

Before the
U.S. COPYRIGHT OFFICE
LIBRARY OF CONGRESS

**In the matter of exemption to prohibition on circumvention
of copyright protection systems for access control technologies**

Docket No. RM 2008-08

Comment of the Electronic Frontier Foundation

Submitted by:
Fred von Lohmann
Jennifer S. Granick
Electronic Frontier Foundation
454 Shotwell St.
San Francisco, CA 94110
(415) 436-9333
(415) 436-9993 (fax)
fred@eff.org

Pursuant to the Notice of Inquiry of Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies' ("NOI"), the Electronic Frontier Foundation (EFF) submits the following comments and respectfully asks that the Librarian of Congress exempt the following classes of works from 17 U.S.C. § 1201(a)(1)'s prohibition on the circumvention of access control technologies for the period 2009-2012:

Proposed Class #1: Computer programs that enable wireless telephone handsets to execute lawfully obtained software applications, where circumvention is accomplished for the sole purpose of enabling interoperability of such applications with computer programs on the telephone handset.

Proposed Class #2: Audiovisual works released on DVD, where circumvention is undertaken solely for the purpose of extracting clips for inclusion in noncommercial videos that do not infringe copyright.

I. The Commenting Party

EFF is a member-supported, nonprofit public interest organization devoted to maintaining the traditional balance that copyright law strikes between the interests of copyright owners and the interests of the public. Founded in 1990, EFF represents more than 13,000 dues-paying members including consumers, hobbyists, computer programmers, entrepreneurs, students, teachers, and researchers united in their reliance on a balanced copyright system that ensures adequate protection for copyright owners while ensuring broad access to information in the digital age.

In filing these comments, EFF represents the interests of hundreds of thousands of citizens who have “jailbroken” their cellular phone handsets, or would like to do so, in order to use lawfully obtained software of their own choosing, as well as the tens of thousands of noncommercial remix video creators who have or would like to include clips from DVDs in their work.

II. The Proper Role of Fair Use and Other Limitations and Exceptions in These Proceedings

In evaluating the two exemptions proposed in these comments, as well as exemptions proposed by others, EFF urges the Librarian to adopt a new approach when considering how fair use and other statutory exceptions should be taken into account. The approach can be summarized as follows: where assertions of fair use or other statutory exceptions lead the Librarian into areas that have not yet been addressed by the courts, the Librarian should err on the side of accepting these assertions of noninfringement, but narrow any resulting exemption to activities that are ultimately found by the courts to be noninfringing.

Congress intended the DMCA's triennial rulemaking to act as a “fail-safe mechanism” to mitigate the risk that access controls on copyrighted works would interfere with otherwise lawful uses of those works.² As the Copyright Office has noted, “[t]he goal of the proceeding is to assess whether the implementation of technological protection measures that effectively control access to copyrighted works is adversely affecting the ability of individual users to make lawful uses of copyrighted works.”

Among the lawful uses that Congress intended to preserve when enacting § 1201 (at was fair use.¹ Preserving fair use in the context of this rulemaking, however, poses a challenge—how can the courts continue to develop fair use jurisprudence in light of new technologies and practices if the activities in question are impeded by access controls?

The Copyright Office has stated that “[t]he proponents of an exemption bear the burden of proving that their intended use is a noninfringing one.”⁶ For some proposed exemptions, this will be a straightforward matter. For example, the activity in question may not implicate any of the exclusive rights granted to copyright owners, or may be authorized by license, or may fall squarely within a clear statutory exception. Still other activities will fall comfortably within the ambit of settled fair use precedents. In these cases, it is a simple matter for the Librarian to recognize the noninfringing nature of the activity and move on to weigh the other factors that must be considered in evaluating a proposed exemption.

But not all fair use questions will be so cut and dried. Because Congress has left fair use for the courts to develop on a case-by-case basis, there are always many activities on which the courts

² Recommendation of the Register of Copyrights in RM 2005-II, Rulemaking on Exemptions from Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Nov. 17, 2006 (“2006 Recommendation”) at 6 (citing H.R. Rep. No. 105-551, pt.2 (“DMCA Commerce Comm. Report”), at 35).

, *Id.* at 7 (quoting DMCA Commerce Comm. Report at 37).

⁴ Unless otherwise noted, all section references are to Title 17 of the U.S. Code.

⁵ DMCA Commerce Comm. Report at 25-26.

⁶ Recommendation of the Register of Copyrights in RM 2002-4; Rulemaking on Exemptions from Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies (Oct. 27, 2003) (“2003 Recommendation”) at 106.

have not yet passed. This ability of fair use to evolve in light of new technologies and practices is one of its great strengths.'

This, then, poses the dilemma. If the proponents of an exemption assert that the activity in question is a fair use, but the activity does not come within the ambit of previously decided fair use precedents, how should the Librarian respond? While it may be true that "this rulemaking is not the forum in which to break new ground on the scope of fair use," Congress did not mean to foreclose *the courts* from "breaking new ground" in fair use cases, notwithstanding the use of access controls by copyright owners. Accordingly, to enable courts to assess whether activities that are otherwise "adversely affected" by access controls are noninfringing in light of fair use or another statutory exception, this rulemaking must grant exemptions for activities that a court *might* find to be noninfringing.

