("BSA") to fight piracy not only in the courts, but also in Congress, and in the press.<sup>15</sup> Those efforts have been relatively successful with regard to commercial<sup>16</sup> and corporate piracy,<sup>17</sup> but have been unable to attack

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takes the form of a piece of software being passed around the office and placed on multiple hard drives or copied onto a file server which is accessed by many more people than a single user. The result is that a corporation will have purchased only a handful of copies of a particular program, yet have dozens of employees utilizing copies of that software. *See Thou Shalt Not Dupe; So Says a Vendor of Software—is Anyone Listening?*, COMPUTER-WORLD, Jan. 28, 1985.

11. *See Ayeen, Why You Shouldn't Pirate Software*, THE AMERICAN LAWYER, Dec. 1993, at 102 ("[B]ecause of the ease of duplication, many individuals who would never think of shoplifting a candy bar think nothing of offering up any number of excuses for pirating software . . .").

12. *Where There's a PC*, *supra* note 1, at 61. *See also Software Police*, *supra* note 9, at 501, n.1.

13. *See Pamela Samuelson, Computer Programs and Copyright's Fair Use Doctrine*, COMMUNICATIONS OF THE ACM, Sept. 1993, at 19 ("[There exists] a widespread perception of the general public that making copies of copyrighted works is OK as long as it's done for private, non-commercial purposes.").

14. ADAPSO was the predecessor of the Information Technology Association of America ("ITAA") and received somewhat greater visibility than has the ITAA.

15. For a discussion of the litigation efforts of the software community, see *infra* notes 48-84 and accompanying text. The primary legislative victories of the software publishers have been the enactment of the Computer Software Rental Amendments Act of 1990, codified under 17 U.S.C. § 109(b) (1993), and the Commercial Piracy Felony Provisions, codified under 18 U.S.C. § 2319 (1993). *See infra* notes 86-88 and accompanying text. For a discussion of recent efforts at educating the public, see *infra* notes 109-117.

16. Under the new felony provisions of the copyright act, the first domestic commercial pirate was indicted on July 7, 1993. With a potential sentence of \$250,000 (\$1,000,000 for corporate defendants) and five years in prison (ten years for repeat offenders), these heightened penalties send a strong message to potential commercial pirates. *First Indictments Come Down Under Stronger Software Piracy Laws*, THE ASSOCIATED PRESS,

softlifting in any serious way.

This paper attempts to address the growing problem of softlifting. It first considers the present efforts at copyright enforcement being undertaken by organizations like the SPA. This section focuses on those organizations fighting software piracy, as well as on the legal tools available to effectuate such enforcement strategies under the copyright laws. Second, this paper explores the possibility of a legislative solution to the softlifting problem. The legislative model explored is that which was recently enacted to protect intellectual property in the audio realm. Specifically, the solution considered is modeled after the Audio Home Recording Act,<sup>18</sup> which combines a royalty scheme with a proposed technical anti-copying solution.

## I. THE SOFTWARE POLICE<sup>19</sup>

Despite the heated debate in recent years over the copyrightability of computer programs, it is now firmly established that software is protected by the copyright laws.<sup>20</sup> Armed with the copyright act and its enforcement provisions, the software industry has begun vigilantly protecting its intellectual property rights.<sup>21</sup> These enforcement efforts have been

July 7, 1993. The SPA has also begun fighting commercial piracy abroad, initiating three raids in Singapore in 1993. *Bad Year for Pirates*, *supra* note 10.

17. Since the inception of the SPA's anti-piracy campaign (a combination of litigation and education), some estimate that corporate piracy has been cut by almost 50%. *Retail Chain Settles Software Suit; Pays \$161,000 to Software Publishers Association*, BUSINESS WIRE, Nov. 12, 1993. Piracy decreased significantly between 1991 and 1992 alone, from \$2 billion in industry losses down to \$1.2 billion. Laura DiDio, *Crackdown on Software Bootleggers Hits Home*, LAN TIMES, Nov. 1, 1993, at 67 (quoting Ken Wasch, SPA executive director). See also *Bad Year for Pirates*, *supra* note 10. But See Mark Trumbull, *Software Piracy Grows, As Do Efforts to Stop It*, THE CHRISTIAN SCIENCE MONITOR, Dec. 7, 1993, at 9 ("Unlike the larger Software Publishers Association, the [Business Software Alliance] sees the problem holding steady in the U.S.; rather than declining.")

18. Audio Home Recording Act of 1992, 17 U.S.C. §§ 1001, et seq. (1993).

19. Section I of this paper builds upon a previously published work. *Software Police*, *supra* note 9. Many thanks to Cary Sherman of Arnold & Porter, Washington, D.C., for his assistance and support.

20. See generally FINAL REPORT OF THE NATIONAL COMMISSION ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS, 1978 [hereinafter CONTU Report]; 17 U.S.C. § 117 (1993) (backup copies of software are non-infringing).

21. While software publishers have also sought to protect their intellectual property rights via licensing agreements, these agreements have proved less effective than the copyright laws when it comes to enforcement strategies. This is due in large part to the questionable status of shrink wrap licenses. Such licenses emblazon the software packaging with the terms of the license agreement and assert enforceability upon the opening of the shrink wrapped package. However, such contracts of adhesion are arguably unenforceable. See

undertaken by software publishers both individually and in tandem, via such trade organizations as the SPA and the BSA. Drawing upon the entire copyright enforcement arsenal,<sup>22</sup> software publishers have made great gains in fighting corporate and commercial and corporate piracy<sup>23</sup> and in these efforts have been collectively dubbed the "software police."<sup>24</sup>

While the Software Police, to date, have only sought to enforce the copyright laws against commercial and corporate pirates, the makeup of the police force and the nature of their enforcement arsenal are instructive when considering the softlifting problem. The software police have vast monetary resources, yet the nature of the copyright remedies and the means by which they have been put to use in the past are all but entirely inappropriate for dealing with non-commercial home piracy.

#### A. Who are the "Software Police"?

The software police force is a diverse organization. At the root of all enforcement efforts are the publishers themselves. Only the individual publishers, as the copyright holders, have the authority to commence enforcement proceedings against infringers. Some of the larger software companies have recently created in-house police forces which investigate piracy of their programs and then initiate suits against those infringers.<sup>25</sup> Because of the expense of such efforts, these organizations tend to focus their resources on commercial piracy and large scale corporate piracy, rather than softlifting.

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Richard Raysman & Peter Brown, *Shrink-Wrap Licenses and Implied Warranties*, N.Y. L.J., March 22, 1991; Michael G. Ryan, *Offer Users Can't Refuse: Shrink-Wrap License Agreements as Enforceable Adhesion Contracts*, 10 CARDOZO L. REV. 2105 (1989); Page M. Kaufman, *The Enforceability of State Shrink-Wrap License Statutes in Light of Vault Corp. v. Quaid Software, Ltd.*, 74 CORNELL L. REV. 222 (1988); Richard H. Stern, *Shrink-Wrap Licenses of Mass Marketed Software: Enforceable Contracts or Whistling in the Dark?*, 11 RUTGERS COMPUTER & TECH. L.J. 51 (1985). Given the limitations of licensing agreements and the reluctance of the software industry to rely heavily upon them in their enforcement efforts, this paper will concentrate upon the copyright provisions.

22. 17 U.S.C. §§ 501 et seq. (1993) (remedies provisions).

23. See *supra* note 17.

24. *Software Police*, *supra* note 9, at 502.

25. Only the largest software firms can afford to do their own policing. Thus, it is not surprising that the two corporations at the forefront of in-house anti-piracy efforts are Microsoft and Novell. DiDio, *supra* note 17, at 67. The success of these programs, however, has led to other publishers considering similar efforts. See Pink, *Cracking Down on Software Pirates: Choosing the Right Weapons for Your Litigation Arsenal*, THE BAR ASSOCIATION OF SAN FRANCISCO, June 26, 1992, at 2.

The majority of the policing efforts of the software community, however, are undertaken collectively through such trade organizations as the Software Publishers Association and the Business Software Alliance.<sup>26</sup> By pooling resources, software publishers are able to more efficiently investigate charges of copyright infringement<sup>27</sup> and, if need be, commence costly lawsuits against those infringers.<sup>28</sup>

The Software Publishers Association is the largest organization combating software piracy.<sup>29</sup> Formed in 1984, the SPA has been active in every aspect of software copyright protection—from litigation, to legislation, to education.<sup>30</sup> Today the SPA has over 1,100 members, ranging from huge business software publishers to small computer game companies.<sup>31</sup> Staffed by nine full-time employees, the SPA took action against 577 organizations last year alone, collecting \$3,600,000 in fines.<sup>32</sup> The money collected each year through enforcement efforts is reinvested in future litigation and public relations efforts. Thus, the more successful the organization becomes at copyright protection, the greater amount of money it has to invest in future police undertakings.<sup>33</sup>

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26. See Pink, *supra* note 25 (discussing the various means by which software firms are able to enforce their copyrights).

27. The investigation process for the SPA and BSA primarily begins with a phone call to their respective piracy hotlines (The SPA number is (800) 338-PIR8 and the BSA number is (800) 688-BSA1). The SPA received nearly 30 calls per day on its hotline in 1993. *Bad Year for Pirates*, *supra* note 10. After verifying the accusation of piracy, usually through the affidavit of an independent witness, the software police undertake some form of enforcement proceedings. For further detail on these proceedings, see *infra* notes 48-84 and accompanying text.

28. *Bad Year for Pirates*, *supra* note 10. As discussed further below, BSA and SPA enforcement efforts rarely take the form of lawsuits. Rather, these trade organizations rely upon extra-judicial means of enforcement which are admittedly given teeth by the possibility of an infringement suit. See *infra* notes 48-84 and accompanying text.

29. See generally Casser, *Advice to the Corporate Pirate: Managing your Software Resources in a Networked Environment*, 13TH ANNUAL COMPUTER LAW INSTITUTE, vol. 1, 351 (1991).

30. The SPA was formed with only two dozen members in 1984 and grew to over 350 software companies by 1988. *The Computer Software Rental Amendments Act of 1988: Hearing before the Subcomm. on Patents, Copyrights and Trademarks of the Senate Comm. of the Judiciary*, 100th Cong., 2nd Sess. 12-18 (1988) [Hereinafter *Utah Rental Hearing*] (testimony of Heidi Roizen).

31. *Bad Year for Pirates*, *supra* note 10. See also DiDio, *supra* note 17, at 67 ("The SPA's anti-piracy efforts have the backing and blessing of software vendors, including Adobe Systems, Aldus Corp., Apple Computer Inc., Autodesk Inc., Borland International Inc., Central Point Software Inc., Claris Corp., Fifth Generation Systems Inc., Funk Software Inc., IBM Corp., Lotus Development Corp., Micrografix Corp., Microsoft Corp., Novell Inc., The Santa Cruz Operation, Software Publishing Corp., Symantec Corp., WordPerfect Corp., and Xerox Corp.")

32. *Bad Year for Pirates*, *supra* note 10.

33. DiDio, *supra* note 17, at 67.

A second software trade organization, the Business Software Alliance, is significant due to its impressive membership. The BSA represents Aldus Corp., Apple Computer Inc., Autodesk Inc., Borland International Inc., Lotus Development Corp., WordPerfect Corp., and Microsoft Corp. These "big seven" software publishers account for 75% of all worldwide software sales.<sup>34</sup> While at its inception the BSA focused upon international piracy, the organization began domestic enforcement efforts in July of 1992. Shortly after forming its domestic anti-piracy team, the "big seven" withdrew authorization from the SPA to commence enforcement proceedings on their behalf, leaving all copyright policing to the BSA and the in-house legal departments of the individual publishers.<sup>35</sup> Thus, the BSA has become an increasingly significant member of the software police force.<sup>36</sup>

### B. The Police Arsenal

The varying members of the software police are all armed with the same basic enforcement tools: the remedy provisions of the copyright laws.<sup>37</sup> The software police also utilize the threat of infringement actions (and the bad publicity which may result from such suits) to acquire "voluntary" compliance by a great number of infringers.<sup>38</sup> Among the weapons utilized by the software police are: voluntary audits; cease and

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34. *Software Police*, *Supra* note 9, at 503.

35. T.C. Doyle and Barbara Darrow, *SPA: Suddenly Under Fire — Major Developers Consider Leaving Trade Group*, COMPUTER RESELLER NEWS, Feb. 28, 1994, at 2. While the "big seven" have already withdrawn enforcement authorization from the SPA, many of the BSA members are considering pulling out of the SPA altogether, citing "philosophical differences" with control over the SPA's agenda. See also, Richard Burnett, *Software Watchdogs Sniff Out Thieves; Two Publishers' Trade Groups Aim to Protect Profits Lost When Computer Software is Illegally Copied*, THE ORLANDO SENTINEL, March 2, 1994, at B1 ("While their anti-piracy work is essentially complementary, the two trade groups often compete for membership and piracy cases.").

36. While prior to 1992 the BSA was known entirely for its international anti-piracy efforts, the organization is working on changing the perception that it will not go after domestic pirates. In a series of recent copyright raids, the BSA has made it clear that it will go after large and small pirates alike. If the BSA's promise to pursue domestic pirates is not enough to scare corporate copyright infringers, the \$232,500 settlement against Comptonix Corp. in 1993 may do the trick. *BSA Busts More Pirates, Says It Will Go After Companies of All Sizes*, SOFTWARE INDUSTRY REPORT, Dec. 20, 1993, at 5.

37. 17 U.S.C. §§ 501, et seq. (1993).

