parties, which is how the statute got so long and convoluted in the first place.

But, Congress *has* a copyright lawyer of its own. That is the Copyright Office's job. The Copyright Office *does* have both the expertise and institutional memory; it has functioned as Congress's copyright lawyer and copyright expert for almost a century. The Office has, of course, some history of being "captured" by industry for most of the usual reasons (limited budgets, revolving doors, and the growing perception that copyright owners were in fact the Office's real constituency), but the public badly needs a copyright lawyer. The Copyright Office is in the very best position to perform that function. Besides, the Draft Report issued by the Working Group headquartered in the Patent and Trademark Office indicates that the Patent Office has already managed to assume much of the job of serving the interests of industry. This may be an unusually good moment for the Copyright Office to think very hard about redefining its role.

The Copyright Office's enormous expertise could enable it not only to persuade all of us (that is, both stakeholders and individual members of the public) that the public's interests *are* compatible rather than adverse to the interests of copyright owners, but also to make it so. What it would require, though, is a different sort of legislative proposal than the ones we have gotten used to seeing over the years. The Copyright Office has focused much of its recent attention on the threats that technology might unbalance the copyright bargain to the detriment of copyright owners, and has failed to attend to the danger that the bargain might unbalance to the detriment of the public. All it would take would be for the Office to view the public as its copyright client. And somebody certainly should.

WILL THE COPYRIGHT OFFICE BE OBSOLETE IN THE TWENTY-FIRST CENTURY?

PAMELA SAMUELSON*

When contemplating possible futures for copyright law in the twenty-first century, we should not forget to consider what future the U.S. Copyright Office may have. During the century now drawing to a close, the Office has played an important role in the formation of copyright policy in the United States and in its administration.[1] When a governmental institution has existed for as long as the U.S. Copyright Office, one tends to take for granted that the institution will continue for the indefinite future and will play the same role in the future that it has played in the past. Abolition of a government agency is, after all, an exceedingly rare event in U.S. history. In view of this, the Copyright Office would seem to have a secure future.

And yet, I perceive a number of circumstances that might cause the Copyright Office to become obsolete in the coming century. This article will discuss these circumstances—some of which are offered with tongue only partly in cheek—and will make some more general observations about possible futures for copyright law in the twenty-first century. The future of the law of copyright and of the Office responsible for its administration are, as one might expect, closely intertwined.

Here, then, are some circumstances which might render the U.S. Copyright Office obsolete.

I. REPEAL OF THE REGISTRATION AND DEPOSIT REQUIREMENTS

First, if the U.S. Congress repeals the registration and deposit provisions of the current copyright statute, there may be little or nothing for the Copyright Office to do. In this event, Congress might decide to abolish the Office entirely. Under the current stat-

* Professor of Law, University of Pittsburgh Law School. I offer my thanks to Marci Hamilton for having organized the symposium at which I had the opportunity to give the talk on which this article is based.

[1] From 1790 to 1870, registration of claims to copyright was the responsibility of clerks of the federal district courts for the district in which the author resided. The Library of Congress took over this responsibility in 1870. Congress appropriated money for a Copyright Department of the Library of Congress (which became the U.S. Copyright Office) in 1897. The Copyright Act of 1976 contains many provisions setting forth the responsibilities and registration procedures of the Office. 1 PAUL GOLDSTEIN, COPYRIGHT PRINCIPLES, LAW & PRACTICE § 3.19 (1989); *see* 17 U.S.C. §§ 408-409, 701-710 (1988).

ute, registration of a claim of copyright is not required as a precondition for protection of a work.[2] However, registration is a precondition, at least for U.S. authors, for enforcing one's copyright interests; that is, to initiate a lawsuit for copyright infringement, U.S. authors must have obtained a certificate of registration from the Copyright Office.[3] In the process of registering copyright claims with the Office, authors can also satisfy the requirement that they deposit copies of their works, thereby enhancing the collection of the Library of Congress.[4]

Those who deplore the registration and deposit requirements of U.S. copyright law as vestiges of a formality-ridden past support repeal of the requirements.[5] Congress has been considering legislation that would effect a repeal as part of a copyright law reform package.[6]

Those who support the repeal of the registration and deposit requirements do not openly advocate abolition of the Copyright Office. Indeed, some anticipate that authors would continue to register their works with the Office on a voluntary basis.[7] A blue-ribbon panel established by the Librarian of Congress to consider possible repeal of these requirements made a number of suggestions for changes to current registration requirements that a majority of the panel thought would enhance registration on a voluntary basis.[8]

As well-meaning as these proposals are, it is difficult to believe that voluntary registration would be widely used if the registration and deposit requirements were repealed and a sister proposal permitting plaintiffs to be awarded attorney's fees and statutory damages without prompt registration of copyright claims were

[2] 17 U.S.C. § 408(a)(1988).

