

THE ART OF MAKING COPYRIGHT LAWS

COPYRIGHT LAWYERS ARE A PECULIARLY myopic breed of human being. There is something fundamental about coming to understand that current law may make it technically illegal to watch a movie and then imagine what it would have looked like if the studio had cast some other actor in the leading role,¹ that renders one unfit for ordinary reflective thinking. Nonetheless, sometimes one can step back and perceive, in a dim sort of way, that one's tribe is doing something stupid. Realizing that doesn't get one very far. The institutional and legal structure of the copyright community makes it difficult to prevent foolish approaches to new technology.

Copyright laws become obsolete when technology renders the assumptions on which they were based outmoded. That has happened with increasing frequency since Congress enacted the first copyright law in 1790. Inevitably, new developments change the pitch of the playing field. Industries affected by copyright find that the application of old legal language to new contexts yields unanticipated results. They find themselves to be the beneficiaries of new advantages and the victims of new disadvantages, and respond about the way you would expect them to, with efforts to regain old benefits while retaining the new ones.

The first U.S. copyright statute, for example, gave authors exclusive rights to "print, reprint, publish or vend"—in other words, to control the reproduction and sale of copies.² A model based on compensating the author for the sale of every copy became unsatisfactory to authors when other means of exploiting works eclipsed the sale of copies. Consider, for instance, composers of popular music: So long as the chief source of revenue for popular songs was the sale of sheet music, composers fared well under the system. Although public performances of music might generate no royalties, musicians and singers performing the songs would need (purchased) sheet music in order to perform, so composers shared indirectly in

the performance revenues. Once it became possible to record a musical performance on a piano roll or phonograph record and to make and sell hundreds of those, or to broadcast performances over the radio, however, composers could be excluded from the additional proceeds generated by the recording or broadcast.³ Establishments in the habit of performing music without seeking permission responded unenthusiastically to composers' proposals for a remedy. Thus, each technological advance inspired a dispute about whether it entitled copyright owners to expanded rights over their works. Each camp claimed the support of fundamental truth. Even King Solomon would have had trouble deciding between them every time the problem arose: there are only so many times you can threaten to slice up a baby before its putative mothers get wise.

About one hundred years ago, Congress got into the habit of revising copyright law by encouraging representatives of the industries affected by copyright to hash out among themselves what changes needed to be made and then present Congress with the text of appropriate legislation. By the 1920s, the process was sufficiently entrenched that whenever a member of Congress came up with a legislative proposal without going through the cumbersome prelegislative process of multiparty negotiation, the affected industries united to block the bill. Copyright bills passed only after private stakeholders agreed with one another on their substantive provisions. The pattern has continued to this day.

A process like this generates legislation with some predictable features. First of all, no affected party is going to agree to support a bill that leaves it worse off than it is under current law. This means that negotiating industries need to identify some potential surplus they can divide up among themselves to get enough support for new proposals, and that surplus most often comes at the expense of outsiders. Here's a simple example: copyright terms have been getting longer and longer. Between 1978 and 1998, most copyrights expired at the end of their seventy-fifth year. As Mickey Mouse, who first appeared in 1927, came face to face with the imminent expiration of his copyright, Disney's eyes turned toward Europe, where a number of countries had recently lengthened their copyright terms to match Germany's term of life of the author plus seventy years.⁴ Proprietors of aging but still profitable works asked Congress to tack twenty additional years onto the term of every extant copyright. A copyright term that is twenty years longer makes both licensors (or owners) and licensees (commercial users) better off, because licensors get an extra twenty years on their rev-

enue stream, and licensees get an extra twenty years of exclusivity. The proposal, therefore, enjoyed widespread support. It posed problems for publishers of public domain books, who would be prevented from bringing out particular works for two additional decades. Many of them had plans to bring out editions of works due to enter the public domain within the next few years.⁵ Most publishers, however, were enthusiastic and the publishers' lobbies pushed it. It was also a problem for libraries, which can make more extensive use of public domain works than they can of copyright-protected works, so the proposal's supporters agreed to a library exception to the twenty-year term extension. That still isn't great for members of the public, who are (the Constitution tells us) supposed to get unfettered access to all protected works after a limited period of copyright, but the general public doesn't sit at the negotiating table.

