

**Before the
SUBCOMMITTEE ON TELECOMMUNICATIONS,
TRADE AND CONSUMER PROTECTION
COMMITTEE ON COMMERCE
UNITED STATES HOUSE OF REPRESENTATIVES**

June 5, 1998

STATEMENT OF GARY J. SHAPIRO

I. Introduction and Summary

I am pleased to appear today on behalf of the Home Recording Rights Coalition (HRRC), of which I am Chairman, and the Consumer Electronics Manufacturers Association (CEMA), which I serve as President.

CEMA is an association sector of the Electronic Industries Alliance (EIA). CEMA represents manufacturers of television and stereo receivers, video and audio recorders and players, personal computers, multimedia devices, and hundreds of other consumer electronics products. Our members represent about 250,000 U.S. manufacturing jobs and about \$64 billion in annual sales.

The HRRC was formed in 1981, in response to a Ninth Circuit appellate opinion, and proposed legislation, that would have banned the sale of home recording devices to consumers. Although the Supreme Court reversed that decision and preserved the right to sell home video recorders in its 1984 "Betamax" opinion, in almost every Congress someone has proposed killing off, crippling, or taxing the "golden eggs" from the technology innovation "goose." HRRC has therefore remained active. It includes consumer electronics manufacturers and retailers, consumer organizations, service associations, and others interested in the personal, non-commercial use of

consumer electronics recording equipment.

On behalf of both CEMA and HRRC, I want to thank you for asserting jurisdiction over H.R. 2281 and for giving us the opportunity share our concerns about this anti-consumer, anti-technology legislation. The bill before you, H.R. 2281, would impose new regulation on technologies and devices, including consumer electronics and computer products. The subject matter of this bill strikes to the very core of this Subcommittee's long standing concerns with respect to broadcast and cable television, computer technologies, the Internet and electronic commerce. H.R. 2281, as reported by the Judiciary Committee, threatens each and every one of those interests.

Before turning to our concerns with H.R. 2281, let me underscore a few basic points. We have no fundamental objection to ratification of the WIPO treaties or to enactment of appropriate implementing legislation. We support legislative and other efforts to outlaw true "black boxes" that have no legitimate purpose other than to defeat copy protection technologies, in order to infringe copyrighted works.

We support the private efforts that have been on-going for over two years now to bring together the interested companies and industries to develop truly effective, workable copy protection technologies for the digital environment and to find innovative ways to bring those technologies to the marketplace with adequate legal backing. Members of the consumer electronics industry have spent countless hours and very large sums of research and development money to work with the computer and motion picture industries to develop the most advanced technologies and practical approaches and legal documents to support these technologies.

We appreciate the initiative taken by the Chairmen of both this Subcommittee and the full

Commerce Committee to obtain the referral of this legislation. I am here today because I believe that this Subcommittee and the full Committee have an opportunity to provide a badly needed balance to H.R. 2281.

Let me also emphasize our appreciation for the work of Congressman Boucher on this legislation. We have joined with many, many others in supporting his alternative legislation, H.R. 3048, and continue to believe that it would be a preferable way of approaching these issues. We are pleased that nine Members of this Committee have joined as cosponsors of H.R. 3048. Beyond the issues of implementation of the 1996 WIPO treaties, this legislation provides for updating the Copyright Act to carry forward concepts that have been relied upon by libraries and education institutions in legitimate uses of analog technologies so that the new digital technologies may be used for the same purposes.

While we have supported alternative approaches to implementation of the WIPO treaties, we recognize where the legislative process is today. Accordingly, we have a small group of concrete proposals to change this legislation in ways that would address the most fundamental concerns that we have with its current form. These proposals are:

- (1) addition of a definition of “technological protection measure”;
- (2) addition of a clear statement that the failure to respond to any particular technological protection measure is not “circumvention”; and
- (3) an exemption for product manufacturers and servicers to allow them to mitigate noticeable adverse effects on the ordinary, authorized functioning of products, where such effects are caused by a technological protection measure or copyright management information.

II. General Concerns with H.R. 2281

A. H.R. 2281 Is Essentially About Regulation of Technology, Not Copyright

While it may have originated in the Judiciary Committee, this legislation is not really about

copyrights. While amending Title 17 of the U.S. Code, the bill does not amend the Copyright Act, and the acts prohibited by its terms are not tied to infringement of copyrights. Though it purports to implement intellectual property-related international accords, it is a bill that will directly affect and, in some significant respects, threaten future technological development and the availability of new consumer products. The core issues addressed by the bill's device regulations -- technological innovation, product standards-making, and actual commercial practices -- are those that this Subcommittee and Committee deal with all of the time. For this reason, in our view, this Subcommittee ought to play a major substantive role in reformulating this bill.

Quite simply, the bill outlaws products that circumvent "effective technological protection measures." The first of the major conceptual and practical problems in H.R. 2281 as reported out of the House Judiciary Committee (S. 2037, the Senate companion bill has the identical flaw) is that Section 1201(b) utterly lacks a definition of just what are the "technological protection measures" to which a product must respond or that it must implement. The uncertainty that will be created by this lack of definition will chill the introduction of new products and new designs and the ambiguity created by the bill's drafters is, in our view, altogether inappropriate for a federal criminal statute.

Essentially, there are two problems with the new Section 1201. First, it would make designers of new devices, such as computers and VCRs, as well as high definition television sets and set top boxes, responsible for responding to and implementing any and all technical anti-copy measures chosen by anyone who transmits a signal or distributes a program. It would require manufacturers to accommodate in their most advanced consumer products even outdated technological protection measures that would have outlived their usefulness in a competitive

environment. These requirements present enormously difficult design challenges for manufacturers and threaten the introduction of new features desired by consumers. It would invite courts to declare new models unlawful based only on their designs, components, and capabilities.

Second, the bill would outlaw certain design choices, even if they are undertaken for entirely legitimate reasons, such as ensuring that consumers can actually receive a viewable picture on their new television sets, can hook up their set top boxes to television sets and expect them to work, or can engage in practices, such as time shifting over-the-air broadcast or other programming -- or other fair uses -- that have long been permitted under the law.

The bill would toss entirely into the hands of the federal judiciary the question of when devices can be kept from the market by copyright proprietors, without giving the courts any sensible, useful or workable guidelines as to what to do. In short, we would be back to the chaos that existed before the Betamax opinion. But at risk would be not only new versions of the familiar VCRs and audio recorders, but also all of the computer and telecommunications hardware and software products that have come on the scene in the past two decades, as well as the utility and success of high definition television sets and set top boxes, both of which have been of such interest to this Subcommittee over the past few years.

A. This Legislation Directly Threatens The Design of VCRs and Other Products

Mr. Chairman, I want to be clear about two things. First, contrary to what you may have heard from the proponents of this bill, H.R. 2281, as drafted, directly affects current models of VCRs and other ordinary consumer products. Although proponents of this legislation have repeatedly argued that the bill is not intended to capture VCRs and other general purpose consumer products, when asked directly by Senator John Ashcroft, however, they do not deny

that they do, in fact, want to be able to sue manufacturers of such products on the basis of their design and components.

In short, the problem presented by the bill is not that a general purpose VCR or computer might run afoul of standards set out in Section 1201(b). Rather, given the statements of the bill's champions, there are ample reasons to be concerned that a litigant could and would allege that a component or part of the VCR or other multifunction product, either on a stand-alone basis or as integrated in that device, would do so, thereby tying up either the component necessary for the product, the product itself, or both, in protracted litigation.

Second, the essential problem with H.R. 2281 is that its Section 1201 provision is, itself, the "black box." Unless the bill adequately describes its terms and scopes, properly circumscribes the activities and devices that it prohibits and grounds its provisions in existing copyright law and consumer expectations, then it is anyone's guess what is really inside this "box." The proposals we make below are intended, in large part, to address and alleviate this problem.

C. H.R. 2281 Ignores the Balance of Current Copyright Law

1. Section 1201 Nullifies The 'Betamax' Case

When VCRs were first introduced as consumer products, a lawsuit was filed to keep them off the market. But the U.S. Supreme Court acted with restraint: it ruled that products having any commercially significant non-infringing use may be lawfully sold. This does not legitimize the often cited example of a toaster attached to a "black box." The Supreme Court held that the non-infringing use had to be integral to the purpose of the device and that time-shift home recording is such a lawful use.

Section 1201(b), however, would allow a court to ban a new VCR or computer if a jury

should decide that any component or part is designed, used, or marketed for the purpose of failing to respond to any anti-copy measure applied to any signal or program. The device would be banned even though it has commercially significant fair, or otherwise noninfringing, uses under the Copyright Act.

For example, a content owner could use a technological protection measure to encrypt over-the-air or other television programming. Nothing in the legislation would prohibit this result. Thus, to the extent that consumers – and Congress – expect to preserve time-shifting, H.R. 2281 would give movie companies the legal means to frustrate that expectation under the force of law. VCRs, of course, would be rendered largely useless in this circumstance.

Nonetheless, even the motion picture industry has recognized that keeping home VCRs off the market would have been an enormous mistake. Inhibiting consumers' access to television programming and inviting the courts to issue edicts against new and valuable consumer products was bad policy in the 1970s and 1980s and would be worse policy now.

1. Section 1201 Outlaws Circumvention Without Regard to Copyright Infringement

Section 1201 goes much further than nullifying the Betamax holding. It does not even require that the "circumvention" be in aid of copyright infringement. Section 1201 outlaws devices that do not meet its vague design standards, without any requirement that the so-called "circumventing" use is a copyright infringement. So, while the fair use rights of librarians, scholars, computer software engineers and others are not attacked directly, they are also effectively nullified because these users will not be able to obtain the devices that allow them to exercise these rights. The measure would deny to technical, scholastic, and other creative users the hardware and software tools necessary to do their work, whether or not that work would

infringe any copyright right of any proprietor.

3. The 1201(d) 'Savings Clause' Saves Nothing and Nobody

Much has been made of the so-called "savings clause," Section 1201(d), which purports to preserve existing user rights, including fair use. This provision is simply irrelevant to the actual damage done by Section 1201. If a device is banned on the basis of its use to "circumvent" some technological protection measure, the user never gets to make any use of it, fair or otherwise.

Nor does this provision allow "fair use" to be invoked as a defense for a product design that enables fair uses by consumers. Since Sections 1201(a) and (b) establish a new right of proprietors to have devices declared illegal irrespective of their fair uses, Section 1201(d) does nothing whatever to limit the scope or application of these subsections.

III. Specific Problems and Proposals for Amendments

A. Problem: Lack of a Definition of "Technological Protection Measure"

Solution: Insert a Meaningful Definition of "Technological Protection Measure"

1. Omission of a Definition of "Technological Protection Measure Threatens Legitimate Consumer Products.

As I mentioned, the first VCRs and digital audio tape recorders were met with court cases to ban them from the market on copyright grounds. This Subcommittee played an instrumental role in forging an accommodation with respect to digital audio tape recorders, in the form of the Audio Home Recording Act of 1992 ("AHRA"), which identifies the copy protection technology, the Serial Copy Management System, as to which circumvention was made unlawful.

Section 1201 would invite the banning of new generations of such products on the grounds of "circumvention." A device might be declared illegal if it, or even any component or any part of a component, is found to "circumvent" a "technological protection measure."

According to Section 1201(b) of the bill, a device may not be sold if it, or any component or part thereof, is found to:

- A. be primarily designed or produced,
- A. have only limited commercial use other than, OR
- C. be marketed by a person or another acting with that person's knowledge, so as to "circumvent" a "technological protection measure."

Unlike the AHRA, which was much clearer in describing the technologies with which manufacturers must comply, Section 1201(b) -- the section addressed to making devices, components and parts thereof unlawful -- neither defines nor limits the term "technological protection measure." As described below, such an obligation is unreasonably onerous because hardware and software designers would be under an open-ended obligation to comply with any present or future technological marking, alteration, or distortion technology applied to any analog or digital signal. Such technologies might be technically unreasonable, inefficient, costly and unfair to consumers.

The only colorable "definition" of "technological protection measure," in Section 1201(b)(2)(B), reads as if a line has been dropped by the printer. It says, in its entirety (emphasis added):

"(B) a technological protection measure 'effectively protects a right of a copyright owner under Title 17' if the measure, in the ordinary course of its operation, PREVENTS, RESTRICTS, OR OTHERWISE LIMITS THE EXERCISE OF A RIGHT OF A COPYRIGHT OWNER UNDER TITLE 17."

This is, of course, not a "definition" at all, but rather a statement of the goal that a "technological protection measure" is intended to meet. For an engineer designing a product that

may encounter a “technological protection measure,” it is of no help at all, since it does not identify the technologies that must be accommodated or what a consumer electronics or computer product must actually do in order to avoid “circumventing” all of the technological protection measures that may be in use at any given time.