[3] 17 U.S.C. § 411(a) (Supp V 1988). Authors who reside in Berne member nations other than the U.S. may bring infringement suits without registering their claims of copyright.

[4] Section 407 sets forth the deposit requirement. 17 U.S.C. § 407 (1988). Section 408 concerns deposits of copies of copyrighted works as part of the copyright registration process. 17 U.S.C. § 408 (1988).

[5] For a helpful discussion of the history of formalities in U.S. copyright law and their subsidence as a precondition of U.S. adherence to the Berne Convention, see, e.g., Jane C. Ginsburg & John M. Kernochan, *One Hundred and Two Years Later: The U.S. Joins the Berne Convention*, 13 COLUM.-VLA J. LAW & ARTS 1 (1988). For an argument that U.S. copyright law still has too many formalities, see Shira Perlmutter, *Freeing Copyright from Formalities*, 13 CARDOZO ARTS & ENT. L.J. (forthcoming 1995).

[6] *See* H.R. 897, 103d Cong., 1st Sess. (1993); *see also* S. 373, 103d Cong., 1st Sess. (1993).

[7] *See, e.g.*, Perlmutter, *supra* note 5.

[8] *See* ROBERT WEDGEWORTH & BARBARA RINGER, ADVISORY COMMITTEE ON COPYRIGHT REGISTRATION AND DEPOSIT, THE LIBRARY OF CONGRESS, REPORT OF THE CO-CHAIRS (Sept. 1993) [hereinafter ACCORD].

implemented.[9] If these changes go into effect, registration may no longer offer any significant benefit to copyright owners.[10] If registration dropped off precipitously in the aftermath of adoption of such legislation,[11] it would be difficult to justify the continued existence of the Copyright Office.

II. AUTOMATED REGISTRATION

Even if the registration and deposit requirements are not repealed, a Copyright Office staffed by humans will not really be needed if computerized registration and deposit procedures become the norm.[12] To automate registration and deposit functions, all that would seem to be required is a server connected to the Internet. An electronic version of the work could then be sent, along with an electronic form provided by the server. The server would automatically scan the new work and compare it with documents in the system; assuming that no close or exact match was identified, the server could issue an electronic certificate of registration which would then be e-mailed to the registrant. Much the same procedure might be used for recording transfers of copyright interests.[13]

Because people have more confidence in the ability of human

[9] *See* 17 U.S.C. § 412 (1988) (conditioning the award of attorney's fees and statutory damages on registration within three months of publication). The same bill that would do away with the current requirement that a work be registered before an infringement action can be brought would repeal § 412 as well as § 11. *See* Letter from Robert Oakley, ACCORD Committee Member, to James Billington, Librarian of Congress (Sept. 27, 1993) (dissenting from the ACCORD Report and expressing concern that the repeal of §§ 411 and 412 would cause a drop in registrations) [hereinafter ACCORD Dissent] (on file with the *Cardozo Arts & Entertainment Law Journal*).

[10] Lawyers may regard the fact that a registration certificate is prima facie evidence of the validity of an author's claim of copyright as a meaningful inducement to registration. *See* 17 U.S.C. § 410(c)(1988). Authors, however, are unlikely to be attuned to the fine points of evidence law.

[11] There are a number of reasons why Congress may decide not to repeal the current registration and deposit requirements. *See* ACCORD Dissent, *supra* note 9. Interestingly, many publishers do not support these changes. THE COPYRIGHT REFORM ACT OF 1993: HEARINGS ON S. 373 BEFORE THE SUBCOMM. ON PATENTS, COPYRIGHTS AND TRADEMARKS OF THE SENATE COMM. ON THE JUDICIARY, 103d Cong., 1st Sess. (1993) (statement of the Association of American University Presses and the Association of American Publishers). One of the important functions of the current registration process is to limit the number of frivolous copyright claims for blank forms, useful articles and the like with which the U.S. courts would otherwise have to deal. Thus, repeal of the registration and deposit requirements would probably lead to an increase in copyright litigation. Jon Baumgarten and Peter Jaszi, Working Paper #4a, *in* ACCORD, *supra* note 8, app. at 85, 88.

[12] *See, e.g.*, Robert E. Kahn, *Deposit, Registration, and Recordation in an Electronic Copyright Management System*, 1 IMA INTELL. PROP. PROJECT PROCS. 111 (1994).