Second, there's a premium on characterizing the state of current law to favor one's position, since current law is the baseline against which proposals are negotiated. So, if university libraries, say, are liable under current law if they make lots of photocopies of law-review articles at the request of professors who want file copies, library associations are likely to be more willing to support legislation that gives them a partial, limited, contingent exemption from this sort of photocopying in return for tacking twenty more years onto the copyright term. If, however, current library photocopying practices are perfectly legal, people who want to get libraries to sign off on term extension need to come up with something else to offer as a bribe.

Third, the way these things tend to get settled in the real world is by specifying. Libraries say, "We need a privilege to make copies for patrons who request them." Book publishers say, "Well, okay, you can make the copies but other folks can't" (so we need a definition of libraries who qualify for the privilege), "and you can only make one copy for each patron, and you can make them only in these circumstances." Television broadcasters say, "We need to make copies so that we can edit a program to include commercials and station ID." So movie studios and music publishers say, "Well, okay, *you* can make one copy but other folks can't" (and now we have a new specific privilege and a definition of broadcasters who get to use it), "but you can only make one copy, and you can make it only in these circumstances, and after six months you have to destroy it." Record companies say, "We need a license to make copies so we can make all those records and tapes and CDs that bring royalties into composers' pockets

without having to call up the copyright owner and ask permission for every song." So composers and music publishers say, "Well, you can have a statutory license, but you have to pay for it, and you have to send us monthly royalty statements, and you can only make records for the home user, not for jukeboxes or Muzak®."⁶

You see the pattern. As the entertainment and information markets have gotten more complicated, the copyright law has gotten longer, more specific, and harder to understand. Neither book publishers nor libraries have any interest in making the library privilege broad enough so that it would be useful to users that aren't libraries, and neither movie studios nor broadcast stations have any interest in making the broadcaster's privilege broad enough to be of some use to say, cable television or satellite TV, so that doesn't happen. Negotiated privileges tend to be very specific, and tend to pose substantial entry barriers to outsiders who can't be at the negotiating table because their industries haven't been invented yet. So negotiated copyright statutes have tended, throughout the century, to be kind to the entrenched status quo and hostile to upstart new industries.

The Internet has generated a lot of hype in the past decade, and that has encouraged the people who run the current information and entertainment industries to look at it as at least as much of a threat as an opportunity. The Internet sometimes gets characterized as a giant copying machine that facilitates widespread and undetectable copyright infringement. That's about 50 percent hype—the Internet facilitates widespread copying, but it also facilitates detection of copying. Still, you can see how it would be a scary idea. The Internet also gets painted as the next new thing that will replace conventional newspapers and television and phonograph records in our lives. That's also probably hype, but you can see how that notion might bother newspaper publishers and television networks and record companies. The Internet gets promoted as a new market we'll use to sell everything from computer software to vacation homes, and while that may be an attractive idea, it's far from clear that the current market leaders in the sales of computer software and vacation homes are going to be the new market leaders in the new medium.

So, this new Internet thing hits the radar screen, and it's big, and it's scary, and everybody wants a piece of it. The commercial lawyers scurry off to redraft the Uniform Commercial Code to cover electronic contracts,⁷ and the civil-liberties lawyers worry about strong encryption and sexually explicit content. And in the early 1990s, the dominant players in the enter-

tainment and information industries got cracking on reforming the copyright law to make the Internet safe for the then-leading copyright owners.

Copyright owners argued that the United States currently dominated the world in film, music, television, computer software, and databases, and if the Internet weren't made safe for copyright owners, either all the people in all the other countries would get together and steal all our stuff, or U.S. copyright owners would decline to put their stuff on the Internet (because it wasn't safe) and the United States might lose the advantage of world leadership on this new medium. (Neither claim turned out to be true in practice, to the extent we can gather empirical evidence one way or the other, but they are the sort of claims that have always sold well to Congress.)

When we get to the down-and-dirty of formulating actual proposals for legislation, the first tactic of interested parties is to claim that extant copyright law already gives them whatever it is they want. (When it came to the Internet, it was a little hard to square this argument with the alternative argument that U.S. industries would stay out of the online market until Congress strengthened copyright protection, but that claim was already proving to be demonstrably false.) The dynamics of copyright negotiation make it important for interests seeking legislation to claim that they already have all, or at least most, of whatever it is they are asking for. If you want Internet service providers to be held liable for their subscribers' infringing activities, for example, it will be easier to accomplish this if you claim that current law imposes such liability (but that you would be willing to bargain toward a suitably narrow limitation) than to demand that Congress impose that liability in the first instance. But, Congress had enacted the current copyright law more than twenty years earlier, so it would have been hard to argue that Congress had the Internet in mind. To make the case that copyright law already provided the enhanced protection they wanted, copyright owners needed some statutory language to hang their new improved interpretation on. That limited their options.