In resolving this dilemma, the Librarian must be mindful of the fact that Congress has entrusted the courts with the task of adjudicating the scope of fair use, as well as interpreting and applying the other statutory exceptions to a copyright owner's exclusive rights. The Librarian should therefore exercise caution lest this judicial prerogative be displaced by these rulemakings. For example, if a proposed exemption involved an activity supported by a fair use argument that has yet to be addressed by the courts, and the exemption were denied, a court may never have the opportunity to rule on the question because a defendant may be unable to raise the fair use defense against a § 1201(a)(1) claim.'

In short, only if this proceeding grants exemptions in untested cases will a court have an opportunity to address fair use claims involving new technologies and practices. The same is true of other statutory exceptions to copyright, such as those set out by § 109 ("first sale") and § 117 ("essential step and back-up copies").¹⁰ Denying exemptions based on the Librarian's best guesses about how a court might rule on these questions, in contrast, would potentially set the Librarian up as the final arbiter of statutory exceptions with regard to works subject to access controls.

To resolve this dilemma, EFF proposes that the Librarian adopt the following approach when evaluating an assertion of fair use or other statutory exception:

1. If, based on existing precedents, the Librarian is satisfied that the activity in question is likely to be deemed to be a fair use or otherwise covered by a statutory exception, then the Librarian should conclude that the activity is noninfringing and proceed to weigh the other factors that must be considered in evaluating a proposed exemption;
2. If the Librarian is satisfied that the activity in question might plausibly be a fair use or be protected by any other statutory exception, but has some doubt on the question, then the

⁷ See, e.g., *Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146 (9th Cir. 2007) (finding that creation of "thumbnails" by an Internet search engine qualified as a fair use).

⁸ 2003 Recommendation at 106.

⁹ See *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294,322-23 (S.D.N.Y. 2000) (suggesting in dicta that fair use is no defense to a § 1201(a)(1) claim), *aff'd on other grounds sub nom. Universal City Studios v. Corley*, 273 F.3d 429 (2d Cir. 2001).

¹⁰ Recent court cases are grappling with novel issues as they apply § 109 and § 117 in new contexts. See, e.g., *Vernor v. AutoDesk, Inc.*, 555 F. Supp. 2d 1164 (W.D. Wash. 2008) (applying § 109 to computer software); *MDY Indus., LLC v. Blizzard Enter., Inc.*, 2008 WL 2757357 (D. Ariz. July 14, 2008) (applying § 117 to video game software).

Librarian should narrow the proposed exemption to apply only so long as the activity in question is noninfringing;

3. If the Librarian concludes that no reasonable court could find that the activity in question would constitute a fair use or fall within any other statutory exception, it should reject the proposed exemption.

This approach comports with both the letter and spirit of this rulemaking. Where a proposed exemption turns on the application of fair use or another statutory exception in a context that has not been definitively addressed by the courts, this approach would favor granting the exemption (subject to the other factors to be weighed pursuant to the statutory scheme), thereby allowing circumventers to bring their fair use or other statutory defenses to the courts for resolution. This, in turn, will foster the development of judicial precedents that will assist the Librarian in future rulemaking proceedings.

At the same time, an exemption whose scope is limited only to activities that are noninfringing does not release any infringers. If litigation were to ensue, the defendant would be entitled to mount her defense to the claim of infringement—a successful defense on the question of infringement would thus also result in a successful defense to any circumvention claim. In contrast, a failed fair use defense and finding of infringement would simultaneously disqualify the defendant from relying on the exemption as a shield against circumvention liability. This "double jeopardy" should preserve any deterrence value that the ban on circumvention would otherwise provide. This approach also respects the wisdom of case-by-case adjudication in fair use cases, as a defeat for any individual defendant would not adjudicate the applicability of the circumvention exemption for defendants in different circumstances.

If the courts are to continue to develop the jurisprudence of fair use and other statutory exceptions notwithstanding the increasing use of access controls on copyrighted works, the triennial rulemaking must allow as-yet untested questions to find their way to the courts. The approach described above strikes this balance, preserving for the courts their traditional role as case-by-case adjudicators of fair use and other statutory exceptions.

III. Proposed Class #1: Circumvention Necessary for "Jailbreaking" Cellular Phone Handsets

Proposed class: Computer programs that enable wireless telephone handsets to execute lawfully obtained software applications, where circumvention is accomplished for the sole purpose of enabling interoperability of such applications with computer programs on the telephone handset.

A. Summary

Cellular phones are increasingly sophisticated computing devices, capable of running applications from a variety of software vendors. Several mobile phone providers, however, have deployed technical measures that prevent subscribers from installing applications from vendors of their choice, instead forcing customers to purchase their applications only from the providers' preferred sources.