2. Omission of a Suitable Definition Invites Adverse Consequences

Passing this bill in its present form would mean that computer products, recorders, or accessories would be subject to suit if any component or part thereof could be accused of being included in the device design (A) primarily, (B) substantially, or (C) is marketed by one or more people, so as to "circumvent" any and all present and future technological protection measures. The absence of a meaningful definition of "technological protection measure" in Section 1201(b) means that such a measure can and might be adopted on a unilateral basis, by a single proprietor, or by a single class of copyright owners. This possibility has several adverse consequences that concern us and, we believe, are of concern to this Subcommittee:

First, some future technological protection measures used by some copyright proprietors might, for example -- as a technical matter -- actually be directly inconsistent with other measures used by other proprietors. In this case, it might well be technically infeasible for a manufacturer to design a product that responds to or implements all such measures.

Second, other measures might, as noted below, cause adverse effects in television monitors, including new high definition television sets. Such effects could not be addressed without modifying either the display device itself or the set top box or other device that communicates with the television set, with such modifications running the risk of violating Section 1201(b).

Third, the requirement to respond to all technological protection measures will freeze technology. Some "protection" measures operate on mere happenstance -- known differences in the design of particular products -- to produce the desired effect. If a television design has a "fast" synchronization circuit and a VCR a slow one, a "protection" measure can work off this difference so as to "fool" the VCR, but not the TV. But this measure works only so long as the designs of the TV and the VCR remain unchanged. To assure continued response to such a measure, the designs of the TV and the VCR would need to remain frozen.

Is adherence to such a "protection" measure required in the design of VCRs? Conversely, if a designer seeks a way to make a faster, better, less costly device by modifying or entirely eliminating the VCR's circuit in the next generation device, is the manufacturer circumventing under Section 1201(b)(1)(A), (B) or (C)? In short, the bill would make marketplace incentives subservient -- in all circumstances -- to the threat of liability for a violation of Section 1201.

Fourth, the bill would stick American consumers with products that implement even antiquated technological protection measure, while elsewhere more effective and less obtrusive measures are coming into use. Why should such outmoded technologies enjoy the protection of federal law?

In the absence of any definition of or limit to "technological protection measure," designing products to accommodate all these concerns in order to avoid circumvention may well present an insoluble problem for the device designer. Yet, a manufacturer, to avoid the risk and expense of civil litigation and the threat of federal prosecution, would be faced with the near-impossible burden of designing its products to respond to any and every technological measure used by even a single copyright owner. If it does not design its products to do so, it risks, at a

minimum, being hauled into court and then having its purposes or intentions in designing a product become an issue of fact for juries.

It is simply bad regulatory policy for Congress to force manufacturers of entirely legitimate products to have to defend themselves in court over the purposes or uses for their products. Indeed, under the definition-less approach of present Section 1201(b), the more innovative the designer, the more likely it is that his or her company's products will wind up in court. As a prominent member of the computer software industry recently observed, having to enter the marketplace under threat of a lawsuit is like running in a track meet with an anvil around your neck.

One thing we have learned is that we should never make general assumptions about where new product design will go. For example, two years ago, the consumer electronics and motion picture industries worked out a proposed signal "marking" system that would be useful as part of a limited and balanced copy protection technology. We learned, however, that computer designers would be severely constrained if computers were forced to "look" for these particular marks.

We also learned that the analog inputs of computers do not, and cannot easily be made to, respond to a proprietary copy protection technology owned by Macrovision Corporation. Indeed, even the computer board that allows monitors in congressional offices to receive C-SPAN cannot operate without filtering out this copy protection signal. The board is made by a small company on Long Island that could not possibly revise the product to account for such a "technological protection measure." So even where several parties sit down together, with full information and the best faith in the world, they might make assumptions that are not valid across the board. To

impose open-ended and unilaterally-imposed design obligations, as this legislation would do, would be to court disaster.

1. A Definition of "Technological Protection Measure" Would Limit The Adverse Consequences

Based on our experience, we believe that this Subcommittee can cure this fatal flaw -- Section 1201(b)'s failure to define a "technological protection measure" -- by adopting a definition that meets real world concerns. There are two ways to accomplish this: either adopt the scrambling/encryption/secure watermark approach proposed by our colleagues from the Information Technology Industry Council (and incorporated in H.R. 3048); or require that, to enjoy the umbrella protection of federal law, a technological protection measure must reflect a consensus among copyright owners, manufacturers of computing products, and consumer electronics companies. Including such a definition in H.R. 2281 would also be wholly consistent with the way in which new technologies are currently developed, that is, through the cooperation of those who create copyrighted works and those of us who make the devices by which such works can be enjoyed by consumers. The second approach would draw on a similar provision already agreed to in the OSP portions of this legislation.

Either formulation would eschew the possibility of giving federal sanction to unilaterally imposed copy protection measures that designers and manufacturers can easily stumble over and thereby would address one of our fundamental concerns with the bill -- that devices would have to be designed to respond to any and every technological protection measure -- regardless of the cost or other technical consequences of doing so. (We note that, if the ITI/H.R. 3048 formulation is used, the other changes discussed in this testimony remain particularly critical.)

A. Problem: The Bill Can Be Read to Require Product Designers to Ensure that Products Respond to Every Technological Protection Measure on the Market

Solution: Include a Clear Statement that the Bill Does Not Require that Products Respond to Any Particular Technological Protection Measure

1. Section 1201 Will Put the Courts in Charge of the Design of -- and the Legality of Parts and Components Intended for -- Integrated, Multipurpose Devices

The coverage in Section 1201 of "parts and components," coupled with the omission of any adequate definition of "technological protection measure," poses significant problems for both manufacturers of integrated devices and manufacturers of the parts and components themselves. Throughout the legislative process, CEMA/HRRC has been concerned that the overly vague definition of "circumvent" might justify a court concluding that if a component or part in a device failed to have an affirmative response to (as opposed to actively stripping out) a technological measure, then that part or component (or the device as a whole) might be subject to suit and even outlawed. Mr. Chairman, in this regard our concerns are neither hypothetical nor strained.

Today, we are aware of perfectly legitimate devices, such as certain format general purpose VCRs, that do not respond to a particular proprietary copy protection technology of Macrovision. The fact that they do not respond to this measure is not a result of any design intention to circumvent, but simply that the Macrovision technology is predicated on a technological circumstance that is not present in a key component of such VCRs.

The preceding example illustrates our concern that the manufacturer of an integrated device, such as a personal computer, player and VCR, or of accessories, might be required to defend the legitimacy of the design of such device -- the inclusion of a particular non-responsive

part or component -- in court. Why the part or component was selected would inevitably become an issue of fact to be sorted out by courts and juries. Courts would have to decide, after years of fact-finding and argument, whether the selection or function of particular components in the design of a recorder or a personal computer runs afoul of the vague and broad intention and purpose criteria of Section 1201(b)(1), subparts (A), (B), and (C).

These criteria are difficult enough to interpret as they might apply to the devices themselves; to apply them to the selection or function of each and every part and component of a device is nothing less than inviting the courts to design these devices from the ground up. The arbiters of new product design should be consumers, not judges.

Moreover, even if the non-responsive parts and components as integrated into a multifunction device, were immune from attack (because the device, as a whole, is not designed for the purpose of circumvention), those who manufacture such parts and components might themselves be sued. Such a suit might be predicated on the purpose or function of the parts or components prior to the point that they are physically integrated in a general purpose, multifunction product.

If a parts or components manufacturer were sued, it might then be called on to defend its product on a stand-alone basis. And, if a litigant were to succeed in convincing a court to outlaw such parts or components on the basis that their non-response was a form of circumvention that violated Section 1201(b), the manufacturer of the integrated device, such as a VCR or a computer, could well be deprived of parts that are vital for its product. The device manufacturer would then be required to redesign -- or exclude new part-dependent features from -- its product, all to the detriment of technology and American consumers.

Again, we think that the Subcommittee can play a constructive role in trying to preserve technology and design options for manufacturers and American consumers. We believe that Section 1201(b) should contain a clear statement that products do not need to be designed, or parts or components designed or selected, in order to respond to any and all technological protection measures. (In this regard, we do not believe that Section 1201(c)(3) of S. 2037 is sufficiently clear to alleviate our concerns.) Coupled with an appropriate definition for a technological protection measure, such a legislative statement would clarify that a device cannot be outlawed simply because it does not respond to a unilaterally imposed copy protection technology.

A. Problem: Manufacturers and Service Technicians May Be Liable under the Bill If They Modify Products in Order to Mitigate Adverse Effects of Technological Protection Measures on the Ordinary Functioning of the Products

Solution: Include an Exemption for Product Manufacturers and Product Servicers to Allow Them to Adjust Products So As to Mitigate Adverse, Noticeable Adverse Effects on the Authorized Performance or Display of Works

H.R. 2281, as reported by the Judiciary Committee elevates copy protection over all other objectives in designing and using technology. In so doing, it destroys the proper balance between the use of technology for purposes of copy protection and the use of technology to enhance consumers' experience with movies, music and other creative works. We know that consumers buy consumer electronics products for many different purposes, such as watching television programs on a real-time or time-shift basis, playing back movies that they rent or purchase and listening to music that is distributed in prerecorded form, or is broadcast over-the-air or sent through cable or the Internet. Our CEMA member companies design their products in a myriad

of ways to include features that allow the American public to enjoy these works.

In making copy protection the "be all and end all" of product design, however, H.R. 2281, in its current form, fails to recognize that product designers, in making their design decisions based on the priority that products must respond to certain technological protection measures and copyright management information schemes, may be constrained in their ability to satisfy the legitimate needs and desires of consumers and that, accordingly, the benefits noted above will simply be lost. Again our concerns are based on our experience.

For example, in the past, certain proprietary Macrovision technologies, which are generated at the output of a VCR or DVD player have caused noticeable artifacts (such as picture distortion) on some television sets; manufacturers of VCRs and television sets have had to design their products to minimize these artifacts in order to forestall anticipated, or to address actual, consumer complaints. In some cases, these problems have been acute and have required CEMA companies to work closely with the technology proprietor to fix the problem.

In another example, in 1987, the Chairman and Ranking Member of this very Subcommittee requested that the National Bureau of Standards evaluate the copy code system, a copy protection measure that had been proposed for use in controlling digital audio home recording. In 1988, NBS found that code was (1) ineffective in preventing unauthorized copying; (2) produced noticeable and audible adverse effects, and (3) was easy to circumvent. As a result of this Subcommittee's initiative and the NBS report, the proposal to require copy code technology was dropped.

H.R. 2281 provides for no such technical evaluation by consumers, by product manufacturers, or any part of the government. If H.R. 2281 had been the law at the time copy

code was proposed, manufacturers and service technicians would have been prohibited from making modifications that would have weakened or eliminated the copy control features of these technologies, even if such modifications would have been the only way to restore the proper functioning of the products.

In short, copy protection technologies are not perfect. In the past, experience shows that such technologies have created (or would have created) problems with dissatisfied consumers. We would be surprised if at least one or more future technologies might not give rise to similar concerns. Consumers have paid for a product that they expect to work well, and to bring them the maximum enjoyment that the technology is capable of delivering. H.R. 2281 might prevent manufacturers or servicers from taking targeted actions to address these problems because they would be at risk of a lawsuit for "circumvention" of a technological protection measure or for removal of copyright management information.

Two particular problems may be expected from enactment of Section 1201 and Section 1202. First, manufacturers could be prevented from designing their products to address any widespread, noticeable adverse effects that might be caused by the use of a technological protection measure or the application of copyright management information. Second, where a particular consumer has indicated that a technological protection measures causes noticeable and annoying adverse effects on the authorized display or performance of a work or other problems in viewability or audibility, given the particular combination of products in his or her home, servicers would not be allowed to address those problems without worrying about civil or criminal liability.

CEMA is willing to work with the Subcommittee to craft two narrow provisions that would address these problems. One provision would permit a manufacturer to design a product

or device to mitigate an artifact or other adverse effect in circumstances where the adverse effect is noticeable, frequent and occurs only with respect to an authorized performance or display. The other would permit a person (such as a servicer) to take steps to mitigate a noticeable adverse effect on a particular consumer's product or device when caused by a particular combination of products from the same manufacturer or from two or more manufacturers (a DVD Player, set top box or VCR transmitting a picture to a television set).

Summary: Three Beneficial Basic Changes

In summary, we believe that three basic changes to this bill would go a long way toward making it workable for our industries and consumers.

- (1) Clear language stating that the bill does not mandate that a product respond to any particular technological protection measure, unless such a response is required by law (such as the Audio Home Recording Act). If the designer simply knew that he or she should not design a product in a way that actively defeats a technological protection measure, that designer would be able to do his or her job without fear of second-guessing by judges and juries years later.
- (2) A definition of "technological protection measure" that works in the real world. We offer two alternative formulations: the encryption/scrambling/secure watermark approach of H.R. 3048; or a measure developed through a consensus-based process involving all interested parties.
- (3) An exemption for both product manufacturers and product servicers to allow them to adjust products so as to mitigate noticeable adverse effects on the authorized performance or display of a work, where such effects are caused by a technological protection measure. Such a narrowly crafted provision need not become a "loophole" in the legislation, but it would allow manufacturers and servicers to provide consumers with the intended benefits of the products legitimately on the marketplace.