38. The SPA has been accused of using "strong-arm tactics" to acquire settlement of potential law suits. By threatening suit and, more importantly, adverse publicity, the SPA acquires cooperation in their "voluntary" audits, as discussed below. However, Ken Wasch, the current executive director of the SPA, rejects this claim: "We are not draconian, and we don't strong-arm anyone." DiDio, *supra* note 17, at 67.

desist letters; temporary restraining orders; writs of seizure; civil suits; and criminal proceedings.<sup>39</sup>

The primary means by which the SPA enforces its member publisher's copyrights is through voluntary compliance. These compliance efforts take the form of both cease and desist letters and voluntary audit requests. Cease and desist letters are sent out when a software user is generally in compliance, but has technically violated the law<sup>40</sup> or when the SPA has received a tip which it cannot easily verify.<sup>41</sup> While these letters do not carry any force of law, they do suggest to a company that it has been singled out by the SPA for closer scrutiny in the future.<sup>42</sup> Last year alone, the SPA sent out 332 cease and desist letters.<sup>43</sup>

More significant, however, is the SPA's use of voluntary audits. When the SPA receives a more significant or more verifiable case of corporate piracy, it sends out an audit letter. The audit letter states that the SPA has evidence that the company is using pirated software and that a lawsuit will be commenced if the company does not agree to allow the SPA to audit.<sup>44</sup> Approximately 90% of those companies receiving audit requests agree to cooperate with the SPA.<sup>45</sup> Despite the fact that these

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39. Among the weapons of the Spanish Inquisition are "fear, surprise, ruthless efficiency, and an almost fanatical devotion to the Pope." Terry Gilliam and John Cleese, *The Spanish Inquisition*, MONTY PYTHON'S FLYING CIRCUS (circa 1970).

40. Interview with Peter Beruk, SPA Litigation Director (Feb. 14, 1994) [hereinafter *Beruk Interview*]. Mr. Beruk suggested that a cease and desist letter would be appropriate if, for example, a company was significantly in compliance but running one or two pirated programs on a business machine. In such a circumstance, a letter is sent out explaining that according to an anonymous tip the company is not in compliance with the copyright laws. The letter goes on to describe the law and ask the company to remedy the situation. Cease and desist letters are not followed up by additional action unless further complaints are made to the SPA.

41. *Software Police*, *supra* note 9, at 512.

42. *Id.* at 512-513.

43. *Bad year for Pirates*, *supra* note 10. This 1993 figure was nearly a 50% decrease from the 529 cease and desist letters that were sent out in 1992. *Software Piracy: SPA Hooks a Record Number of Pirates in 1992*, EDGE WORK-GROUP COMPUTING REPORT, Jan. 11, 1993 [hereinafter *Piracy in 1992*].

44. One coercive aspect of the audit procedure is that the audit letter allows the suspected company only a single day to reply to the request before a lawsuit is filed against the company. For fear of the bad publicity of an infringement suit, many companies quickly agree to the audit request before assessing the legal implications of such an agreement. See *Software Police*, *supra* note 9, at 510.

45. See Ayen, *supra* note 11, at 162; *Beruk Interview*, *supra* note 40. Cooperation with the audit process entails allowing the SPA to run an auditing program on all business computers to determine what software has been installed. The company is then asked to produce invoices and documentation for all legitimate copies of the software. For every program that can not be accounted for, the company must: 1) destroy that program; 2) pay a fine the equivalent of the market value of that software; and 3) purchase a legitimate copy of the program. Thus, in essence the infringing company must pay twice the price for every



proceedings are voluntary; they can result in huge fines; last year alone there were five audit settlements in excess of \$100,000.<sup>46</sup> Perhaps the most appealing aspect of such voluntary audits from the prospective of corporate pirate is the fact that they are often anonymous, giving the offending company a chance to clean up its act without public censure.<sup>47</sup>

While the vast majority of software copyright enforcement proceeds through voluntary means, there are occasions in which it is necessary for the software police to rely upon the court system.<sup>48</sup> On such occasions, the copyright act provides a number of powerful pre- and post-trial remedies. These remedies add teeth to the copyright provisions and provide such incentives that nearly all corporate piracy suits filed to date have been settled out of court.<sup>49</sup>

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piece of software it has pirated.

The incentive for undertaking a voluntary audit is that once the fines have been paid the company is released from all liability for copyright infringement prior to the audit. Of course, as discussed at *supra* note 35, a number of software publishers have withdrawn authorization from the SPA to engage in enforcement actions. Thus, while the company being audited will not have to pay fines on pirated software from non-SPA vendors (such as the "big seven"), it will not be able to acquire a release from those software publishers either. Doyle & Darrow, *supra* note 35, at 2. If a sufficient number of software publishers withdraw audit authorization, the entire audit process could be undermined—there would no longer be adequate incentive to undertake a voluntary audit, as the company being audited would only be able to receive a release on a small portion of the infringing software.

46. *Bad Year for Pirates*, *supra* note 10.

47. The number of audits performed by the SPA has been steadily increasing in the recent past. In 1991, the SPA sent out only 75 audit letters. *Software Piracy: SPA Hooks a Record Number of Pirates in 1991*, EDGE WORK-GROUP COMPUTING REPORT, Feb. 10, 1992 [hereinafter *Piracy in 1991*]. The number increased to 218 audits and lawsuits in 1992. *Piracy in 1992*, *supra* note 43. In 1993 the SPA pursued a total of 245 audits and lawsuits. *Bad year for Pirates*, *supra* note 10.

48. For example, if there is a possibility that the pirated software will be destroyed upon receipt of an audit letter, it may be better to proceed by means of an ex parte TRO. See *infra* notes 63-64 and accompanying text. It will also be necessary to file a complaint if a company denies an audit request. Furthermore, the software police may wish to proceed by judicial means if doing so is likely to generate valuable anti-piracy publicity. See *Software Police*, *supra* note 9, at 513.

49. *Beruk Interview*, *supra* note 40. Peter Beruk suggests that the reason the vast majority of piracy suits have settled is that the software police only proceed to court if they have corroborated claims of egregious software piracy. Thus, the question is not whether the company being filed against is liable, but rather how much money the company is willing to pay for its transgressions. The software police will proceed with discovery to determine the extent of the piracy and then negotiate a settlement somewhere between the market value of the pirated software and the statutory damages for such infringement under the copyright laws.

The SPA's record is a good example of the success of such infringement suits. According to Ken Wasch, "[i]n five years of operation [the SPA has] only lost one case and only dropped one case in two years.[sic] We dropped a pending suit with Snap-On Tools in Kenosha, Wis., because they were already in the process of voluntarily getting into compliance by the time we readied the papers." DiDio, *supra* note 17, at 68.

Section 502 of the Copyright Act provides for both temporary and permanent injunctions if such an equitable remedy would reasonably prevent or restrain copyright infringement.<sup>50</sup> Since such injunctions are primarily sought by the software police to preserve evidence and expedite discovery, the focus of the software police has been upon temporary restraining orders ("TROs").<sup>51</sup> The granting of such TROs is entirely at the discretion of the court and, for the most part, mirrors the analysis given to any preliminary injunction.

While it is in the court's discretion to grant or deny a preliminary injunction, such injunctive relief has become commonplace in the intellectual property context.<sup>52</sup> The courts look to four general factors when determining if a TRO is warranted: 1) likelihood of success on the merits; 2) likelihood of irreparable harm to the plaintiff; 3) comparative hardship posed by the injunction (plaintiff vs. defendant); and 4) public interest in the matter.<sup>53</sup> These elements prove relatively easy to meet in the piracy context.

Traditionally, for a preliminary injunction to be granted the plaintiff must show a likelihood of success on the merits of the case.<sup>54</sup> In the piracy context, this showing generally consists of an affidavit from the original tipster documenting the infringement and supporting evidence, be it the affidavit of an additional informant or corroboration from the software companies themselves.<sup>55</sup> The plaintiff need not prove that it will

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50. 17 U.S.C. § 502(a) (1993). Section 502(a) provides that "(a) Any court having jurisdiction of a civil action arising under this title may, subject to the provisions of section 1498 of title 28, grant temporary and final injunctions on such terms as it may deem reasonable to prevent or restrain infringement of a copyright."

51. Permanent injunctions are unnecessary in nearly all cases. Since most suits settle, and such settlements are conditioned upon the fact that the company refrain from future infringing activities, the company will be contractually enjoined from future piracy.

52. MELVILLE B. NIMMER & DAVID NIMMER, *NIMMER ON COPYRIGHT* § 14.06[A] & n.65 (1993). Courts appear more willing to grant injunctive relief to protect intellectual property due to its ephemeral nature.

53. *Erickson v. Trinity Theatre, Inc.*, 13 F.3d 1061, 1067 (7th Cir. 1994) (discussing propriety of a preliminary injunction with respect to improvisation theater); *Atari, Inc. v. North American Philips Consumer Electronics Corp.*, 672 F.2d 607, 613 (7th Cir. 1982) (discussing injunctive relief in the intellectual property context). See also CHARLES A. WRIGHT & ARTHUR MILLER, *FEDERAL PRACTICE AND PROCEDURE* § 2954 (1993).

54. See *Mattel, Inc. v. Rosenberg Co.*, 296 F.Supp. 1024, 1026 (S.D.N.Y. 1968) (granting a preliminary injunction because of sufficient showing by copyright holder of likelihood of success in infringement suit with respect to toy jewelry product).

55. Such corroboration, for example, can take the form of records indicating the number of registered copies of a particular program a company has purchased. These records are compared against the affidavit stating that a significantly greater number of copies are being run on company computers. Another means by which evidence of infringement is acquired is through technical support lines. Employees will call in seeking technical support for a

prevail at trial, but rather must show a "reasonable likelihood" of success. This has not proved to be a significant obstacle to acquiring a TRO.<sup>56</sup>

Nor has the requirement of "irreparable harm" acted as much of an obstacle to preliminary injunctions when it comes to pirated software. According to the Third Circuit Court of Appeals, the prevailing judicial view is that "a showing of a prima facie case of copyright infringement or reasonable likelihood of success on the merits raises a presumption of irreparable harm."<sup>57</sup> Thus, an affidavit from a tipster and some form of corroboration should satisfy this element as well.

The Constitution itself suggests that it is in the public interest to protect the intellectual property rights of copyright holders.<sup>58</sup> As the Third Circuit in *Apple v. Franklin* stated, "it is virtually axiomatic that the public interest can only be served by upholding copyright protections and, correspondingly, preventing the misappropriation of the skills, creative energies, and resources which are invested in the protected work."<sup>59</sup> In light of this Constitutional preference, courts have had little trouble finding it in the public interest to grant a preliminary injunction upon a prima facie showing of copyright infringement.<sup>60</sup>

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pirated copy of the software and give an inappropriate registration number.

56. *Service & Training, Inc. v. Data General Corp.*, 963 F.2d 680, 690 (4th Cir. 1992) ("Once [the plaintiff] established a *prima facie* claim of copyright infringement, the district court was entitled to presume that [the plaintiff] could show . . . probable likelihood of success on the merits. . . ."). *But see* Dexter F. Kenfield, *Remedies in Software Copyright Cases*, 6 *COMPUTER L.J.* 1, 6-8 (1985). While Kenfield lists a number of factors which can make a prima facie showing of software infringement difficult, he is not referring to software piracy; the difficulties Kenfield discusses have to do with the theft of software code, not an entire program. Piracy is a much more straight forward issue. Either the defendant is using a pirated copy of the software or not.

57. *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240, 1254 (3rd Cir. 1983) (citations omitted). *Accord* *Johnson Controls, Inc. v. Phoenix Control Systems, Inc.*, 886 F.2d 1173, 1174 (9th Cir. 1989) ("[A] showing of a reasonable likelihood of success on the merits raises a presumption of irreparable harm"); *Erickson*, 13 F.3d at 1061; *Autoskill Inc. v. National Educational Support Systems, Inc.*, 994 F.2d 1476, 1478 (10th Cir. 1993); *Atari Games Corp. v. Nintendo of America Inc., Ltd.*, 975 F.2d 832, 837 (Fed. Cir. 1992); *West Publishing Company v. Mead Data Central, Inc.*, 799 F.2d 1219, 1229 (8th Cir. 1986). *See also*, NIMMER, *supra* note 52, at § 14.06[A] & nn.19-21.

58. U.S. CONST., art. 1, § 8, cl. 8 empowers Congress to "promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." Thus, the constitution embodies a preference for the protection of intellectual property rights.

59. *Apple v. Franklin*, 714 F.2d at 1255 (quoting from *Klitzner Industries, Inc. v. H.K. James & Co.*, 535 F. Supp. 1249, 1259-60 (E.D. Pa. 1982)). The *Franklin* court rejected the argument that it was not in the public interest to grant the injunction because an injunction would injure Franklin's business.

60. *But see* Kenfield, *supra* note 56, at 5. Kenfield suggests that computer lawyers would

Finally, the courts have not looked very hard at the balance of hardships if there is a significant showing that the plaintiff is likely to succeed on the merits.<sup>61</sup> Despite the fact that an injunction against the defendant may destroy its business, if there is a strong showing of copyright infringement the courts will not allow the pirating company to protect itself by "construct[ing] its business around its infringement."<sup>62</sup>

Given this four factor analysis, if the software police have a reliable tip which can be corroborated by some independent source, there will be little difficulty in acquiring a TRO. An additional twist to the question of preliminary injunctions comes when such equitable relief is sought *ex parte*. While *ex parte* TROs are often difficult to acquire,<sup>63</sup> there are a number of reasons why the software police are inclined to proceed in such a manner. Because of the ephemeral nature of computer programs and the ease with which any record of such pirated software can be destroyed, it is often in the interests of the software police to act without warning. Courts are frequently persuaded that the issuance of an *ex parte* TRO is reasonable, given the speed at which intellectual property can vanish.<sup>64</sup> However, even if the courts are unwilling to grant an *ex parte*

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be well advised to look at the language of *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417 (1984), which appears to suggest that, at least in the fair use context, there is a public interest in the broad dissemination of information that may override the strict protection of an individual copyrighted work. Because there seems little need to encourage software development in the burgeoning software industry, Kenfield proposes that ". . . it might be possible to argue that the public interest in encouraging creativity of programmers is outweighed by the public interest in making their work available to the public. *Id.* at 5. *But see infra* notes 122-150 and accompanying text, discussing fair use and software piracy.

