Electronic Frontier Foundation

# Unintended Consequences:

## Three Years under the DMCA

### 1. Executive Summary

Since they were enacted in 1998, the "anti-circumvention" provisions of the Digital Millennium Copyright Act ("DMCA"), codified in section 1201 of the Copyright Act, have not been used as Congress envisioned. Congress meant to stop copyright pirates from defeating anti-piracy protections added to copyrighted works, and to ban "black box" devices intended for that purpose.[1]

In practice, the anti-circumvention provisions have been used to stifle a wide array of legitimate activities, rather than to stop copyright piracy. As a result, the DMCA has developed into a serious threat to three important public policy priorities:

> **Section 1201 Chills Free Expression and Scientific Research**.
>
> Experience with section 1201 demonstrates that it is being used to stifle free speech and scientific research. The lawsuit against *2600* magazine, threats against Princeton Professor Edward Felten's team of researchers, and prosecution of Russian programmer Dmitry Sklyarov have chilled the legitimate activities of journalists, publishers, scientists, students, programmers, and members of the public.
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> **Section 1201 Jeopardizes Fair Use**.
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> By banning all acts of circumvention, and all technologies and tools that can be used for circumvention, section 1201 grants to copyright owners the power to unilaterally eliminate the public's fair use rights. Already, the music industry has begun deploying "copy-protected CDs" that promise to curtail consumers' ability to make legitimate, personal copies of music they have purchased.
>
> **Section 1201 Impedes Competition and Innovation**.
>
> Rather than focusing on pirates, many copyright owners have chosen to use the DMCA to hinder their legitimate competitors. For example, Sony has invoked section 1201 to protect their monopoly on Playstation video game consoles, as well as their "regionalization" system limiting users in one country from playing games legitimately purchased in another.

This document collects a number of reported cases where the anti-circumvention provisions of the DMCA have been invoked not against pirates, but against consumers, scientists, and legitimate competitors. It will be updated from time to time as additional cases come to light. The latest version can always be obtained at www.eff.org.

### 2. DMCA Legislative Background

Congress enacted section 1201 in response to two pressures. First, Congress was responding to the perceived need to implement obligations imposed on the U.S. by the 1996 World Intellectual Property Organization (WIPO) Copyright Treaty. Section 1201, however, went further than the WIPO treaty required.[2] The details of section 1201, then, were a response not just to U.S. treaty obligations, but also to the concerns of copyright owners that their works would be widely pirated in the networked digital world.[3]

Section 1201 contains two distinct prohibitions: a ban on *acts* of circumvention, as well as a ban on the *distribution of tools and technologies* used for circumvention.

The first prohibition, set out in section 1201(a)(1), prohibits the *act* of circumventing a technological measure used by copyright owners to control access to their works ("access controls"). So, for example, this provision makes it unlawful to defeat the encryption system used on DVD movies. This ban on acts of circumvention applies even where the purpose for decrypting the movie would otherwise be legitimate. As a result, if a Disney DVD prevents you from fast-forwarding through the commercials that preface the feature presentation, efforts to circumvent this restriction would be unlawful.

Second, sections 1201(a)(2) and 1201(b) outlaw the manufacture, sale, distribution or trafficking of *tools and technologies* that make circumvention possible. These provisions ban not only technologies that defeat *access* controls, but also technologies that defeat use restrictions imposed by copyright owners, such as *copy*

*controls*. These provisions prevent technology vendors from taking steps to defeat the "copy-protection" now appearing on many music CDs, for example.

Section 1201 also includes a number of exceptions for certain limited classes of activities, including security testing, reverse engineering of software, encryption research, and law enforcement. These exceptions have been extensively criticized as being too narrow to be of real use to the constituencies who they were intended to assist.[4]

A violation of any of the "act" or "tools" prohibitions is subject to significant civil and, in some circumstances, criminal penalties.

## 3. Free Expression and Scientific Research

Section 1201 is being used by a number of copyright owners to stifle free speech and legitimate scientific research. The lawsuit against *2600* magazine, threats against Princeton Professor Edward Felten's team of researchers, and prosecution of the Russian programmer Dmitry Sklyarov have imposed a chill on a variety of legitimate activities.

