

TESTIMONY OF
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ON BEHALF OF THE
**COMPUTER & COMMUNICATIONS
INDUSTRY ASSOCIATION**
BEFORE THE
**HOUSE JUDICIARY SUBCOMMITTEE ON
COURTS, THE INTERNET AND
INTELLECTUAL PROPERTY**
ON
**COPYRIGHT PIRACY PREVENTION AND
THE BROADCAST FLAG**
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Introduction

The Computer & Communications Industry Association is a group of large, small and mid-sized technology companies committed to the proposition that open markets, open systems and open networks are critical to an efficient marketplace.

Over the years, we have been strong supporters of pro-competitive measures such as the Federal Communications Commission's *Computer II* ruling. From our beginnings as active participants in proceedings against AT&T and IBM, through our current role as an appellant in *U.S. v. Microsoft* and intervenor in the case against Microsoft at the European Commission, we have recognized that technical regulation can be the monopolist's favorite cudgel. The ability to control industry standards – especially those mandated by government -- assures that those who cannot otherwise prevail in the marketplace can capture and maintain a dominant position. We therefore have profound concerns over the proceeding at the FCC, which implicates standards setting processes, technology development, and copyright.

Copyright is, by definition, a balance of the rights of creators and freedom of expression protected by the First Amendment. Copyrights and patents are state grants of limited monopoly. They are justified under U.S. law only so long as they “promote the progress of science and useful arts, by securing for *limited times* to authors and inventors the exclusive right to their respective writings and discoveries.” (emphasis added) Copyright and its limitations – traditionally matters beyond the purview of the Federal Communications Commission – are the very heart of the matter now before the Commission.

Copyright, patent and trademark law are central to the computer and telecommunications industry. Our members retain countless intellectual property rights, and benefit from the creativity and inventions of others. Thus, we have participated in a large number of proceedings at the intersection of information technology and copyright, including the seminal *Sega Enterprises v. Accolade*, which affirmed the right of software makers to reverse engineer others' works for the purposes of developing interoperable products. In more recent years, we have remained deeply enmeshed in issues surrounding intellectual property. We, along with a handful of other industry organizations, helped negotiate key sections of the 1996 World Intellectual Property Organization (WIPO) treaty on online copyright in Geneva, as well as the Digital Millennium Copyright Act of 1998 (DMCA), which implemented the treaty in the United States. In addition to our work in copyright, we recently helped fight for – and win – the elimination of virtually all controls over the export of encryption technology. Encryption is vital to all widely deployed copy-control technologies in current use, including those technologies that make up the broadcast-flag proposal now before the Commission.

Given the knowledge we have gained from past and present endeavors, we oppose any attempt to enshrine into law the broadcast flag proposal, including any effort to promulgate the proposed Compliance and Robustness rules, which have been proposed to govern the flag's implementation. As we outline below, the proposed rules will distort the professed purpose of the marker, frustrate consumer rights and expectations and further delay an already troubled transition to digital broadcast television. Worse still, the proposal will fail to prevent the illegal copying its backers say it can stop.

The Broadcast Flag

Origins of the Broadcast Protection Discussion Group's broadcast flag proposal

Content providers claim to have put forth this controversial proposal chiefly to avoid indiscriminate copying and redistribution of their works over the Internet. That remains part of the report's goals. Unfortunately, the co-chairs, together with certain members of the content industry, have permitted many other objectives to creep into this proposal. In reality, the proposals found in the Compliance and Robustness Requirements document would effectively ban any retransmission not approved by the major motion picture studios. While the studios might desire such a regime, this unprecedented degree of control is a denial of consumers' rights and expectations, in conflict with fundamental First Amendment rights, and ultimately a futile endeavor.