Apple's iPhone represents the most widely known example of this strategy. Apple uses various technological means to prevent owners of the iPhone from loading or executing applications unless they are purchased from Apple's own iTunes App Store or otherwise approved by Apple. iPhone owners eager to run applications legitimately obtained from different sources

must decrypt and modify the iPhone firmware in order to allow those applications to function, a process colloquially known as "jailbreaking."

There is no copyright-related rationale for preventing iPhone owners from decrypting and modifying the device's firmware in order to enable their phones to interoperate with applications lawfully obtained from a source of their own choosing. As the Copyright Office noted in 2006:

When application of the prohibition on circumvention of access controls would offer no apparent benefit to the author or copyright owner in relation to the work to which access is controlled, but simply offers a benefit to a third party who may use § 1201 to control the use of hardware which, as is increasingly the case, may be operated in part through the use of computer software or firmware, an exemption may well be warranted.¹¹

For the same reason, the proposed exemption should be granted.

B. Factual Background

So-called "smart phones" frequently come burdened with technical measures designed to force the owners of these devices to purchase applications only from a limited number of authorized sources. As consumers increasingly adopt these devices, their market choices are increasingly limited by this hindrance.

1. Smart Phone Makers Restrict the Software Applications That Users Can Run, to the Detriment of Competition, Consumer Choice, and Innovation

Smart phone makers use software locks to control a phone owner's ability to install and run applications of his or her own choosing. The iPhone has brought this practice to the attention of the public, if only because of the device's popularity. In less than two years, the iPhone has displaced the Motorola RAZR to become the best selling mobile handset in the United States.¹² The iPhone, however, includes software locks that prevent the device from running applications obtained from sources other than Apple's own iTunes App Store. Independent software developers who want to sell software through Apple's App Store must pay a 30% commission to Apple.¹³ This restriction is not necessitated by the iPhone technology. Rather, the effort to tie the iPhone, as well as independent developers, exclusively to Apple's own App Store is a business model decision on Apple's part, unrelated to any copyright interest in the firmware that operates the iPhone. There is no technological reason other than the software lock that iPhone owners who are dissatisfied with the selection or price at the App Store cannot shop elsewhere. In fact, today there are many iPhone applications created by third party developers catering to more than 350,000 iPhone owners who have "jailbroken" their iPhones, notwithstanding the risk of circumvention liability.¹⁴

¹¹ 2006 Recommendation at 52.

¹² Joshua Topolsky, *iPhone 3G overtakes the RAZR as best-selling domestic handset*, ENGADGET, Nov. 10, 2008, available at <<http://www.engadget.com/2008/11/10/iphone-3g-overtakes-the-razr-as-best-selling-domestic-handset/>>.

¹³ John Markoff & Laura M. Rolson, *Apple's Latest Opens a Developers' Playground*, N.Y. TIMES, July 10, 2008.

¹⁴ Erica Sadun, *The story behind Cydia on the iPhone*, ARS TECHNICA, Oct. 8, 2008, available at ><http://arstechnica.com/journalslapple.ars/2008110108/the-story-behind-cydia-on-the-iphone>>.

Apple's policies regarding the approval of iPhone applications for inclusion in the iTunes App Store illustrate some of the costs paid by independent software developers and iPhone users as a result of this restrictive practice. First, as noted above, Apple requires that application developers pay Apple a 30% commission on any sales consummated through the App Store. Second, Apple refuses to authorize applications that "duplicate functionality" offered by Apple's own software." So, for example, Apple has refused to authorize email applications that compete with Apple Mail," music applications that compete with iTunes,¹⁷ or web browsers that compete with Safari." This acts as a damper on both competition and innovation, as it protects Apple's own products from competition in critical areas. Third, Apple has demonstrated a willingness to remove applications from the App Store with little or no notice, a power it reserves to itself in its contractual agreements with developers."

Apple's iPhone is not the only smart phone that consumers have jailbroken in order to enable interoperability with software programs of their own choosing. The T-Mobile G1 smart phone, the first built around Google's "Android" operating system, is relatively open when compared to the iPhone. The Open Handset Alliance, the group behind the Android G1 phone, has said that "anyone can download, build, and run the code needed to create a complete mobile device. ...²⁰ Still, G1 owners find that the phone comes with a number of restrictions that restrict the range of applications that the phone will run.²¹ For example, only a jailbroken G1 phone can run a full array of Unix tools in the background to enable automated functions such as appointment reminders or scanning for nearby wireless hotspots.²² In addition, the G1 as delivered will run applications only from the phone's built-in memory; jailbroken G1 phones allow the user to bypass the limits of the G1's internal storage, allowing the phone to run applications from SD memory expansion cards.²³ Google responded to the jailbreak news by releasing an update to disable it, much as Apple has in its efforts to combat jailbreaking of the iPhone.²⁴

" Jason Snell, *Don't drive iPhone developers away, Apple*, MACWORLD, Sept. 24, 2008, available at <http://www.macworld.com/article/135729/2008/09/app_store_policies.html>.