Thus constrained, the claim that some people made was this: the copyright statute gives the copyright owner the exclusive right to reproduce protected works in "copies," subject only to the exceptions enumerated in the statute. (I mentioned some of these earlier: privileges for libraries and broadcasters and record companies and the like to make limited numbers of copies in particular situations.) A computer works by reproducing things in its volatile Random Access Memory, and anything that exists in volatile memory could, at least in theory, be saved to disk (the argument con-

tinued), so each appearance of any portion of a work in any computer's random access memory is a reproduction in a copy within the meaning of the statute.⁸ That would mean—since there are no enumerated exceptions for Internet-related uses—that the copyright owner has the legal right to control, enjoin, or collect money for every single appearance of a work in the memory of any computer anywhere. Moreover, since the reproduction right is the “fundamental” copyright right (after all, that's why we call it *copyright*), any diminution in this important fundamental right would impede the progress of science and the useful arts.

If you think about the argument for a moment, you can see that, if it sells, it gives copyright owners control not only over every time America Online uses pictures of Captain Kirk and Mr. Spock to advertise its *Star Trek* chat group, but also over every time an AOL subscriber uses her computer to view the ad, and also over every computer-to-computer transmission the packets of data make to get from AOL's webserver to the user's computer. That means that, in theory, AOL, and its subscriber, and the proprietors of the University of Illinois computer and the MCI computer that the data happen to travel through on that particular day are all copyright infringers, even though they may have no way of knowing that these anonymous electrons infringe Paramount's proprietary rights.

They couldn't mean that, right? But they did. And, as a practical and political matter, it turned out to be a brilliant legal argument. Copyright owners who want to ensure that they control—and can charge money for—any appearance of their works in any computer anywhere, argued that Congress gave them that right twenty years ago, and that all they were asking for now was some support for their efforts to enforce it. The argument succeeded—copyright owners were able to persuade Congress to pass the Digital Millennium Copyright Act, which encourages the use of technological protections to facilitate a pay-per-view, pay-per-use system using some sort of automatic debit payment before anyone can have access to anything.⁹ The ingeniousness of the argument depended in part on its corollary: if a copyright owner's rights were infringed every time parts of a work passed through a computer, then the current users of the Internet (and of computers, fax machines, compact disc players, and quite possibly ordinary telephone service), and the folks who operated all the equipment they used, were law-breakers and could be held liable for hundreds of thousands of dollars in damages *each*. That bogeyman convinced many of the stakeholders to go along with a basic scheme predicated on copyright owners' right to contin-

uing control of each attempt to see, read, hear, or use their works, in return for a specific exemption insulating each of them from liability.

Politically, then, the argument was understandable, even inspired. As a matter of policy, though, it carried horrific implications. Setting the basic compensable unit of copyright (which is also the basic infringing unit) at the ephemeral RAM copy in volatile memory sets it at a place that implicates the fundamental operation of computers on what is essentially an atomic level. It means that all appearance of works in computers—at home, on networks, at work, in the library—needs to be effected in conformance with, and with attention to, copyright rules. That's new. Until now, copyright has regulated multiplication and distribution of works, but it hasn't regulated consumption. If you buy a book, or even borrow a book, you're free to read it as many times as you like. You can loan it to somebody else. You can sell it or give it away or even rent it out. You can't make copies of it, but you can use it and use it and use it again. But, if every time a work appears in the Random Access Memory of your computer, you are making an actionable copy, then we have for the first time given copyright owners extensive control over the consumption of their works. Each time you opened Microsoft Word to edit a document, you would need Microsoft's permission. Each time you used your computer's CD-ROM drive to listen to a CD you had purchased, you would need a license from the record company. Each time you viewed a Web page with a picture of Mickey Mouse, you would first need to secure permission from Disney.