61. *See, e.g.*, *Data General Corp. and Data General Service, Inc. v. Grumman Systems Support Corp.*, No. 88-0033-S, 1988 U.S. Dist. LEXIS 16427, \*15 (D. Mass. 1988). The *Grumman* court stated that where the likelihood of success was great, the balancing of hardships was inconsequential; whereas if the likelihood of success was marginal, the balancing of hardships could be determinative. *Id.*

62. *Apple v. Franklin*, 714 F.2d at 1255 (citing *Atari, Inc. v. North American Philips Consumer Elect. Corp.*, 672 F.2d at 607, 620 (7th Cir. 1982)); *cf. Helene Curtis Industries, Inc. v. Church & Dwight Co.*, 560 F.2d 1325, 1333 (7th Cir. 1977). *See also* *Data General Corp. and Data General Service, Inc. v. Grumman Systems Support Corp.*, No. 88-0033-S, 1988 U.S. Dist. LEXIS 16427, at \*\*14-15 (D. Mass. 1988) ("It would be incongruous to hold that the more an enterprise relies on copyright infringement for survival, the more likely it will be able to defeat the copyright owner's efforts to have that activity immediately halted. We see little reason why an entity should be allowed to establish and continue an enterprise based solely on what is in all likelihood copyright infringement, simply because that is its only business.")

63. There is a long history of reluctance to grant equitable relief *ex parte*. *See, e.g.*, *Lare v. Harper & Bros.*, 86 F. 481, 481 (3d Cir. 1898) ("It is a rule, subject to few exceptions, that a preliminary injunction should not be awarded on *ex parte* affidavits, unless in a clear case.")

64. *See First Technology Safety Systems, Inc. v. Vector Research, Inc.*, 11 F.3d 641 (6th

preliminary injunction, the defendants will only be given 24 hours to respond to any emergency request for equitable relief.<sup>65</sup>

The value of acquiring such a TRO is that it allows the software police to enter the premises of an infringing company, accompanied by federal marshals, and forcibly audit the computers. This way an accurate picture of the infringing activity of that company is maintained. Such TROs are also often accompanied by impoundment orders.<sup>66</sup> Armed with a preliminary injunction, an impoundment order, and federal marshals, the software police easily obtain the information they need to proceed against corporate pirates.<sup>67</sup>

Having obtained sufficient incriminating evidence to go forward with a civil suit, be it through a preliminary injunction or voluntary audit, the copyright laws provide the software police with powerful damage provisions. A copyright holder may choose to pursue either actual damages and profits, or statutory damages. This decision need not be made at the outset of the suit; the copyright laws provide that a plaintiff may elect to collect statutory damages at any time prior to final judgment.<sup>68</sup>

Under section 504(b) of the Copyright Act, a copyright holder<sup>69</sup> is

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Cir. 1993). The district court granted an *ex parte* order based on the claim that "given the character of the defendant's activities, it is very unlikely that such evidence would ever be produced through normal discovery if *ex parte* impoundment is not ordered." The circuit court pointed out that under Federal Rules of Civil Procedure ("F.R.C.P.") 65(b), an *ex parte* order may only be granted if 1) irreparable harm will result from notice, and 2) the plaintiff gives specific reasons why notice should not be required. *Id.* at 650-651.

65. F.R.C.P. 65(c). See also WRIGHT & MILLER, *supra* note 53, at § 2954; *Software Police*, *supra* note 9, at 515.

66. 17 U.S.C. § 503 (1993). Subsection (a) authorizes the seizure of any pirated software "on such terms as [the court] may deem reasonable." Subsection (b) provides for the destruction of such infringing copies upon final judgment or decree of the court.

67. The general language of the copyright act appears at first blush broadly to authorize impoundment of infringing goods. See Kenfield, *supra* note 56, at 8-11 (citing the expansive language of Copyright Rule of Practice 3, 214 U.S.C. 533, 536-37 (1909), Kenfield suggests that the courts have treated impoundment as a right). A recent opinion of the Sixth Circuit, however, makes clear that seizure under the copyright laws must be limited to only those items specified in 17 U.S.C. § 503(a) (1993). "[S]pecifically, illicit copies of copyrighted material and anything 'by means of which such copies . . . may be reproduced.' The seizure of business records and the likes which are not specifically protected by the copyright laws can not be justified under § 503(a)." *First Technology v. Vector*, 11 F.3d 641 (6th Cir. 1993).

68. 17 U.S.C. § 504(c)(1) (1993) ("the copyright owner may elect, at any time before final judgment is rendered, to recover, instead of actual damages and profits, an award of statutory damages for all infringements involved in the action . . .").

69. As discussed earlier, the powers granted under section 504 are often assigned to a trade organization for the purposes of copyright enforcement. Without such assignment, organizations like the SPA and BSA would be toothless.

entitled to recover both actual damages and any profits of the infringer that are attributable to its piracy.<sup>70</sup> Actual damages in the software piracy context are measured by lost sales due to illicit duplication of the copyright holder's computer programs. Determining such lost sales, however, can create difficulties. The easiest scenario is that in which a commercial pirate is duplicating software and selling those illegal copies. In such an instance, it is clear that each copy sold has resulted in a loss of sale for the rightful copyright holder.<sup>71</sup>

Actual damages caused by commercial piracy are harder to determine. The difficulty arises from the fact that it is unlikely that every pirated copy of a program in the office has replaced a rightful sale.<sup>72</sup> Often times software is shared in an office because there are insufficient funds to purchase enough copies of the program to meet the employees' needs. Furthermore, software like screen-savers and games are frequently copied because they are free, but otherwise are expendable and would never have been purchased in the first place.<sup>73</sup> Due to the difficulty in assessing which pirated copies result in lost sales, some courts have resorted to statistical analysis of sales trends to determine the impact of the piracy on the copyright holder's market.<sup>74</sup>

On top of actual damages, copyright holders can claim those profits of the infringer that derive from their piracy.<sup>75</sup> In the software context, profits are determined by taking the value of each pirated copy and subtracting the cost of reproduction.<sup>76</sup> When profits from noninfringing

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70. 17 U.S.C. § 504(b) (1993). Once the plaintiff has presented proof of the infringer's gross revenues, Section 504 places the burden upon the defendant to prove those expenses and profits that are not attributable to the copyrighted work.

71. See *RSO Records, Inc. v. Peri*, 596 F.Supp. 849, 860 (S.D.N.Y. 1984) ("It would be reasonable to assume that for every counterfeit copy of plaintiffs' copyrighted records and tapes sold by defendants plaintiffs lost a corresponding sale. . . ."). The *RSO Records* court, however, makes an assumption which may not stand up to scrutiny. According to the court, defendants' copies were presumably sold at retail for the same price as plaintiffs'. *Id.* It is likely that commercial pirates will sell their software packages at a slight discount to induce sales. If that is the case, the amount of lost profit may be slightly less than the amount of profit made in illicit sales.

72. The same difficulties arise, as discussed at *supra* note 71, when pirated software is sold at a significantly lower price than legitimate copies.

73. See PAUL W. GOLDSTEIN, COPYRIGHT: PRINCIPLES, LAW AND PRACTICE, § 12.1.1.1(a) (1992) (discussing at length the various statistical means by which to determine lost sales).

74. *Stevens Linen Associates, Inc. v. Mastercraft Corp.*, 656 F.2d 11 (2d Cir. 1981) (measuring lost sales in a non-software piracy context by comparing the economic trends of the copyright holder and the copyright infringer).

75. See generally, GOLDSTEIN, *supra* note 73, at § 12.1.2.1; NIMMER, *supra* note 20, at § 14.02[A].

76. A question that arises from this analysis is whether a company that copies a single

activities are a direct result of infringement, those profits will also be divested from the infringer.<sup>77</sup> While the copyright holder may recover both actual damages and profits, only those profits that "are not taken into account in computing the actual damages" may be retrieved.<sup>78</sup> Since both actual damages and profits from piracy are essentially derived from the market value of the software, the copyright holder will either recover damages or profits (whichever is greater), but not both.<sup>79</sup>

If damages and profits prove too limiting, a copyright holder may choose any time prior to final judgment to collect statutory damages.<sup>80</sup> Statutory damages generally range from \$500 to \$20,000 "for all infringements involved in the action, with respect to any one work."<sup>81</sup> It is in a judge's discretion to determine where in this range the damages

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piece of software onto multiple machines is "profiting" from that infringement. Presumably the infringing company is saving an amount of money equal to that which it would have cost to purchase the same number of copies. However, the conception at the drafting of the copyright act was more along the lines of commercial piracy in which duplicates of a copyrighted work were reproduced and sold illicitly. To date no court has addressed this issue, in large part due to the fact that the vast majority of piracy suits are settled.

77. *See, e.g., Data General Corp. v. Grumman Systems Support Corp.*, 825 F.Supp. 340, 349-50 (D.Mass. 1993). The court held that certain business had only been acquired as a result of the use of the infringing software, thus the profits derived from that non-infringing business was also recoverable by the copyright holder.

78. 17 U.S.C. § 504(b) (1993).

79. This overlap between damages and profits is called "double counting." As Goldstein puts it, "The most straightforward way to avoid double counting of damages in profits is to include actual damages as an expense to be deducted from the infringer's gross revenues." GOLDSTEIN, *supra* note 73, at § 12.1.2.1(c). More simply put, the copyright holder need only determine who made a greater profit on the sale (or use) of the software if the publisher made more money, then it will recover actual damages; if the infringer made more money, then it will recover profits.

80. 17 U.S.C. § 504(c) (1993). An important limitation upon the recovery of statutory damages is the registration requirement. Under section 412 of the Copyright Act, no copyright holder may acquire statutory damages if her work was not registered prior to the "commencement of the infringing activity or within three months of first publication." 17 U.S.C. § 412 (1993). Thus, it is not enough for a software company to register its software upon suspicion of piracy; in such an instance the infringement will already have commenced and the copyright holder will be limited to actual damages and profits. For a discussion of the interpretation of "commencement," see Kenfield, *supra* note 56, at 25-30.

The Berne Convention Implementing Act exempts certain copyrighted works of non-United States origin from the statutory damage registration requirements. *See NIMMER, supra* note 52, at § 14.04[B][1][b].

81. 17 U.S.C. § 504(c)(1) (1993). When Congress drafted the 1976 Copyright Act, they carefully chose this language so as to avoid the "multiple counting" problem. Under the present statutory language, it is clear that repeated infringement of the same copyright (i.e. multiple pirated copies of the same program) may only be counted as a single instance of infringement. Therefore, the software police may collect statutory damages for each program which is pirated by an infringer, and not for each instance of piracy. *See Kenfield, supra* note 56, at 28, n.138 (citing H.R. Rep. No. 553, 94th Cong., 2d Sess. 162, *reprinted in* 1976 USCCAN. 5659, 5778).

will fall. To ascertain the exact recovery in any given instance the courts have relied upon such factors as: profits reaped by the infringer, expenses saved by the infringer, revenues lost by the copyright holder, value of the copyright, deterrent effect on future infringers, and the culpability of the infringer.<sup>82</sup> The culpability of the infringer also comes into play under section 504(c)(2) which makes "willful" infringement punishable by up to \$100,000.<sup>83</sup> Given these provisions, a corporate infringer that willfully pirates ten different computer programs is liable for up to one million dollars in statutory damages—very high stakes.<sup>84</sup>

The copyright laws also contain provisions for the granting of criminal liability. Under section 506(a) of the Copyright Act, "[a]ny person who infringes a copyright willfully and for purposes of commercial advantage or private financial gain" is punishable by a maximum fine of \$25,000 and one year in prison.<sup>85</sup> On top of the general criminal provision under the copyright laws, a recently enacted law deals specifically with commercial software piracy, elevating it to a felony.<sup>86</sup> Any individual

82. *Rare Blue Music, Inc. v. Guttadauro*, 616 F.Supp 1528, 1530 (D.Mass. 1985); *Boz Scaggs Music v. KND Corp.*, 491 F.Supp 908, 914 (D.Conn. 1980); *Milene Music, Inc. v. Gotauco*, 551 F.Supp 1288, 1296 (D.R.I. 1982); *United Feature Sydcate, Inc. v. Sunrise Mold Co.*, 569 F.Supp. 1475, 1481 (S.D.Fla. 1983).

83. For a full discussion of "willful" infringement in the computer context, see *Ailen-Myland, Inc. v. IBM*, 770 F.Supp 1014, 1025-28 (E.D.Penn. 1991). See also *Wildlife Express Corp. v. Carol Wright Sales, Inc.*, 1994 U.S. App. LEXIS 4480, \*23 (7th Cir. 1994); NIMMER, *supra* note 52, at § 14.04[B][3].

84. The stakes are particularly high when one adds on potential liability for attorneys' fees and costs. Under section 505 of the Copyright Act, at the courts discretion, the prevailing party may recover both attorneys' fees and costs. 17 U.S.C. § 505 (1993). See *Kenfield*, *supra* note 56, at 30-33 (suggesting that courts may be reluctant to grant attorneys' fees in software cases because of the magnitude of such fees and costs).

85. 17 U.S.C. § 506(a), incorporating 18 U.S.C. § 2319(b)(3) (1993). The first software piracy conviction under this section was entered in San Francisco, California in 1986, against an individual for illegally reproducing and distributing at least two copies of a stenography program. *Martin San Francisco Man Found Guilty in Software Piracy Case*, *COMPUTER WORLD*, Feb. 10, 1986, at 14. Nonetheless, prosecutions have been few and far between. See also *U.S. v. Larracuente*, 952 F.2d 672 (2nd Cir. 1992) (video piracy); *U.S. v. Cohen*, 946 F.2d 430 (9th Cir. 1991) (video piracy); *U.S. v. Minor*, 846 F.2d 1184 (9th Cir. 1988) (phonorecord piracy); *U.S. v. O'Reilly*, 794 F.2d 613 (11th Cir. 1986) (video game piracy).