For example, online service providers and bulletin board operators have begun to censor discussions of copy-protection systems, programmers have removed computer security programs from their websites, and students, scientists and security experts have stopped publishing details of their research on existing security protocols. Foreign scientists are also increasingly uneasy about traveling to the United States out of fear of possible DMCA liability, and certain technical conferences have begun to relocate overseas.

These developments will ultimately result in weakened security for all computer users (including, ironically, for copyright owners counting on technical measures to protect their works), as security researchers shy away from research that might run afoul of section 1201.[5]

### *Professor Felten's Research Team Threatened*

In September 2000, a multi-industry group known as the Secure Digital Music Initiative (SDMI) issued a public challenge encouraging skilled technologists to try to defeat certain watermarking technologies intended to protect digital music. Princeton Professor Edward Felten and a team of researchers at Princeton, Rice, and Xerox took up the challenge and succeeded in removing the watermarks.

When the team tried to present their results at an academic conference, however, SDMI representatives threatened the researchers with liability under the DMCA. The threat letter was also delivered to the researchers' employers, as well as the conference organizers. After extensive discussions with counsel, the researchers grudgingly withdrew their paper from the conference. The threat was ultimately withdrawn and a portion of the research published at a subsequent conference, but only after the researchers filed a lawsuit in federal court.

After enduring this experience, at least one of the researchers involved has decided to forgo further research efforts in this field.

> Pamela Samuelson, "Anticircumvention Rules: Threat to Science," 293 SCIENCE 2028, Sept. 14, 2001. http://www.sciencemag.org/cgi/reprint/293/5537/2028
>
> Letter from Matthew Oppenheim, SDMI General Counsel, to Prof. Edward Felten, April 9, 2001. http://cryptome.org/sdmi-attack.htm

### *Dmitry Sklyarov Arrested*

Beginning in July 2001, Russian programmer Dmitry Sklyarov was jailed for several weeks and detained for five months in the United States after speaking at the DEFCON conference in Las Vegas.

Prosecutors, prompted by software goliath Adobe Systems Inc., alleged that Sklyarov had worked on a software program known as the Advanced e-Book Processor, which was distributed over the Internet by his Russian employer, ElcomSoft Co. Ltd. The software allowed owners of Adobe electronic books ("e-books") to convert them from Adobe's e-Book format into Adobe Portable Document Format ("pdf") files, thereby removing restrictions embedded into the files by e-Book publishers.

Sklyarov was never accused of infringing any copyrighted e-Book, nor of assisting anyone else to infringe copyrights. His alleged crime was working on a software tool with many legitimate uses, simply because third parties he has never met might use the tool to copy an e-Book without the publisher's permission.

In December 2001, under an agreement with the Department of Justice, Sklyarov was allowed to return home. The Department of Justice, however, is continuing to prosecute his employer, ElcomSoft, under the criminal provisions of the DMCA.

> Lawrence Lessig, "Jail Time in the Digital Age," N.Y. TIMES at A7, July 30, 2001. http://www.nytimes.com/2001/07/30/opinion/30LESS.html
>
> Jennifer 8 Lee, "U.S. Arrests Russian Cryptographer as Copyright Violator," N.Y. TIMES at C8, July 18, 2001.

### *Scientists and Programmers Withhold Research*

Following the legal threat against Professor Felten's research team and the arrest of Dmitry Sklyarov, a number of prominent computer security experts have curtailed their legitimate research activities out of fear of potential DMCA liability.

For example, prominent Dutch cryptographer and security systems analyst Neils Ferguson discovered a major security flaw in an Intel video encryption system known as High Bandwidth Digital Content Protection (HDCP). He declined to publish his results and removed all references on his website relating to flaws in HDCP, on the grounds that he travels frequently to the U.S. and is fearful of "prosecution and/or liability under the U.S. DMCA law."

> Neils Ferguson, "Censorship in Action: Why I Don't Publish My HDCP Results," Aug. 15, 2001. http://www.macfergus.com/niels/dmca/cia.html

> Neils Ferguson, Declaration in Felten & Ors v R.I.A.A. case, Aug. 13, 2001. http://www.eff.org/IP/DMCA/Felten_v_RIAA/20010813_ferguson_decl.html

> Lisa M. Bowman, "Researchers Weigh Publication, Prosecution," CNET NEWS, Aug. 15, 2001. http://news.cnet.com/news/0-1005-200-6886574.html

Following the arrest of Dmitry Sklyarov, Fred Cohen, a professor of digital forensics and respected security consultant, removed his "Forensix" evidence-gathering software from his website, citing fear of potential DMCA liability.