By using so basic an atomic unit, we're proposing to put copyright rules in place as the most basic "rules of the game" in cyberspace. If we adopt that model, it is unavoidable that the answers to a lot of questions that we're used to thinking about as questions central to our information policy, are going to be answers that derive, first, from the copyright view of the universe. I'm not talking only about questions like whether a person who writes something is entitled to get paid when another person reads it. The current digital copyright agenda seeks to supply copyright answers to a whole range of basic policy questions ranging from who is entitled to access, to what, and on whose terms, to whether citizens have any privacy interest whatsoever in personal data. These are the sorts of questions with which the American legal system has struggled for some years under the umbrella of information policy, but the digital copyright agenda supplies copyright answers to all of them. And because copyright lawyers talk to each other too much, we can't even see how crazy that idea looks from the outside world.

Copyright law rules reflect a variety of characteristics that make them unsuitable for the basic infrastructure of our information policy. Let me start with a basic one: copyright rules are complicated and hard to understand. There are a lot of reasons for that, but the most obvious one is that our copyright rules were hammered out by copyright lawyers to adjust the commercial relations among their clients. Sometimes the best solution to any particular dispute involves drawing some peculiarly counterintuitive lines. So long as the rules are being drawn by copyright lawyers for their clients (all of whom, by definition, have copyright lawyers), it doesn't much matter that the only way to know what the rules say is to commit a two-hundred-some page statute to memory. That's what copyright lawyers are paid for. But once we try to make these rules apply to the everyday activities of every person on the planet, a set of rules that only lawyers—and, indeed, only specialists—could be expected to be able to work with won't do. And, in fact, it's even worse than that, because a number of the rules that copyright lawyers take for granted are so very counterintuitive that people commonly refuse to believe that they could possibly be the rules.

A simple example here are the rules governing when bars, restaurants, and stores need a copyright license to play the radio or television or recorded music where their patrons can hear it. The basic rules were settled years ago. Copyright owners have the exclusive right to authorize public performance of their works. Most small businesses playing recorded music and many businesses playing television or radio, therefore, needed to buy a performing license to do so. ASCAP,* BMI,† and SESAC—all music performing rights societies who represent composers—were delighted to sell performance licenses to any establishment that wished to play music. Licenses were cheap, a matter of a few hundred dollars per year. Nonetheless, because proprietors of small businesses found the well-settled rules incredible, dozens of them went to court to protect their supposed right to play music—every year—at a cost of hundreds of thousands of dollars, because they couldn't believe that these rules were really the rules. And they always lost. Even so, the next year there were another dozen small business owners who were determined to litigate, and they lost too.¹⁰ Members of the general public commonly find copyright rules implausible, and simply disbelieve them.

Now, the copyright answer to this difficulty, by which I mean the answer that copyright interests are suggesting that the world adopt, is to

*American Society of Composers, Authors and Publishers (ASCAP)

†Broadcast Music, Inc. (BMI)

encourage the use of technological devices that make unauthorized copying or use impossible, and the enactment of stiff laws to penalize anyone for hacking around or disabling these devices. That way, people won't have to know what the rules are because it will be impossible for most of them to break them. (This is like installing a device in every automobile that disables it from going any faster than fifty-five miles per hour. This used to be the speed limit, but nobody believed in it, nobody obeyed it, and now it's history.) Which illustrates another basic problem: the information policy solutions devised by copyright lawyers negotiating among themselves are inevitably copyright-centric. Copyright law has a narrow focus. It has never paid attention to a whole host of important interests that have traditionally informed our information policy, and copyright analysis turns out to have very little room in it to do so.

In addition to free speech concerns, information policy takes account of issues related to equity, competition, ensuring a diversity of viewpoints, securing ready and affordable access to important sources of information, privacy—all issues that are at best tangential to copyright law and in some cases wholly alien.

Until recently, that problem was of more theoretical than real concern. So long as copyright governed the transactions among commercial and institutional entities, but left most individuals alone, it was usually possible to strike a deal to do whatever it was you needed to do. In addition, one or more of the designated copyright-affected industries might have interests that coincided, at least roughly, with those of individual members of the public. Consumers, for example, have a limited home-recording-for-personal-use privilege that was secured for them by the litigation and legislative negotiation of the manufacturers of home recording equipment.¹¹