[13] The Copyright Office currently maintains records on transfers of copyright in addition to records on initial registration of copyright claims. *See* 17 U.S.C. § 205 (1988). Kahn's model for an electronic copyright management system would also provide this function. Kahn, *supra* note 12.

examiners than in automated examiners to identify truly "original" work, perhaps the current presumption of validity of a copyright claim that arises from prompt registration would have to be changed.[14] However, the loss of this presumption seems a modest price to pay for the elimination of an unnecessary federal agency.

III. Improved Technological Protection of Intellectual Property Rights in a Digital Networked Environment

Much promising research has focused on the development of technological strategies for protecting intellectual products in digital form. Some of this research was presented at a recent conference jointly sponsored by the Coalition for Networked Information, the Interactive Multimedia Association, the Science, Technology, and Public Policy Program of Harvard University's John F. Kennedy School of Government, and the Massachusetts Institute of Technology's Program on Digital Open High-Resolution Systems.[15]

Some of the presentations at the Conference focused on techniques for encrypting the contents of digitized works.[16] Distributing encrypted works in a digital networked environment would not threaten the economic interests of copyright owners because in order to consume or enjoy copyrighted works, a potential consumer would have to obtain a decryption "key." A user would have to pay a specified fee to obtain the key, or would have to otherwise be eligible to receive it. One presentation featured a model for an Internet billing server that could carry out transactions for obtaining decrypted versions of digitized works on the Internet.[17]

None of these proposals is foolproof.[18] After all, once one person has possession of a decrypted copy, it may be difficult to stop that person from redistributing it over the network. Additionally, distribution of copyrighted works in encrypted form may be

14 *See* 17 U.S.C. § 410(c).

15 *See Proceedings on Technological Strategies for Protecting Intellectual Property in the Networked Multimedia Environment*, 1 IMA Intell. Prop. Project Procs. 1 (1994).

16 *See, e.g.*, Benoit Macq & Jean-Jacques Quisquater, *Digital Images Multiresolution Encryption*, 1 IMA Intell. Prop. Project Procs. 179 (1994).

17 *See* Marvin A. Sirbu, *Internet Billing Service Design and Prototype Implementation*, 1 IMA Intell. Prop. Project Procs. 67 (1994).

18 Another promising technological strategy for protecting intellectual property in digital networked environments would be to distribute works with a program that could "rat" on abusive consumers. That is, such documents might be programmed to send a message to the owner of the copyright to inform the owner that too many copies had been made or that some digital manipulation of the contents had occurred. This, however, would not be foolproof either since users might construct programs to deactivate the ratting program.

viewed by some technically proficient "hackers" as a challenging problem in need of a solution, and may encourage efforts to defeat encryption.[19] Workshop participants seemed to regard technological strategies for protecting digitized intellectual property in networked environments as having decided advantages over the alternative of sending the most highly-prized intellectual products of the day out on the Net in unencrypted form, in the hopes that all of those who consume will send back sufficient revenues to justify further investments in the creation of more highly prized works.[20]

Those who look to technological means to protect intellectual property should, however, recognize the past failure of one effort to use technological means to protect digitized intellectual property, namely, copy-protected mass-marketed software.[21] The main reason for the failure of copy protection schemes was that consumers did not favor them.[22] Software consumers felt that they should be able to make backup copies of their programs. They could not do this with copy-protected software.[23] Companies marketing only copy-protected software found themselves losing out in the marketplace to those firms willing to risk distribution of unprotected programs. Eventually, software developers adapted to market demands by abandoning sales of copy-protected software altogether.

Also contributing to the downfall of copy protection systems was the reality that it had become a sport for programmers to write programs to undo copy protection.[24] Even more upsetting than this, markets began to develop for anti-copy-protection programs. However, the first litigation seeking to outlaw the sale of anti-copy-

19 As John P. Barlow recently observed, "a social overreliance on protection by barricades [such as encryption] rather than conscience will eventually wither the latter by turning intrusion and theft into a sport, rather than a crime." John P. Barlow, *The Economy of Ideas*, Wired, Mar. 1994, at 84, 129.

20 This concern also underlies the recent Green Paper. Information Infrastructure Task Force, Intellectual Property and the National Information Infrastructure: A Preliminary Draft of the Report of the Working Group on Intellectual Property Rights (July 1994) [hereinafter IITF Green Paper].

21 Copy protection for software products was accomplished by placing an additional program besides the application the consumer sought to acquire on the disk. This prevented copying of the software.