Another respected network security protection expert, Dug Song, also removed content from his website for the same reason. Mr. Song is the author of several security papers, including a paper describing a common vulnerability in many firewalls.

> Robert Lemos, "Security Workers: Copyright Law Stifles," CNET NEWS, Sept. 6, 2001. http://news.com.com/2100-1001-272716.html

In mid-2001 an anonymous programmer discovered a vulnerability in Microsoft's proprietary e-Book digital rights management code, but refused to publish the results, citing DMCA liability concerns.

> Wade Roush, "Breaking Microsoft's e-Book Code," TECHNOLOGY REVIEW at 24, November 2001. http://www.technologyreview.com/articles/innovation11101.asp

### *Foreign Scientists Avoid U.S.*

Foreign scientists have expressed concerns about traveling to the U.S. following the arrest of Russian programmer Dmitry Sklyarov. Some foreign scientists have advocated boycotting conferences held in the U.S. and a number of conference bodies have decided to move their conferences to non-U.S. locations. Russia has issued a travel warning to Russian programmers traveling to the U.S.

Highly respected British Linux programmer Alan Cox resigned from the USENIX committee of the Advanced Computing Systems Association, the committee that organizes many of the U.S. computing conferences, because of his concerns about traveling to the U.S. Cox has urged USENIX to hold its annual conference offshore. The International Information Hiding Workshop Conference, the conference at which Professor Felten's team intended to present its original paper, has chosen to hold all of its future conferences outside of the U.S. following the SDMI threat to Professor Felten and his team.

> Will Knight, "Computer Scientists boycott US over digital copyright law," NEW SCIENTIST, July 23, 2001. http://www.newscientist.com/news/news.jsp?id=ns00001063

> Alan Cox of Red Hat UK Ltd, declaration in Felten v. RIAA, Aug. 13, 2001. http://www.eff.org/IP/DMCA/Felten_v_RIAA/20010813_cox_decl.html

> Jennifer 8 Lee, "Travel Advisory for Russian Programmers," N.Y. TIMES at C4, Sept.10, 2001. http://www.nytimes.com/2001/09/10/technology/10WARN.html?searchpv=past7days

### *IEEE Wrestles with DMCA*

The Institute of Electrical and Electronics Engineers (IEEE), which publishes 30 per cent of all computer science journals worldwide, recently was drawn into the controversy surrounding science and the DMCA. Apparently concerned about possible liability under Section 1201, the IEEE in November 2001 instituted a policy requiring all authors to indemnify IEEE for any liabilities incurred should a submission result in legal action under the DCMA.

After an outcry from IEEE members, the organization ultimately revised its submission policies, removing mention of the DMCA. According to Bill Hagen, manager of IEEE Intellectual Property Rights, "The Digital Millennium Copyright Act has become a very sensitive subject among our authors. It's intended to protect digital content, but its application in some

specific cases appears to have alienated large segments of the research community."

> IEEE press release, "IEEE to Revise New Copyright Form to Address Author Concerns," April 22, 2002. http://www.ieee.org/newsinfo/dmca.html
>
> Will Knight, "Controversial Copyright Clause Abandoned," NEW SCIENTIST, April 15, 2002. http://www.newscientist.com/news/news.jsp?id=ns99992169

### 2600 *Magazine Censored*

The *Universal City Studios* v. *Reimerdes* case[6] illustrates the chilling effect that section 1201 has had on the freedom of the press.

In that case, eight major motion picture companies brought a DMCA suit against *2600* magazine seeking to block it from publishing the DeCSS software program, which defeats the encryption used on DVD movies. *2600* had made the program available on its web site in the course of ongoing coverage of the controversy surrounding the DMCA. The magazine was not involved in the development of software, nor was it accused of having used the software for any copyright infringement.