* * *

We understand that adoption of the three proposals, above, may cause a concern among some in the content community with regard to copy protection available in the analog video

marketplace. In order to address this concern, we are prepared to work with this Committee and with members of the content community and the computer industry to develop very specific, technology-based requirements for responses by certain identified devices to particular technologies used in relation to analog motion pictures, to fill in any apparent “gap” in the copy protection coverage that might otherwise exist. Such a requirement must be carefully drafted and must contain protections for consumers to allow the continuation of the common practice of “time-shifting” normal television programming. If that minimal protection is provided to consumers, we believe that a provision can be agreed that would afford substantial protections beyond even those that this legislation would provide in its current form.

IV. Conclusion

As stated at the outset, we appreciate the work of the Chairmen of both this Subcommittee and the full Committee in bringing this legislation to this Subcommittee and Committee. We believe that the bill can and will be greatly improved during its consideration by this Committee, and we look forward to working constructively toward that end, so that the WIPO treaties can be implemented this year.

Mr. Chairman, our concerns about this legislation are real and serious. We have not engaged in this legislative battle lightly or out of disrespect for the content community’s contribution to society. We have engaged, and will continue to engage, in our efforts on this legislation because it suffers from problems in basic concept and definition. It generates example after example in the way of unintended consequence, as well as some that are intended but misguided. We hope that the Commerce Committee will make the important contribution that is there to be made, by addressing this bill’s product regulation approach to add critically necessary

definition and focus. We will be pleased to work with the Committee, and with others in the private sector, to improve this legislation in the ways that I have suggested.

Testimony of Jonathan Callas

Chief Technology Officer

Network Associates, Inc.

Subcommittee on Telecommunications, Trade and Consumer

Protection

House Commerce Committee

June 5, 1998

Chairman Tauzin, Ranking Member Markey, and Members of the Subcommittee,

Thank you for the opportunity to appear before you today. Network Associates supports the overall objectives of this bill, and would advocate its eventual passage. However, we have a serious concern regarding a key provision of the bill that will interfere with our ability, and that of other security companies, to produce more reliable and secure encryption products.

If I do nothing else in my testimony, I would like to make the following point:

Under this bill, for cryptographers to do what today is standard operating procedure in encryption research would be punishable by up to 5 years in jail and a \$500,000 fine for the first offense. Therefore, in the name of security this bill would prevent the development of better security products. This chilling of innovation in our industry will necessarily result in the weakening of security systems that are vital to our nation's economy, to law enforcement, to our privacy, and to our national security.

Network Associates, Inc. is the 10th largest independent software company in the world, and is the world's leading provider of software for network security and management. We are also one of only a handful of U.S. companies that produces both encryption products that we sell directly to end users, and encryption technology that we license to customers for use in their own systems and products. Network Associates owns famous name security software companies Pretty Good Privacy and Trusted Information Systems. Our products include McAfee Anti Virus Software, PGP encryption software, and Gauntlet firewalls. The company has about 2200 employees and anticipated revenues of about \$800 million in 1998. Customers for these products include a vast majority of the U.S. Fortune 100 companies, well known financial services, aerospace and defense companies. Our customers also include a wide range of hardware and software companies worldwide that incorporate our technology into their products to ensure their security and protect their intellectual property. The company employs hundreds of engineers and developers in the United States, many of whom are engaged in cryptographic research and product development.

The Computer and Communications Industry Association is pleased to associate itself with my testimony regarding the effect of the bill before us on encryption research in this country.

Network Associates supports the overall objectives of H.R. 2281, and would benefit from the enhanced intellectual property protections it provides. However, we oppose the current language in Section 1201 of the bill. This provision prohibits virtually any circumvention of technological protection measures that control access to a copyrighted work – regardless of the

purpose of such circumvention. It also prohibits the manufacture of software devices used to circumvent such protection measures regardless of the purpose of such circumvention.

H.R. 2281 is very clear on this issue. The bill prohibits circumvention, and the definition of circumvention in the bill as passed by the House Judiciary Committee includes decryption.

The bill also prohibits the manufacture of software devices used to circumvent – or decrypt – technological protection measures. If Network Associates cannot decrypt we cannot perform necessary encryption research. And if we don't have access to the software tools to decrypt, we cannot do the necessary research.

So, while the intent of Section 1201 is laudable, the current language is so broad that it would have the presumably unintended consequence of undermining our company's legitimate activities which include continually testing the security of our own products and those of our colleagues. These activities are essential for future product development, improvement and innovation. We also believe strongly that others must be able to test our products. As a software developer, I will be the first to admit that I am possibly the least qualified person to correct or test my own creations. Just as a writer needs an editor or proofreader to catch his or her mistakes, software developers need third parties to test their products because often we are blind to our own mistakes.

I would like to talk for a minute about the process of cryptographic testing and research. In order to ensure that a cryptographic system has no weaknesses, either in the cryptography itself

or in its application and implementation, it is essential that we continually attempt to break that system. This process can be likened to testing of automobiles for “crashworthiness.” In order to determine whether an automobile is safe, it undergoes various tests to determine whether there are weaknesses in its structure or components. While these tests may be done internally by the car company itself, they are also often done by third parties to ensure that the tests are thorough, accurate and unbiased.

These third party tests must also occur in cryptography. In fact, the art of testing a “cryptosystem” is inherently an adversarial process – the industry calls an individual who tests a system by attempting to break it “the adversary.” This process enables the art and science of cryptography to advance, and has made the U.S. a world leader in cryptographic development and implementation. Our company relies heavily on the testing and tools of third parties, most often private researchers and academics, whose work would very likely be chilled by the provisions of this bill.

I would like to offer some specific examples of how such adversarial research has been used to advance the science of cryptography and ensure the security of existing products on the market. In 1995, cryptographer Paul Kocher developed what is known as timing attack cryptanalysis, a powerful analytic technique for adversarial encryption research that can be used to break cryptographic systems by analyzing the amount of time used to process messages. The attack was discovered through analysis of actual products and ciphers. As a result of Paul publicizing his findings, industry has developed strong countermeasures to ward

off this kind of attack. Had Paul been discouraged from publicizing the technique, the attack could have been instead discovered – and kept secret -- by criminals attacking electronic payment systems.

Another good example can be found in the recent successful attempt by U.C. Berkeley graduate students to crack the previously secret security system in GSM wireless telephones. Millions of Americans use these telephones on the assumption that they are secure. The publication of the students' findings now allows those individuals to make an informed choice to seek other wireless security products while the system is improved.

Our company recently benefited from an unauthorized third party test of a version of our encryption software program, PGP. It was discovered that, when used in a particular operating system, users' private keys would be stored in a way that compromised the system's security. The company was grateful that the flaw was reported to us, and we immediately acted to correct the problem and improve the product.

It is essential to test technology as it is applied -- i.e. when it is being used to protect something, because most weaknesses in cryptography occur in its application. When researchers found the flaw in PGP mentioned above, the flaw was in a specific application of the product, not in the cryptographic technology itself. To illustrate, consider if Chrysler made a very secure car lock, but it was found that certain Volkswagen keys could open the locks.

The lock may be inherently very strong, but its weakness is found in its application. The only way to discover this weakness is by testing the lock with other keys.

Under the provisions of H.R. 2281, these research and testing activities would only be permitted if the owner of the content protected by the encryption system agrees in advance. It is unrealistic to believe that such permission would be granted because – ironically -- content owners do not recognize their interests in encryption research, though they enjoy the benefits of our research and innovation through enhanced protection for their content.

We do not argue that it should be illegal to circumvent technological protection systems for the purpose of stealing intellectual property. However, as cryptographic developers and researchers we need to continually engage in adversarial testing of existing systems to ensure that our security applications – which are used for copyright protection among other users -- are sufficiently strong and correctly implemented to resist and deter attacks. I will repeat what I said earlier, to be discouraged from doing so would chill innovation in our industry and result in the ultimate weakening of security systems that are vital to our nation's economy, law enforcement, individual privacy, and our national security.

Again, thank you for the opportunity to appear before you today, and we at Network Associates look forward to working closely with you to improve upon H.R. 2281.



Testimony Of

ROBERT W. HOLLEYMAN, II
PRESIDENT & CEO
BUSINESS SOFTWARE ALLIANCE

**IMMEDIATE NEED FOR RATIFICATION AND
IMPLEMENTATION OF THE WIPO COPYRIGHT TREATIES**

Before The

**TELECOMMUNICATIONS, TRADE AND CONSUMER
PROTECTION SUBCOMMITTEE OF THE
COMMITTEE ON COMMERCE
U.S. HOUSE OF REPRESENTATIVES**

Washington, D.C.

JUNE 5, 1998

Mr. Chairman and Members of the Sub-Committee:

My name is Robert Holleyman. I am the President and CEO of the Business Software Alliance and I appear before you today on behalf of America's leading software publishers in support of H.R. 2281, "The WIPO Treaties Implementation Act," as reported by the House Judiciary Committee, including the provision of that bill clarifying the responsibilities of providers of on-line services when their networks are used without their participation to pirate software.

Since 1988, the Business Software Alliance (BSA) has been the voice of the world's leading software developers before governments and with consumers in the international marketplace. Its members represent the fastest growing industry in the world. BSA educates computer users on software copyrights; advocates public policy that fosters innovation and expands trade opportunities; and fights software piracy. BSA worldwide members include Adobe, Autodesk, Bentley Systems, Lotus Development, Microsoft, Novell and Symantec. Additional members of BSA's Policy Council include Apple Computer, Compaq, Digital Equipment Corp., IBM, Intel, Intuit and Sybase.

The BSA's member companies strongly support H.R. 2281. This bill is critical to the continued leadership of US creative industries in the new global market. It is a comprehensive and balanced implementation of the obligations established by the WIPO Copyright Treaties. U.S. implementation will improve our ability to fight back against those who would steal computer programs, and our law will provide the right model for other countries to follow as they proceed with implementation and ratification of these important Treaties. Conversely, incomplete or

ineffective implementation in the United States will have serious consequences for our industry in many other countries.

Piracy of software is a major and growing problem for the US economy. Last year, BSA released a report which demonstrated that 27% of packaged business software used in the US alone is illegal --- resulting in as many as 130,000 lost jobs, \$5.3 billion in lost wages and nearly \$1 billion in lost tax revenues. If software theft could be eliminated by 2005, an additional 216,000 jobs could be created, resulting in \$8.8 billion in additional wages and \$1.6 billion in additional taxes. I have submitted a copy of that report for the record.

The WIPO Copyright Treaties are an important development in addressing this problem because they:

- mark a positive step in bringing copyright protection into the digital age;
- are "win-win" treaties for both copyright holders and users;
- ensure that copyright holders have the right to determine whether and how their works are made available on interactive networks like the Internet;
- provide a crucial tool in fighting piracy both here and abroad; and,
- harmonize the application of copyright rules in the digital environment worldwide.

The United States initiated the WIPO treaty negotiations a number of years ago and the world looks to us for continued leadership. It is therefore important that Congress enact the implementing legislation for these treaties *this year*. Thirty countries need to ratify the Treaties for them to become effective. We need to begin that process in the US by enacting H.R. 2281.

US law is largely already in compliance with the WIPO Treaties. To implement those treaties, H.R. 2281 makes the following changes to US law:

- First, technical amendments clarify the status of foreign nationals under US law.

- Second, the bill makes it illegal to defeat effective technological measures implemented to protect copyrighted works; and
- Third, the bill makes it illegal to strip or alter information identifying the work's authors, the licensing terms and other similar information.

The second element, the obligation with respect to technological means to protect works, is the most critical feature of H.R. 2281. This provision recognizes two facts:

- software and other works made available in electronically fixed digital form are extremely vulnerable to theft; and,
- software developers and other authors will increasingly use technological means such as encryption, scrambling and passwords, to combat misuse of their works.

Authors will be increasingly wary of making their works available through electronic networks without a specific provision prohibiting circumvention of technological means used to prevent unauthorized acts. But in addition to being forward-looking, this provision actually addresses a problem we face today: currently, it is not illegal for a pirate to post passwords on a Web site, for example, circumventing the copyright holder's technological protection efforts and giving free access to the most popular software programs. It is not a direct copyright infringement – the person posting the password has not made a copy of the software itself. And, currently there is no direct way to stop these people from their bad acts.

This bill would change that -- enabling us to take legal action against such persons. In addition, the WIPO Copyright Treaties would close certain loopholes in the laws of many of the countries where we have our most serious piracy threats.

We support the anti-circumvention obligations of H.R. 2281 because they meet three necessary elements:

- both the act of circumventing effective technological measures and the devices used to accomplish such acts are made illegal;
- they provide both civil and criminal remedies sufficient to deter circumvention; and
- they are appropriately narrow, applying only when effective technology is used by the copyright holder to protect rights specifically granted to authors under the Copyright Act.

H.R. 2281 makes illegal the act of circumvention in the same way that criminal laws make illegal the act of breaking and entering into a home or warehouse.