86. Under this provision, 18 U.S.C. § 2319 (1993), enacted in 1992, it is a felony to "willfully infringe 10 or more copyrights and distribute copies of that pirated software within a six month period of time for commercial gain." Unlike civil copyright infringement which requires no intent, criminal infringement requires the act be done willfully. Thus, it is not possible innocently to incur criminal liability. See H.R. Rep. No. 977, 102d Cong., 1st Sess., at 5, reprinted in 1992 USCCAN. 3569, 3573.

While the new piracy law on its face is potentially applicable to corporate piracy, it is unlikely that it will be utilized for anything but combating commercial piracy. The House Report on this felonization statute states, "[t]he mens rea requirement serves to leave outside



convicted of commercial piracy may pay up to \$250,000 in fines and spend up to five years in prison; repeat offenders face a maximum of ten years in prison.<sup>87</sup> While these criminal sanctions are rarely utilized, the severity of their punishment may have some deterrent effect against software pirates.<sup>88</sup>

Using these extensive copyright remedies, the software police have started to make significant gains against domestic pirates. The primary police targets are corporate infringers, which have hundreds of computers potentially running thousands of pirated programs.<sup>89</sup> As a result of their enforcement efforts, the SPA alone collected \$3.9 million in 1992,<sup>90</sup> and \$3.6 million in 1993.<sup>91</sup> However, despite this well organized police force armed with powerful remedies, home pirates continue infringing with impunity. While the extent of the softlifting problem is unclear, there is no doubt that the software industry is losing a great deal of money and must take some affirmative steps towards combating this problem.

## II. THE SOFTLIFTING PROBLEM

While the software industry has some sense of the size of the

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the reach of criminal law losing parties in ordinary business disputes such as those involving . . . contract disputes over the scope of licenses." *Id.* at 3573 (footnote omitted). This, however, only extends to cases in which infringement was not "willful" and, therefore, does not rule out prosecution of corporations for willful infringement for commercial gain.

87. 18 U.S.C. § 2319 (1993). Corporate defendants can be fined up to \$1,000,000.

88. These criminal provisions are only likely to have a significant deterrent effect if there is a reasonable fear of prosecution. The SPA has been working hard at making such a fear a reality. They have published a guide entitled *Software Piracy: A Manual for Criminal Investigation and Prosecution*, which the SPA has distributed to over 500 FBI, U.S. Attorneys', and Department of Defense offices. This 150-page guide details the modus operandi of software piracy rings. *Short Takes*, COMPUTER RESELLER NEWS, June 21, 1993, at 75.

On July 7, 1993 the first indictment was entered for commercial software piracy against a company that produced, in a four month period of time, in excess of \$9 million in pirated software. *First Indictments Come Down Under Stronger Software Piracy Laws*, THE ASSOCIATED PRESS, July 7, 1993.

89. The prototypic software police target is a medium sized business which uses computers for a variety of tasks around the office, thus requiring a number of different computer applications. See *Software Police*, *supra* note 9, at 5, nn.15-17. While the SPA, as recently as a year ago, was going after companies with 75 to 300 PCs, today most of their cases involve firms with only 20 to 50 computers. DiDio, *supra* note 17, at 67. In 1993, 95% of the SPA's enforcement efforts were geared towards corporate targets, with the remaining 5% spread among electronic bulletin boards, computer training facilities, and education institutions. *Bad Year for Pirates*, *supra* note 10.

90. *Piracy in 1992*, *supra* note 43.

91. *Bad Year for Pirates*, *supra* note 10.

corporate piracy problem,<sup>92</sup> the same can not be said for softlifting. As Terri Childs, the SPA's public relations manager, has stated, "[t]here's just no way, shape or form to track that kind of thing."<sup>93</sup> Thus, SPA figures on computer piracy don't even include estimates for softlifting. This lack of concrete evidence of softlifting is further complicated by the fact that most industry estimates fail to distinguish between the various types of software piracy.<sup>94</sup> As a result, the softlifting problem is assumed to exist, but the extent to which it exists is left to guesswork.<sup>95</sup>

Nonetheless, the assumption that softlifting takes place seems incontrovertible. On a purely anecdotal level, nearly anyone who associates with or is a computer user has seen pirated software at one point or another.<sup>96</sup> More importantly, there are a whole host of reasons and incentives for softlifting which, while not condonable, make softlifting more understandable.<sup>97</sup>

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92. The first serious effort to pin down the extent of corporate piracy took place in 1985. Future Computing, Inc. undertook an extensive survey of computer users and determined that for every legitimate copy of a program there was a pirated copy being used as well. In 1985 this amounted to a loss of approximately \$800 million. See *Utah Rental Hearing*, *supra* note 30, at 40-44 (news release from Future Computing, Inc. describing survey findings).

SPA estimates suggest that the software industry has lost \$2.3 billion in 1987, \$2.9 billion in 1988, \$2.5 billion in 1989, \$2 billion in 1990, and \$1.2 billion in 1991. See John Hendren, *Put Down Your Mouse and Come Out With Your Hands Up!*, STATES NEWS SERVICE, April 23, 1993; *SPA Releases New Piracy Research*, BUSINESS WIRE, Aug. 6, 1991; DiDio, *supra* note 17. By way of comparison, the BSA estimates that the software industry lost \$1.9 billion to domestic piracy in 1992, \$12 billion worldwide. *Software Piracy Continues to Hinder Legitimate Market*, BSA NEW RELEASE, June 2, 1993.

93. *Where There's a PC*, *supra* note 1, at 61.

94. See, e.g., Pamela Samuelson, *CONTU Revisited: The Case Against Copyright Protection for Computer Programs in Machine-readable Form*, 1984 DUKE L.J. 663, 692. Samuelson points out that one analyst estimates that 30% of the software industry revenues are lost to piracy, yet her footnote supporting this figure discusses both corporate piracy ("One company whose annual sales are \$26 million estimates its losses due to piracy at \$20 million to \$40 million a year.") and softlifting ("I don't know anyone with a personal computer who doesn't have about \$500 worth of free [pirated] software."). *Id.* at 692, n.106 (citations omitted).

95. See *Computer Software Rental Amendments Act: Hearing before the Subcomm. on Courts, Intellectual Property, and the Administration of Justice of the House Comm. on the Judiciary*, 101st Cong., 2nd Sess. 18 (1990) [Hereinafter 1990 *Rental Hearing*] (testimony of Ralph Oman, register of copyrights, calling the assumption of piracy resulting from software rental to be a "calculated guess"). See also *Where There's a PC*, *supra* note 1, at 61 ("... Bill Claff, a Wellesley computer software engineer who hosts a syndicated radio show about computers, estimates that if you looked inside 1,000 home computers you would find that 700 of them contain at least some software that was illegally copied from friends, neighbors, co-workers and employers rather than bought off the shelf.").

96. It is all too commonplace when one starts an application on a friend's computer to see "This software is registered to . . ." and then a name other than the individual to whom the computer belongs.

97. The most extensive discussion of home piracy to date has taken place in the context

One great incentive for softlifting is the fact that the copy created is entirely fungible with the original.<sup>98</sup> Unlike the related problem of analog audio tape piracy in which the sound is inevitably degraded in the copying process, computer programs are contained in a digital medium and as such can be copied exactly.<sup>99</sup> Each copy of the program is perfect, and each copy of that copy is perfect. And all that is needed to make the copy is the computer on which the software is running. As Terri Childs puts it, "[t]his is the only industry in the world that empowers every user to be a manufacturing subsidiary."<sup>100</sup> Furthermore, unlike a video or phonorecord, the copying process takes minutes, not hours. Thus, with a few simple commands, any computer owner can make a perfect replica of a copyrighted work within minutes which will function in the exact manner as does the original.

The cost of software creates additional incentive to softlift. Many computer users view the cost of software to be inflated<sup>101</sup>—computer

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of the Computer Software Rental Amendments Act, codified under 107 U.S.C. § 109(b)(1)(A). The bill proposed to outlaw the rental of software (without the permission of the publisher) based upon the presumption that rental was being used a means by which to softlift. While the hearings did not discuss softlifting directly, much of the subtext of the hearings was about the act of piracy, and the characteristics of software and the software market that facilitated softlifting. See S.R. Rep. No. 265, 101st Cong., 2nd Sess., 3 (1989) ("[U]nlike the video cassette rental market, the market for rental computer programs exhibits several characteristics that could facilitate or even promote illegal copying of rented software by lessees."); *Senate Panel Told Illegal Copying Is Top Rationale for Renting Software*, BNA WASHINGTON INSIDER, April 24, 1989; Paul Freiberger, *Software Industry Wins Major Battle in War Against Piracy*, THE LOS ANGELES BUSINESS JOURNAL, Dec. 3, 1990, at 3 ("The rental of software is probably one of the most insidious forms of piracy that we have run into," said R. Duff Thompson, vice president and general counsel for WordPerfect Corp. . . .").

98. 1990 *Rental Hearings*, *supra* note 95, at 22 (testimony of Ralph Oman).

99. It was the fear of this capacity to make perfect digital copies that resulted in the long battle over the release of digital audio tapes in this country. See Edward P. Murphy, *Self-Interest Led to Home-Duping Pact: Now It's Congress' Turn to Act*, BILLBOARD, July 27, 1991, at 8. See also the discussion of the DAT compromise, *infra* notes 152-177 and accompanying text.

100. *Where There's a PC*, *supra* note 1, at 61. See Pamela Samuelson, *Digital Media and the Law; Legally Speaking*, COMMUNICATIONS OF THE ACM, Oct. 1991, at 23 ("Selling computer programs . . . has become comparable to selling a customer the Ford automotive plant at the same time as selling him or her a Ford automobile. Each copy of the program has the potential to become its own factory.")

101. See *Can Software Makers Win the War Against Piracy?*, BUSINESS WEEK, April 30, 1984, at 108; *Utah Rental Hearing*, *supra* note 30, at 31 (Letter to Senator Hatch from Reid Swenson) ("I personally detest the fact that in this situation the industry actually exploits the good nature of the honest consumer rather than evenly distributing the burden by encouraging increased honest sales through lower pricing—especially when the additional cost of producing extra copies is so low compared to other industries."). *But See Utah Rental Hearing*, *supra* note 30, at 10 (testimony of Alan Ashton, President of WordPerfect Corp., that the high price of software is a result of research and development costs, support costs,

applications such as a word processing program can cost hundreds of dollars. It is not surprising that people are tempted to softlift when a \$250 program can be copied nearly instantaneously onto a \$2.50 disk. That is a price differential of 100:1. Even inexpensive computer games have a price differential of approximately 20:1, significantly greater than the 6:1 differential for analog audio taping of prerecorded music. While some softlifters are simply tempted by the huge savings from piracy, others view it as "robbing from the rich and giving to the poor."<sup>102</sup>

Finally, there is some sense that softlifting is acceptable because such pirates are never caught. The SPA itself admits that individuals who copy software from friends have little to no fear of facing enforcement proceedings.<sup>103</sup> While Peter Beruk, the SPA's litigation manager, suggests that this is because "[the SPA] have bigger fish to fry,"<sup>104</sup> it is more likely that the SPA simply has no way to catch such small fish.<sup>105</sup> Softlifting takes place behind the closed doors of individuals' homes and any means by which the software police could discover such piracy would be reminiscent of "big brother."<sup>106</sup>

### A. Disincentives to Softlifting

Given that softlifters can make perfect copies nearly instantaneously for 1/100th of the cost of purchasing an original with little possibility of being caught, softlifting not only undoubtedly occurs, but is also undoubtedly commonplace. Thus, the software police have had to resort to extra-legal means to combat softlifting. At a simple level, the software publishers rely on "moral suasion."<sup>107</sup> Few softlifters will argue with the

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and updating costs).

102. *Where There's a PC*, *supra* note 1, at 61 (yet, even the softlifter who made this observation admits that it may simply be a post hoc rationalization).

103. *Software Piracy Thrives in Large U.S. Cities*, UNITED PRESS INTERNATIONAL, Sept. 3, 1993.

104. *Where There's a PC*, *supra* note 1, at 61.

105. *See id.* ("[P]ublishers know that piracy laws are practically unenforceable when it comes to home copying."). It is difficult to imagine a scenario in which the SPA would receive a phone call to its piracy hotline informing about home piracy.

106. Therese Ehlike, in discussing the related problem of music piracy, recognized the difficulty of monitoring behavior of private individuals in their own homes. Such monitoring, Ehlike suggests, would not only create monstrous enforcement problems but may also raise serious privacy concerns. Therese A. Ehlike, *Disc, DAT and Fair Use: Time to Reconsider?*, 25 CAL. WESTERN L.R. 97, 114 (citing *Stanley v. Georgia*, 394 U.S. 557, 564-65 (1969)).

107. The SPA is fond of the term "moral suasion." *See 1990 Rental Hearings*, *supra* note 95, at 34 (testimony of Heidi Roizen, then president of the SPA); Interview with Ken

immorality of "stealing" software, despite the fact that many continue to pirate.<sup>108</sup> However, many individuals are not aware that the copying of a friend's software is against the law. Thus, it is necessary to educate the public as to the copyright laws.

The first serious efforts to educate the public as to the illegality of software piracy took place in 1984 with the formation of the Software Protection Fund. Forty software publishers supported the Fund, which had a simple goal: "The objective is to give people the idea that software piracy is a crime."<sup>109</sup> The SPA has adopted a similar strategy and today invests in a public awareness and prevention campaign.<sup>110</sup> The educational efforts consist of both a speakers bureau and multimedia campaign. Speakers from the SPA have given 341 talks over the past three years at gatherings of lawyers, information systems managers, computer societies, and other such organizations.<sup>111</sup> Over the same time period, the SPA has also distributed over 70,000 copies of "It's Just Not Worth the Risk,"<sup>112</sup> an informational video about the copyright laws aimed at present and potential corporate pirates.<sup>113</sup>

The most significant educational effort to deter softlifting, however,

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Wasch, President of SPA (Feb. 14, 1994) [hereinafter *Wasch Interview*]. However, the SPA readily admits that moral suasion is not enough to combat the softlifting problem. See 1990 Rental Hearings, *supra* note 95, at 34.