Notwithstanding the First Amendment's guarantee of a free press, the district court permanently barred *2600* from publishing, or even linking to, the DeCSS software code. In November 2001, the Second Circuit Court of Appeals upheld the lower court decision.

In essence, the movie studios effectively obtained a "stop the presses" order banning the publication of truthful information by a news publication concerning a matter of public concern—an unprecedented curtailment of well-established First Amendment principles.

> Carl S. Kaplan, "Questioning Continues in Copyright Suit," N.Y. TIMES, May 4, 2001. http://www.nytimes.com/2001/05/04/technology/04CYBERLAW.html
>
> Simson Garfinkel, "The Net Effect: The DVD Rebellion," TECHNOLOGY REVIEW at 25, July/Aug. 2001. http://www.technologyreview.com/articles/garfinkel0701.asp
>
> Xenia P. Kobylarz, "DVD Case Clash—Free Speech Advocates Say Copyright Owners Want to Lock Up Ideas; Encryption Code is Key," S.F. DAILY JOURNAL, May 1, 2001.

### *Microsoft Threatens Slashdot*

In spring 2000, Microsoft invoked the DMCA against the Internet publication forum Slashdot, demanding that forum moderators delete materials relating to Microsoft's proprietary implementation of an open security standard known as Kerberos.

In the Slashdot forum, several individuals alleged that Microsoft had changed the open, non-proprietary Kerberos specification in order to prevent non-Microsoft servers from interacting with Windows 2000. Many speculated that this move was intended to force users to purchase Microsoft server software. Although Microsoft responded to this criticism by publishing its Kerberos specification, it conditioned access to the specification on agreement to a "click-wrap" license agreement that expressly forbade disclosure of the specification without Microsoft's prior consent.

Slashdot posters responded by republishing the Microsoft specification. Microsoft then invoked the DMCA, demanding that Slashdot remove the republished specifications.

In the words of Georgetown law professor Julie Cohen, "If Microsoft's interpretation of the DMCA's ban on circumvention technologies is right, then it doesn't seem to matter much whether posting unauthorized copies of the Microsoft Kerberos specification would be a fair use. A publisher can prohibit fair-use commentary simply by implementing access and disclosure restrictions that bind the entire public. Anyone who discloses the information, or even tells others how to get it, is a felon."

> Julie Cohen, "Call it the Digital Millennium *Censorship* Act – Unfair Use," THE NEW REPUBLIC, May 23, 2000. http://www.thenewrepublic.com/cyberspace/cohen052300.html

### *AVSforum.com Censors TiVo Discussion*

The specter of DMCA litigation has chilled speech on smaller web bulletin boards, as well. In June 2001, for example, the administrator of AVSforum.com, a popular forum where TiVo digital video recorder owners discuss TiVo features, censored all discussion about a software program that allegedly permitted TiVo users to move video from their TiVos to their personal computers. In the words of the forum administrator, "My fear with this is more or less I have no clue what is a protected system on the TiVo box under copyright (or what-have-you) and what is not. Thus my fear for the site."

> Lisa M. Bowman, "TiVo Forum Hushes Hacking Discussion," CNET NEWS, June 11, 2001.

http://news.cnet.com/news/0-1005-200-6249739.html

## 4. Fair Use Under Siege

"Fair use" is a crucial element in American copyright law—the principle that the public is entitled, without having to ask permission, to use copyrighted works so long as these uses do not unduly interfere with the copyright owner's market for a work. Fair uses include personal, noncommercial uses, such as using a VCR to record a television program for later viewing. Fair use also includes activities undertaken for purposes such as criticism, comment, news reporting, teaching, scholarship or research.

While stopping copyright infringement is an important policy objective, Section 1201 throws out the baby of fair use with the bathwater of digital piracy. By employing technical protection measures to control access to and use of copyrighted works, and using section 1201 litigation against anyone who tampers with those measures, copyright owners can unilaterally eliminate fair use, re-writing the copyright bargain developed by Congress and the courts over more than a century.

### *Copy-protected CDs*

The introduction of "copy-protected" CDs into the marketplace illustrates the collision between fair use and the DMCA. Record labels are aggressively incorporating "copy-protection" on new music releases. Over 10 million copy-protected discs are already in circulation, according to Midbar Technology Ltd, one of the vendors of copy-protection technology. Sony claims that it has released over 11 million copy-protected discs worldwide. Universal Music Group has stated that all of its music CDs will incorporate copy-protection by mid-2002.