What the Flag Does

The "broadcast flag" as such is no more than a few bytes of information appended to a digital-television signal. It performs no work, contains no "intelligence." It is simply notice that tells a compliant device that the broadcast is copyrighted. The flag indicates the creator's wishes as to whether it may be copied, and how it may be used. There is no controversy as to the form or essential function of this flag, and the flag is already part of the ATSC standards for digital television. The controversy, rather, revolves around over the controls Hollywood wishes to assert over devices and content through this flag, and how these controls will function

In discussions before the Broadcast Protection Discussion Group, Hollywood's representatives argued that all devices capable of receiving content containing the flag should be restricted so that leakage to the Internet would be impossible, or nearly so. Content owners assert, via analogy to current controversies over file sharing, that piracy of free, over-the-air digital television programs will be sufficiently rampant as to justify the reworking of essentially all consumer electronics that can handle a digital-television signal or convert analog to digital. We outline below why this analogy is inappropriate, and why such a proposal makes little sense from the viewpoint of law, technology or economics.

Legal Impediments to Adoption of the Broadcast Flag Proposal

The proposed broadcast flag abridges First Amendment rights

The proponents of the broadcast flag argue that because the flag is intended to limit retransmission rather than copying, the flag does not implicate Fair Use. Fair Use, however, is not only a limitation on the copyright owner's reproduction right. It is a limitation on all of the copyright owner's exclusive rights under Section 106, including the distribution right, the performance right, and the display right. Thus, Fair Use could be implicated when a consumer is technologically prevented from retransmitting digital content.

Many high school students, for example, have been taught in their schools how to put together very sophisticated power point presentations, including video clips. Their homework assignments sometimes require them to create such presentations at home or in the school library, and then to present them in class to the teacher and their fellow

students. Imagine that a student wanted to create a presentation on how television situation comedies portray the relationship between parents and children, including clips from popular situation comedies and television dramas. The broadcast flag would not interfere with the creation of such a presentation on a home computer. But how would the student get the presentation to school? The broadcast flag presumably would prevent her from e-mailing it to her teacher, or burning a CD. If she had a laptop she might be able to bring the laptop to school, but this option would not be available if she only had a desktop.

In short, there is more to Fair Use than time shifting. There also is space shifting, and a host of transformative uses that involve both time shifting and space shifting. At CCIA, we are particularly concerned about preserving these transformative uses, like the student project described above. One of the great virtues of digital technology is the ability it gives consumers to become content providers and content distributors. And just like the established entertainment companies, these consumers incorporate elements of pre-existing works in their content. This creativity by consumers should be welcomed and encouraged by Congress. It makes the populace more literate and computer savvy. Unfortunately, the broadcast flag restricts this creativity.

Proponents of the broadcast flag assert that their proposal is so limited that it will not unduly restrict consumer creativity. But the history of intellectual property laws in general, and copyright law in particular, teach us that this is just the first step. Today the entertainment companies seek restrictions on retransmission outside the home network. Tomorrow they will seek limitations on retransmission within the home network. And the day after tomorrow they will demand prohibitions on fast-forwarding through commercials on taped TV shows. Indeed, the entertainment industry has already conceded that the broadcast flag by itself will not stop retransmission of digital television over the Internet. Accordingly, they have initiated industry discussions concerning the so-called "analog hole," which presumably will lead to more proposed legislation. Moreover, the Broadcast Protection Discussion Group itself has already demonstrated "mission creep." It was formed to address the protection of feature films broadcast on television, yet now it is concerned with protecting the revenue stream from syndication rights for regular television programs.

Fair Use is often disparaged in these chambers as either a quaint legacy of a bygone era, or a form of disguised piracy. It is neither. To be sure, many infringers claim that their copying was permitted under the Fair Use doctrine, but courts have quickly dismissed these frivolous arguments. In fact, Fair Use is as important today as it was before the advent of the computer, and it is as important to businesses as it is to consumers. Congress itself couldn't function without Fair Use. Everyday, Congressional offices make thousands of photocopies of newspaper articles. Fair Use permits this. Everyday, Congressional offices download copyrighted material from the Internet. Once again, Fair Use permits this. Indeed, the simple act of replying to an email could be an infringement, but for Fair Use.