But the threat and promise of the Internet has induced those of us who are copyright lawyers to an act of breathtaking hubris. We define a set of rules that we say ought to be the basic copyright rules of the road, and then we construe those rules to govern every single way that information coded in electrons can move from one computer to another. We didn't ask whether these rules will be sufficiently sensitive to the core policies that have animated our information law for years and years; we just said, "Oh, it's never been a problem before. . . ." But with a change that radical, there may not be any business or institutional interests that are likely to act as representatives of the public interest. Instead, what you see are Internet service providers, or telephone companies who say: "Well, gee, it's okay with

me if all my subscribers have a lot of exposure for reading legal content you don't want them to read, so long as you write a provision into the law that ensures that *I'm exempt*."12

If Congress were in the habit of looking hard at copyright proposals to see whether their substantive provisions were good policy, or would interact in good ways with other policies, one might have expected this exercise to come to an early end. People who aren't copyright lawyers, after all, would look at copyright lawyers' claims to control all digital uses of any copyrighted work and say, "There's something wrong with this picture." But, because the tradition in copyright legislation involves getting a bunch of copyright lawyers to sit at a bargaining table and talk with one another, a lot of important questions were never asked.

In 1998, copyright lobbyists persuaded Congress to enact a twenty-six-thousand-word, fifty-page coda to the copyright statute setting forth a new and convoluted series of rights and exceptions for digital copyright. Among other innovations, the new law for the first time purports to make it illegal for individual consumers to gain unauthorized access to copies of technologically protected works, even copies they own. There are a great many exceptions: for computer-security experts engaged in testing the security of a particular computer system, for example, or for law-enforcement officers investigating crimes, but they are cast in prose so crabbed and so encumbered with conditions as to be of little use to anyone who doesn't have a copyright lawyer around to explain which hoops to jump through.

U.S. copyright law is based on a model devised for print media, and expanded with some difficulty to embrace a world that includes live, filmed, and taped performances; broadcast media; and, most recently, digital media. The suitability of that model for new media is controversial. As one might expect, to the extent that current legal rules make some parties "haves" and others "have-nots," the haves are fans of the current model, while today's have-nots suggest that some other model might be more appropriate for the future. Meanwhile, copyright lawyers, who, after all, make their living interpreting and applying this long and complex body of counterintuitive, bewildering rules, insist that the current model is very close to the platonic ideal, and should under no circumstances be jettisoned in favor of some untried and untrue replacement. They naturally prefer to make the copyright rules they know the rules that all of us need to operate under whenever we encounter copyrighted works. Congress, for its part, is content to let them make the rules they want to.

That puts us in very real danger of adopting a set of rules for our information society that few of us can live with. Deferring to the copyright bar to write those rules will serve us badly, but persuading Congress to use another approach is, at best, unlikely to succeed. Since members of Congress are disinclined to ask the right questions without prodding from their constituents, it has become crucially important for the general public to appreciate the huge stake it has in what questions are asked and how these questions are answered.

NOTES

1. 17 U.S.C. § 106(2) gives the owner of a copyright the exclusive right to prepare derivative works, which the statute defines broadly to include any adaptation in any form, regardless of whether that adaptation is ever embodied in a permanent copy or communicated to another human being. There is no requirement that the adaptation be commercial. The unauthorized creation of an adaptation is itself an invasion of the copyright owner's rights.

2. The first U.S. copyright statute, Act of May 31, 1790, ch. 15, § 1, 1 Stat. 124, gave copyright owners the "sole right and liberty of printing, reprinting, publishing and vending."

3. Until the enactment of the copyright act of 1909, copyright owners realized no revenues from the sales of piano rolls and phonograph records, because they were not deemed to be "copies" of the music. See *White-Smith Music Publishing Co. v. Apollo Co.*, 209 U.S. 1 (1908). Until Congress established a public performance right for musical works in 1897, composers had no right to receive royalties from public performances.

4. Supporters characterized this as a proposal for international copyright term harmonization. In fact, both Europe and the United States have a dual copyright term. Copyrights that vest initially in the individual who creates a work endure for the life of the author plus seventy years, while copyrights that vest initially in employers or corporations last for a fixed term. Before the recent U.S. term extension, authors' life-based copyrights were longer in Europe than in the United States, while copyrights in works made for hire lasted longer in the United States than in Europe. After term extension, both the United States and Europe follow a life-plus-seventy term, but the U.S. term for works made for hire is nearly twice as long as the comparable term in Europe. Mickey Mouse, and other works protected by Disney's copyrights, are works made for hire.