H.R. 2281 also correctly recognizes that given the nature of these technologies, it is likely that persons determined to circumvent technological protection measures will have to obtain the right tools — much as the burglar must use tools — to defeat the protection system. Such tools can consist of “cracker” utilities, illegally obtained passwords or decryption algorithms, or specially made devices.

This does not mean that the law should control sales of any device which, although made for good and useful purposes, nonetheless may be used by malfeasants for such illicit circumventing purposes — and H.R. 2281 avoids this pitfall. For example, a multi-purpose computer or computer program has thousands of perfectly legal uses, and the mere fact that it may be used by scoundrels and ruffians for illegal purposes should not make such devices or software illegal.

Instead, H.R. 2281 provides that a person may not manufacture, import, offer to the public or otherwise traffic in any technology which “is *primarily* designed or produced for the purpose of circumventing...; has only limited commercially significant purpose...; or is marketed by that person...for use in circumventing a technological protection measure that effectively controls access to a work protected under this title.”

There has been a great deal of misinformation about the impact of this provision on legitimate computer and software products. Some opponents of this bill have argued that Section 1201 would make computers illegal. That is simply not the case. BSA's members include the leading American makers of computers, microprocessors and software, and it is their judgment that this bill would not make illegal their products.

I want to emphasize, however, this provision is not ideal from our point of view. As written, we anticipate tough legal challenges by people attempting to evade the intent of the law. In this regard, the companion bill enacted by the Senate included an amendment to Section 1201. That amendment clarifies that the obligations of the anti-circumvention provisions do not include a compulsion to observe/implement any and all technological measures. Rather, the obligation established is to refrain from designing products that defeat implemented technological protection measures. The BSA supports this amendment, and encourages its addition to the House bill.

We recognize, however, that copyright law is designed to promote interests of authors, balanced by the needs of their users and customers. Thus, in implementing these provisions, both must be considered.

A potential danger in establishing rules on anti-circumvention is that unscrupulous persons may seek to use these rules to deprive consumers of safeguards for their interests that have been established in the law and through jurisprudence.

H.R. 2281 must take these considerations clearly into account, and state expressly that the anti-circumvention provisions are not intended to impede or prohibit activity which is permitted under the copyright law. H.R. 2281 generally accomplishes these goals. Further, the Senate bill contains an additional provision specific to computer programs. That provision makes it clear that Section 1201 would not have the effect of preventing the study of computer programs in order to achieve interoperability between two programs. The BSA supports adding this provision to H.R. 2281.

As this Subcommittee is keenly aware, ensuring that American companies can compete fairly in global market for encryption technologies is one of BSA's key goals. In the course of deliberations, this issue has been considered at length. The Senate Judiciary Committee, for example, considered whether a specific rule should be included in the bill to ensure that legitimate encryption testing could take place. The Committee concluded that Section 1201 does not present a threat to legitimate encryption research and, therefore, a rule specific to that issue was not necessary.

If it is ultimately deemed necessary to address the issue of encryption research expressly, the BSA believes that any such rules should require the permission of the copyright holder or the developer of the encryption product prior to allowing testing of encryption technologies after they have been applied to protect a work protected under Title 17 of the Copyright law.

The WIPO Treaties make clear that only certain kinds of technological measures are subject to protection. The Treaties speak of "effective" measures. This is a key factor: if software and computer companies were obligated to respect any and all measures that are "self-declared" to be effective, enormous confusion would result in the marketplace, as makers of all devices which can

run a computer program would have to design their products to comply with a myriad such systems. Such confusion in the marketplace must be avoided.

Finally, to meet the “deterrence” requirement of the Treaties, national implementation must provide for remedies sufficient to act as such a deterrent. H.R. 2281 accomplishes this goal in that it makes violations of the anti-circumvention and copyright management information provisions subject to both civil and criminal sanctions, and includes the availability of monetary damages and criminal penalties, as well as temporary and permanent injunctions.

Liability of Service Providers

For network delivered information and electronic commerce to flourish, two elements are necessary: rich and diverse content; and high speed, reliable and affordable access to networking services. Thus, it is right and timely for this bill also to address the matter of service provider liability.

The members of the BSA are especially sensitive to this matter because several of our members provide networking services, and all of them develop the software, computers and other key architectures of networks. We approach legislating on copyright liability on the Internet with great caution because network based distribution of works, such as software, as well as electronic commerce generally, are now in the early stages of development.

While piracy remains the focal point of our concerns, we are sensitive to the chilling effect it could have on network-based commercial activity to hold liable for copyright infringement every single

person — for example, developers of multi-purpose search engines, web browsers, or communications protocols — who had a role, however tenuous, in making such piracy possible.

This issue of service provider liability has been the subject of congressional and inter-industry discussions for years. Over the course of those discussions, it became apparent that the narrow focus on whether a “reproduction” had been made within the terms of copyright law when a work was transmitted posed a major obstacle to clarifying the issue of copyright liability of providers of network services.

With these considerations in mind and with participation from the copyright community, online and Internet service providers and the House and Senate, an agreement was recently reached which is embedded in Section 512 of the Senate bill (S. 2037). This agreement provides a sound balance. BSA supports those provisions because they will promote cooperation and partnership between copyright owners and providers of online services, thus ensuring that the Internet does not become a haven for thieves.

This agreement recognizes that the Internet presents some special situations, and that when service providers are performing certain functions, they should not be liable for monetary damages.

When a carrier transmits or stores a copyrighted work, within the terms of the copyright law it is making a reproduction because its network automatically makes a “fixation” in the course of these acts. If that copy is unauthorized, liability accrues. In many instances, however, the network operator is merely fulfilling an otherwise “good” function (by transmitting, caching, hyperlinking

or hosting web sites) and the “copy” is made as a collateral act in the course of performing that “good” function.

The agreed upon language recognizes the distinction and focuses on the function being performed, rather than focusing on whether not a copy has been made. Under the proposed approach, liability is measured by whether a provider of an online service is acting “**responsibly**” in performing a defined set of **basic functions** necessary for the operation of networks. If the service provider meets this test, its liability for copyright infringement arising from performing those functions is **limited (not eliminated) to certain kinds of injunctive relief**.

A service provider would have to act “responsibly” to have its acts measured by the functions it performs. Some of the relevant criteria are:

1. the provider must implement policies to address the issue of repeat infringers. As a general matter, the obligation of the service provider is to cancel the accounts of such persons, and to keep them off its networks.
2. the second precondition requires service providers to both “accommodate” and “not interfere” with technological measures, recognizing that copyright holders will make more widespread use of technological measures to protect against theft.

As noted above, the key concept of Section 512 is a focus on specified functions, rather than broad-based limitations on liability. The functions addressed are the ones deemed critical to the operation of networks and to the ways users interact with networks. A service provider may qualify under one of these categories, and still fail to gain the benefits of the limitation on liability if it fails to qualify for another.

1. “Passive Carrier Function”

The key concept of “passively” providing interconnection, transmission and/or routing services is that the service provider’s only interaction with the material/work is an automatic response (determined by the way the routers, servers, and switches are designed work) to ensure the communication gets to where it is supposed to go.

2. “Caching Function”

This function involves two key concepts: that caching is integral to ensuring speed on the Internet; and that caching has commercial implications. The bill neither prohibits nor authorizes caching. Rather, it is sufficient to qualify for the limitation on liability by showing that the commercial interests of the operator of the original web page or site are respected.

3. “Storage on a Service Provider’s Server Function”

A key function of a service provider is to provide hosting and other such services to its users.

The limitation on liability applies only if the service provider:

- * lacks actual knowledge and is not aware of facts or circumstances indicating infringing activity;
- * does not receive money directly attributable to the infringing activity;
- * upon learning of infringing activity, by notice from the copyright owners or otherwise, expeditiously (“takes-down”) removes, disables, or blocks access to the material.

The takedown procedure protects both copyright owners and service providers. It provides substantial incentive for service providers to remove the infringing material without delay. For copyright owners, it provides a fast way to stop the piracy.

4. “Search Engines And Hyperlinking Function”

A further key function is providing search engines and hyperlinking to the Internet. Because this activity is substantially similar to the function of providing storage and hosting services, it is reasonable to qualify for the limitation on liability if the same criteria are met. That is, if the service provider:

- * lacks actual knowledge and is not aware of facts or circumstances indicating infringing activity;
- * does not receive money directly attributable to the infringing activity;
- * upon learning of infringing activity, by notice from the copyright owners or otherwise, expeditiously (“takes-down”) removes, disables, or blocks access to the material.

The key concern of service providers has been that they not become a target for copyright litigation because they have substantial assets. Thus, under the terms of the agreement, if a service provider qualifies, remedies against such a provider are limited to injunctions. Such injunctions are subject to traditional injunctive relief considerations, including the effectiveness of the measure, the burden on the service provider, the technical feasibility of implementing the order and availability of other, less burdensome remedies.

Finally, a number of special situations are addressed, including: immunities for “good faith” acts such as take-down by service providers, privacy considerations, “mistaken” take-downs, and guidance on the interplay between the various defined functions.

The BSA supports this approach as a whole, and encourages its inclusion in the House bill.

In conclusion, the members of the Business Software Alliance support H.R. 2281, and commend you, Mr. Chairman, and this Subcommittee, for holding these hearings. We also find the approach taken in the Senate bill on the issue of OSP liability to be a good solution because it clarifies rules on the Internet, while preserving incentives for cooperation between copyright holders and service providers.

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Good morning. My name is Hilary Rosen and I am President and Chief Executive Officer of the Recording Industry Association of America (RIAA). The RIAA is a trade association that represents the interests of the copyright owners of more than 90% of the sound recordings distributed in the United States--from small independent companies like One Little Indian and Jim Henson Records, to the major labels such as Epic, RCA, Capitol, Motown, Warner Brothers and Universal Records. Though disparate in size, our members share a common thread--a fragile existence wholly dependent upon the protection of their intellectual property. This fine filament upon which so much American creativity, ingenuity and commerce rests is under constant strain, and you have before you an unparalleled opportunity to strengthen it.

I am extremely pleased to appear before you today to discuss a subject that is central to the economic fate of the industry that I represent. Artists and record companies have long suffered under an international legal regime that permits overt discrimination against American record companies and performers. Today, by virtue of the treaty which you are presently considering, you have an opportunity to put an end to such unfair treatment, and to simultaneously prepare copyright owners to face the challenges of the 21st century.

After years of intensive and determined bipartisan efforts on the part of both Republican and Democratic administrations, in December of 1996 the World Intellectual Property Organization (WIPO) adopted two treaties designed to establish certain basic

protections for copyrighted works in the digital age. These treaties will, if ratified, effectively require other countries to provide protection in a manner consistent with current U.S. law. While the provisions of these treaties do not represent extensions of the level of copyright protection enjoyed in the United States, they do represent significant and necessary improvements in the international legal structure, and they do contain necessary provisions to enhance our ability to effectively enforce rights in the digital age. These global improvements are critical to the ability of U.S. copyright owners to do business in a global information society.

Global sales of recorded music last year exceeded \$40 billion, and U.S. record companies enjoy the lion's share of this revenue. Last year also marked a turning point in the business operations of U.S. record companies inasmuch as more American music was sold overseas than domestically--a dramatic turnaround for an industry traditionally built on the strength and size of the U.S. market. Creating opportunities for expansion into foreign markets is now a primary imperative to sustain the growth of one of America's most vital and competitive industries.

The ability to sustain this growth is wholly dependent upon achieving adequate and effective copyright protection for our works in foreign markets. While this task has traditionally been fraught with difficulty--witness the well-known piracy problems in China or Mexico--it becomes increasingly more complex with developments in technology that permit the

instantaneous and global distribution of materials with the touch of a button. In a global information network, protection of the creative materials that are such a critical part of this country's economic backbone is only as strong as the weakest link in the information communication chain. Thus, there is an absolute necessity to eliminate existing gaps in the international legal structure that undermine the protection enjoyed by U.S. copyright holders in national and international channels of commerce.

The treaties adopted in Geneva go a long way towards bridging these existing gaps, provided of course that they are ratified by a large number of countries. Achieving broad ratification will require the continuation of the leadership demonstrated by the United States throughout this process. Successful worldwide implementation of these treaties will only take place if you, the Congress, demonstrate leadership by example and thereby provide the necessary tools for U.S. negotiators to encourage broad accession around the world.

Substantively, the treaties accomplish five extremely important economic objectives of the United States. First of all, the treaties make it absolutely clear that copyright holders are able to control the electronic delivery of their works to individual members of the public. This both anticipates and responds to the realities of the electronic marketplace, where copyright owners are likely to rely increasingly on the communication of signals rather than the delivery of physical products to meet consumer demand. This level of copyright protection, in conjunction with technical protections (also dealt with in these treaties), is indispensable to the

willingness of copyright owners to make their works available through these new media. It is important to note that the treaty provisions establishing the scope of copyright protection are entirely consistent with present U.S. law--both with respect to the grant of rights, and limitations on those rights.

Second, the treaties confirm that existing national copyright laws, and the international copyright system, apply in a generalized manner to all technologies and media, and not in a technology specific manner. This has particular relevance with respect to the right of reproduction and its limitations in digital media.