" *Id.* (describing the rejection of MailWrangler for "duplicating Apple functionality").

¹⁷ *Id.* (describing the rejection of Podcaster for "duplicating Apple functionality").

" Fred Vogelstein, *The Mozilla CEO on His Firefox Strategy, His Google Gambit, and Working with Apple*, WIRED (Aug. 2008) (describing difficulties getting Firefox approved for the iPhone), available at <http://www.wired.com/techbiz/people/magazine/16-08/ff_lilly>.

" Snell, *supra* n.15 (describing arbitrary App Store removal policies).

²⁰ Erica Sadun, *Android liberation: T-Mobile G1 jailbroken*, ARS TECHNICA, Nov. 5, 2008, available at <<http://arstechnica.com/news.ars/post/20081105-android-liberation-t-mobile-gl-jailbroken.html>>.

²¹ For example, it appears that the G1 phone will only load signed firmware images, which prevents G1 users from making modifications to the operating system kernel that might be necessary to enable certain kinds of applications. See "Confirmed by Android team: G1 only accepts firmware signed by manufacturer," Oblomovka blog, Nov. 1, 2008, available at <<http://www.oblomovka.com/lwp/2008/11/01/confirmed-by-android-team-gl-only-accepts-firmware-signed-by-manufacturer/>>.

²² *Id.*

²³ *Id.*

²⁴ Donald Melanson, *Google patches up Android jailbreak with RC30 update*, ENGADGET, Nov. 7,

2. Section § 1201(a)(1)'s Prohibition on Circumventing Access Controls is Adversely Affecting the Ability of Smart Phone Owners to "Jailbreak" Their Phones

Both smart phone owners and independent software developers have chafed under the artificial restrictions imposed by smart phone vendors on the range of applications that a user can install. As a result, a large community of "jailbreakers" has arisen. For example, literally dozens of tools exist to jailbreak the various iterations of the iPhone, and more than 350,000 iPhone owners have taken advantage of these tools in order to have access to software from sources other than Apple.²⁵ It appears that these tools depend on circumventing technical measures that smart phone vendors may argue are protected by §1201(a)(1)'s circumvention ban, thereby putting phone owners who use these tools in jeopardy of legal liability.

Let's take the example of the iPhone. Apple encrypts and signs its firmware as a technical protection measure to restrict access to the operating system firmware that controls the iPhone. The firmware includes copyrighted computer programs, is normally decrypted only inside the iPhone, and has not been distributed by Apple in unencrypted form. The firmware must be authenticated by the iPhone's bootloader and decrypted before the iPhone can be used. Once the firmware has been authenticated and decrypted, various components of the firmware authenticate applications before permitting them to run on the iPhone. These components of the firmware ensure that only applications that have been signed by Apple are permitted to run. Other firmware components prevent users from being able to write applications into the "OS partition," where applications must be stored in order to run on the iPhone.

These measures make it necessary for an iPhone owner who would like to run an application obtained from a source other than the iTunes App Store to defeat or bypass a number of technical measures before doing so. For example, the most popular iPhone jailbreaking software, PwnageTool, decrypts and creates a modified version of the iPhone firmware so as to neutralize the authentication checks that prevent applications not signed by Apple from running.²⁶ This decryption and modification of the iPhone firmware appears to be necessary for any jailbreak technique to succeed on a persistent basis. Apple is likely to assert that this decryption and modification constitutes a circumvention in violation of § 1201(a)(1), even if undertaken by iPhone owners solely for the purpose of running legitimately obtained applications from sources other than Apple.

As more smart phones come on the market to compete with the iPhone, consumers will discover other technological protection measures that restrict their freedom to run software of their choosing. These protection measures will almost certainly operate, at least in part, by restricting access to the smart phone's firmware, potentially putting anyone who jailbreaks the phone at risk of liability under § 1201(a)(1), and thus adversely affecting noninfringing uses of the phone.

2008, available at <<http://www.engadget.com/2008/11/07/google-patches-up-android-jailbreak-with-rc30-update/>>.

²⁵ See Sadun, *supra* n.14 (putting the number of users of Cydia, a leading alternative to the iTunes App Store for owners of jailbroken iPhones, at more than 350,000).

²⁶ Jailbreaking techniques are likely to change over time as Apple updates its software to block specific techniques from working. Although PwnageTool is the most popular jailbreaking application, there are many others that utilize different techniques to accomplish the same end.

C. Jailbreaking a Smart Phone for the Purpose of Running Lawfully Obtained Software Does Not Infringe Copyright

Running lawfully obtained software on a smart phone does not infringe copyright, nor does the process of jailbreaking a smart phone in order to accomplish this goal. As a result, the use of technological protection measures by smart phone makers to prevent these activities adversely affects, and is likely to continue adversely affecting, these lawful uses of smart phones.