5. See *Eldred v. Reno*, 74 F.Supp.2d 1 (D.D.C. 1999).

6. See 17 U.S.C. § 108 (library reproduction); 17 U.S.C. § 112 (broadcaster reproduction); 17 U.S.C. § 115 (record company reproduction).

7. See Jane Kaufman Winn and Michael Rhoades Pullen, *Dispatches from the Front: Recent Skirmishes Along the Frontiers of Electronic Contracting Law*, 55 *Business Lawyer* 455 (1999).

8. Copyright law has long distinguished between “fixed” hard reproductions, like books and photographic slides or prints, which the statute defines as “copies,” and unfixed ephemeral reproductions, like television broadcasts, slide projections, and screen displays. Under the current law, copyright protection does not vest until a work is fixed in a tangible copy, and section 106(1) prohibits reproduction in fixed copies but not ephemeral unfixed reproduction. The reasons for the distinction are largely historical, see *New York University Law Review, Study #3: The Meaning of “Writings” in the Copyright Clause of the Constitution* (1956), reprinted in *1 Studies on Copyright 43* (Arthur Fisher Memorial Edition, 1963), but the statutory scheme of rights and exceptions is organized around the principle.

9. See *Digital Millennium Copyright Act*, Public L. 105-304(1998) (codified at 17 U.S.C. §§ 101, 104, 114, 512, 1201–1204).

10. After more than eighty years, bar and restaurant owners’ refusal to credit the public performance rules finally paid off. Periodically, small-business owners went to Congress and asked Congress to fix the law to make it right, and music-copyright owners pulled out all the stops to prevent Congress from doing so. See, e.g., *Oversight Hearing on Music Licensing in Restaurants and Retail and Other Establishments Before the Subcommittee on Intellectual Property and Judicial Administration of the House Committee on the Judiciary*, 106th Cong. 1st sess. (July 17, 1997); *Music Licensing Practices of Performing Rights Societies: Oversight Hearing Before the Subcommittee on Intellectual Property and Judicial Administration of the House Committee on the Judiciary*, 103d Cong., 2d sess. (February 23–24, 1994). When copyright owners approached Congress with a request that it extend the term of all copyrights for an additional twenty years, bar and restaurant owners used it as a hostage. Small-business owners threatened to block term extension unless composers agreed to an expanded privilege to play radio and television programming. The term extension bill passed Congress with an expanded bar and restaurant music performance exemption attached to it. See *Sonny Bono Copyright Term Extension Act of 1998*, Pub. L. No. 105-298, 112 Stat. 2827 (codified at 17 U.S.C. §§ 110(5), 301–304).

11. See *Audio Home Recording Act of 1992* (codified at 17 U.S.C. § 1008); *Sony v. Universal City Studios*, 464 U.S. 417 (1984). More on that privilege in chapter 10, where we will meet Napster.

12. See, e.g., *NII Copyright Protection Act of 1995: Hearing on H.R. 2441 Before the Subcommittee on Courts and Intellectual Property of the House Committee on the Judiciary*, 104th Cong., 2d sess. (February 8, 1996) (testimony of Scott Purcell, Commercial Internet Exchange); *ibid.* (testimony of Stephen M. Heaton, Compuserve, Inc.); *Copyright Infringement Liability of Online and Internet Service Providers, Hearing Before the Senate Judiciary Committee*, 105th Cong., 1st sess. (September 4, 1997)

(testimony of George Vradenburg III, America Online, Inc., on behalf of the Ad Hoc Copyright Coalition).

A person familiar with the negotiations being conducted during the 105th Congress over the issue of Internet Service Provider liability for copyright infringement described a proposal made by a Senate staffer to give individual subscribers a limited privilege to browse the Internet at home. The proposal, he said, received an unenthusiastic reception from both content owners and the Internet service providers. The providers insisted that a privilege for their subscribers was unnecessary, so long as liability could not be imposed on the service providers for subscribers' infringement. The compromise that emerged from the negotiations gave service providers an exemption from liability for their subscribers' posts so long as they cooperated with aggrieved content owners by promptly removing or blocking access to material subject to a copyright owner's complaint, and by identifying offending subscribers when served with appropriate papers. That compromise was embodied in the Digital Millennium Copyright Act, enacted in 1998. Digital Millennium Copyright Act, Public L. 105-304, 112 Stat. 2860 (1998) (codified at 17 U.S.C. § 512).