Third, the treaties require countries to effectively prevent the circumvention of technical measures and interference with rights management information used by copyright holders to protect or identify their works. It is widely anticipated that such technical measures and rights management information will play an increasingly important role in the protection and licensing of copyright in the digital age. We concur with the view that technology can play a critical role in solving some of the problems created by technological developments, and that these technological solutions which simultaneously protect intellectual property and foster technological innovation and the expansion of commerce must be protected. A great deal of work is being conducted around the globe to develop technical systems of protection and viable information systems to facilitate the administration of rights. These systems of protection and rights management information, however, will be meaningless unless states

effectively deter and punish acts of circumvention or interference. This treaty will require states to do so, thus establishing key elements of security for global electronic commerce.

Fourth, and most important from the standpoint of record companies, the treaty on phonograms and performances (previously referred to as the "New Instrument") will permit, for the first time, U.S. record companies and performers to share in the revenue generated overseas by the broadcasting and communication to the public of their works in certain instances. At the moment, money generated from the use of American recordings is subsidizing foreign works. In 1995, the U.S. Congress passed the Digital Performance Right in Sound Recordings Act, establishing the right of record companies to authorize interactive and certain other digital transmissions, as well as to be remunerated for subscription services not subject to exclusivity. U.S. record companies and performers have not, however, been entitled to reciprocal protection overseas by virtue of gaps in the existing international legal structure. This treaty fills those gaps. This treaty will, if properly ratified, end at least one element of decades long discriminatory treatment of U.S. interests, and will greatly contribute to the ability of the U.S. music industry to continue to play a leading role in the production of creative materials, and to compete on a more level playing field in the electronic marketplace.

Finally, these treaties put to rest arguments of a number of parties that the United States was prematurely engaged in developing international standards for copyright in a digital

age. The treaties confirm the applicability of basic copyright protections, and carry forth such basic equitable principles governing when nations may limit the application of such rights. Importantly, the treaty does not amend the substantive provisions of U.S. copyright law, and the copyright protection contemplated by the treaty is entirely consistent with existing U.S. copyright law.

H.R. 2281, the legislation before you today, and more specifically, the revised version that passed the Senate last month by a vote of 99-0, responds to the concerns expressed by a number of groups about the anticircumvention and copyright management provisions of the treaty legislation. The measure has been modified to ensure that the rights of creators are balanced with those of users and consumers. Safeguards have been added to provide special treatment to libraries and universities through the inclusion of copyright exceptions and special liability limitations with respect to anticircumvention; language has been included to clarify that the bill does not impose a design mandate for manufacturers; provisions dealing with the importation of devices and Section 337 of the Tariff Act have been deleted; law enforcement has been given broader exceptions under the current bill; computer decompilation has been addressed; parental rights with respect to Internet controls have been secured; broadcasters' traditional practices have been protected; and the list continues.

Another important compromise and significant component of the bill is Title II, which clarifies the liability of online service providers when they transmit or store copyrighted works

over their networks. This section represents an historic achievement in establishing new rules of the Internet road, balancing the legitimate needs and concerns of copyright owners with those of Internet service providers. Most importantly, Title II provides incentives for the online industry to work with copyright owners in the fight against Internet piracy.

In summary, the treaty implementing legislation does not substantively amend U.S. copyright law, either through expansion or contraction of the rights of copyright holders, or limitations on such rights. It implements the treaty provisions on anti-circumvention and rights management information in a minimalist fashion, meeting U.S. obligations without placing impediments to legitimate goods and services. Most in the record industry feel strongly that these provisions should have gone further -- for example by prohibiting the manufacture or importation of devices which had the foreseeable effect of being used to circumvent technological measures used by copyright holders -- rather than, as the legislation provides, only those devices designed or produced for the purpose of circumvention and those that have only limited commercially significant purposes or uses other than circumvention. Nevertheless, in light of the vast economic and foreign policy implications of securing rapid U.S. ratification of the treaties, the RIAA fully endorses the legislation and urges your support to help maintain the position of U.S. creators in the global information society.

Mr. Chairman and members of the Subcommittee, you have before you an unparalleled opportunity to foster and sustain U.S. competitiveness in the coming century in a

sector whose importance to this Nation far exceeds its economic output. Generations of creators and would-be creators are dependent on the wisdom and judgment that you exercise here today. I urge you to move H.R. 2281 without delay, and thereby pave the way for continued U.S. leadership in innovation and creativity. Americans are ready to respond to the challenges of that opportunity.

Thank you.

STATEMENT OF
HILARY B. ROSEN
PRESIDENT AND CHIEF EXECUTIVE OFFICER
RECORDING INDUSTRY ASSOCIATION OF AMERICA

before the

**Subcommittee on Telecommunications, Trade
and Consumer Protection**

**of the
Commerce Committee**

U.S. House of Representatives

June 5, 1998

Mr. Chairman, and members of the Subcommittee:

I am Steven J. Metalitz, a partner in the Washington law firm of Smith & Metalitz, L.L.P. I am pleased to have this opportunity to appear today to express the strong support of the Motion Picture Association of America (MPAA) for H.R. 2281, the WIPO Copyright Treaties Implementation Act.¹ MPAA urges the House to approve this legislation speedily, along with the amendments made to the companion bill by the Senate, so that the United States will be in a position to ratify these two key treaties as soon as possible. No task before the Congress is more urgent for the promotion of a healthy electronic commerce marketplace in the fruits of American ingenuity and imagination, and for the realization of the full potential of the Internet in that marketplace.

The 1998 report on "Copyright Industries in the U.S. Economy," released last month by the International Intellectual Property Alliance, demonstrates once again that the copyright industries are among our nation's largest and fastest growing economic assets, accounting for almost \$280 billion of value added to the U.S. economy in 1996 (the most recent year for which figures are available). Over the last two decades, this

¹MPAA represents the largest producers and distributors of filmed entertainment. MPAA is also a member of the Creative Incentive Coalition (CIC), a broader umbrella group that also supports implementation of the WIPO treaties. As a matter of disclosure, Smith & Metalitz also represents CIC, although today's testimony is being presented on behalf of MPAA only.

sector has consistently created new jobs nearly three times faster than the economy as a whole, and today provides the paychecks for more than three and one-half million Americans.

Importantly for today's hearing, the 1998 report documents that the U.S. copyright industries have passed two milestones in their contribution to U.S. competitiveness in the global economy. In 1996, for the first time, the foreign sales and exports of U.S. audio-visual material, sound recordings, computer software and print publications topped the \$60 billion mark. And even more significantly, these core copyright industries have established themselves as America's leading producer of overseas revenue, topping agriculture, automotive products, aerospace, and every other industrial sector in combined foreign sales and exports. We're especially proud to be Number One in this category, because we know that a vibrant export sector is the foundation for national competitiveness in world markets.

The copyright industries generally, and the motion picture industry specifically, are excited about the explosive growth of the Internet and other forms of digital distribution of copyrighted works. We know that this new technology will allow us to reach more markets faster and more efficiently, with a greater diversity of products. Sooner than some of us may think, digital networks will be an incredible bonanza for the American consumer, and for his or her counterparts around the world, who will have easy access to more entertainment choices than ever before. U.S. audio-visual works will be a key element in

this burgeoning electronic commerce in copyrighted materials.

But it is no secret that our excitement about these new frontiers is tinged with anxiety. The very same technology that facilitates the legitimate distribution of our creative products around the world also facilitates copyright piracy: the theft of the intellectual property that is the basis for the great economic and cultural success story that our industry represents. It has never been easier, cheaper or more profitable for pirates to steal the fruits of American creativity than it is today. And the growth and proliferation of digital networks will make it even easier and cheaper to carry out that theft on a worldwide scale.

I don't use the word "theft" here symbolically or as a metaphor. Motion picture studios own a number of important physical assets, but by far their most valuable property is intellectual property: the exclusive rights to reproduce, distribute, and publicly perform the audio-visual works that all the world wants to see. Exploiting these exclusive property rights — either by exercising them, or by licensing someone else to do so — is the main way that motion picture studios earn revenue. Those exclusive property rights underlie the paychecks for the hundreds of thousands of jobs the motion picture industry generates, directly or indirectly — everyone from the superstars to the store clerks in the video shop on the corner. So whenever other people, without our permission and without compensation to us, go into the business of exercising these exclusive rights, they are destroying the only real revenue base we have. Pirates, whether on the Internet or elsewhere, are stealing our property, just as surely as a cat burglar is stealing the personal property of a homeowner.

Today, Internet piracy focuses on computer programs, videogames, and, increasingly, recorded music. Movies and videos are not much in evidence -- yet. That's because our audio-visual content is so rich in information that it can't yet move easily everywhere in the digital network -- the volume of flow is too great for some of the pipes. We know that the reprieve is temporary, however. The same technology that will smooth the way for legitimate delivery of video on demand over digital networks will also prime the pump for copyright pirates.

MPAA is very familiar with the great video pirate marketplaces of today. In Russia, in China, in Italy, in scores of other countries, video pirates steal more than \$2 billion of our intellectual property each year. By spending millions of dollars on anti-piracy campaigns, and with the invaluable help of Congress and of the Executive Branch, we're making great progress in the fight against these physical pirate bazaars. But we know that the next battleground will be in cyberspace: a virtual pirate bazaar that -- in scope, volume and agility of operation — may dwarf those we are fighting today.

We can be certain that the Internet will be the crucial link in the pirate operations of tomorrow. Today, the pirate who obtains, by stealth or malfeasance, a copy of the latest blockbuster picture before it is even released in the theaters must cope with formidable distribution problems. Physical copies must be smuggled across borders, warehoused, and parceled out to distributors before reaching the ultimate consumer. Digital networks will

soon make this complex and dangerous undertaking cheap and simple. The pirate master will be digitized, posted on the Web, and made available to Net surfers all over the world. Or, the master will be downloaded over the Internet to a digital video recorder half a world away that can churn out thousands of pristine, perfect copies at the touch of a button, for immediate distribution to customers. By the time those pirate DVD copies hit the street, the pirate web site will have disappeared, to be set up anew tomorrow in a different country, where a different current hit will be available.

The nightmare scenario I have described , if it is realized, will drive a stake through the heart of our hopes for the healthy growth of electronic commerce. What can be done to prevent this, and to meet this daunting challenge of pervasive digital piracy? A key part of the answer lies in the legislation before you today.

The U.S. copyright law is a modern, flexible legal instrument that has succeeded in keeping pace even with the rapidly accelerating technological changes that are transforming the marketplace for audio-visual works. Sadly, the same cannot be said about the laws of many other countries around the world, including those in which the threat of piracy is most acute. In the inherently global entertainment marketplace of the immediate future, we need stronger international legal standards for copyright protection, standards that respond to those technological changes. Fortunately, those standards, and the method for implementing them, are at hand.

In December 1996, delegates from over 100 nations, meeting under the auspices of the World Intellectual Property Organization (WIPO), concluded two new treaties aimed at precisely this goal. The U.S. led the way toward the adoption of the WIPO Copyright Treaty, and the WIPO Performances and Phonograms Treaty. That leadership was essential, but it should not be surprising: after all, with its robust copyright industries, the U.S. has the most to gain from stronger international minimum standards, and the most to lose if the momentum toward this goal falters.

The challenge today is to put these enhanced minimum standards into effect as soon as possible, by gaining the ratifications of at least thirty countries to both these treaties. The U.S. must be among the first to ratify, in order to maintain our leadership position in the world copyright community, and to create the momentum needed to encourage other countries to follow in our footsteps. Before we can ratify, we must make the limited changes to our laws that are needed to meet these new international standards. That's where H.R. 2281 comes in.

Those necessary changes do NOT involve either the basic rights of copyright owners, or the limitations or exceptions to those rights. The main change needed to bring our laws into full compliance with the obligations of the two WIPO treaties is to outlaw trafficking in high-tech burglar's tools — products or services designed primarily for the purpose of defeating technologies that control access to or use of copyrighted works. We need to do that in order to fulfill the treaties' directive that we "provide adequate legal protection and

effective legal remedies" against the circumvention of technological protections that are used by copyright owners to control access to or use of their works, both on and off the Internet.

Mr. Chairman, as it was introduced — with bipartisan support, and with the full backing of the Administration — H.R. 2281 was truly a minimalist bill. It made only those changes that absolutely must be made in order to fulfill the treaties' requirements, while leaving everything else — including all the rights and defenses established by the copyright law --- undisturbed and unchanged. In the legislative process, as often happens, reality intervened. While the basic approach of the legislation has not changed, a number of new provisions have been added. None of these changes expands the exclusive rights of copyright owners. Every single one of the changes weighs in on the other side of the balance.