There are at least three reasons why jailbreaking a smart phone does not infringe any copyright. First, it may be that under some circumstances jailbreaking can be accomplished without exceeding the scope of the authorization granted to the phone owner when she buys the phone. For example, every iPhone owner is licensed by Apple to "use the iPhone Software on a single Apple-branded iPhone."²⁷ Although the license agreement also obligates the iPhone owner not to "decrypt, modify, or create derivative works of the iPhone Software," some jailbreaking methods may not transgress this limitation. The iPhone firmware is comprised of a collection of computer programs. To the extent a jailbreaking technique does not modify any of the individual software programs that comprise the iPhone firmware collection, but instead simply adds additional software components to the collection, the practice may not exceed the scope of the license to "use the iPhone software" or constitute a "modification" of any Apple software components, any more than the addition of a new printer driver to a computer constitutes a "modification" of the operating system already installed on the computer. In order to insert these additional components into the iPhone firmware bundle, however, the iPhone user would have to first decrypt the firmware, potentially triggering liability under § 1201(a)(1).

Second, to the extent a jailbreak technique requires the reproduction or adaptation of existing firmware beyond the scope of any license or other authorization by the copyright owner, it would fall within the ambit of 17 U.S.C. § 117(a), which provides that:

[I]t is not an infringement for the owner of a copy of a computer program to make or authorize the making of another copy or adaptation of that computer program provided...that such a new copy or adaptation is created as an essential step in the utilization of the computer program in conjunction with a machine and that it is used in no other manner.

For example, an iPhone owner qualifies as the "owner of a copy" of the iPhone firmware. The iPhone Software License Agreement expressly acknowledges that while Apple retains ownership of the copyrights to the software that accompanies the iPhone, "[y]ou own the media on which the iPhone Software is recorded...."²⁸ Every iPhone owner obtains the firmware pursuant to a one-time payment, is entitled to keep the firmware forever, has the freedom to transfer the firmware when transferring the iPhone, and is free to discard or destroy all copies at any time.²⁹ Owners of other smart phones are likely to obtain firmware on essentially the same terms. The Second Circuit held on similar facts in *Krause v. Titleserv, Inc.* that the defendant had "sufficient incidents of

²⁷ Apple iPhone Software License Agreement, § 2, available at <<http://images.apple.com/legal/sla/docs/iphone.pdf>>.

²⁸ *Id.*, § 1.

²⁹ *Id.*, §§ 1-3.

ownership over a copy of the program to be sensibly considered the owner of the copy for purposes of § 117(a).³⁰

The court in *Krause v. Titleserv* also recognized that § 117(a) permits the owner of a copy of a computer program not only to make additional copies, but also to adapt those copies to add new capabilities, so long as the changes do not "harm the interests of the copyright proprietor.,m Where jailbreaking is concerned, the changes to the smart phone firmware are made solely in order to facilitate the interoperability of the phone with third party applications, and the resulting modified firmware is used on the phone on which the firmware was originally installed. In short, jailbreaking qualifies as an "adaptation" authorized by § 117(a).

Third, even if any reproduction and modification of firmware incident to jailbreaking were to fall outside the scope of both authorization and § 117(a), it would nevertheless constitute a noninfringing fair use. In evaluating a fair use defense, courts consider the four nonexclusive factors prescribed in § 107:

1. the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
2. the nature of the copyrighted work;
3. the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
4. the effect of the use upon the potential market for or value of the copyrighted work.

The first and fourth factors have been understood to be of special importance in many fair use cases, and here both of these factors point towards fair use. The first factor favors fair use because jailbreaking a phone in order to use lawfully obtained computer programs is a purely noncommercial, private use.³² The fourth factor also favors fair use. Insofar as smart phone makers do not copy or distribute firmware separately from the smart phones themselves, the jailbreaking activities of individual phone owners cannot hann the market for the phone/firmware bundle. Indeed, Apple makes various versions of the iPhone firmware available for free from its own website, demonstrating that the firmware has no independent economic value apart from the iPhones that run it. In fact, if users know that they can jailbreak their phones in order to take advantage of a wider array of third party applications, this is likely to increase demand for the phones, for the attendant firmware, and for independently distributed applications.

³⁰ 402 F.3d 119, 124 (2d Cir. 2005). Although some cases have suggested that § 117 has limited application to software that is "licensed," rather than sold, those cases have involved license agreements that "imposed severe restrictions" on the licensee's freedom to retain and dispose of the software. *Wall Data Inc. v. Los Angeles County Sheriff's Dept.*, 447 F.3d 769, 785 (9th Cir. 2006); *accord DSC Comm. Corp. v. Pulse Comm., Inc.*, 170 F.3d 1354, 1360 (Fed. Cir. 1999); *see generally* Nimmer, NIMMER ON COPYRIGHT § 8.08[B][1][c]. Apple iPhone owners are not bound by "severe restrictions" of the kind found in those cases.

³¹ 402 F.3d at 127-29.

³² *See Sony Corp. of Amer. v. Universal City Studios*, 464 U.S. 417, 449 (1984) (first factor favored a fair use finding for private time-shifting of broadcast television programming); *Perfect 10 v. Amazon.com*, 508 F.3d at 1169 (finding that noncommercial, private creation of browser cache copies is a fair use).