Whatever the impact that these copy protection technologies may have on online infringement, they are certain to interfere with the fair use expectations of consumers. For example, copy-protected discs will disappoint the hundreds of thousands of consumers who have purchased MP3 players, despite the fact that making an MP3 copy of a CD for personal use is a fair use. Making "mix CDs" or copies of CDs for the office or car are other examples of fair uses that are potentially impaired by copy-protection technologies.

Companies that distribute tools to "repair" these dysfunctional CDs, restoring to consumers their fair use privileges, run the risk of lawsuits under section 1201's ban on circumvention tools and technologies.

Rep. Rick Boucher, "Time to Rewrite the DMCA," CNET NEWS, Jan. 29, 2002.

http://news.com.com/2010-1078-825335.html

Dan Gillmor, "Entertainment Industry's Copyright Fight Puts Consumers in Cross Hairs," SAN JOSE MERCURY NEWS, Feb. 12, 2002.
http://www.siliconvalley.com/mld/siliconvalley/2658555.htm

Gwendolyn Mariano, "Copy-Protected CDs Slide Into Stores," CNET NEWS, Feb. 12, 2002.
http://news.com.com/2100-1023-835841.html

Jon Iverson, "Every New CD to be Restricted?," STEREOPHILE, Oct. 1, 2001.
http://www.stereophile.com/shownews.cgi?1153

Jon Iverson, "A Universal CD Problem?," STEREOPHILE, Feb. 12, 2002.
http://www.stereophile.com/shownews.cgi?1261

### *Fair Use Tools Banned*

We are entering an era where books, music and movies will increasingly be "copy-protected" and otherwise restricted by technological means. Whether scholars, researchers, commentators and the public will continue to be able to make legitimate fair uses of these works will depend upon the availability of tools to bypass these digital locks.

The DMCA's anti-circumvention provisions, however, prohibit the creation or distribution of these tools, even if they are crucial to fair use. So, as copyright owners use technology to press into the 21st century, the public will see more and more fair uses whittled away by digital locks allegedly intended to "prevent piracy." Perhaps more importantly, no future fair uses will be developed—after all, before the VCR, who could have imagined that fair use "time-shifting" of television would become common-place for the average consumer?

Copyright owners argue that these tools, in the hands of copyright infringers, can result in "Internet piracy." But the traditional answer for piracy under copyright law has been to seek out and prosecute the infringers, not to ban the tools that enable fair use. After all, photocopiers, VCRs, and CD-R burners can also be misused, but no one would suggest that the public give them up simply because they might be used by others to break the law.

### *DeCSS and DVD Copy Plus*

Fair use tools have already been yanked off the market. In the *Universal v. Reimerdes* case, discussed above, the court held that section 1201 bans DeCSS software. This software decrypts DVD movies, making it possible to copy them to a PC. In another case, a company has filed a declaratory judgment action in San Francisco after being threatened with DMCA liability by the MPAA for distributing DVD Copy Plus, which enables DVD owners to make copies of DVD content.

There are lots of legitimate reasons to copy DVDs. Once the video is on the PC, for example, lots of fair uses become possible—film scholars can digitally analyze the film, travelers can load the movie into their laptops, and parents can fast-forward through the commercials that open Disney films. Without the tools necessary to copy DVDs, however, these fair uses become impossible.

> Matthew Mirapaul, "They'll Always Have Paris (and the Web)," N.Y. TIMES at E2, March 16, 2002.
>
> Steven Bonisteel, "Firm Sues Movie Studios To Defend DVD-Copying Software," Newsbytes, April 23, 2002. http://www.newsbytes.com/news/02/176080.html

### *Advanced e-Book Processor and e-Books*

The future of fair use for books is at issue in the criminal prosecution of Dmitry Sklyarov and ElcomSoft. As discussed above, ElcomSoft produced and distributed a tool called the Advanced e-Book Processor, which translates e-books from Adobe's e-Book format to Adobe's Portable Document Format ("PDF"). This translation process removes the various restrictions (against copying, printing, text-to-speech processing, etc.) that publishers can impose on e-Books. The program is designed to work only with e-Books that have been lawfully purchased from sales outlets.