108. See *supra* note 102.

109. *Can Software Makers Win the War Against Piracy?*, BUSINESS WEEK, Apr. 30, 1984, at 108. The industry trade organization ADAPSO was also beginning to look into educational efforts around this time.

110. *Bad Year for Pirates*, *supra* note 10.

111. The number of anti-piracy presentations that the SPA makes has been increasing over the past three years: 95 presentations in 1991, *Piracy in 1991*, *supra* note 47; 112 presentations in 1992, *Piracy in 1992*, *supra* note 43; and 134 presentations in 1993. *Bad Year for Pirates*, *supra* note 10.

112. The SPA distributed 20,000 copies in 1991, *Piracy in 1991*, *supra* note 47; 25,000 copies in 1992, *Piracy in 1992*, *supra* note 43; and 26,000 copies in 1993. *Bad Year for Pirates*, *supra* note 10.

The SPA has also started a general advertising campaign which revolves around the image of a pair of handcuffs and the catch phrase "Copy software illegally and you could get this hardware for free." In 1993, the SPA installed a billboard with this motto at the mouth of the Lincoln tunnel. While such efforts may not reverse the piracy trend, they at least raise consciousness about the problem. See *Hard Line on Software Piracy*, CHICAGO TRIBUNE, April 25, 1993, at 11.

113. A multi-media company in Boston, Massachusetts, has also gotten into the anti-piracy video business. Commonwealth Films, Inc. has produced over a dozen videos dealing with various computer-related problems, including software piracy. The Commonwealth Films' video, *We Lost Control: Software Piracy*, contains a recreation of an SPA raid. The videos are intended to inform and educate corporate managers and workers about the specific legal and technical implications of the digital age. See Laura DiDio, *Videos Are Latest Tools to Fight Software Piracy*, LAN TIMES, Nov. 1, 1993, at 74.

is a video produced by the SPA that is aimed at schoolchildren.<sup>114</sup> The video, entitled *Don't Copy That Floppy*, premiered in 1992 as an effort to educate children growing up in the computer generation about the legal and ethical implications of software piracy.<sup>115</sup> Using rap music and MTV style editing, *Don't Copy That Floppy* keeps kids' attention while imparting a strong anti-piracy message.<sup>116</sup> With over 40,000 copies of *Don't Copy That Floppy* distributed in the last two years,<sup>117</sup> moral suasion may have a head start in deterring potential softlifter.

The Software Police also emphasize practical considerations in the hope of bolstering their moral plea against piracy. Ken Wasch, president of the SPA, stresses what he calls the three NOs: when an individual softlifts, he or she will get: 1) no documentation; 2) no technical support; and 3) no upgrades.<sup>118</sup> In the rapidly changing and increasingly compli-

114. Specifically, the video is intended for grades 4 through 8, and is accompanied by lesson plans. Brook E. Wurst, *Rapping 'bout Software Piracy: Software Publishers Assn. Video Aimed at Educating Students About Software Piracy*, COMPUTER SHOPPER, Oct., 1992, at 79 ("By itself, a rap video may not be enough to halt an epidemic, but the SPA hopes it can draw renewed attention to the problem before it's beyond redemption.")

115. *Software Pirates Rated by SPA*, COMPUTER DEALER NEWS, Sept. 20, 1993.

116. William Smart, *Pirates on the Plank; National Campaign Targets Software Theft*, THE WASHINGTON POST, Sept. 25, 1992, final edition, B5. In *Don't Copy That Floppy*, Washington, D.C. attorney and actor M.E. Hart plays MC Double Def DP (Disk Protector). Interwoven with music, dance, video game clips, and interviews with software developers and designers, MC Double Def DP raps about the harms of piracy:

You say I'll just make a copy for me and a friend  
 Then he'll make one and where will it end  
 One leads to another, then 10, then more  
 and no one buys any disks from the store  
 so no one gets paid and they can't make more.  
 The posse breaks up  
 and that closes the stores.  
 Don't copy, don't copy that floppy!

.....  
 To do the right thing is really simple for you  
 The copyright law  
 It will tell you what to do.  
 Buy one for every computer you use!  
 Anything else is like going to the store,  
 taking the disk and walking out the door.  
 It's called thieving (sic), stealing, taking what's not yours  
 Is that really where you want your life to go?  
 Think about it—I don't think so.

117. The SPA distributed 20,000 copies in 1992, *Piracy in 1992*, *supra* note 43; and 21,000 copies in 1993. *Bad Year for Pirates*, *supra* note 10.

118. *Wasch Interview*, *supra* note 107. See also *Utah Rental Hearing*, *supra* note 30, at 16 (testimony of Heidi Reizen) ("Unlike a record, which doesn't require the user to have contact with the original creator, [we in the software industry] very frequently find . . . that our users need to have contact with us to provide further upgrades of the product, to provide

cated realm of microcomputer applications, lack of access to all three of these things can be a major impediment to the effective use of one's software.<sup>119</sup> Another practical consideration is the possibility of computer viruses which might exist in pirated software.<sup>120</sup>

Despite the moral and practical reasons for purchasing legitimate copies of software, and despite the education efforts to combat ignorance of the law, it is clear that softlifting continues to be widespread.<sup>121</sup> Thus, it is useful to look at one potential model for dealing with the softlifting problem.

### B. Is Softlifting Fair Use?

Before discussing what can be done to combat softlifting, it is important to answer the threshold question, is softlifting fair use? The doctrine of fair use, as codified by Congress under section 107 of the Copyright Act, makes certain uses of copyrighted materials "fair use" and, thus, noninfringing.<sup>122</sup> Not surprisingly, the SPA insists that software piracy in any form is an infringing use.<sup>123</sup> However, the

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the kind of user support, help them use our product." By emphasizing such practical advantages of purchasing legitimate copies of computer software, however, the SPA and other anti-piracy advocates may be undermining their attempts at moral suasion. After all, one need not do a cost-benefit analysis to determine the *morally* correct course of action.

119. According to Sandra Boulton, director of the Anti-Piracy department for Autodesk, Inc., "Our object is to have productive, satisfied customers; not users with the insufficient documentation and product support that comes with pirated software." *Autodesk Nets \$5 Million from Software Pirates*, BUSINESS WIRE, Aug. 19, 1991.

120. Nathan Cobb compares computer viruses to sexually transmitted disease: "copying is a little like unsafe sex: You (sic) don't necessarily know much about the computers your software has already visited, and it might have contracted a computer 'virus' that could infect your other software." *Where There's a PC*, *supra* note 1, at 61.

121. *Id.* ("To copy or not to copy, that is the question. The absence of genuine legal consequences makes it the user's choice.").

122. 17 U.S.C. § 107 (1993). Section 107 reads:

Notwithstanding the provisions of section 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching . . . , scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include:

- (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- (2) the nature of the copyrighted work;
- (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work.

123. *Beruk Interview*, *supra* note 40.

combination of the Supreme Court's decision in the *Sony* case, which held certain home video taping to be fair use,<sup>124</sup> along with the recent enactment of the Audio Home Recording Act,<sup>125</sup> making home audio taping a noninfringing use, suggest that the issue is not as clear as the SPA would suggest.

Under section 107, fair use analysis amounts to a balancing of four factors to determine if the use falls outside the protection of the copyright laws. The four factors are: 1) the purpose and character of the use; 2) the nature of the copied work; 3) the substantiality of the use; and 4) the effect upon the market for the copied work.<sup>126</sup> No single factor in the analysis is determinative; rather, the courts undertake an ad hoc balancing of interests to determine if a use is infringing.<sup>127</sup> In undertaking this analysis with respect to softlifting, it is unlikely that the courts would find such piracy to be fair use.

*Purpose and Character of Use.* The courts have combined two issues under this factor of the analysis: is the use a *commercial* use and is the use a *productive* use? Section 107 suggests that the fair use exception includes such productive uses as "criticism, comment, news reporting, teaching, [etc.]"<sup>128</sup> While there is nothing productive about softlifting,<sup>129</sup> it is still conceivably fair use.<sup>130</sup> If the balance of equities with regard to the other fair use factors is sufficiently compelling then the produc-

124. *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984).

125. 17 U.S.C. §§ 1001, et seq. (1993).

126. 17 U.S.C. § 107 (1993).

127. *Sony*, 464 U.S. at 454. When Congress enacted section 107, it failed to provide any guidance as to the proper balancing of the four listed factors—the four factors were intended merely to give some general assistance in evaluating the fair use claim. "[E]ach case raising the question must be decided on its own facts." H.R. Rep. No. 1476, 94th Cong., 2d Sess. 65, reprinted in 1976 USCCAN 5659, 5679.

128. 17 U.S.C. § 107 (1993). These categories were not, however, intended to be inclusive.

129. By its definition, softlifting is simply the exact duplication of a piece of software so that it may put to the same use as the original. While the use of the software itself may be productive, the duplication of the copyrighted program serves no productive purpose. See *Sony*, 464 U.S. at 480 (Blackmun, J., dissenting) ("[W]hen a user reproduces an entire work and uses it for its original purpose, with no added benefit to the public, the doctrine of fair use usually does not apply.").

130. In the *Sony* case, Universal City Studios argued that video taping TV shows was not fair use because it was a *consumptive* use which was outside the intention of the framers of section 107 of the copyright act. Copying could not be considered fair use because it did not contribute to debate or knowledge. Universal, however, was unsuccessful in making such an argument. See Pamela Samuelson, *Computer Programs and Copyright's Fair Use Doctrine*, COMMUNICATIONS OF THE ASSOCIATION FOR COMPUTING MACHINERY, Sept., 1993, at 19.



time/non-productive dichotomy will not be determinative.<sup>131</sup>

Similarly, while commercial use is presumptively unfair, it too is not determinative.<sup>132</sup> The *Sony* court stated that "private non-commercial use" would be presumptively fair, unless the copyright holder could demonstrate some harm to the market from that non-commercial use.<sup>133</sup> While there was no such demonstrable harm from the practice of "time shifting" as was at issue in the *Sony* case,<sup>134</sup> softlifting appears to create just such economic damage. Because many pirated computer programs (intended for private non-commercial use in the home) result in lost sales to the copyright holder,<sup>135</sup> the act of piracy is at least partially commercial in nature and therefore less likely to be a fair use.<sup>136</sup>

*Nature of Use.* Given the nature of traditional fair uses (news reporting, teaching, etc.), the section 107 exception is more likely to apply to factual works than fanciful works.<sup>137</sup> It is difficult to generalize about the nature of a computer program. Programs are made up of both

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131. See *Sony*, 464 U.S. at 455; *Pacific Southern Co. v. Duncan*, 744 F.2d 1490 (11th Cir. 1984).

132. *Harper and Row, Inc. v. Nation Enterprises*, 471 U.S. 539 (1985).

133. *Sony*, 464 U.S. at 449-450.

134. The *Sony* court considered the question of "time-shifting," the practice of video taping television programs to watch at a later time. The court found that no economic harm could come from this non-commercial practice, thus the practice did not cut against a finding of fair use. (Interestingly, part of this determination was premised on the fact that people did not tend to skip over the paid advertisements when viewing the time shifted program at a later time. This assumption may no longer be as supportable given the technological advances in visual fast forward.)

135. The extent to which softlifting replaces legitimate sales is difficult to determine with precision. As discussed *supra* notes 96-106, the software industry is unable to pinpoint the extent to which pirated software is run on home PCs in the first place. Equally difficult, then, would be determination of the extent to which the elimination of such pirated software would result in increased sales. The best that can be said is that softlifting is clearly taking place on a large scale, and that some proportion of that software would have been purchased but for the piracy. Thus, there is undoubtedly some commercial impact from softlifting.

136. "The crux of the profit/nonprofit distinction is not whether the sole motive of the use is monetary gain but whether the user stands to profit from exploitation of the copyrighted material without paying the customary price." *Harper & Row*, 471 U.S. at 562-563. Or, put another way, "[n]o one would suggest that stealing a diamond necklace from a jewelry store would be any less a theft if the taker only intended to wear the necklace in the privacy of her home." Thus, the "stealing" of software for home use is no less of a commercial act. Samuelson, *supra* note 130, at 19.

*But see Sony*, 464 U.S. at 450, n.33 (addressing the diamond example). The *Sony* court's discussion is distinguishable from softlifting in that there is a recognized market for computer software, whereas there was no recognized market in prerecorded videotapes at the time. Furthermore, the *Sony* court's emphasis was on time-shifting, which the Supreme Court determined would result in a videotaped program being watched only once and then discarded.

137. See *Harper & Row*, 472 U.S. at 563 ("The law generally recognizes a greater need to disseminate factual works than works of fiction or fantasy.")

expressive and informational elements.<sup>138</sup> However, despite the utilitarian nature of much software, the courts tend to view computer programs as expressive, rather than factual.<sup>139</sup> The *Sony* court made clear that simply because something was a creative work did not mean that it could not fall under fair use.<sup>140</sup>

Nonetheless, the creative nature of computer programs appears to weigh against a finding of fair use, and rightfully so. The copyrightable expression in a piece of software is not made up of the factual elements of that program, but rather the language by which such instructions are expressed. To co-opt the program in its entirety is to copy both the uncopyrightable functionality of that software (the factual elements of the program), as well as the copyrightable expression of that functionality (the creative elements of the program). Thus, it is the creative nature of the computer program which is protected by copyright law and therefore must weigh against fair use.