22 *See* Barlow, *supra* note 19, at 129.

23 It is considered sound practice in the computing community for users to make backup copies of programs because computer failures, among other things, can cause a particular copy of a program to be destroyed. *See* Mary M. Meisner, *Archival Backup Copying of Software: How Broad a Right?*, 14 Rutgers Computer & Tech. L.J. 391 (1988). The legitimacy of backup copying is also recognized in the copyright statute. *See* 17 U.S.C. § 117 (1988).

24 As John P. Barlow has noted, "early reliance on copy protection led to the subliminal notion that cracking into a software package somehow 'earned' one the right to use it." Barlow, *supra* note 19, at 129.

protection programs proved unsuccessful.[25] The National Information Infrastructure Task Force's Working Group on Intellectual Property Rights ("the Working Group") advocates making any attempt to bypass technological means for protecting digitized intellectual products illegal.[26] This would legislatively reverse the results of the early litigation. The Working Group hopes that doing so will open the way for highly effective protection of digital intellectual property distributed in networked environments.

If the technology to protect intellectual property becomes very effective and if attempts to defeat it are made illegal, it would seem that not only the Copyright Office, but copyright law itself, might become obsolete. Why would one need copyright protection, let alone need to register a claim of copyright with a Copyright Office, if it becomes virtually impossible to copy a work because of the technological protection attached to it? Perhaps there would be a symbolic purpose for maintaining copyright law as a kind of "deus ex machina" justifying the assertion of intellectual property rights in the first place, but the Copyright Office itself would surely not be needed in a technologically secure environment.

IV. Header Contracts

Some believe that contractual strategies will supplement, or possibly even supplant, technological strategies for protecting intellectual property rights in digital networked environments.[27] Contracts are already the primary means for protecting many commercially valuable digitized information services in the market today.[28] But some envision an even broader future for contractual means of protecting intellectual products in digital form through use of "header contracts" for obtaining rights to use digital information.[29]

An example will help illustrate the potential utility of header contracts. Imagine that you are a person in need of information of a particular sort. You know that the information must be out there

25 *See* Vault Corp. v. Quaid Software, Ltd., 847 F.2d 255 (5th Cir. 1988) (defendant's RAMKEY program was designed to "unlock" plaintiff's PROLOK program; because defendant's program did not reproduce expression from the plaintiff's program, it was noninfringing).

26 IITF Green Paper, *supra* note 20, at 126-30.

27 *See, e.g.*, Henry J. Perritt, *Permission Headers and Contract Law*, 1 IMA Intell. Prop. Project Procs. 27 (1994).

28 *See, e.g.*, Pamela Samuelson & Robert J. Glushko, *Intellectual Property Rights for Digital Library and Hypertext Publishing Systems*, 6 Harv. J.L. & Tech. 237, 242-43 (1993).

29 For a discussion of one prototype system of this sort, see Luella Upthegrove & Tom Roberts, *Intellectual Property Header Descriptors: A Dynamic Approach*, 1 IMA Intell. Prop. Project Procs. 63 (1994).

on the Net somewhere, but you don't know exactly where, and you don't know under what conditions it will be made available to you. To assist you in your search, you call upon a "knowbot," an intelligent search program that has been trained to be attentive to your particular preferences.[30] You send the "knowbot" out into cyberspace to search for the information you need. When it has located sources that contain the information, the "knowbot" sends you messages about each source. The header for each source informs you of the conditions under which the information will be made available to you. After you choose the source from which you wish to order the information, you reply to the source's header. By replying, you will have ordered the information and will have bound yourself to the terms described in the header.

Header contracts appear to offer important protection to digital works, whether the contracts are employed separately or are used in conjunction with technological protection.[31] One wonders what there would be for copyright law or the Copyright Office to do if individual contracts bound all who used intellectual property distributed in digital networked environments.[32] The need for copyright law itself would become questionable if one could bind every user to limitations on access to every information product available in the market.

V. A Hostile Takeover by the Patent & Trademark Office

A more immediate threat to the viability of the Copyright Office as an institution than technological and contractual strategies for protecting intellectual property distributed in digital networked environments is the prospect of a "hostile takeover" by the Patent and Trademark Office. The Patent and Trademark Office could conceivably assume all of the Copyright Office's functions.

Bruce Lehman, the current Commissioner of Patents and Trademarks and an Assistant Secretary of Commerce, would seem

30 For a discussion of "knowbots," see Robert E. Kahn & Vinton G. Cerf, *An Open Architecture for a Digital Library System and a Plan for its Development*, The Digital Library Project, Volume 1: The World of Knowbots (DRAFT) 60-62 Corporation for National Research Initiatives (1988). *See also* Perritt, *supra* note 27.