For instance, one of these amendments expands the scope of an existing limitation on the rights of copyright owners, and allows libraries and archives, for the first time, to make digital copies of material in their collections, without the permission of the copyright owner. Another amendment — an extensive and painstakingly negotiated amendment — clarifies the rules on the legal responsibility of Internet access and online service providers for copyright violations that take place over their systems or networks, and limits the liability of these services for such infringements under a number of circumstances. A third amendment updates an existing exception to copyright protection and allows broadcasters to bypass technological controls in order to make temporary copies of copyrighted material

in relation to authorized broadcasts. A fourth amendment directs the Register of Copyrights to study and to report back to Congress on any changes to the Copyright Act that are needed to allow schools, colleges and universities to employ the new digital technologies to serve their students through distance learning. And a host of additional amendments --- I count eleven in all --- have been made to narrow the anti-circumvention provisions of this legislation, with the goal of foreclosing any unintended adverse impact on libraries, schools, manufacturers of consumer products like PC's and VCR's, competitive computer software developers, or individual Internet users.

As a result of all these changes, H.R. 2281 is no longer a pristine piece of minimalist legislation. It includes a number of provisions which are not absolutely necessary to implement the treaties, and that cut back on the rights of copyright owners. Unsurprisingly, not all of these changes were especially popular with the MPAA or its member companies, and as free-standing bills we might well oppose them. But we are willing to accept them, and to strongly support the entire package, because the goal of raising international copyright standards to keep pace with the digital networked environment is so critical to the future of our industry, and, we believe, to the competitiveness of the U.S. economy as a whole in the global marketplace.

Mr. Chairman, despite all these weakening amendments and compromises, MPAA believes that this legislation, as it passed the Senate by a 99-0 vote three weeks ago, represents a major step toward this goal. The bill still meets the test of providing "adequate

legal protections and effective legal remedies" against trafficking in products or services that are aimed at defeating the technologies that will make it possible for the Internet to realize its full potential for electronic commerce. But if these anti-circumvention provisions are weakened any further, the bill would risk slipping below this baseline standard set by the treaties. If that happens, the enormous effort of compromise and cooperation that have brought us this close to implementation of these landmark treaties would be jeopardized.

I would like to conclude my testimony with a few observations about those anti-circumvention provisions. These are not copyright provisions, even though the bill proposes to codify them as section 1201 of Title 17, which is the copyright title of the U.S. Code. Section 1201, unlike copyright, does not give copyright owners any exclusive rights, and (as the legislation provides) it does not "affect rights, remedies, limitations or defenses to copyright infringement, including fair use."

Section 1201, like the treaty provision it implements, reflects the fact that technical protection measures — such as encryption, scrambling, or the use of electronic envelopes or watermarks — are key enabling technologies that will make possible a robust electronic commerce in copyrighted materials over the Internet. In that way, enactment of section 1201 will benefit copyright owners, but it will also benefit every Internet user who wants to see the network employed to make available a richer selection of movies and other audiovisual materials — as well as other copyrighted works. The only parties it will hurt are those who wish to go into the business of disseminating the means to hack through encryption,

pick digital locks, steam open electronic envelopes, or obliterate digital watermarks, so that valuable intellectual property can be stolen.

The provisions of section 1201 are new, but they are far from being unprecedented. No one knows that better than this Subcommittee. On at least two previous occasions, in 1984 and in 1988, Congress has outlawed the manufacture or distribution of tools — in common parlance, "black boxes" — used to circumvent technological controls on access to copyrighted materials. If I am not mistaken, on each occasion the provision originated in this Subcommittee. While these laws are focused on safeguarding access controls for particular distribution mechanisms — cable services in 1984², and satellite distribution services in 1988³ — the Subcommittee should bear these precedents in mind as it considers section 1201, which simply applies the same principles without regard to distribution media. Virtually every objection that you will hear raised to section 1201 today either was, or could have been, raised at the time Congress acted to outlaw trafficking in the tools of cable or satellite signal theft. As you prudently turned those objections aside in outlawing cable and satellite "black boxes" in 1984 and 1988, so we urge you to reject them today as Congress moves to outlaw "black boxes for the Internet."

²See 47 U.S.C. 553.

³See 47 U.S.C. 605(e)(4). A precursor to this provision was enacted in 1984; the provision was also amended in 1996.

Section 1201 is narrowly drawn to avoid any impact on legitimate products or services. Even if a device can be used to break through technological protections, it is only prohibited if the plaintiff proves that it meets one of three specific tests: that it —

- ◆ was primarily designed or produced for the purpose of circumvention;
- ◆ was knowingly marketed for use in circumvention; or
- ◆ has only limited commercially significant uses other than to circumvent.

These hurdles to liability remain in place in the legislation before you. I encourage you to line up against this three-part test the facts of any scenario with which the opponents of section 1201 may present you. Throughout the months of debate over Section 1201, its opponents have never been able to identify a single specific legitimate consumer electronics or personal computer product that would flunk this test and that would therefore unfairly expose its manufacturer or distributor to a risk of liability. Indeed, if the motion picture industry thought for a moment that enactment of section 1201 would jeopardize the availability of videocassette recorders, and with it the home video market that has become such a vital element of the movie business, MPAA would be among the first to oppose it.

Yet you will hear from some quarters that section 1201 remains too broad. A host of crippling amendments may be proposed: that liability be limited to the act of circumvention, exculpating the commercial traffic in products and services that make these acts possible⁴; that liability under section 1201 require proof that circumvention was carried out in furtherance of an act of copyright infringement; that liability under section 1201 — a non-copyright provision — be made subject to the copyright defense of fair use; that certain specifically named products be granted blanket exemption from liability; or that a product designed for the purpose of circumvention be excused if it is proven to have a substantial non-infringing use. While some of these proposals may have a superficial attractiveness, on closer examination I believe you will find that each of them serves mainly to provide a roadmap to keep the purveyors of "black boxes" and other circumvention devices and services in business even after section 1201 is enacted. Their adoption will reduce the legal protection for these key enabling technologies to an inadequate and ineffective level, thus falling short of the WIPO treaties' minimum standards.

⁴This argument is especially troubling, because if adopted it would create an enforcement regime that would not only be "inadequate and ineffective," but also one that would intrude unacceptably on the personal privacy of Internet users and other consumers, since the anti-circumvention prohibition could only be enforced by catching an individual "in the act," quite possibly in his or her home. Americans would (and should) never tolerate this. Proponents of the "conduct-only" approach are either indifferent to personal privacy, or, more likely, have cannily concluded that this limitation would prevent any enforcement of section 1201.

The subcommittee should also apply the precedents of the 1984 and 1988 legislation to these proposals. If you do, you will search in vain for a "fair use" defense to distributing tools to decrypt satellite signals, or any requirement to prove the furtherance of copyright infringement (or to disprove "substantial non-infringing uses") in order to prosecute the purveyors of cable "black boxes." And both the 1984 and the 1988 legislation specifically extend, not only to the act of circumventing the technological controls used to protect cable transmissions or satellite signals, but also to acts of manufacture, distribution, and (in the case of the satellite provisions) importation of the devices that make the circumvention possible.

Mr. Chairman, thank you once again for the opportunity to present the views of the MPAA on this critical legislation.

**TESTIMONY OF SETH GREENSTEIN
on behalf of the
DIGITAL MEDIA ASSOCIATION**

**Before the
Subcommittee on Telecommunications, Trade and Consumer Protection
Committee on Commerce
U.S. House of Representatives**

**Hearing on H.R. 2281
June 5, 1998**

Chairman Tauzin, Members of the Subcommittee:

My name is Seth Greenstein. I represent the newly-formed Digital Media Association, DiMA, an association to promote the interests of new media and technology companies that enable the digital transmission and marketing of music and multimedia content. On behalf of DiMA, and the seven founding DiMA members, thank you for inviting us to testify today.

We are particularly gratified to testify because, until now, no committee has really heard about the impact that H.R. 2281 will have on young, entrepreneurial companies that broadcast and use music and video on the Internet in a new and compelling way. We are excited about the opportunity to build our businesses in ways that support and compensate copyright owners on a fair basis. In this regard, we also express our appreciation to the Commerce Committee for its interest in making the Internet a vibrant and viable commercial medium, as reflected by the recent series of hearings on electronic commerce and the Committee's approval of the Internet Tax Freedom Act.

Let me say clearly from the outset that DiMA members view fair implementation of the WIPO treaty as a necessary and enormously significant step. As companies vitally interested in the development of electronic commerce and new broadcast media, we understand and support the need to protect copyright on the Internet. Unfortunately, not all people on the Internet

understand this fundamental point. As a result, the recording industry and other copyright owners have taken legal action to shut down sites that infringed their copyrighted works, and we applaud those efforts.

Internet companies see technology as essential to safeguarding copyrighted works, and many are developing effective technologies for this purpose. In this regard, DiMA members consider the WIPO treaties, and legal protection for technological measures, to be important components of a broader effort to secure more uniform global protections for copyrighted works.

It remains our strong desire and intention to work cooperatively with copyright owners to build an environment that protects and creates excitement about their products. However, while the technology to deliver and protect content over digital networks is developing rapidly, Internet companies are beset by uncertainty over copyright issues. When we perform music over the Internet, some claim that we actually are recording it, and so seek a mechanical royalty. When we sell music over the Internet by downloading a file to be recorded by the end-user, some claim that we are publicly performing the music, and so seek a performance royalty. These and other important copyright issues relating to the Internet will need to be resolved over the coming years, and we look forward to potential industry and legislative solutions to these issues. So, we see H.R. 2281 as an important first step. However, as a great American humorist/philosopher said, "The first step down is a long way." We want to make sure that this first step is not a step in the wrong direction.

Our basic concern is that H.R. 2281 does not accommodate the needs and legitimate interests of the other players in this equation: the engines and the drivers -- those who build the technologies, and the websites that use those technologies, to bring copyrighted content to the

public. As a result, we believe that H.R. 2281 is in many respects an unbalanced, anti-technology bill that prejudices the development of the Internet as a broadcast medium, and as a new mode of electronic commerce.

What Internet companies seek, in a word, is **parity**. The Section 1201 provisions of H.R. 2281 concerning technological protections must also take into account the needs of those who will be developing those technologies and physically transmitting the content to the public. Section 1202, concerning copyright management information, should recognize the needs of those who are creating the software and the websites that actually will transmit this information. And, where the bill would limit the rights of copyright owners, or the liability of those who transmit copyrighted content, Internet companies should be given the opportunity to benefit from the same limitations.

To understand our concerns in context, it is useful to explain our members' varied businesses relating to the Internet and new media. The members of DiMA include:

-- a2b music of New York, New York (www.a2bmusic.com), grew out of a five-year project at AT&T Labs to develop efficient and effective technologies for delivery of music. The a2b music technology consists of three core technologies: AT&T proprietary compression algorithms that deliver music over the Internet at CD-quality, in much smaller files and, therefore, in less time; the CryptoLib Security Library, which encrypts compressed music for secure transmission via the Internet; and PolicyMaker, an electronic licensing system which controls how music is distributed and used across the network.

-- broadcast.com, inc. of Dallas, Texas (www.broadcast.com), formally known as AudioNet, is an Internet broadcast network. It transmits live signals from some 300 radio stations around the country, live concerts, live television network signals, live local television

news, professional and college sports events, events such as the National Association of Broadcasters convention keynote addresses, live press conferences, and shareholder meetings. Although it began in late 1995 operating out of a second bedroom of the CEO's home, broadcast.com now has grown to employ 190 people. Their Internet site is visited by some three million people each month.

-- CDnow, Inc., located in Jenkintown, Pennsylvania (www.cdnow.com), testified before the Commerce Committee in the first of its series of hearings on Electronic Commerce. They are an online interactive record and video retail store, where you can read record and artist reviews, listen to clips from sound recordings using the RealAudio software, and purchase music online, 24/7, from a catalog of approximately 200,000 recordings. Begun four years ago by two 24-year-olds in their parents' basement, CDnow has become the Internet's leading music retailer, with revenues last year of more than \$17 million.

-- Liquid Audio, Inc. of Redwood City, California (www.liquidaudio.com), focuses on the needs of the music industry, providing labels and artists with software tools and technologies to enable the secure online preview and purchase of CD-quality music. Using their technology, record companies can transmit sound recordings in encrypted form, with rules governing access and further use. Liquid Audio technology can protect a sound recording that is electronically purchased by a consumer, transmitted to the consumer's computer hard disk drive, and then can be recorded only once onto a recordable compact disc.

-- RealNetworks, Inc. of Seattle, Washington (www.real.com), develops and markets the software used to encode and deliver music and video from about 85 percent of all Internet sites. The RealAudio software, released in its first version just three years ago, created a genuine revolution on the World Wide Web, and is in large measure responsible for the

explosive growth of the Internet. Before RealAudio, Internet users would have to spend up to an hour or more downloading a single song or audio file before they could listen to it. With the RealNetworks software, audio data is sent in a stream to the user, so that after a few seconds, the music or video can be played in real time. More than 20 million people have downloaded for free the RealAudio and RealPlayer software.

-- TCI Music, Inc. of New York, N.Y., runs several music-oriented Internet websites, including www.sonicnet.com, which features concerts, an Internet radio service, artist interviews and chats, and a guide to music-related information and music sites on the Internet; the Streamland music video site at www.streamland.com; and Addicted to Noise, at www.addict.com, which provides music news broadcasts, and articles and album reviews complete with music clips that illustrate the writer's observations. TCI Music also operates Digital Music Express, a cable and satellite subscription music service; The Box, an on-demand music video network; and the Paradigm Associated Labels record companies.