The Advanced e-Book Processor allows those who have legitimately purchased e-Books to make fair uses of their e-Books, which would otherwise not be possible with the current Adobe e-Book format. For instance, the program allows people to engage in the following activities, all of which are fair uses:

- read it on a laptop or computer other than the one on which the e-Book was first downloaded;
- continue to access a work in the future, if the particular technological device for which the e-Book was purchased becomes obsolete;
- print an e-Book on paper;
- read an e-Book on an alternative operating system such as Linux (Adobe's format works only on Macs and Windows PCs);
- have a computer read an e-Book out loud using text-to-speech software, which is particularly important for visually-impaired individuals.

> EFF, Frequently Asked Questions re U.S. v. Sklyarov. http://www.eff.org/IP/DMCA/US_v_Sklyarov/us_v_sklyarov_faq.html

### *Time-shifting and Streaming Media*

As more consumers receive audio and video content from "streaming" Internet media sources, they will demand tools to preserve their settled fair use expectations, including the ability to "time-shift" programming for later listening or viewing. As a result of the DMCA, however, the digital equivalents of VCRs and cassette decks for streaming media may never arrive.

Start-up software company Streambox developed exactly such a product, known simply as the Streambox VCR, designed to time-shift streaming media. When competitor RealNetworks discovered that Streambox had developed a competing streaming media player, it invoked the DMCA and obtained an injunction against the Streambox VCR product.

> *RealNetworks, Inc.* v. *Streambox, Inc.,* 2000 WL 127311 (W.D. Wash. Jan. 18, 2000).

The DMCA has also been invoked to threaten the developer of an open source, noncommercial software application known as Streamripper that records MP3 audio streams for later listening.

> Cease and desist letter from Kenneth Plevan on behalf of Live365.com to John Clegg, developer of Streamripper, April 26, 2001. http://streamripper.sourceforge.net/dc.php

### *embed and Fonts*

In January 2002, typeface vendor Agfa Monotype Corporation threatened a college student with DMCA liability for creating "embed," a free, open source, noncommercial software program designed to manipulate TrueType fonts.

According to the student: "I wrote embed in 1997, after discovering that all of my fonts disallowed embedding in documents. Since my fonts are free, this was silly—but I didn't want to take the time to… change the flag, and then reset all of the extended font

properties with a separate program. What a bore! Instead, I wrote this program to convert all of my fonts at once. The program is very simple; it just requires setting a few bits to zero. Indeed, I noticed that other fonts that were licensed for unlimited distribution also disallowed embedding…. So, I put this program on the web in hopes that it would help other font developers as well."

Attorneys for Agfa Monotype nevertheless have threatened the student author with DMCA liability for distributing the program. According to Agfa, the fact that embed can be used to allow distribution of protected fonts makes it contraband under Section 1201, notwithstanding the fact that the tool has many legitimate uses in the hands of hobbyist font developers.

> Tom Murphy, "embed: DMCA Threats." http://www.andrew.cmu.edu/~twm/embed/dmca.html

## 5. A threat to innovation and competition

The DMCA is being used to hinder the efforts of legitimate competitors to create interoperable products.

For example, Vivendi-Universal's Blizzard video game division invoked the DMCA in an effort to intimidate the developers of a software product derived from legitimate reverse engineering. Sony has used the DMCA to threaten hobbyists who created competing software for Sony's Aibo robot dog, as well as to sue makers of software that permits the playing of Playstation games on PCs. In each of these cases, the DMCA was used to deter a marketplace competitor, rather than to battle piracy.

### *Sony Sues Connectix and Bleem*

Since the DMCA's enactment in 1998, Sony has used DMCA litigation to pressure competitors who created software that would allow PC owners to play games intended for the Sony Playstation video game console. In 1999, Sony sued Connectix Corporation, the manufacturer of the Virtual Game Station, an emulator program which allowed Sony Playstation games to be played on Apple Macintosh computers. Sony also sued Bleem, the leading vendor of Playstation emulator software for Windows PCs.