Significantly, Fair Use has a First Amendment dimension. Less than two months ago, the U.S. Supreme Court stated that Fair Use was one of the copyright law's "built-in First Amendment accommodations." Thus, any statute or regulation that has the effect of limiting fair use treads on constitutionally suspect ground.

The American tradition, innovation and common sense argue against heavy-handed regulation of the Internet

For years, the Commission, the White House, Congress, and even the Supreme Court have noted that information technology and the Internet are simply too young – and fast moving – to be tied down by strict government regulation. Time and time again, federal officials have rejected the idea that the Internet can be closely regulated. Yet, this is precisely the direction in which some would have the FCC and Congress head.

CCIA, therefore, has urged the FCC to act with caution during their proceeding on the broadcast flag, and would urge the Subcommittee and Congress to proceed in a similar fashion. The mere existence or even approval of the multi-bit signal known as the broadcast flag is not at issue before the FCC or Congress. Rather, the Commission is being asked to decide what, if anything, devices must do when confronted with such a flag.

If the FCC or Congress decides to act on the proposal, we believe it should limit its action to recognizing the ATSC flag as a national standard for signaling a work's status under copyright law, but no more. Were the policymakers to follow the wishes of the content community's most extreme proponents and require certain technologies to respond to this flag in a certain way, it would severely skew a nascent marketplace. Such a broadcast flag standard would freeze innovation, and grant control of a vital standard to a handful of companies in the content industry. Such an action would be anticonsumer, antibusiness, anticompetitive and fundamentally at odds with the policy objectives set forth by Congress in promoting the advancement of HDTV.

We believe the FCC and Congress should uphold the most basic tenets of the Constitution, and trust the market to produce solutions at least as good as those that a handful of motion picture studios would seek to impose upon the rest of society.

The Broadcast Flag violates the balance that Congress has struck

The Broadcast Flag is merely the beginning of Hollywood's efforts to unravel the careful balance achieved by Congress just four years ago in the DMCA. This legislation was the highest priority of the content industry during the 105th Congress, and Hollywood executives and lobbyists exerted tremendous pressure to push the legislation through. CCIA and others in the technology and consumer electronics industry were reluctant to grant such broad new powers to copyright owners, but entered into good-faith negotiations to seek a workable balance of interests.

A key compromise reached during DMCA negotiations was §1201(c)(3) of the Act, the "no mandate" provision, which specifies that equipment manufacturers are not required to design new digital telecommunications equipment, consumer electronics and computing products to respond to any particular copy protection technology. Implementation of the BPDG co-chairs' proposal would renege on this critical agreement, and fundamentally alter the balance Congress sought in the DMCA. The

BPDG co-chairs' report would require a broad mandate upon demodulators, modulators, and, through the mandatory license agreements of the "approved technologies" all electronic devices, computer hardware, components and software used to process, record and view high-definition television content. Any such mandate should be based on a genuine, broad consensus achieved following a careful examination of all of the practical consequences and public policy repercussions. The current proposal fails to satisfy any of these requirements.

Government action must be fair and equitable

Over the years, various interest groups have attempted to control the Internet. From those who would seek to ban from the network anything someone could call "indecent," to overreaching law enforcement agencies that have tried to limit online privacy and anonymity, more than a few groups have determined that their parochial interests outweighed the interests of society as a whole.

The Supreme Court cited just such interests in its groundbreaking ruling in *Reno vs. ACLU*. Confronting a section of the Telecommunications Act of 1996 that attempted to ban all public display of indecency from the Internet, the Court ruled swiftly and surely. Congress, the Court found, could not convert the entirety of the World Wide Web into something suitable for children. The First Amendment, the Court found, forbade such restrictions on the rights of the rest of society.

The threat to free speech is not as sweeping in this instance, but nonetheless, questions of balance are vital. As we note above, the Robustness and Compliance Requirements of the Co-Chairs proposal have failed to protect Fair Use and invite only more interference with it via futile attempts to "fix" the so-called analog hole and constraints on peer-to-peer technologies.