Visitors to such new media Internet sites inevitably come away impressed with the power of what current Internet technology can do. The technology is growing by quantum leaps and bounds, with noticeable improvements in robustness, performance and quality in each generation of product. And each "generation" is really only a few months apart. For example, RealNetworks released its first RealAudio product just three years ago. They now are on the sixth version of their software, released recently in beta form as G2. The difference in quality between the first and current versions of the software is as remarkable as the difference between a pocket-sized AM transistor radio and a home stereo.

These companies are only a snapshot or microcosm of the industry at its inception. But it is not hard to project where these industries could be in just a few years. The Internet as we

know it today will increase in convenience and ubiquity. Information signals will travel through cable, satellite, and telephone lines, to be received by computing devices that no longer look like computers. Like the light in your refrigerator, when you open the door the Internet is always on. And it will be increasingly easier to find the good stuff from among the leftovers. For example, you could walk into your kitchen, turn on your screen, click on your favorite recipe sites, and follow the instructions along with your favorite chef. Go into your basement workshop, turn on the screen, go to your favorite handyman site and build projects step by step along with Tim and Al. Go into your living room and, if you don't like what's on the radio or NBC or Showtime, check out what's playing on the Internet-only radio and TV channels. Go to your desk, and take a course by distance education with teachers, video and audio clips, and tests conducted online.

The technology is here to bring compelling content to the public. Our concern is that today's rules may foreclose tomorrow's innovation. The stakes are too high, the future potential is too important, to act precipitously. As copyright law itself has done over the last two centuries, sound policies balance the rights of the copyright owners that create the content, with those of the technology companies who create the means to transmit and who market content over the new Internetworks.

Unfortunately, H.R. 2281 is overreaching in its impact on technology in general. H.R. 2281 focuses almost exclusively on restricting technologies without making any provision for technologies or uses that would be legally permissible. As others on this panel will testify, legitimate encryption research, reverse engineering, even fair uses could lead to liability under H.R. 2281.

Further, H.R. 2281 does not provide equal treatment of Internet commercial sites as compared to equivalent acts by more established media. As a result, H.R. 2281, and S. 2037,

threaten companies that are investing in new technology and, so, will chill innovation and development of the Internet.

To list our concerns:

Internet companies need protection with respect to technological protection measures.

First, Section 1201 prohibits circumvention of technological protection measures, but does not define what a "technological protection measure" is. By contrast, the bill defines "copyright management information" in section 1202, and defines "standard technical measures" in connection with the service provider liability sections of the bill. Particularly where stiff civil and criminal penalties are being applied, the absence of a definition of this central term is a critical flaw. A bill introduced by Rep. Rick Boucher, H.R. 3048, co-sponsored by several other members of the Commerce Committee, would provide a meaningful definition of this central term.

Second, Section 1201 requires respect for technological protection measures, but does not consider whether these measures are inherently compatible with Internet transmission protocols or, indeed, with each other. Unless Internet companies have some reasonable input into how such technologies are designed and used, Internet companies are placed at legal risk if a copyright owner adopts technological measures that are incompatible with Internet transmission technologies. Again, we contrast Section 1201 with the provisions on standard technical measures in the service provider liability sections of the bill, which specifically provide for open and voluntary standards processes to develop and implement these technological measures.

Moreover, we are extremely concerned that Section 1201 may prevent Internet companies from upgrading their transmission software if it is not compatible with a

technological protection measure. As I noted earlier, Internet companies improve their transmission software over months, not years, and their innovation fuels the explosive growth of the Internet. We are concerned about the consequences under H.R. 2281 if, for example, a particular technological protection measure works with version 5.0 but not version 6.0. The new Internet innovators, such as RealNetworks, may be faced with a decision either to bring their product to market and face the likely prospect of a lawsuit under Section 1201, or not to bring the product to market at all.

Third, the bill does not protect Internet transmitters against technological measures that degrade quality or performance. Internet companies are investing millions of dollars to make Internet delivery competitive in quality with other broadcast media. Internet broadcasters should be protected against technological protection measures under section 1201, or copyright management information under section 1202, that would degrade signals or would interfere with other data being carried in the signal format.

Fourth, the bill should not prohibit manufacture of devices or software programs that can circumvent for professional production uses, or for facilitating authorized transmissions, fair uses, reverse engineering, encryption research, and other purposes permitted under current copyright law.

Temporary copies made on a user's PC during Internet transmission, for a transitory period and to facilitate performance of the audio or video, should not be considered copyright infringement. Hundreds of thousands of hours of audio and video material now are available over the Internet. "Streaming media" technology is essential to making these Internet transmissions sound as smooth as over the radio. To understand this concern, it is useful to understand a little about how Internet transmissions work.

Unlike broadcast radio or television, which is sent in a continuous stream of information, data is sent over the Internet in small packets that are reassembled at the user's PC. It is analogous to sending a book one line at a time to a single addressee, but in different envelopes, with information indicating which line and page it is from, for later reassembly. Streaming media software, like the RealNetworks RealPlayer or the Microsoft NetShow software, store these packets in the memory chips of the user's computer until a few seconds of material are ready for playback. The software then begins playing the audio or video material from one end of this memory "buffer," while receiving and reassembling new packets of data carrying the next few seconds of material. As a result, the user hears or sees a continuous program, even though the data packets are arriving in non-continuous bursts into the buffer. So, for the user, the experience is no different than radio or television – even though the technological means of achieving that experience is somewhat different.

The hardware maintenance provisions of H.R. 2281 seem to imply that most temporary copies made in computer memory are infringements of copyright, while only those specifically exempted under H.R. 2281 are not. If temporary RAM copies of those few seconds of material are deemed to be copyright infringement, and streaming media performances and technology could therefore be deemed unlawful, audio and video over the Internet will come to a grinding halt. H.R. 3048 addresses this problem by stating that temporary copying incidental to an otherwise authorized performance is not copyright infringement. We strongly support this measure as an absolutely integral part of this bill, and as essential for the future of the Internet.

The right to make ephemeral copies of sound recordings for transmission and archival purposes should explicitly be extended to all persons exempt from the public

performance right, including Internet companies. The Copyright Act includes a provision that essentially states that a transmitting organization that has the right to transmit a copyrighted work also the right to make a copy of that work to facilitate that transmission or for archival purposes. While this is not an issue under the WIPO treaties, it was made an issue under the WIPO bill. In response to concerns voiced by the National Association of Broadcasters, section 104 of S. 2037 made explicit that this otherwise-implicit exemption applied to stations licensed by the FCC. As a matter of fundamental fairness, Internet broadcasters deserve this same exemption. Like traditional radio broadcasters, Internet broadcasters are exempt from the sound recording performance right, and also operate on a non-subscription, non-interactive, advertiser-supported basis. Like traditional broadcasters, Internet broadcasters copy music to computer servers to facilitate efficient transmission. If the exemption is not extended to Internet broadcasters, then the law essentially would hold that an Internet radio station that plays its music from CD changers is legal, but would be infringing if it played the same music from a computer server. To DiMA, this is a technical distinction that elevates form over substance. The exemption should be amended so as to explicitly benefit all transmitting organizations that are exempt from the public performance right, thereby removing any possible competitive disadvantage.

Internet website owners should not be secondarily or economically liable for innocent

transmission of infringing content, or for carrying links to other websites. The service provider liability sections of H.R. 2281 are a positive step for development of the

Internet. These same procedural requirements and immunities should be extended to those Internet websites that carry or link to content, but that have no ability or right to control that content.

The "first sale" doctrine should be adapted for the digital environment. Just as consumers

have the right to resell or give away a book, CD or video purchased in a physical retail store, they should have the right to transfer ownership of copies received electronically.

If Internet commerce is to succeed, consumers must have the assurance that the electronically purchased copy is just as good and valuable as the store-bought copy, and a copy that cannot be resold or given away is a lot less valuable. Rep. Boucher's bill, H.R. 3048, would secure this existing right for the digital environment. In the past, the argument has been made that, in the digital environment, if that transfer of ownership is done by computer, then a copy remains on the sender's computer even after the copy has been transmitted. This is a flawed argument. Technology companies like Liquid Audio and a2b music already have developed technologies for secure electronic delivery and copying of music. They, and many others, are capable of developing software that will ensure that the copy on the sender's computer is deleted after transmission. But they will have no incentive to develop these technologies if the first sale doctrine does not apply, since their technology still would be unlawful.

In summary, Mr. Chairman, Internet companies believe in strong protection for copyright, and in the need for Congress to implement the WIPO treaties. However, we also believe that strong copyright protection need not come at the expense of technology. What we seek is fairness -- parity of treatment for Internet companies under the WIPO bill with respect to

the rights and privileges accorded to other entities that facilitate transmission, transmit and perform copyrighted works. Both a secure legal environment and a level playing field are essential to making the Internet a vital transmission medium and marketplace.

We thank you, the members of your Subcommittee and the Committee on Commerce for your leadership and interest in these critical issues for the future competitiveness of the United States in global electronic commerce. We look forward to the opportunity to work with you and the Committee to make H.R. 2281 a more fair and balanced bill that takes into account the needs of emerging industries on the Internet.

I would be pleased to answer any questions that you or the Subcommittee members may have.

Summary
**TESTIMONY REGARDING IMPLEMENTATION OF THE DECEMBER 1996 WIPO
COPYRIGHT AND PHONOGRAMS TREATIES**

**HOUSE COMMERCE COMMITTEE
SUBCOMMITTEE ON TELECOMMUNICATIONS, TRADE AND CONSUMER AFFAIRS**

**PRESENTED ON BEHALF OF THE
AMERICAN ASSOCIATION OF LAW LIBRARIES
AMERICAN LIBRARY ASSOCIATION
ASSOCIATION OF RESEARCH LIBRARIES
MEDICAL LIBRARY ASSOCIATION
SPECIAL LIBRARIES ASSOCIATION**

**BY PROF. ROBERT L. OAKLEY, LIBRARY DIRECTOR
GEORGETOWN UNIVERSITY LAW CENTER
JUNE 5, 1998**

My name is Robert Oakley. I am a Professor of Law at the Georgetown University Law Center and Director of the Law Center's Library. I also serve as Washington Affairs Representative for the American Association of Law Libraries. I appear on behalf of several major library organizations, for the libraries and educational institutions of which many of them are a part, and -- in a very real sense -- for the public interest as well.

We look to this Committee to make the changes necessary to match the language of H.R. 2281 with its proposed intent. Otherwise, unprecedented and monopoly-like controls over the flow and use of information in commerce and society will be granted to the owners of information. Libraries are here today not to request a parochial carve-out from this dangerous effect for themselves. Rather, we urge the Committee to make the clarifying changes in H.R. 2281 needed to balance effective protection for information owners with continued assured access to information under limited conditions for all Americans.

My testimony will address four points.

1. HR 2281'S UNPRECEDENTED NEW RIGHT TO CONTROL ACCESS TO INFORMATION IN DIGITAL WORKS WOULD BE THE ONLY UNLIMITED RIGHT IN COPYRIGHT LAW; IT SHOULD NOT BE UNQUALIFIED.

To achieve the constitutional intent, rights in information must be balanced with exceptions and limitations.

2. H.R. 2281 SHOULD BE AMENDED TO ASSURE THAT PROPOSED SECTION 1201 OF THE COPYRIGHT ACT WILL NOT PRECLUDE FAIR USE IN PRACTICE.

We propose a specific two-part amendment.

3. MAINTAINING A BALANCED COPYRIGHT ACT IS FULLY CONSISTENT WITH AMERICAN LEGAL TRADITION, STATUTE AND THE WIPO COPYRIGHT TREATIES.

The WIPO treaties specifically allow for exceptions and limitations.

4. H.R. 2281 SHOULD BE FURTHER AMENDED TO ENABLE OTHER VALUABLE ACTIVITIES NOW AUTHORIZED BY OTHER EXCEPTIONS TO PROPRIETORS' RIGHTS.

We recommend the balanced approach in H.R. 3048.

**TESTIMONY REGARDING IMPLEMENTATION OF THE DECEMBER 1996 WIPO
COPYRIGHT AND PHONOGRAMS TREATIES**

**UNITED STATES HOUSE OF REPRESENTATIVES
COMMERCE COMMITTEE
SUBCOMMITTEE ON TELECOMMUNICATIONS,
TRADE AND CONSUMER AFFAIRS**

**PRESENTED ON BEHALF OF THE
AMERICAN ASSOCIATION OF LAW LIBRARIES
AMERICAN LIBRARY ASSOCIATION
ASSOCIATION OF RESEARCH LIBRARIES
MEDICAL LIBRARY ASSOCIATION
SPECIAL LIBRARIES ASSOCIATION**

**BY
PROF. ROBERT L. OAKLEY, LIBRARY DIRECTOR
GEORGETOWN UNIVERSITY LAW CENTER
JUNE 5, 1998**

My name is Robert Oakley. I am a Professor of Law at the Georgetown University Law Center and Director of the Law Center's Library. I also serve as Washington Affairs Representative for the American Association of Law Libraries. I am honored to appear before the Committee today not only behalf of AALL, but for several major library organizations, for the libraries and educational institutions of which many of them are a part, and -- in a very real sense - - to speak for the public interest as well.