31 Header contracts are much more likely than shrinkwrap licenses to be regarded as imposing meaningful contractual limitations on the ability of copyright owners to limit consumer uses of copyrighted works. *See, e.g.*, Brian Kahin, *The Strategic Environment for Protecting Multimedia*, 1 IMA Intell. Prop. Project Procs. 1, 6-7 (1994); *see also* Perritt, *supra* note 27.

32 Those wishing to take action against persons who receive digital data from someone who contracted with an information provider, even though the second recipients had not themselves contracted with the information provider, might rely on implied contract or unjust enrichment theory.

to be the ideal person to accomplish the "takeover." Commissioner Lehman is a lawyer whose experience in copyright is even more extensive than his experience in trademark or patent law.[33] During the long interregnum in which the Register of Copyright position was open,[34] Commissioner Lehman attended to a number of important copyright policy matters. He is currently chair of the Working Group on Intellectual Property Rights for the National Information Infrastructure Task Force.[35] This group recently issued a "Green Paper" which aims to modify copyright law so that it will better respond to the evolving needs of intellectual property rights owners who want to distribute their works in digital networked environments.[36] He was also active in the Clinton Administration's efforts to persuade Japan not to adopt a provision that would have permitted decompilation of computer programs as a means to access, for example, the information needed to construct programs that could interoperate with a particular program.[37]

Lehman may perceive the desirability of continuing to streamline the structure of the U.S. government in relation to its intellectual property policy. Some reorganization was achieved before Lehman became Commissioner. At one time the Patent Office and the Trademark Office were two separate departments within the Department of Commerce. They were consolidated in 1975.[38] From the standpoint of organizational efficiency, there would seem to be no reason to continue to maintain an administratively separate Copyright Office when it could so easily be folded into the Patent and Trademark Office.

The Copyright Office is, after all, a very odd duck, as government agencies go. It is not part of a "real" federal agency; rather, it is a subdivision of the Library of Congress and hence a part of the legislative branch of the U.S. government.[39] It would be simple

[33] Some opposition to Lehman's candidacy for the position of Commissioner of Patents & Trademarks arose because Lehman's background in copyright is stronger than his background in patent or trademark law. *See, e.g.*, Teresa Riordan, *Profile: Even In a 'Big Tent,' Little Insults, Little Compromises*, N.Y. TIMES, May 29, 1994, § 3, at 5.

[34] Ralph Oman resigned as Register of Copyrights in August 1993; Mary Beth Peters was named as his successor in August 1994.

[35] IITF GREEN PAPER, *supra* note 20, at 1. This project is in furtherance of a Congressional initiative to ensure that intellectual property rights are protected in digital networked environments. *See* 15 U.S.C. § 5512(c)(1988).

[36] IITF GREEN PAPER, *supra* note 20, at 5-10.

[37] *See, e.g.*, T.R. Reid & Peter Behr, *A Software Fight's Blurred Battle Lines*, WASH. POST, Jan. 11, 1994, at D1.

[38] Pub. L. No. 93-596, § 3, 88 Stat. 1949 (1975).

[39] *See* GOLDSTEIN, *supra* note 1.

and sensible to sever this odd appendage of the legislative branch and join it with the Patent and Trademark Office.

Rather than cluttering up the name of the Office with a reference to yet another area of intellectual property law, the Office should be renamed the Office of Intellectual Property Policy (OIPP). And while the urge to reorganize remains strong, not only copyright and semiconductor chip protection laws,[40] which are currently administered by the Copyright Office, but also the Plant Variety Protection Act,[41] and any subsequently enacted U.S. intellectual property law (e.g. an industrial design law should Congress ever enact one) should be placed under the jurisdiction of OIPP. *Different subdivisions of OIPP could oversee each area of* law, headed by an official responsible to the Commissioner of OIPP.

Additionally, the Office of the Commissioner of OIPP should include a bureau of competition policy, a bureau of legislative policy, and a bureau of international relations. In this way, the policy initiatives for the various intellectual property laws could be more smoothly developed and could be coordinated in a manner that would enhance the overall performance of the Office and the industries whose interests it regulates.

This reorganization of U.S. intellectual property law administration would leave no room for the Copyright Office as we know it. As an institution, it would cease to exist. Even if some functions or personnel were carried over to a reconstituted Office within the Commerce Department, the Office might well be unrecognizable to traditionalists. No longer would the head of the Office be known as "Register." In the newly-created OIPP, the head of each subdivision might be known by a standardized term such as "Chief of [name of subdivision]." No longer would such an official report to the Librarian of Congress (i.e., to someone who necessarily cares about learning and the dissemination of knowledge), but rather, to a Commerce Department official (i.e., to someone whose job it is to facilitate the success of American businesses).