The second and third factors are of less importance in a case such as this one, involving a private, noncommercial use where the first and fourth factors strongly favor fair use. With respect to the second factor, courts have recognized computer software as a hybrid work, combining both unprotectible functional elements and creative elements.³³ Where jailbreaking is concerned, both the functional and creative elements must necessarily be used, since the phone owner will continue to rely on the original firmware (albeit altered to permit third party applications to run) for the operation of the phone after the jailbreaking has been accomplished. With respect to the third factor, this same consideration makes it necessary for individuals who jailbreak their phones to reuse the vast majority of the original firmware. This ought not preclude a fair use finding, however, as courts have been willing to permit extensive copying of the original where it is necessary to accomplish a salutary purpose.³⁴

Almost every jailbreaking circumstance will be noninfringing for at least one of the three reasons described above. While smart phone manufacturers may try to engineer a situation in which a finding of noninfringement is less likely, i.e. by implementing an access control that can only be circumvented by acts that exceed the scope of the applicable license, or by reserving sufficient "incidents of ownership" to disqualify the user as the owner under § 117(a), these instances should be left for the courts to address in the first instance. Granting an exemption to § 1201(a)(1)'s circumvention prohibition is the proper way to permit non-infringing jailbreaking while affording courts the opportunity to reach any undecided issues.

D. The Four Nonexclusive Statutory Factors

Section 1201(a)(1)(C) delineates four nonexclusive factors to be weighed in evaluating proposed exemptions. With respect to this proposed exemption, the importance of the four statutory factors recedes because "the access controls do not appear to actually be deployed in order to protect the interests of the copyright owner or the value or integrity of the copyrighted work; rather they are used by [smart phone makers] to limit the ability of [users to run third party applications], a business decision that has nothing whatsoever to do with the interests protected by copyright."³⁵ By the same token, however, the Register should consider additional public interest factors that militate strongly in favor of granting the exemption.

1. The Availability for Use of Copyrighted Works

In considering this statutory factor, the Register considers whether "the availability for use of copyrighted works would be adversely affected by permitting an exemption."³⁶ The Register also "consider[s] whether a particular [noninfringing] use can be made from another readily available format when the access-controlled digital copy of that 'work' does not allow that use."³⁷

The availability of firmware for smart phones would not be adversely affected by an exemption that permits smart phone users to jailbreak their phones to enable interoperability with

³³ *SegaEnt. Ltd. v. Accolade, Inc.*, 977 F.2d 1510,1524-26 (9th Cir. 1993).

³⁴ *See Sony v. Universal*, 464 U.S. at 449-50 (permitting copying of the entire work where necessary for time-shifting purposes); *Perfect IO v. Amazon.com*, 508 F.3d at 1167 (holding that copying entire images for inclusion in an Internet search engine was a fair use because the amount copied was "reasonable in light of the purpose of a search engine").

³⁵ 2006 Recommendation at 52.

³⁶ *Id.* at 51

³⁷ *Id.* at 21-22.

lawfully obtained software programs. As discussed above, firmware for smart phones is not generally sold separately from the phone hardware. Consequently, the software locks that prevent phone owners from running software of their choosing are not intended to protect the market for copyrighted firmware—instead, these software locks are intended to "control the use of hardware which, as is increasingly the case, may be operated in part through the use of computer software or firmware."³⁸ If anything, jailbreaking should increase demand for smart phone firmware, as firmware that is capable of running more applications should, all else being equal, be more valuable to phone owners.

While an exemption is unlikely to harm the availability of smart phone firmware, the lack of an exemption is certain to adversely affect owners of smart phones. Owners of smart phones that are "locked" to a single source for many kinds of applications currently have no alternatives to circumvention if they would like to use software from third party sources. The iPhone jailbreaking experience illustrates the kinds of pervasive technical measures that smart phone makers are likely to deploy in order to ensure that only approved applications are able to run on these devices. Because the firmware necessary to operate the iPhone is designed to (1) prevent users from installing applications on the iPhone in the first instance and (2) prevent the iPhone from running applications that are not approved by Apple, there is no way for iPhone owners to run unapproved applications without circumventing these technical measures.

2. The Availability for Use of Works for Nonprofit Archival, Preservation, and Educational Purposes

As noted in connection with the preceding statutory factor, some smart phone vendors (Apple) do not make smart phone firmware available in any form other than an encrypted digital copy. Others (Open Handset Alliance) make the firmware freely available, but prevent smart phones from running modified versions of the firmware. In any event, there is no reason to believe that the availability (or lack of availability) of smart phone firmware for nonprofit uses would be harmed by an exemption that permits smart phone users to jailbreak their phones to enable interoperability with lawfully obtained software programs.