*Substantiality of Use.* The copying of an entire copyrighted work "militate[s] against a finding of fair use."<sup>141</sup> Softlifting by its very nature requires the duplication of an entire copyrighted work.<sup>142</sup> Thus, this

138. Thus, the discussion of the "nature" of computer program turns back to the idea/expression dichotomy which is at the very core of copyright law. See *Baker v. Selden*, 101 U.S. 99, 102-104 (1879) (copying of instructional methods elements is non-infringing). As the Ninth Circuit wrote in *Sega Enterprises v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992) when discussing the second factor of the fair use analysis, "[c]omputer programs pose unique problems for the application of the 'idea/expression distinction' that determines the extent of copyright protection. To the extent that there are many ways to accomplish a given task or fulfill a particular market demand, the programmer's choice of program structure and design may be highly creative and idiosyncratic. However, computer programs are, in essence, utilitarian articles—articles that accomplish tasks." *Id.* at 1524.

139. See, e.g., *Allen-Myland, Inc. v. IBM*, 746 F.Supp 520, 534 (E.D.Penn. 1990) ("Regardless of whether some portions of the [copyrighted program], such as tables listing the configuration of the [program], might be primarily informational in nature, the [program] as a whole is a creative work.").

140. *Sony*, 464 U.S. at 450. See also Samuelson, *supra* note 130, at 19.

141. *Hustler Magazine, Inc. v. Moral Majority, Inc.*, 796 F.2d 1148 (9th Cir. 1986). See also *Walt Disney Productions v. Air Pirates*, 581 F.2d 751 (9th Cir. 1978) (finding the pornographic parody of Mickey Mouse, et al. to fall outside of fair use because too much of the copyrighted expression had been appropriated).

142. However, it is important to point out that according to the *Sony* court, wholesale copying does not preclude fair use per se. *Sony*, 464 U.S. at 450. The court's rationale for such a finding was that the wholesale copying involved in time-shifting did not deprive the copyright owner of anything. As the court put it, "the time-shifter no more steals the program by watching it than does the live viewer, and the live viewer is no more likely to buy prerecorded videotapes than is the time-shifter." *Id.* at 450, n.33. Given this reasoning, the copying of software in its entirety would not be viewed as favorably by the Supreme Court. It is clear that softlifting deprives the copyright owner of many rightful sales.

Every computer program will have elements which are protected by copyright and

factor will militate against fair use.<sup>143</sup>

*Effect Upon the Market.* Given that the purpose of the copyright laws is to promote the useful arts,<sup>144</sup> it is not surprising that the Supreme Court has found the effect upon the market for a copyrighted work to be "undoubtedly the single most important element of fair use."<sup>145</sup> If there is no demonstrable effect on the present or potential market for the copyrighted work, then the incentive to create is not diminished and the court will likely find fair use.<sup>146</sup> While clearly not all pirated software used in the home replaces a sale of the same copyrighted work,<sup>147</sup> some significant proportion of pirated software would have been purchased but for the softlifting.<sup>148</sup> Thus, the fourth factor weighs strongly against fair use.<sup>149</sup>

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elements which are not. It is these non-protected elements which create the difficulty. However, even though some portion of the pirated program can be copied at will without contravening the copyright laws, the entirety of the protected portion of the program has been copied as well, thus weighing against fair use.

143. *Sony*, 464 U.S. at 450 et seq.

144. U.S. CONST., art. I, § 8.

145. *Harper & Row*, 471 U.S. at 566.

146. *Sony*, 464 U.S. at 450. The *Sony* court was forward looking enough to include potential markets in the calculus for determining the economic effect of a particular copy or copies. The court recognized that "if [the challenged use] should become widespread, it would adversely affect the potential market for copyrighted work." *Id.* at 451 (citation omitted). It was exactly this potential widespread abuse which lead Congress to pass the Computer Software Rental Amendments Act of 1990. As Ralph Oman, the Register of Copyrights and Assistant Librarian of Congress for Copyright Services, testified before the Senate Judiciary Committee in support of the bill, "Copyright owners . . . argue that lost sales to the software industry due to computer program rentals represent a significant financial concern now and may increase in years to come if the rental industry continues to grow." *Computer Software Rental Amendments Act of 1989: Hearing before the Subcomm. on Patents, Copyrights and Trademarks of the Senate Comm. of the Judiciary*, 101st Cong., 1st Sess. 22 (1989) [Hereinafter *1989 Rental Hearing*]. The software rental problem represents a particularly egregious example of softlifting. Instead of purchasing a copyrighted work, individuals were renting the software and continuing to use it long after the program had been returned.

147. See John M. Conley and Vance F. Brown, *Revisiting Section 117 of the Copyright Act: An Economic Approach*, *THE COMPUTER LAWYER*, Nov. 1990, at 1 (discussing "essential" vs. "efficient" copies).

148. In the most recent Supreme Court opinion on the issue of fair use, Justice Souter wrote, "when a commercial use amounts to mere duplication of the entirety of an original, it clearly 'supersedes the object' of the original and serves as a market replacement for it, making it likely that cognizable market harm to the original will occur." *Campbell v. Acuff-Rose Music, Inc.*, 114 S.Ct. 1164, 1177 (1994) (citations omitted).

149. It is arguable that the effect upon the software market from softlifting is too speculative to weigh against fair use. See *Sony* 464 U.S. at 454-456 (economic impact of time-shifting too speculative to negate fair use). For example, consider the opinions of Richard Stern expressed in a letter to Senator Kastenmeier in 1990: "[I]t is unclear whether the problem of software rental is real or hypothetical, in the United States at this time. There have in the past been sporadic episodes of organized use of software rental as

Given the above analysis, it is highly unlikely that softlifters will be able to take shelter under the umbrella of fair use. Each of the four factors considered under Section 107 of the Copyright Act militates against such a finding. Indeed, softlifting in its purest form, the duplication of a computer program for unfettered use at home, in large part amounts to simple theft, which could hardly be called a "fair" use.

Quite unlike the paradigmatic productive fair use in which a small portion of a copyrighted work is reproduced for the sake of comment, criticism, news reporting, or education, softlifting is a selfish act. A pirated computer program is copied with the intent of being put to use for the identical purpose of the original copyrighted work. While arguably such a softlifter might not have purchased the program if he or she had to pay the market price, such a claim can neither excuse this act of theft nor overcome the fact that many copies of the software program will not be purchased due to softlifting. Fair use was intended as a narrow exception to the exclusive control of a copyright holder over his or her own work, and nothing about softlifting suggests that that exclusive control should be divested from the computer program's creator.

Unlike the *Sony* case, there is documentable harm being caused to copyright holders by runaway softlifting. More importantly, unlike the *Sony* case, neither the burgeoning computer industry nor the legitimate computer user will be injured by a denial of fair use. Whereas VCR owners would have been left with virtually useless machines at the time of the *Sony* decision if the court had not found fair use, PC users need not rely upon pirated software to effectively operate their computers. The court, therefore, would not face similar societal pressure to find softlifting a noninfringing act.

Thus, despite the suggestion in *Sony* that private non-commercial home uses of copyrighted works will fall under fair use, it is unlikely that the courts would extend this principle to software piracy.<sup>150</sup> Softlifters

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camouflage for facilitating secret unauthorized copying of copyrighted computer programs. But there has been no suggestion that this practice is now a real and present danger . . . ." 1990 Rental Hearing at 148.

150. The *Sony* court specifically did not deal with the issue of video taping to build a tape library, a scenario which more closely parallels softlifting. However, the argument that it is fair use to make a second copy of office software for use while at home seems more clearly analogous to time-shifting and is therefore more likely to succeed before the courts. See Samuelson, *supra* note 130 (addressing fair use with respect to "One Copy at Home, One Copy at the Office").

But see Debra Wilson, *Software Rental, Piracy, and Copyright Protection*, 5 COMPUTER L.J. 125, 133-136. Wilson concludes that softlifting would be a fair use. However, her

will face the same potential penalties as commercial pirates and will be unable to claim any exemption from the copyright laws.

### III. A PROPOSED SOLUTION TO THE SOFTLIFTING PROBLEM

Despite the fact that the Copyright Act purports to protect the integrity of software publishers' copyrighted works, and despite the fact that the act provides the software police with powerful remedies, softlifting remains rampant.<sup>151</sup> Furthermore, there is no indication that the phenomenon of softlifting will disappear soon. Therefore, it is necessary to consider what might be done to assure the integrity of microcomputer software, as well as to assure that those individuals who invest significant energy in the creation of such software are fairly compensated.

#### A. The DAT Paradigm

In the mid-1980s, consumer electronic giants like Sony were preparing to release the Digital Audio Tape ("DAT") recorder,<sup>152</sup> which they saw as the greatest audio recording format since the compact disc. Industry prognosticators predicted that by the early 1990's DAT sales would exceed analog tape sales, and ultimately eliminate the analog tape market.<sup>153</sup> However, the prognosticators failed to anticipate a recording industry frightened by the prospect of a recordable digital audio format. The music industry responded to the DAT threat by both refusing to release prerecorded DATs,<sup>154</sup> and suing the DAT manufacturers for

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conclusions are premised upon what seem to be faulty assumptions: 1) that copying phonorecords is fair use, thus copying software is fair use; and 2) softlifting does not result in substantial lost sales because of the high cost of software.

151. Any impediment to softlifting will be either moral or practical, but not legal. See *supra* Section II.A.

152. For a general discussion of the DAT format, See *DAT's the Ticket to True Fidelity*, THE GAZETTE (MONTREAL), Nov. 14, 1991, Final ed., C13; Julian Hirsch, *Digital Audio Tape*, STEREO REVIEW, Oct. 1987, at 24.

153. Ken Pohlmann, *Where did DAT go wrong*, STEREO REVIEW, Apr. 1992, at 17.

154. See *Copyright Issues Presented by Digital Audio Tape: Hearing before the Subcomm. on Patents, Copyrights and Trademarks of the Senate Comm. on the Judiciary and the Subcomm. on Courts, Civil Liberties, and the Administration of Justice of the House Comm. on the Judiciary*, 100th Cong., 1st Sess., 42-43 (1987) [Hereinafter *Joint DAT Hearing*] (testimony of Jason S. Berman, Pres. of the Recording Industry Assoc. of America that "none of the major American record companies has announced an intention to market DAT cassettes, and according to press reports, several have indicated that they will not do so until

contributory infringement.<sup>155</sup> Only through extensive negotiations were the electronics and recording industries able to settle their differences,<sup>156</sup> and on October 28, 1992, President Bush signed the Audio Home Recording Act into law.<sup>157</sup>

The piracy threat which the Audio Home Recording Act seeks to remedy has a great deal in common with the softlifting problem.<sup>158</sup> Since the primary threat at which the Audio Home Recording Act aims is that of digital reproduction, a quality inherent in computer softlifting, software piracy and music piracy will inevitably raise the same issues. As with pirated software, there is no distinction between original music and copies; digital technology creates the potential to make perfect copies of copies of copies.<sup>159</sup> Since there is no distinction between an original and

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the home taping problem is addressed in Congress.”).

155. *Id.* (“The introduction of DAT into the U.S. marketplace was as auspicious as the maiden voyage of the S.S. Titanic: The Titanic struck an iceberg, and DAT struck lawsuits.”); For a number of years, the widespread commercial release of DAT was held at bay by threats of law suit, and in 1990 a number of song writers finally did file a contributory infringement action in the Southern District of New York. The law suit was a class action. The plaintiff class consisted of 40,000 songwriters and music publishers, represented by Hal David, Sammy Cahn, Fort Knox Music, Trio Music Co., and Peter International Inc., suing Sony and a number of other electronics companies on the grounds of contributory infringement, much as Sony had been sued before by television copyright holders. *Cahn v. Sony, Inc.*, S.D.N.Y. 90-Civ. 4537 (July 9, 1990).

156. After years of fighting, the two industries settled their difference in 1989 in what became known as the “Athens Agreement.” The primary shared interest which motivated the negotiations was economic—“It was a rare meeting of the wallets.” Bill Holland, *Senators Hear Foes Agree On Taping Royalty*, BILLBOARD, Nov. 9, 1991, at 1 (quotation from an unnamed lobbyist). The consumer electronics industry feared the loss of DAT research and development money, and the recording industry feared the loss of a new market for prerecorded music. The compromise reached in the Athens Agreement was adopted by Congress nearly verbatim as the Audio Home Recording Act of 1992. 17 U.S.C. §§ 1001, et seq. (1993). See *Digital Audio Taping Bill Gets Enthusiastic Reception at House Hearing*, DAILY REPORT FOR EXECUTIVES, Feb. 20, 1992, at A-1.

157. In signing the Audio Home Recording Act into law, President Bush stated, “[this Act] will ensure that American consumers have access to equipment embodying the new digital audio recording technology. It also protects the legitimate rights of our songwriters, performers, and recording companies to be fairly rewarded for their tremendous talent, expertise, and capital investment. This will be accomplished by fairly compensating these artists for the copying of their works and by creating a system that will prevent unfettered copying of digital audio tapes.” *Statement on Signing the Audio Home Recording Act of 1992*, ADMINISTRATION OF GEORGE BUSH: WHITE HOUSE PRESS RELEASE, Oct. 29, 1992.

158. Simply put by Senator Kennedy, “Without this legislation, any record pirate could make multiple flawless copies of originals or even copies of copies, leaving the creative artists without compensation.” CONG. REC., Aug. 1, 1991, S11853.

159. *Joint DAT Hearing*, *supra* note 154, at 8, 11-24 (testimony of Jason S. Berman); *Digital Audio Recorder Act of 1987: Hearing before the Subcomm. on Communications of the Senate Comm. on Commerce, Science, and Transportation*, 100th Cong., 1st Sess., 17-19 (1987) (testimony of Jason S. Berman) [Hereinafter *DAT Act of 1987*]; *Comments of Congresswoman Collins*, CONG. REC., June 18, 1992, H4979-4980 (“... [W]ith digital

a copy, there is little incentive to purchase a legitimate version of the copyrighted work.<sup>160</sup> Rather, sales are replaced by illicit copying of prerecorded digital masters.<sup>161</sup> Finally, the record industry recognized, as does the computer industry, that it is difficult to police what individuals do in their own homes, even if it is clearly illegal.<sup>162</sup>

The Audio Home Recording Act of 1992 is an attempt to address digital music piracy in as unobtrusive a manner as possible. The legislation balances the privacy interests of the consumer, the desire of the copyright holder to acquire fair compensation for his or her artistic efforts, and the interest of the consumer electronics industry in releasing new digital recording media.<sup>163</sup> The Act does three basic things: 1) establishes a royalty system for digital recording devices and media;<sup>164</sup> 2) requires an anti-copying device in all digital recording devices sold in the United States;<sup>165</sup> and 3) establishes non-commercial, home audio taping (digital or analog) as a noninfringing act.<sup>166</sup>

Sections 1003 through 1007 of the Copyright Act establish a royalty

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audio recorders multigovernmental (sic) copies do not change the sound quality of the music, so that a 100th generation copy will sound as good as the original version.”).