It is with some regret that I express the view that the administrative reorganization set forth here is inevitable, whether Commissioner Lehman brings it about or not. The regret arises because I believe that learning and the dissemination of knowledge are essential purposes of copyright law. These purposes have, on occasion, served as important constraints on the extent to which

[40] 17 U.S.C. §§ 901-914 (1988).

[41] 7 U.S.C. §§ 2401-2404 (1988).

copyright owners can exercise control over the use of copyrighted works.[42] These purposes are in danger of being undervalued or forgotten entirely if the Copyright Office is transplanted from the Library of Congress to the department responsible for promoting commerce in American products, whether they are widgets or informational works.

VI. Another Alternative: Takeover by the F.B.I.

Now that it appears that virtually every copyright infringement is a misdemeanor,[43] and that a great many are felonies,[44] an alternative administrative home for the U.S. Copyright Office might be the Federal Bureau of Investigation.[45] To judge by their recent promotional campaign against "software piracy," it would probably be easy to persuade members of the Software Publishers Association ("SPA") to volunteer to serve as agents of the FBI if they were authorized to arrest all those who had made unauthorized copies of computer programs.[46] The SPA already maintains a hotline that disgruntled employees, alienated teenagers, former girlfriends and boyfriends, and other "informants" can use to report the unauthorized copying of software.[47] Deputizing SPA "auditors" as federal agents could only enhance enforcement efforts in this area. This would also relieve "regular" FBI agents of an otherwise burdensome additional task and allow them to focus on bank robberies and kidnappings.

Of course, the SPA would probably not want to enforce any copyrights except those for software, but it might be willing to train

42 *See, e.g.*, Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 450-51 (1984)("[A] use that has no demonstrable effect upon the potential market for, or the value of, the copyrighted work need not be prohibited in order to protect the author's incentive to create. The prohibition of such noncommercial uses would merely inhibit access to ideas without any countervailing benefit.").

43 Under Title 17 of the United States Code, § 506(a), anyone who infringes a copyright willfully and for commercial advantage or private financial gain has engaged in criminal copyright infringement. 17 U.S.C. § 506(a). This crime is punishable by up to a year in prison, unless the criteria for felony punishment are met. *See* 18 U.S.C. § 2319(b)(3)(1988). Those who take a broad view of this provision would likely argue that anyone who knowingly makes an unauthorized copy of a copyrighted work has violated the provision. The private financial gain element could be met, under this view, on the theory that the defendant benefited by possessing a copy of the work without having to pay the customary price.

44 *See* 18 U.S.C. § 2319(b)(1)-(2)(1988).

45 *See, e.g.*, Jessica Litman, *The Exclusive Right to Read*, 13 Cardozo Arts & Ent. L.J. 29 (1994) (discussing copyright police).

46 The SPA was one of the strongest proponents of the felony provisions for copyright infringement. *See* discussion *supra* note 43. One SPA-sponsored billboard features a picture of a pair of handcuffs above which appears the slogan: "This is the hardware you can get for free if you make unauthorized copies of software."

47 *See* Kahin, *supra* note 31, at 5.

members of the American Society of Composers, Authors, and Publishers (ASCAP); Broadcast Music, Inc. (BMI), and the Copyright Clearance Center (CCC) in copyright enforcement techniques it has mastered in enforcing software copyrights.[48] ASCAP, BMI, and CCC could then supplement the SPA's enforcement efforts so that copyright infringement crimes would not go unpunished.

Publishers have long thought of unauthorized reproduction of copyrighted work as a species of theft,[49] no matter what excuse a defendant might make based on the doctrine adherents refer to as "fair use."[50] Now that intellectual property is coming to be recognized as one of the principal sources of America's economic strength, perhaps infringement will finally be seen as the theft that publishers always thought it to be. What better way could there be to get tough on this rampant crime than to make the U.S. Copyright Office part of the FBI?