The task before this Subcommittee is compelling and urgent. H.R. 2281 and its companion bill in the Senate, the Digital Millennium Copyright Act, S. 2037, are among the most complex and challenging pieces of legislation before this Congress. The Judiciary Committees and their staff have labored long and hard under enormous pressure to fashion a new law to implement international treaties and to advance cybercommerce. But let me be quite clear, that

work is not yet complete. H.R. 2281 has been referred to the Commerce Committee so that you may assess its economic and social impact as we begin the 21st Century.

We look to this Committee to make the changes necessary to match the language of H.R. 2281 with its proposed intent. Otherwise, unprecedented and monopoly-like controls over the flow and use of information in commerce and society will be granted to the owners of information. Libraries are here today not to request a parochial carve-out from this dangerous effect for themselves. Rather, we urge the Committee to make the clarifying changes in H.R. 2281 needed to balance effective protection for information owners with continued assured access to information under limited conditions for all Americans.

My testimony will address four points.

- 1. HR 2281'S UNPRECEDENTED NEW RIGHT TO CONTROL ACCESS TO INFORMATION IN DIGITAL WORKS WOULD BE THE ONLY UNLIMITED RIGHT IN COPYRIGHT LAW; IT SHOULD NOT BE UNQUALIFIED.**
- 2. H.R. 2281 SHOULD BE AMENDED TO ASSURE THAT PROPOSED SECTION 1201 OF THE COPYRIGHT ACT WILL NOT PRECLUDE FAIR USE IN PRACTICE.**
- 3. MAINTAINING A BALANCED COPYRIGHT ACT IS FULLY CONSISTENT WITH AMERICAN LEGAL TRADITION, STATUTE AND THE WIPO COPYRIGHT TREATIES.**
- 4. H.R. 2281 SHOULD BE FURTHER AMENDED TO ENABLE OTHER VALUABLE ACTIVITIES NOW AUTHORIZED BY OTHER EXCEPTIONS TO PROPRIETORS' RIGHTS.**

1. HR 2281'S UNPRECEDENTED NEW RIGHT TO CONTROL ACCESS TO INFORMATION IN DIGITAL WORKS WOULD BE THE ONLY UNLIMITED RIGHT IN COPYRIGHT LAW; IT SHOULD NOT BE UNQUALIFIED.

The Copyright Act, in keeping with the Constitution, has always treated rights in information and intellectual creativity in a different way from tangible property. To achieve the Framers' intent, each right granted is balanced by exceptions or limitations which encourage the creation of new intellectual property by enabling creators to build upon the work of others.

Whether intended or not, H. R. 2281 would make a momentous change in America's policy toward libraries and education which could undermine the essential role these vital institutions play in fueling the growth of our economy, as we strive to bring the Internet and its benefits to America's educators, students, lifelong learners, researchers, consumers, entrepreneurs and small business owners.

H.R. 2281, as drafted, would grant copyright owners a new and unrestricted exclusive right to control access to information in digital works which could negate one of the most basic principles that has made the U.S. so clearly a leader in intellectual creativity, innovation, and commerce -- the ability to gain access to information in published or publicly available works. At its core, this translates into the ability, without permission, to browse to determine what information one wishes to pursue, which works or pieces of information one needs to purchase, which information a researcher needs for "fair use" purposes, which information a student needs to include in a term paper, which works found in a library a small business decides to subscribe to on a regular basis, which sentences a new author or a journalist decides to quote.

"Public access to published information" is the principle that has made libraries so important to the ideals of American democracy: Once a library lawfully acquires a copyrighted

work, many users over time may access that work without charge and may make “fair use” of it. This principle has afforded users of American's library, research and educational facilities access to the works they otherwise could not afford, and has made libraries one of the great democratizing forces in America.

By access, I mean the right to read and, even more simply, the right to browse published works. Taken another step, it means the right to use works in ways currently allowed by exemptions and limitations in copyright -- expressly crafted by Congress -- to permit fair use, use for library preservation and use in classroom teaching. And since I'm speaking to the Commerce Committee, it should be understood that such access and these permitted uses facilitate commerce and economic growth by educating patrons, encouraging creativity and spawning new works.

2. H.R. 2281 SHOULD BE AMENDED TO ASSURE THAT PROPOSED SECTION 1201 OF THE COPYRIGHT ACT WILL NOT PRECLUDE FAIR USE IN PRACTICE.

The urgent issue before this Committee and Congress is how to strike the proper balance between protecting digital works from unfettered duplication while continuing to permit fair use and other exceptions, in order, for example, to allow library patrons no-fee access to works already lawfully acquired by the library. Unfortunately, this balancing act has taken a back seat to other complex questions to date in the legislative process. But now is the time to move it front and center.

Libraries do not seek material “for free.” We all understand that unauthorized digital copying can lead to piracy of legitimate publishers. America's libraries depend on the well-being of those publishers. Throughout our history, libraries have been among the most voracious,

lawful acquirers of published works. Each year, our institutions spend literally billions of dollars supporting the publishing community. According to surveys published in 1998 by the National Center for Education Statistics (U.S. Dept. of Education), the 8,981 U.S. public library systems spent \$789 million on library materials, including electronic formats, in 1995. The 3,303 U.S. academic libraries spent \$1.3 billion on information resources in all formats in 1994. From my own experience, the trend is up from these figures. Clearly, America's libraries are paying their fair share in rewarding copyright creativity.

The 121 institutions in the Association of Research Libraries alone spent \$727 million in 1997 on information resources, including \$65 million for electronic resources. The cost of electronic resources for these institutions has been rising at a rate of 25% per year for each of the past five years. Each ARL institution spends approximately \$400,000 on electronic journals, and also invests approximately \$640,000 on hardware and software to access electronic resources.

Libraries also serve small business and budding entrepreneurs. In Virginia, the Arlington Public Library emphasizes service to small business through both online and print materials on how to set up a small business, on business law, business plans, finance, legal forms, advertising and marketing, import and export information, and other business tools and resources. This is a very typical example of library attention to the fastest growing segment of American business.

The problem. America's libraries have always had the right to allow their patrons to enter the library's facilities and access the works and use them as allowed by copyright laws. The Act has never meant that lawfully acquired books and magazines were to be locked up in the library or that the library could only allow access to the reproduction of excerpts for an additional fee paid to the publisher. It has never meant that the publishers could control who looked at information

and whether a page could be copied. Now, this legislation, threatens to obliterate the right of libraries to serve their patrons and of others to make use of exceptions and limitations in the Copyright Act . How does it do this? By mandating that technological protection measures which **block access** cannot be circumvented. Period. No exceptions. No qualifications.

H.R. 2281 does include a provision allowing libraries to circumvent just long enough to determine what technologically protected works they wish to purchase. We appreciate the intention behind this provision, but frankly it solves a problem we do not believe exists. The issue is not that a library does not know the content of a digital work. Publishers are more than willing to allow some of their best customers routine review of digital works prior to purchase. The problem is that once a work is lawfully acquired by the library, what can be done with it? The exemption in H.R. 2281 does not create the necessary counter-balance to this new right. It does not ensure continued applicability of other provisions that strike the required balance.

Proposed Remedy. The drafters of H.R. 2281 appear to have tried to protect fair use by including a clause which states that: "Nothing in this section shall affect rights, remedies, limitations, or defenses to copyright infringement, including fair use, under this title." Section 1201(d). While this seems to say that fair use and other limitations apply, the Register of Copyrights has said they would not. It means only that after access is allowed, the traditional defenses to claims of copyright infringement may apply. But if access is blocked, no one even gets to the point of analyzing fair use. Merely accessing the work is the crime.

Two-part amendment. To that end, we recommend a two-part amendment to Section 1201 of H.R. 2281. First, it is essential that the scope of proposed Section 1201(a)(1) be clarified to prohibit "circumvention" only "for the purpose of facilitating or engaging in an act of

infringement.” Second, to ensure that section 1201(d) actually affords library patrons and others the opportunity to continue to use copyrighted information in the manner presently authorized by the Copyright Act, we recommend replacing the current language of that subsection with the following:

“All rights, limitations and defenses available under this title, including fair use, shall be applicable to actions arising under this Chapter.”

Simply stated, these changes would assure the continued vitality of the fair use doctrine as it is relied on by thousands of Americans in libraries and educational institutions in every state every day. Finally, we note that these proposed statutory changes would be fully consistent with the intent of the House and Senate Judiciary Committees as reflected in their respective reports.

3. MAINTAINING A BALANCED COPYRIGHT ACT IS FULLY CONSISTENT WITH AMERICAN LEGAL TRADITION, STATUTE AND THE WIPO COPYRIGHT TREATIES.

The idea of balance is deeply embedded in the long history of copyright. For centuries, the law has sought to further two seemingly conflicting ends: assuring on the one hand that authors reap the rewards of their efforts, and , on the other hand, advancing human knowledge through education and access to society's storehouse of knowledge. This idea is rooted in English law, which served as the template for American copyright. This perspective was preserved for all time in the Constitution as Article 1, Section 8, Paragraph 8, in which Congress was authorized to “promote the Progress of Science and the useful Arts , by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Inventions.”

Significantly, however, at no time in our history have either Congress or the courts afforded “Authors and Inventors” unlimited control over their works because the public’s good has always been considered paramount. As the Supreme Court stated in its landmark Sony copyright decision:

“We have often recognized the monopoly privileges that Congress has authorized ... are limited in nature and must ultimately serve the public good. . . . [and] are neither unlimited nor primarily designed to provide a special private benefit. Rather, the limited grant is a means by which an important public purpose may be achieved.”

(Sony Corp. v Universal City Studios, Inc., 464 U.S. 417, 429 (1984))

The Supreme Court noted in *Feist* that “copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work.” (*Feist Publication, Inc., v Rural Telephone Service Co., 499 U.S. 340, 349 (1991)*)

This critical balance, long at the core of the nation’s copyright law, is most visibly embodied in the Copyright Act in Sec. 106 -- which grants copyright holders a “bundle” of enumerated rights -- and in Sec. 107 -- which codifies the venerable “Fair Use” doctrine. Under the law, “fair use” may be made of a copyrighted work “for purposes such as criticism, comment, news reporting, teaching . . . scholarship or research” under certain circumstances without the permission of the author. What constitutes fair use, according to the statute, is determined by the courts on a case-by-case basis by reference to four analytical factors. We were thus extremely pleased that the more than 125 WIPO nations which met in Geneva in December of 1996 affirma-

tively endorsed the importance of a balanced approach to copyright law in the record of their proceedings and in the Copyright Treaty produced there.

Specifically, the Preamble to the 1996 WIPO Copyright Treaty expressly states that signatory nations agreed to its substantive provisions “[r]ecognizing the need to maintain a balance between the rights of authors and the larger public interest, particularly education, research, and access to information, as reflected in the Berne Convention.” In addition, in an “agreed statement” which the United States was instrumental in inserting into the record of the Diplomatic Convention, the delegates stated that:

“It is understood that the provisions of the [new treaty] permit Contracting Parties to carry forward and appropriately extend into the digital environment limitations and exceptions [to proprietors’ rights] in their national laws which have been considered acceptable under the Berne Convention. Similarly, these provisions should be understood to permit Contracting Parties to devise new exceptions and limitations that are appropriate to the digital network environment. “

Unless amended by this Committee, H.R. 2281 will create a significant new proprietary right in American copyright law not subject to the statutory limitations and exceptions. The WIPO treaties specifically allow for such limitations and exceptions, and the U.S. WIPO delegation specifically sought to protect them.

4. H.R. 2281 SHOULD BE FURTHER AMENDED TO ENABLE OTHER VALUABLE ACTIVITIES NOW AUTHORIZED BY OTHER EXCEPTIONS TO PROPRIETORS' RIGHTS.

We very much appreciate the efforts of subcommittee member Rep. Rick Boucher to address these and other issues in H.R. 3048, the Digital Era Copyright Enhancement Act, the bill sponsored by Rep. Boucher and Rep. Tom Campbell. This bill has strong support from a total of 48 bipartisan cosponsors, including ten from the Commerce Committee. The library and education communities strongly support H.R. 3048, as does the Digital Future Coalition, of which these library organizations are members.

In addition to protecting fair use, H.R. 3048 would maintain balance in the Copyright Act through provisions that address the digital preservation of library materials, that update the First Sale doctrine (allowing a lawfully obtained digital copy to be passed along to another if the original copy is not retained), update provisions that provide for use of copyrighted works in distance learning, as well as allow access to the technology needed for such activities. We are pleased that the Senate Judiciary Committee addressed some, although not all, of these issues. We urge that the House consider Senate solutions, but that it also look carefully at the totality of the balanced approach in H.R. 3048.

Thank you for the opportunity to provide this testimony on issues at the heart of both the protection of existing intellectual property and the creation of new intellectual property.