3. The Impact on Criticism, Comment, News Reporting, Reaching, Scholarship, or Research

While the continued use of access-control measures on smart phone firmware is likely to inhibit research, teaching, and scholarship relating to smart phone technology, the proposed exemption is not directed toward ameliorating those harms. Where phone vendors (like the Open Handset Alliance) currently make firmware freely available for criticism, comment, news reporting, teaching, scholarship, and research, there is no reason to believe that an exemption that permits smart phone users to jailbreak their phones would curtail that availability.

4. The Effect on the Market for, or Value of, Copyrighted Works

As discussed above in connection with the fourth fair use factor, permitting circumvention of access-control measures on smart phones will not harm the market for the firmware that operates smart phones.

Nor does circumvention of the technical measures contained in the iPhone firmware that prevent third party applications from running increase the risk of circumvention of the "digital

³⁸*Id.* at 52.

rights management" protections applied to media files, such as music or movie files encrypted by Apple's FairPlay system. In other words, the technical measures that control access to the firmware are not the same ones that control access to music or movies on the phone.

Similarly, enabling an iPhone to run third party applications does not interfere with the security regime that applies to applications purchased from the iTunes App Store. Those applications are tethered to the particular Apple User ID that was used to purchase them, a mechanism designed to discourage users from freely reproducing and distributing applications purchased from the App Store. Nothing about the jailbreak process tampers with this tethering mechanism.

Finally, jailbreaking increases the value of copyrighted works created by independent developers that would not otherwise have been "approved" by the phone maker, creating incentives for additional creativity on the part of competitors.

5. Other Factors

As the Register recognized in 2006, "when application of the prohibition on circumvention of access controls would offer no apparent benefit to the author or copyright owner in relation to the work to which access is controlled, but simply offers a benefit to a third party who may use § 1201 to control the use of hardware which, as is increasingly the case, may be operated in part through the use of computer software or firmware, an exemption may well be warranted."³⁹

Here, this same consideration supports the granting of an exemption in favor of smart phone owners who want to run lawfully obtained software of their own choosing. Granting the exemption will not impair the legitimate copyright interests of those who create smart phone firmware. At the same time, an exemption would vindicate the "strong public interest" in fostering competition in the software market, thereby encouraging innovation, and expanding consumer choice.⁴⁰

³⁹ 2006 Recommendation at 52.

⁴⁰*Id.* at 64.

IV. Proposed Class #2: Extracting Clips from DVDs for Use in Remix Videos

Proposed class: Audiovisual works released on DVD, where circumvention is undertaken solely for the purpose of extracting clips for inclusion in noncommercial videos that do not infringe copyright.

A. Summary

Every day, thousands of Americans create and share original, noncommercial videos that include clips taken from movies and television shows released on DVD (referred to hereafter, for the sake of brevity, as "remix videos"). Thanks to the falling price of digital video editing technologies and the popularity of video hosting websites like YouTube, this activity has grown from a niche hobby into a mainstream activity that is certain to become even more popular over the next three years.

Some remix videos doubtless infringe copyrights; others, thanks to the fair use doctrine, just as surely do not. Regardless, for most of modern American copyright history, the fair use doctrine has left room for this kind of "remix culture." Whether any particular creation was, or was not, infringing, was to be determined only after a court had undertaken a fair use analysis. Moreover, as applied by the courts, the fair use factors favor remix video creators who recontextualize existing works for transformative purposes.

Unfortunately, the DMCA's anticircumvention provisions threaten to alter this balance. In the view of many rightsholders, once a creator circumvents CSS in order to obtain clips from a DVD, that creator cannot invoke the fair use doctrine in her defense against a claim brought under § 1201(a)(1). This short circuits the fair use inquiry, denies the creator her day in court, and dries up an important well of future fair use precedents to the detriment of remixer and rightsholders alike.

Some professional creative communities, if well-advised by counsel and indifferent to the loss in video quality, may be able to avoid this dilemma by extracting clips from DVDs without circumventing CSS—either by taking advantage of the "analog hole" or by obtaining "pre-circumvented" copies from unauthorized Internet sources. None of these alternatives, however, is as simple and straightforward as the use of software to copy digital video from DVDs using widely available DVD "rippers." Lacking access to sophisticated legal counsel to advise them, the vast majority of amateur remix video creators rely on DVD rippers to obtain the clips they need. These creators thus risk civil liability based on their circumvention of CSS, even where their videos would otherwise be adjudicated to be noninfringing fair uses. This risk of circumvention liability also chills the ability of remix video creators to resist unfounded DMCA "takedown notices" that impair their ability to share remix videos on the Internet.

An exemption to § 1201(a)(1) is necessary if these remix video creators are to have a meaningful opportunity to engage in noninfringing creativity without unintentionally transgressing the prohibitions of § 1201(a)(1). The exemption should encompass audiovisual works released on DVDs protected by CSS. The proposed exemption class is further narrowed so as to reach only circumvention undertaken solely for the purpose of extracting clips for inclusion in noncommercial videos, the category whose creators are most likely to lack access to sophisticated legal counsel and technical means to take clips without circumventing CSS.