160. While there are a few reasons one might still want to purchase prerecorded CDs or DATs, to acquire the liner notes, for instance, there is no need for the same kind of ongoing support for audio works, as is the case with software. Thus, there is even less of a disincentive to pirate music.

Also, unlike computer software, the copying process is not instantaneous. To date, DATs can only be copied real time. Therefore, for every hour long compact disc one wishes to copy, it will take 60 minutes to reproduce (there is no such thing as a high-speed dubbing deck in the digital realm). *Joint DAT Hearing*, *supra* note 154, at 42-43.

161. Even without digital audio tapes, the recording industry has lost millions to piracy. The Recording Industry Association of America estimated at the time of the 1987 DAT hearings that the music industry was losing approximately \$1.5 billion dollars annually to piracy. This amounts to a loss of approximately 1/3 of the industries revenues to illicit copying (smaller than the 50% estimate of some software organizations). *Joint DAT Hearing*, *supra* note 154, at 9-11. American consumers purchase 370 million blank audio tapes a year; as Jason Berman explains, it “doesn't take a rocket scientist to figure out what consumers are doing with all that tape.” *Omar Recommends Changes: Senators Voice High Praise for Digital Audio Royalty Bill*, COMMUNICATIONS DAILY, Oct. 30, 1991, at 5. See also Kelley, *Musical Unions and Audio Manufacturers Reach Royalties Pact*, THE REUTER BUSINESS REPORT, July 11, 1991, BC cycle (estimating home audio taping losses between \$1.5 and \$1.9 billion a year, excluding bootlegging).

162. As Congressman William Dannemeyer put it, “I, for one, would not appreciate a midnight raid by the Copy Code Cops [looking for pirated music], nor would I be disposed to buy the recordings of any company supporting such folly.” CONG. REC., June 16, 1987, at E2409. See also *Where There's a PC*, *supra* note 1, at 61.

163. See, generally, *DAT Act of 1987*, *supra* note 159.

164. 17 U.S.C. §§ 1003-1007 (1993).

165. 17 U.S.C. § 1002 (1993).

166. 17 U.S.C. § 1008 (1993).

scheme for digital recording devices and digital recording medium.<sup>167</sup> The scheme is intended to compensate copyright holders for lost sales due to home taping. Digital audio recording devices (DAT players, Digital Compact Cassette ("DCC") players, and Mini Disc ("MD") players)<sup>168</sup> are taxed at 2% of their "transfer price," not to exceed \$8 per device or fall below \$1.<sup>169</sup> Digital audio recording medium (DATs, DCCs, MDs, etc.) are also taxed at 3% of their transfer price.<sup>170</sup> The royalties are then distributed among those individuals who presently have some interest in a copyrighted musical work. The majority of the proceeds go to the record companies, featured performers, and songwriters and music publishers, in that order.<sup>171</sup>

In return for these royalties, the music industry agreed to make home taping a non-infringing act.<sup>172</sup> Thus, the Audio Home Recording Act provides that no infringement action may be brought under the Copyright Act "based on the non-commercial use by a consumer of [an audio recording] device or medium for making digital musical recordings or

167. Section 1001 of the Act attempts to clarify the meaning of such terms as "digital musical recording," "digital audio recording device," "digital audio recording medium," etc. 17 U.S.C. § 1001 (1993).

168. See Melinda Bargreen, *Mini Revolution—Digital Compact Cassette or MiniDisc—Which Will Survive?*, THE SEATTLE TIMES, Oct. 7, 1993, Final Ed., at E3; Snider, *Turning up digitals: MD, DCC formats fight for position*, USA TODAY, June 2, 1993, Final ed., at 5D; Paul Doocey, *New Formats Shake Up Audio Side: Is DCC Here To Stay?*, BILLBOARD, March 13, 1993, at P3; *DCC/MD Models Proliferate*, CONSUMER ELECTRONICS, Jan. 25, 1993, at 13; Susan Nunziata, *Sony Launching New Disc Format; Recordable/Erasable Product Due In '92*, BILLBOARD, May 25, 1991.

169. 17 U.S.C. § 1004(a)(1), (a)(3) (1993). If the unit has more than one recording device (such as a DAT unit with 2 tape decks), the maximum royalty is \$12. *Id.* at § 1004(a)(3). The typical digital audio recording device today costs between \$500 and \$1,000. Thus, for every unit sold, the maximum of \$8 will go into the royalty fund.

170. 17 U.S.C. § 1004(b) (1993). The typical digital audio recording medium today costs approximately \$10. Thus, for every piece of recording media sold, thirty cents will go into the royalty fund.

171. 17 U.S.C. § 1006 (1993). The royalties are specifically divided into two funds, the musical works fund and the sound recording fund. The two funds are specifically divided as follows:

- 1/3 of the proceeds goes to the *Musical Works Fund*:
  - 50% goes to the songwriters;
  - 50% goes to the music publishers.

- 2/3 of the proceeds goes to the *Sound Recording Fund*:
  - 2.625% goes to non-featured musicians;
  - 1.375% goes to non-featured vocalists;
  - 96% goes to featured musicians and vocalists:
    - 60% goes to record companies;
    - 40% goes to featured performers.

172. 17 U.S.C. § 1008 (1993).



analog musical recordings."<sup>173</sup> Thus, Congress circumvented the question of whether non-commercial home recording is "fair use" under the copyright laws. As a result of Section 1008, individuals no longer need fear that recording a compact disc to listen to in a walkman is copyright infringement.

The final element of the Audio Home Recording Act is what is known as the Serial Copy Management System ("SCMS"). Under Section 1002 of the copyright act, it is illegal to import, manufacture, or distribute any digital audio recording device that does not incorporate the SCMS.<sup>174</sup> SCMS was designed by Philips Electronics to assure that second generation copies could not be made from a prerecorded digital source.<sup>175</sup> Thus, it is possible to make as many copies of an original prerecorded disc or DAT as one likes, but it is not possible to make a copy of a copy of it.<sup>176</sup> The greatest strength of the SCMS is that its anti-copy information is encoded in the sub-code of the digital recording, assuring that the digital sound is not degraded by this additional information.<sup>177</sup>

### B. Applying the Paradigm

Unfortunately for the software publishers, a number of characteristics unique to the computer industry make a DAT-like solution untenable. Because these factors are inherent in the software industry, they may

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173. *Id.*

174. 17 U.S.C. § 1002(c) (1993).

175. Rich Warren, *Listen Up: A Buyer's Guide to the New Audio Technology*, CHICAGO TRIBUNE, Dec. 8, 1991, Final ed., at 28.

176. The record industry recognized that this left individuals with digital recording devices with the capacity to pirate compact discs for friends, but it at least limits the problems of multi-generational copies. Thus, it essentially put digital recording devices on a par with analog devices; sound degradation makes multi-generational analog recordings undesirable and SCMS makes multi-generational digital recordings impossible.

177. See Garnett, *The Music Industry: Electronic Delivery and Copyright*, SYMPOSIUM PAPER: WIPO WORLDWIDE SYMPOSIUM ON THE IMPACT OF DIGITAL TECHNOLOGY ON COPYRIGHT AND NEIGHBORING RIGHTS, 9 (March, 1993).

The first technical solution proposed by Congress was called a copy-code scanner. See *DAT Act of 1987*, *supra* note 159. The scanner required that all pre-recorded digital media be imprinted with a particular audio finger print which would inform the copy-code microchip that it should not be copyable. However, the system was rejected when it proved to degrade the quality of the underlying music. *Comments of Congressman Robert Kastenmeier*, CONG. REC., Feb. 22, 1990, E338 ("Senator DeConcini and I requested the National Bureau of Standards to test the copy-code scanner; NBS concluded that these concerns [namely, the degradation of the sound quality,] were legitimate and that the system in fact suffered from these defects."). See also *Interrupted Melody*, HIGH FIDELITY, July, 1987 (discussing copy-code and the degradation issue in detail).

prove insurmountable. The difficulty, in effectuating such a program are threefold.

First, blank computer disks are used primarily for non-infringing purposes. Unlike audio tapes or video tapes, the primary use of which is to record copyrighted material, computer disks are used to store huge quantities of data (numbers or words or sounds) which are produced by the legitimate use of purchased software programs. The proportion of disks being used for softlifting is never likely to approach even one percent. Thus, any royalty system which indiscriminately taxes digital recording media will inevitably falsely tax ninety-nine percent of the purchasing population.

It is conceivable that the computer industry could develop a system that distinguishes between disks being put to varying uses. Thus, a disk being purchased for commercial use would not be taxed, whereas a disk being purchased for private use would be. Such a system would undoubtedly decrease the number of false-positive taxes levied, but would still tax a huge number of noninfringing uses. In fact, any system which sufficiently distinguished between infringing and noninfringing uses would amount to a tax on those individuals who admitted that they were purchasing the disks for the purpose of piracy. Since the lack of such honesty is exactly that which has led to the softlifting problem in the first place, any such effort to tax based on differential uses would fail.

Given the striking similarities between the digital audio piracy threat and the existing softlifting problem, the Audio Home Recording Act of 1992 seems a logical model to consider for the software industry. The Audio Home Recording Act protects the rights of copyright owners and consumers alike.<sup>178</sup> However, on closer inspection, a number of issues unique to the software industry make any such legislation impractical at best.

There are a number of advantages to a royalty system for computer software. The primary advantage is directly related to the software police's difficulty in enforcing the copyright laws against softlifters; a royalty system does not require enforcement against individuals in the privacy of their own homes. So long as royalties are paid on the digital medium that end-users are purchasing, the copyright holders will be compensated. Since software publishers are presently receiving no

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178. In fact, it was only because everyone was happy that the Audio Home Recording Act passed rapidly through Congress. Short of consensus, the 1992 Act would have faced the same fate as the prior DAT bills that were proposed. See generally *supra* note 156.

compensation for what is believed to be widespread softlifting, every penny received from such a royalty system would increase the incentive for copyright holders to continue to create software.<sup>179</sup>

However, when asked if such a royalty system was being sought by the software industry, Ken Wasch of the SPA stated emphatically, "not a chance!"<sup>180</sup> He gave two specific reasons why the software community is not amenable to such a system. First, computer disks are used for too many non-infringing uses to justify what would be seen as an unfair "tax" on non-softlifters; and second, a royalty system would actually decrease the earnings of software companies.

For a royalty system to fairly reflect the amount of compensation deserved by the software industry, it would be necessary to distinguish between disks being used for non-commercial home copying and those disks being used for legitimate commercial purposes, such as storing data, or making backups.<sup>181</sup> However, any such distinction is impossible without undermining the entire royalty system. This very problem was pointed out by the computer industry during the debate over the Audio Home Recording Act; because DAT players are used as computer storage devices,<sup>182</sup> computer users voiced their opposition to the royalty system, which they believed would result in computer users subsidizing the recording industry.<sup>183</sup> Similarly, corporate computer users will object to

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179. Such an outcome would clearly be in keeping with the intention behind Article I, Section 8 of the United States Constitution ("To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries") and the copyright laws.

While no similar analysis has yet been done for the software industry, the economic impact of such a royalty scheme was studied in depth with regard to the music industry. See Timothy Brennan, *An Economic Look at Taxing Home Audio Taping*, 32 J. BROADCASTING & ELECTRONIC MEDIA 89 (Winter 1988). Mr. Brennan comes down on the side of such a royalty system, because it creates a market in which the price of pre-recorded music is more commensurate with the value of the work. Assuming it were possible to achieve such a piracy free atmosphere for computer software, undoubtedly the same analysis would apply.

180. *Wasch Interview, sup. a note 9.*

181. See *Digital Audio Recorder Act of 1990: Hearing before the Subcomm. on Communications of the Senate Comm. on Commerce, Science, and Transportation*, 101st Cong., 2nd Sess., 55 (1990) [Hereinafter *DAT Act of 1990*] (testimony of Ralph Oman, Register of Copyrights) (discussing The Brennan Analysis).

It is important to point out that, unlike audio tapes, computer recording media is used primarily for non-copying purposes. This is not because softlifting is not widespread, but rather because the industry revolves around data storage of one sort or another (digital media is used to store data, make backups, and distribute data).

182. See, e.g., *ARDAT to Demonstrate New Python DAT with DDS-DC Data Compression at Comdex Spring '91*, BUSINESS WIRE, May 20, 1991 (the new DAT drive can store up to 8 gigabytes of data, the equivalent of approximately 8,000 floppy disks).