Historical Experience of Copy Controls

The music industry's experience is largely irrelevant to HDTV

Proponents of the Co-Chairs' report assert that DTV will soon be "Napsterized," or plagued with the same problems of widespread copying now faced by record companies.

While it is simple to find some parallels between MP3 files and HDTV broadcasts, the analogy breaks down under examination. The basic properties of MP3s vs. those of High-Definition television govern basic laws of the marketplace and consumer behavior.

MP3 files, like the music one buys on a Compact Disc at a record store, are digital. But those same files occupy a tiny proportion of the space needed by conventional CD recordings. Even the highest-quality (and thus least compact) MP3 files average a mere four megabytes per three-minute song, or roughly 60 megabytes per 15-song album. A conventional audio CD, by contrast, consumes roughly 10 times as much space, or 600 megabytes per album. The difference between the two capacities is fundamental and grounded in a basic reality: the vast majority of consumers have neither time, opportunity, hard-disk space nor bandwidth to download music – legally or not – when a full album would take up nearly a half a gigabyte. Thus, they must use MP3 file formats to compress the data into a manageable size.

But as with all compression, this ease of use comes at a price. MP3 sound quality is significantly lower than that of full-fidelity CDs. Thus, we believe it is misleading to

assert that digital technology offers “perfect” reproduction of audio and video works. Rather, digital technology offers perfect reproduction only of the version of the recording that is placed on the network in the first place.

The 10-to-1 compression of MP3 is impressive, but ultimately results in significant loss of sound quality readily apparent to anyone with a stereo of even middling quality. For this reason, MP3 players now available on the market are overwhelmingly aimed at portable devices and not at the home stereo market; the sound quality is simply too low for more serious uses. The low quality of MP3 recordings puts into jeopardy the proposition that widespread file sharing poses an immediate threat to all recordings sold at retail. Likewise, the laborious chore of downloading files from peer-to-peer networks (connections often fail), checking their quality (“pirate” MP3s are often badly compressed, or compressed far beyond the limits of good sound quality), assembling those files and then burning them to disk (the process can take an hour or more) puts a real limit on the number of people who would rather undertake this onerous task than buy the recording.

We know that the record industry asserts that illegal copying of their wares accounts for their falling sales. Others suggest that there are other possible causes, including the current economic slowdown, the industry's release of far fewer titles and their elimination of singles, the end of cassette production, broadcast media consolidation, and less grooming of new talent. A full examination of the recording industry's woes is beyond the scope of this hearing. Nonetheless, the supposed causes of the record studios' financial slump – MP3 reproduction – is only partially relevant in the face of staggering bandwidth requirements of digital television. Thus, we question in the first place the aptness of comparing the real problems of the slumping record industry to the supposed difficulties of movie studios that are recently concluded their largest and most profitable sales year in history.

The Broadcast Flag proposal ignores our industry's 25-year history of combating illegal copying.

Finally – and perhaps most importantly – we would like to refer to the *decades* of experience our industry has had with illegal duplication of software. We learned long ago that we can create some impediments to unauthorized copying. But we also learned that modern DRM technology is mostly successful in keeping honest people honest. We also have learned that the more we restrict how our customers can use our products, the more likely they are to be annoyed. Indeed, our earlier attempts at copy control chiefly taught hackers how to crack inherently insecure systems. The result was an “arms race” of software developer vs. hacker.

That arms race at first did little more than deny users the ability to make back-up copies or perform other innocuous tasks. Later, it taught good hackers how to be better ones. With time, there arose a particularly corrosive attitude among consumers. Some users began to think that stealing software was somehow permissible, since – in their mind – producers treated customers poorly and interfered with their expected use of the products. It is small wonder, then, that the vast majority of software makers dropped the fight.

Today, software developers and their representatives routinely pursue, litigate against and assist in the prosecution of commercial infringers. Although illegal copying imposes

costs on all software users, swift legal action puts a damper on such activity. At the same time, we know that illegal copying is largely a crime of opportunity. When given the chance to buy software at reasonable prices through convenient online kiosks or stores, consumers will generally purchase software products through legal, authorized distribution channels. The software business, like all businesses, eventually comes down to trusting the vast majority of customers.