In both cases, the Sony competitors had created their products by engaging in legitimate reverse engineering, which has been recognized as noninfringing fair use in a series of Ninth Circuit cases. Connectix, in fact, ultimately won a Ninth Circuit ruling that its reverse engineering was indeed fair use.[7] Both Connectix and Bleem, however, were unable to bear the high costs of litigation against Sony and ultimately were forced to pull their products off the market. Whatever the merits of Sony's position may have been under copyright, trademark, patent, or other legal theories, the competitive efforts of Connectix and Bleem certainly were at a far remove from the "black box" piracy devices that Congress meant to target with section 1201.

> Pamela Samuelson, "Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to be Revised," 14 BERKELEY TECHNOLOGY L.J. 519, 556 (1999) (discussing the Connectix case). http://www.sims.berkeley.edu/~pam/papers.html

> Testimony of Jonathan Hangartner on behalf of Bleem, Library of Congress, Hearing on DMCA, Stanford University, May 19, 2000, pp. 221-28. http://www.loc.gov/copyright/1201/hearings/1201-519.pdf

### *Sony Threatens Aibo Hobbyist*

Sony has also invoked the DMCA against a hobbyist who developed custom programs for Sony's Aibo robotic "pet" dog. The hobbyist cracked the encryption surrounding the source code that manipulates the Aibo to reverse engineer programs that allow owners to customize voice recognition by their Aibos. The hobbyist revealed neither the decrypted source code nor the code he used to defeat the encryption, freely distributed his custom programs, and made no profit. Nevertheless, Sony claimed that the act of circumventing the encryption surrounding the source code violated the DMCA and demanded that the hobbyist remove his programs from his website.

Responding to public outcry, Sony ultimately permitted the hobbyist to repost some of his programs (on the understanding that Sony will have the rights of commercial development in the programs). The incident, however, illustrated Sony's willingness to invoke the DMCA in situations with no relationship to "piracy."

> David Labrador, "Teaching Robot Dogs New Tricks," SCIENTIFIC AMERICAN, Feb. 12, 2002. http://www.sciam.com/explorations/2002/012102aibo/

### *Blizzard Pursues bnetd.org*

Section 1201 has been brandished by Vivendi-Universal's Blizzard Entertainment video game division in an attempt to intimidate a group of volunteer game enthusiasts who created open source server software called "bnetd" that provides Internet gaming

enthusiasts with an alternative to the servers operated by Blizzard.

The bnetd software permits owners of Blizzard games to play multiplayer games against each other over the Internet. Blizzard runs its own servers, known as "Battle.net," which it makes available free of charge to allow its games to be played across the Internet. The group of volunteer programmers decided to create bnetd to overcome difficulties that they had experienced in attempting to use Battle.net. The bnetd software is freely distributed, open source, and non-commercial.

In February 2002, Blizzard invoked the DMCA in an effort to have bnetd pulled off the Internet. Blizzard sent a "cease and desist" letter to the ISP that hosts the bnetd website, claiming that the bnetd software violated section 1201.

Blizzard contends that the bnetd software has been used by some to permit networked play of pirated Blizzard games. Whether or not that contention is true, the developers are not using the software for that purpose, nor was the software designed for such a purpose. The software has numerous legitimate uses for owners of Blizzard games. As a result, whatever else may be said about the bnetd software, it is plainly not a "black box" piracy device.

Ultimately, Blizzard filed suit in St. Louis to bar distribution of bnetd. Tellingly, however, Blizzard chose not to press a DMCA claim in the lawsuit, opting instead for traditional copyright and trademark claims. (EFF is representing the bnetd developers.) Blizzard's willingness to use the DMCA in pre-litigation threats, however, demonstrates its chilling potential in the hands of copyright owners intent on hindering competitors, rather than stopping piracy.

David Becker, "Group Backs ISP in Online Gaming Dispute", CNET NEWS, March 12, 2002. http://news.com.com/2100-1040-858414.html

Legal correspondence on bnetd website. http://www.bnetd.org/case_letters.php

### *Sony's Attack on Playstation "Mod Chips"*

Apart from using the DMCA against vendors of personal computer emulators of Sony's Playstation, Sony has sued a number of manufacturers of so-called "mod chips" for alleged circumvention under the DMCA. In doing so, Sony has been able to enforce a system of geographical regional restrictions that raises significant anticompetitive issues.