183. Paul Newcomb, *The Sound of Money*, FORBES, May 11, 1992, at 102 ("[M]ost DAT

any such royalty scheme because their legitimate use of digital media will be subsidizing home copying.<sup>184</sup>

An additional difficulty with a royalty system revolves around the distribution of the proceeds. While the music industry is organized into powerful and generally inclusive trade organizations,<sup>185</sup> the software industry has no similar organization to be trusted with the distribution of the funds.<sup>186</sup> Furthermore, because of the large research and development costs, small software companies are "dangerously vulnerable to the theft of [their] products."<sup>187</sup> Yet, the insignificant proportion of the royalties that such small companies will collect will be insufficient to inspire venture capital for future software start-up companies or to sustain further research and development in small software shops that already exist.<sup>188</sup>

Furthermore, industry leaders believe that instead of increasing the amount of money taken in by software publishers, a royalty system would decrease the revenue stream.<sup>189</sup> No longer constrained by what little moral compulsion they once had, or the limited threat of discovery by the software police, home users would increase copying and decrease software purchasing. While this would result in a slight increase in the sale of blank digital media, that increase in disks sales and the concomitant royalty payments could not make up for the lost sales. Thus, the

cassettes are now used for computer data storage, which has nothing to do with music. Wide-scale consumer audio applications are still another five years away. Within that time the tax could raise as much as \$100 million annually—with computer users coughing up two-thirds of that amount."). The Consumers Union also voiced opposition to the Act, characterizing the royalty system as an "unfair tax." See John Burgess, *Bill Imparts the Sound of Music*, THE WASHINGTON POST, Oct. 9, 1992, Final Ed., at F1.

184. This is particularly true in light of the fact that only non-commercial home copying would be exempt from the copyright laws. See, e.g., 17 U.S.C. § 1008 (1993). Thus, corporate software users would not be able to benefit from the change in the copyright laws, but would bear the burden of the royalty system.

185. For example, the Audio Home Recording Act specifies that the American Federation of Musicians will oversee the distribution of royalties to non-featured musicians, and the American Federation of Television and Radio Artists will oversee the distribution to non-featured vocalists. 17 U.S.C. § 1006(b)(1) (1993).

186. While the SPA represents 1,100 software publishers, the divisiveness between the SPA and BSA would make them an inappropriate choice for the distribution of royalties. See *supra* note 35.

187. *Utah Rental Hearing*, *supra* note 30, at 14 (testimony of Heidi Roizen).

188. As Thomas Chan, deputy general counsel for Ashton-Tate explained, "... small companies [are] critical to this industry. Today's industry giants were at one time small operations, garage outfits, which have achieved the greatest technological advancements. Furthermore, due to its unique nature, microcomputer software development, sometimes the software can actually be better accomplished by small companies or by small project team. Thus, small companies are very important pioneers and developers of advanced software technology." *Id.* at 21.

189. *Wasch Interview*, *supra* note 9.

software industry has rejected the possibility of a such a software royalty system.

Given the nature of the industry, however, software publishers are always looking for technical solutions to the softlifting problem. For years the industry has debated over the efficacy and wisdom of copy protection, and the debate continues.<sup>190</sup> Periodically the industry has sought to find a common technical solution to the piracy problem, much like the SCMS, but all such proposals to date have been rejected.<sup>191</sup> Nonetheless, the software industry continues to consider new possibilities. An organization called SoftCop International, Inc. from Ontario, Canada, has recently developed a system that is being met with some fanfare.<sup>192</sup> However, any hopes of consensus on such a scheme are presently being dashed by two of the big six, Microsoft and Lotus.<sup>193</sup>

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190. See, e.g., T.R. Reid, *Let Freedom—From Copy Protection Gimmicks—Ring*, THE WASHINGTON POST, Apr. 28, 1986, at 25; John Gallant, *Pan-Lists divided on copyright protection schemes*, COMPUTERWORLD, Apr. 8, 1985, at 12; Barry Gross, *Firm Develops Anti-Piracy System for Software*, THE WASHINGTON POST, Jan. 30, 1984, at 19; James Daley, *PC Identification System May Sink Software Pirates*, COMPUTERWORLD, Jan. 31, 1994, at 37; Juceam, *Protection of computer software—Legal, Commercial and Technical Methods [Part II]*, SOFTWARE PROTECTION, Dec. 1984, at 1.

191. The most prominent effort to get the industry to join technical forces came in 1985 when ADAPSO proposed a standard "key ring" system of copy protection. The key ring system, incorporated a series of software "fingerprints" which would interact with a hardware device on each computer to determine if that particular piece of software was pirated or not. Barry Goldschmitt, *Thou Shalt Not Dupe: So Says a Vendor of Software—Is Anyone Listening?*, COMPUTERWORLD, Jan. 28, 1985, at 1. See also Gross, *supra* note 190 (discussing the "electronic lock and key"). The key ring system, however, faced opposition from organizations like the Microcomputer Managers Association ("MMA"), which described the system as a "costly inconvenience." Kathleen Burton, *Adapso, MMA Remain at Odds Over Antipiracy Issue*, COMPUTERWORLD, April 29, 1985, at 5. Ultimately ADAPSO dropped its efforts to reach a shared technical solution to the software piracy problem. Edward Warner, *Adapso Plan Nixed: Micro Managers Reject Software Lock-and-key Protection Proposal*, COMPUTERWORLD, March 11, 1985, at 1.

192. The SoftCop system requires that application software be "thumbprinted" with identifying subcode. When an individual goes to install that thumbprinted software, installation will require calling an 800 number to activate the software. Via the phone call, the SoftCop system will establish a connection between the software and the machine it is being run on. Any attempt to run that software, be it the original disk or an illicit copy, on another computer will be thwarted. The system will also have a feature which reports any efforts to tamper with the copy protection program. SoftCop anticipates charging software companies approximately \$10 per disk protected by their system. See Jonathan Chevreau, *SoftCop Tackles the Software Pirates*, THE FINANCIAL POST, March 12, 1994, at 16; *Global Gateways: Arrest That PC*, COMPUTER RESELLER NEWS, Jan. 31, 1994, at 41; Paul Barker, *Anti-piracy Duo Planning Assault: Bell Sigma and SoftCop International Inc. Plan System to Stop Software Piracy*, COMPUTING CANADA, Jan. 19, 1994, at 1; *A Strong Stance Against Software Piracy*, COMPUTER FRAUD AND SECURITY BULLETIN, Sept. 1993.

193. Chevreau, *supra* note 192, at 16. Opposition from Microsoft is particularly troublesome in light of the fact that it alone was responsible for \$1.35 billion of the \$17.8

Copy protection schemes are met with skepticism as a result of their history in the software industry. While the conventional wisdom in the early 1980s was that failure to include copy protection on your software was an invitation to piracy, two factors resulted in a significant change of heart. First, copy protection proved too easy to circumvent;<sup>194</sup> programs quickly emerged that cracked the copy codes, making it possible to copy at will.<sup>195</sup> More importantly, copy protection annoyed legitimate users<sup>196</sup> by interfering with necessary computer functions, such as hard drive installation or data backup.<sup>197</sup> In fact, opposition to copy protection was so great that by the late 1980s software publishers began shipping their programs "naked"—free of any copy protection.<sup>198</sup> In light of this experience, software producers are likely to show a healthy skepticism towards any proposed copy protection schemes.

### C. Assessing the Paradigm

Despite the strong similarities between the DAT dilemma and the softlifting problem, the technology behind digital audio recording devices is significantly different from that of personal computers. It is these differences that make the application of the DAT legislation thorny, if not impossible, in the software context. Certain unique aspects of microcom-

billion in industry revenues in 1992. *Id.*

194. Warner, *supra* note 191, at 6 ("those truly interested in breaking the protection scheme would eventually be able to do so."); Hurst, *The Answer to Program Piracy: Hardware Protection*, COMPUTERWORLD, March 26, 1984, at 83 ("[T]here are many computer whiz kids who regard the breach of any system as a challenge. And any system designed by a human is probably breakable by another human.").

195. Programs like Copy II by Central Point Software, Inc. became exceedingly popular. In fact, the SPA was stuck with a dilemma when, in 1986, Copy II sold 100,000 copies, qualifying it for the SPA's gold award honoring best-selling software. Because the SPA believed that copy-protection-breaking programs like Copy II were tools of the software pirates, the SPA refused to grant Central Point the award. Peggy Wyatt, *Software Publishers Snub Colleague as Piracy Promoter*, COMPUTERWORLD, Dec. 23, 1985, at 41.

196. See, e.g., Peter F. Krammer, *Copy Protection Seen as Nuisance*, COMPUTERWORLD, July 29, 1985, at 18 (urging legitimate users to boycott copy-protected software).

197. As Peter Lewis explains, "At best, copy protection does nothing good for legitimate users and only annoys software pirates. At worst, it makes it difficult to install software on to a hard disk and to make backup copies that are vital if the original is lost or destroyed. It slows the performance of some programs and causes snarls in others." Peter Lewis, *Software Copy Protection: More Companies Shun It*, THE NEW YORK TIMES, Aug. 19, 1986 at C5. See also, Reid, *Consumers Win as More Software Firms End Copy Protection*, WASHINGTON POST, Nov. 10, 1986, at 16.

198. See Carroll, *On Your Honor: Software Firms Remove Copy-Protection Devices*, WALL STREET JOURNAL, Sept. 26, 1986 ("For users, copy protection is like going to a supermarket where every time you leave they strip-search you.")

puters and their use make both a royalty system and a technical solution suspect at the present time. The primary difficulties in applying the DAT paradigm to the software industry are threefold.

First, unlike audio tapes, computer disks are used predominantly for noninfringing purposes. Personal computers are designed to process, manipulate, and produce data (words, numbers, sounds, etc.) which is subsequently stored on disks. While some small proportion of the computer disks sold today are used for softlifting, the vast majority are used to retain information or to back up programs which have been obtained legitimately.

While blank audio tapes serve few purposes other than to copy pre-recorded sources, the same clearly does not hold true for computer disks. Despite the vast nature of the softlifting problem, the proportion of disks being used for piracy will never approach even one percent. Both personal and commercial computer users rely upon disks for the storage of their own work, and such uses will always predominate in the computer industry. Thus, any effort to tax blank computer media will result in the taxation of primarily noninfringing uses--legitimate computer users will subsidize softlifters.

Only by differentiating among computer disk uses will the software industry create an equitable royalty system. The difficulty, however, lies in the differentiation. It may be possible to only tax computer disks purchased for private use, and not those disks used for commercial purposes. Such a distinction would decrease the ratio of infringing versus noninfringing uses taxed. However, this is an imperfect system at best; the majority of home uses for computer disks will still be noninfringing. In fact, to parse computer disk uses thinly enough to create a fair royalty system would require taxing only those disks purchased for the intent purpose of softlifting. Yet, such a system is likely to work as effectively as moral suasion--barely at all.

The second difficulty inherent to the software industry is the challenge of fairly compensating the expensive process of creating computer programs. Because of the huge number of person-hours put into the research and development of each piece of software, computer programs are expensive. Unlike pre-recorded music that can be purchased for about ten dollars, software can cost hundreds of dollars. Since computer disks cost approximately a dollar each, it would be necessary to either tax them at well over one-hundred percent or indiscriminately tax noninfringing users to subsidize the infringing users (the impropriety of

which is discussed directly above). In either case, it would take significant royalty revenues to fully compensate the software publishers for lost sales attributable to softlifting. The industry is rightfully skeptical that sufficient revenues could be raised through such a system.

The final difficulty with enacting legislation similar to the DAT compromise is intrinsic to the computer itself—the computer is its own worst enemy. Any technical anti-piracy solutions must be developed on the computer for the computer. However, inherent in this reality is the vulnerability of anti-piracy schemes to clever computer users. Because the computer is a device designed for the purpose of manipulating digital information, any digitally encoded anti-theft scheme can be accessed and altered by the sophisticated user. To date, no foolproof copy-protection scheme has been created. So, while the industry should undoubtedly continue its efforts in this area, there is no technical solution presently able to unobtrusively combat software piracy.<sup>199</sup>

Given these three problems inherent in microcomputers and the software industry, adopting any royalty scheme or shared technical solution for the softlifting problem seems untenable at this time. Nonetheless, trade organizations like the SPA and BSA should continue to explore related options, particularly shared technical solutions,<sup>200</sup> in hopes of addressing what has become a gigantic problem.

## CONCLUSION

Joining forces, American software publishers today are actively combating software piracy. Acting as the software police, individual publishers, as well as trade organizations like the BSA and SPA, are

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199. One of the difficulties the computer industry faces in creating any anti-copy scheme today is that it must be "transparent." That is to say, it can not interfere in any way with the legitimate users operation of the software, including the making of backup copies. Thus, the industry must find some identification system which functions entirely in the background of the software. While transparent schemes are being developed, they have yet to be effectuated.

200. While beyond the scope of this paper, it is interesting to note that the computer landscape is changing. As more and more individuals hook up to the "information superhighway," it will be much easier to track computer users and uses. Thus, it may be possible in the near future to create a royalty scheme based on actual usage of a computer program as tracked over the internet or other universal networks. Similarly, it may be possible to police software usage over the "net" using some sort of verification scheme like that being proposed by SoftCop. See *supra* note 192. Thus, while no technical solution presently is adequate to deal with the softlifting problem, as technology progresses a solution may present itself.



getting great mileage out of the remedy provisions of the Copyright Act. However, while the software police have initiated enforcement proceedings against both commercial and corporate pirates, softlifters remain free to infringe software copyrights with impunity.

While softlifting does not fall under the fair use exception to the copyright laws, software publishers remain at a loss when it comes to attacking noncommercial home copying. The entire incentive structure posed by personal computer software gives reason to believe that softlifting is quick, simple, cheap, and, above all else, widespread.

Facing similar problems posed by the advent of digital recording, the consumer electronics and music industries hammered out a compromise which was subsequently enacted into law as the Audio Home Recording Act of 1992. While this act serves as an instructive model around which the software industry might consider structuring its own anti-piracy legislation, on closer examination the provisions of the Audio Home Recording Act do not sufficiently satisfy the interests of the computer industry or software users. Any attempt at imposing a software royalty system is likely to overtax non-infringing uses, and at the same time undercompensate those companies which are most threatened by piracy. Furthermore, the computer industry has been unsuccessful to date in devising any system of copy protection which does not unduly interfere with the ordinary operation of the software it is intended to protect.

In its search for a solution to the softlifting problem, the software industry should continue considering intellectual property legislation like the Audio Home Recording Act. In the interim, the software police will have to continue to rely upon moral suasion and consumer education to combat what has become a tremendous drain upon industry revenue.