The co-chairs and those who agree with them – Hollywood, in particular – have chosen not to trust consumers. They now threaten not to make their goods generally available without onerous copy protection measures. The record companies, in particular, have refused to make their goods available online at prices that reflect the vastly lower costs of online distribution, or in places consumers find convenient. They have also refused to “unbundle” their content to allow consumers to purchase a single song at a proportionate price rather than an entire album. Consumers are now also faced with purchasing music and visual media embedded with draconian DRM technology that, threatens to become obsolete, and restrict their rights and expectations with regards to time- and space-shifting. As a result, many otherwise honest consumers have gravitated towards the flexible reproduction and distribution offered by online file-sharing networks.

Now, alarmed by the record industry’s own, predictable failure to stop unauthorized copying, Hollywood comes to the FCC and Congress for the blessing of still another ill-conceived copy-control scheme. The studios believe that, all evidence to the contrary, the broadcast flag will stop copyright infringement from occurring this time around. The Commission and Congress should reject this argument as a basis for implementation of the Broadcast Flag proposal, notwithstanding the many adverse consequences that would clearly result from the plan.

Shortcomings of the Broadcast Flag Proposal as a Technology Standard

Compounding this tension is another problem: The BPDG, despite its long efforts, produced no actual technology standard for the implementation of the broadcast flag. The prospect of adapting technologies approved by the MPAA and a handful of others to devices outside the local-area-network topology, for instance, remains only a dream. The FCC, therefore, is being told it must treat a mere wish list as though it were technological fact.

The Fair Use that was so crucial in *Sega* and other forms of lawful use of copyrighted works cannot be regulated by a mathematical algorithm or technological device. Fair Use is that use which is not authorized by the creator but it nonetheless legal as determined by the courts. These determinations are inherently subjective, and often controversial, and must normally be resolved on a case-by-case basis. Any solution that does not allow for consumers’ continued enjoyment of the full range of uses permitted under existing precedent – as well as those uses that come to fall under the protection of copyright law – will diminish the rights of copyright users and upset the careful balance that has existed for hundreds of years.

This matter is obviously important for consumers, and their need to access *legally* the body of other works for personal use is clear. Ph.D. candidates who need to use copyrighted HDTV footage for a thesis on popular culture, proud parents who want to e-mail digital video of their child’s soccer game, or corporate executives who want to

watch video stored on an office computer while traveling, consumers, governments, and businesses alike need access to these works for their personal, non-commercial use. None of these things would be possible under the Co-Chairs proposal. And while proponents will argue that none of these things is expressly forbidden, the reality is we see no viable technology that can both allow these actions and comply with the proposal.

Fair Use is not just a right enjoyed by consumers. Neither is it limited to rival software developers who want to produce game cartridges for other companies' players. Fair Use is intended to benefit the entirety of society. Fair Use, far from being a plaything of the ivory tower, is a concept that has run through our entire system of copyright since the time that it was established by the Founders. The more we limit fair use, the less likely we will enjoy the benefits of the creativity and innovation that are now possible under our intellectual property system. The more we dictate standards, the less room we have for broad accommodation and market-based solutions. Indeed, the broadcast flag proposal seems destined to create a cartel of content and technology producers that will decide who may prosper and who will not.

CONCLUSION

As representatives of some of America's largest producers of copyrighted material, we know first hand the importance of protecting what one owns. But our experience and knowledge of the law tell us that there are limits to the control we may expect over copyrighted materials. As a matter of technology and law, the Broadcast Flag proposal is fatally flawed.

The digitization of increasing amounts of our cultural heritage follows precisely the revolution through which the rest of society has passed. We as a society have responded to that change by creating new ways of doing business, of governing and living, of buying and selling copyrighted materials.

Not all are happy with this change. Like so many established powers, they now want to enlist the government in fighting a rear-guard action against the future. We urge the Members of the Subcommittee to reject this call to arms.