So-called "mod chips" are after-market accessories that modify Playstation consoles to permit games legitimately purchased in one part of the world to be played on a games console from another geographical region. Sony has sued mod chip manufacturers in the U.S., the U.K., and Australia. In the U.S., Sony sued Gamemasters, Inc., distributor of the Game Enhancer peripheral device, which allowed U.S. Playtstation users to play games purchased in Japan and other countries. Although there was no infringement of Sony's copyright, the court granted an injunction under the DMCA's anti-circumvention provisions, effectively banning the use of a technology that would permit users to use legitimately-purchased non-infringing games from other regions.

Recognizing the anti-competitive potential of the region playback control system, the Australian anti-trust authority, the Australian Competition and Consumer Commission (ACCC), has intervened in a lawsuit that Sony is pursuing against an Australian mod chip manufacturer under the Australian equivalent of the DMCA's anti-circumvention provisions. The ACCC argues that Australian consumers should be permitted to use personally imported games discs not otherwise available in Australia, or available only at a significantly higher price.

Sony has argued that mod chips can also be used to enable the use of unauthorized copies of Playstation games. But most Playstation mod chips are not "black box" devices suitable only for piracy. The potential illegitimate uses must be weighed against legitimate uses, such as defeating Sony's region coding system to play games purchased in other countries.

"Sony Playstation ruling sets far-reaching precedent," NEW SCIENTIST, Feb. 22, 2002 (http://www.newscientist.com/news/news.jsp?id=ns99991933).

*Sony Computer Entertainment America Inc.* v. *Gamemasters*, 87 F.Supp.2d 976 (N.D. Cal. 1999).

Australian Competition and Consumer Commission Press Release, "ACCC Defends the Rights of Playstation Owners," Feb. 8, 2002. (http://203.6.251.7/accc.internet/digest/view_media.cfm?RecordID=595).

## 6. Conclusion

Three years of experience with the "anti-circumvention" provisions of the DMCA demonstrate that the statute reaches too far, chilling a wide variety of legitimate activities in ways Congress did not intend. As an increasing number of copyright works are wrapped in technological protection measures, it is likely that the DMCA's anti-circumvention provisions will be applied in further unforeseen contexts,

hindering the legitimate activities of innovators, researchers, the press, and the public at large.

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[1] For examples of Congress' stated purpose in enacting the DMCA's anti-circumvention provisions, *see* 144 Cong. Rec. H7093, H7094-5 (Aug. 4, 1998); Senate Judiciary Comm., S. Rep. 105-190 (1998) at 29; Judiciary Comm., H. Rep. 105-551 Pt 1 (1998) at 18; House Commerce Comm., H. Rep. 105-551 Pt 2 (1998) at 38.

[2] *See WIPO Copyright Treaties Implementation Act and Online Copyright Liability Limitation Act: Hearing on H.R. 2281 and H.R. 2280 before the House Subcomm. on Courts and Intellectual Prop.*, 105th Cong., 1st sess. (Sept. 16, 1997) at 62 (testimony of Asst. Sec. of Commerce and Commissioner of Patents and Trademarks Bruce A. Lehman admitting that section 1201 went beyond the requirements of the WIPO Copyright Treaty).

[3] For a full description of the events leading up to the enactment of the DMCA, *see* Jessica Litman, DIGITAL COPYRIGHT 89-150 (2000).

[4] *See* Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to be Revised*, 14 BERKELEY TECHNOLOGY L.J. 519, 537-57 (1999) (http://www.sims.berkeley.edu/~pam/papers.html)

[5] *See* Professor Ross Anderson, Cambridge University, Declaration in *Felten v. RIAA* (Oct. 22, 2001), describing ways in which the DCMA is suppressing research into security weaknesses in SDMI watermarking technology: (http://www.eff.org/IP/DMCA/Felten_v_RIAA/20011022_anderson_decl.pdf).

[6] 111 F. Supp. 2d. 294 (S.D.N.Y. 2000), *aff'd* 273 F.3d 429 (2d Cir. 2001).

[7] *Sony Computer Entertainment, Inc.* v. *Connectix Corporation,* 203 F.3d 596 (9th Cir. 2000).