Another benefit of making the Copyright Office part of the FBI is that doing so could provide the agency with a new tool for enforcement. In many cases, imaginative prosecutors could add criminal copyright infringement charges to ordinary criminal indictments. For example, someone who breaks into a bank computing system and alters banking records in order to steal money could be charged with criminal copyright infringement, on the grounds that he or she had made an unauthorized derivative work of the banking records willfully and for the sake of private financial gain. The culprit could also be charged with criminal infringement for the unauthorized copying of copyrighted bank records and of the software used to access the records beyond the use-copying privilege set forth in section 117 of the United States Code, title 17.[51] One who engages in espionage against defense contractors to obtain information vital to the national security could conceivably be prosecuted for criminal copyright infringement as well. Espionage typically involves photocopying or photographing documents which copyright law protects automatically from the moment of

48 These entities already have enforcement staff and active copyright enforcement programs, but they have principally focused on civil enforcement efforts.

49 *See Sony Corp. of Am.*, 464 U.S. at 450 n.33 (1984) (discussing a proferred analogy between private use copying of copyrighted works and the theft of jewelry for private use only; ultimately rejecting the analogy because one who copies a copyrighted work does not deprive the lawful owner of its rightful possession of the work).

50 The fair use doctrine is found in the copyright statute at 17 U.S.C. § 107 (1988).

51 *See* 17 U.S.C. §§ 106, 506(a)(1988). Only lawful owners of copies of copyrighted software are eligible for the § 117 privilege to make copies of programs in a computer in order to be able to use those programs. 17 U.S.C. § 117.

the first fixation of each document in tangible form.[52] These copies would infringe the exclusive rights of copyright and would be criminal if the copies were made willfully and for private gain.[53] However, until Congress amends the copyright statute to eliminate the rule that works of the U.S. government cannot be copyrighted,[54] the usefulness of criminal copyright infringement charges to punish and deter espionage against the government would be impaired.[55]

While many other examples could be given of the potential benefit of using criminal copyright infringement penalties to punish crimes that have not traditionally been conceived of in copyright terms, let me end with one example that may not seem as farfetched as those given above. It seems quite likely that those who attempt to decrypt digitized works that have been distributed over a network in encrypted form will eventually be prosecuted for criminal copyright infringement if civil penalties do not prove an effective deterrent.[56] The Green Paper recently published by the NII Working Group on Intellectual Property Rights seems to contemplate this.[57]

To understand how very different a view of copyright this kind of criminal enforcement would bring about, one need only describe the "crime" somewhat differently. Someone who decrypts an encrypted work does so in order to "read" the content of a publicly-distributed, and perhaps even mass-marketed, copyrighted work. Thomas Jefferson would, I think, weep at the thought that the law of copyright, which has historically promoted the dissemination of

52 17 U.S.C. § 302(a)(1988) (copyright protection subsists from creation).

53 *See* 17 U.S.C. § 506 (1988); 18 U.S.C. § 2319 (1988).

54 17 U.S.C. § 105 (1988).

55 I mention this "limitation" of copyright law, as presently written, as a way of illustrating that if one reconceives the purpose of copyright law, certain provisions that are quite consistent with the historical purpose of copyright (e.g., promoting the dissemination of knowledge) may be perceived differently.

56 The Ninth Circuit Court of Appeals recently upheld the legality of decompilation of object code forms of computer programs when necessary to get such information as how to construct a compatible program. *See* Sega Enter. v. Accolade, Inc., 977 F.2d 1510 (9th Cir. 1992). Decompilation involves intermediate copying of a copyrighted work in order to understand its contents, which makes it similar to the intermediate copying that would be necessary to decrypt an encrypted copy of a copyrighted work. Given that the court in *Sega* emphasized that the defendant had to have a legitimate purpose in engaging in decompilation, such as seeking to develop a compatible noninfringing program, and that the information being sought was not available except by decompilation, *id.* at 1514, it is doubtful that a decrypter who was simply trying to get a copy of a copyrighted work for less than the customary price would be able to raise a successful *Sega* defense.

57 IITF GREEN PAPER, *supra* note 20, at 125-30. The Working Group points out that if efforts to bypass technological protection constituted copyright infringement, the criminal copyright provisions could be used to punish those who sell decryption or bypass technologies. *See* 17 U.S.C. § 506 (1988); 18 U.S.C. § 2319 (1988) (concerning the criminal copyright provisions).

knowledge, was instead becoming a law which served primarily to prevent information from being disseminated to anyone who has not tithed to the publisher.[58]

VII. CONCLUSION

The twenty-first century will surely witness many profound changes in legal and social institutions. Among them will be changes in the law of copyright and in the institutional arrangements by which works of authorship are created, readied for market, distributed, and consumed.[59] Inevitably, these changes will affect the Copyright Office. In fact, they may result in its demise. But even assuming that the Office continues to exist, its role in copyright administration is likely to change. Some of the ministerial activities that the Office currently conducts may, in fact, be automated; staff would then be freed-up to engage in more demanding tasks. If one conceives of the Copyright Office's registration data as a valuable repository of useful information, as the Office currently does,[60] the value of constructing a computer database in which this information could be enhanced with additional data provided by copyright owners becomes apparent; it would facilitate low-cost licensing of copyrighted work.[61] This would provide a valuable public service, and would take advantage of opportunities that new technologies provide to redefine and expand the role of the Copyright Office in a socially beneficial way. If the Copyright Office becomes a kind of clearance center for information about the licensing of copyrighted works, the Office will

58 Jefferson, after all, was a believer in the dissemination of knowledge, as is clear from his oft-quoted statement:

> If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of every one, and the receiver cannot dispossess himself of it . . . . He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me. That ideas should freely spread from one to another over the globe, for the moral and mutual instruction of man, and improvement of his condition, seems to have been peculiarly and benevolently designed by nature . . . .

Graham v. John Deere Co., 383 U.S. 1, 8 (1966)(quoting VI WRITINGS OF THOMAS JEFFERSON at 180-81 (Washington ed. 1854)).

59 In previous essays, I have argued that the nature of the digital medium will contribute to these changes. *See* Pamela Samuelson, *Digital Media and the Changing Face of Intellectual Property Law*, 16 RUTGERS COMPUTER AND TECH. L.J. 323 (1990); Pamela Samuelson, *Some New Kinds of Authorship Made Possible by Computers & Some Intellectual Property Questions They Raise*, 53 U. PITT. L. REV. 685 (1992).

60 *See* Eric Schwartz, *The Role of the Copyright Office in the Age of Information*, 13 CARDOZO ARTS & ENT. L.J. 69 (1994).

61 *Id. See also* Kahn & Cerf, *supra* note 30.

be acting in a manner consistent with the historical purpose of copyright law—facilitating the dissemination of knowledge. Because I believe that this purpose should have as much importance in the future as it has had in the past, I applaud the Office's efforts to redefine its role in a manner that will keep the historical function of copyright law vital. This is one strategy that promises to keep the Office alive in the twenty-first century. I wish it well in its efforts.

THE ROLE OF THE COPYRIGHT OFFICE IN THE AGE OF INFORMATION

ERIC SCHWARTZ*

For some, the new world of electronic information is cause for a full-scale review of the fundamental principles of copyright. Fortunately, the assignment of each panel member today was limited to addressing the role of the Copyright Office in this new age of information. As a Copyright Office employee with fifteen years of government service, let me begin by applauding this process of public self-examination. It is healthy for every government agency to periodically review and redefine its mission, to reexamine present and future services, and to reassess its client base.

In fact, the recently completed work of the Copyright Office by the Advisory Committee on Copyright Registration and Deposit was just such an exercise.[1] Because of an obsession with the future of §§ 411(a) and 412 of the copyright code,[2] at the time of its formation ACCORD members may not have realized that this would be their role. Underlying a review of those sections of the code was a broader mission to reexamine the present and future role of the Copyright Office and the Library of Congress.[3] This process was driven by a vision of the future of copyright and the role of librar-

* At the time of this presentation, Eric Schwartz was a Policy Planning Advisor to the Register of Copyrights, United States Copyright Office. Mr. Schwartz is currently Special Counsel to the law firm of Proskauer Rose Goetz & Mendelsohn in Washington, D.C., and former Acting General Counsel of the United States Copyright Office. Mr. Schwartz previously served as Staff Director to the Advisory Committee on Copyright Registration and Deposit. Edited from spoken remarks.

[1] ROBERT WEDGEWORTH & BARBARA RINGER, ADVISORY COMMITTEE ON COPYRIGHT REGISTRATION AND DEPOSIT, THE LIBRARY OF CONGRESS, REPORT OF THE CO-CHAIRS (Sept. 1993) [hereinafter ACCORD].

[2] 17 U.S.C. §§ 411(a) and 412 (1988) read in pertinent part:

§ 411. Registration and infringement actions

(a) Except for actions for infringement of copyright in Berne Convention works whose country of origin is not the United States, and subject to the provisions of subsection (b), no action shall be instituted until registration of the copyright claim has been made in accordance with this title . . . .

§ 412. Registration as prerequisite to certain remedies for infringement

In any action under this title, other than an action instituted under section 411(b), no award of statutory damages or of attorney's fees, as provided by sections 504 and 505, shall be made for—

(1) any infringement of copyright in an unpublished work commenced before the effective date of its registration; or

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

[3] ACCORD, *supra* note 1, at 6.