In addition, the proposed exemption is further limited to uses that do not infringe copyright. In other words, this exemption is intended to afford noncommercial videographers an opportunity,

if they are sued by rightsholders, to make their fair use cases in court. If the remix video creator prevails on a fair use theory, this exemption would shield her from circumvention liability; if, on the other hand, she does not prevail, then she would be subject to both infringement and circumvention liability. In this way, the exemption will benefit *only* noninfringing creators-infringers gain nothing by it.

Finally, given the maturity of the DVD format and the widespread, mainstream availability of DVD rippers for many years, granting this exemption will have no significant impact on the availability of audiovisual works on DVD.

B. Factual Background

The practice that the proposed exemption is intended to reach-the noncommercial creation of videos that includes clips taken from commercially released DVDs-is already widespread. It will only become more common over the next three years. Accordingly, the Librarian should grant the exemption both based on § 1201(a)(1)'s existing effect on noninfringing activities, as well as its likely future affect on those activities.

1. The Remix is Becoming an Increasingly Popular and Important Form of Creativity

The creative practice of "remixing" existing video content to create original expression is a time-honored tradition, stretching back to 1918 when Lev Kuleshov began splicing and reassembling film fragments to tell new stories. It was not until the 1970s, however, that video editing capabilities became cheap enough to allow (a few, dedicated) amateurs to engage in remix creativity. Today, the ability to remix existing video content (including content released on DVD) has been democratized to an unprecedented degree, thanks to the combination of inexpensive video editing tools on personal computers and easy-to-use video hosting services such as YouTube.

As a result, there has been an enormous increase in remix creativity, a trend that is likely to continue and accelerate in during the next three years. A 2007 survey of U.S. teens by the Pew Internet & American Life Project found that 26% of all online teens remix pre-existing content into their own creations, up from 19% in 2004.⁴¹ This growing practice has attracted the attention of prominent commentators, such as Professor Lawrence Lessig, who stresses the importance of remix creativity to building communities of common interest and fostering new forms of interactive education.⁴² Kevin Kelly argues that facility with "re-writing" video will be critical to the conception of literacy in a 21st century more at home with video than text: "We are now in the middle of a second Gutenberg shift - from book fluency to screen fluency, from literacy to visuality...⁴³

2. YouTube Creators are Remixing Film and Television Thousands of Times Each Day

Viewed both on an aggregate basis and in light of specific creator communities, YouTube illustrates that large communities of remix video creators frequently depend on clips taken from

⁴¹ Pew Internet & American Life Project, "Teens and Social Media," Dec. 19, 2007, available at <http://www.pewinternet.org/pdfs/PIP_Teens_Social_Media_jinal.pdf>.

⁴² Lawrence Lessig, *REMIK* 76-83 (2008).

⁴³ Kevin Kelly, *Becoming Screen Literate*, N.Y. TIMES, Nov. 21, 2008, available at <<http://www.nytimes.com/2008/11/23/magazine/23wwln-future-t.html>>.

contemporary films and television programs in the course of creating original videos. Consequently, to the extent § 1201(a)(1)'s prohibition on ripping DVDs applies to this activity, it is putting a large group of noninfringing creators in legal jeopardy.

Professor Michael Wesch, the nation's leading ethnographer studying YouTube, has concluded that thousands of original videos that include clips from film or television sources are likely being uploaded to YouTube *each day*.⁴⁴ During October and November 2008, Prof. Wesch's Digital Ethnography project examined two separate random samples of YouTube videos in an effort to estimate how many YouTube videos are remixes that include clips likely to have been drawn from DVD sources. Based on these experiments, he concluded that between 2,000 and 6,000 videos uploaded to YouTube each day fall into this category.⁴⁵

Professor Wesch also identified a number of genres of short-form videos on YouTube that appear to be popular and frequently depend on clips drawn from film or television sources. These new YouTube genres include:

- **Movie trailer remixes:** Original "trailers" for famous films, made by movie fans, often for a humorous purpose. Prof. Wesch estimates that approximately 13,000 of these are posted on YouTube.

Example: Brokeback to the Future (viewed more than 5 million times)

<http://www.youtube.com/watch?v=8uwuLxrv8jY>

- **Film analysis:** Amateur film critics provide their commentary and criticism as a voice-over to clips taken from the films being analyzed. Prof. Wesch estimates that approximately 10,000 of these are posted on YouTube.

Example: Psychological Aspects of the Matrix

<http://www.youtube.com/watch?v=AEisRob4xKw>

- **Movie mistakes:** Film buffs collect and comment on anachronisms, continuity errors, and other "mistakes" found in films and television programs.

Example: Harry Potter Movie Mistakes

<http://www.youtube.com/watch?v=FiZHjiICE9I>

- **Comic juxtaposition remixes:** Often humorous videos created by combining video clips from one film with audio clips from another.

Example: the phenomenon of "Downfall remixes"⁴⁶

- **Political commentary:** Videos intended to make a political statement that borrow clips from film or television to illustrate their message.

Example: Jeremiah Wright Illustrated with Movies

<http://www.youtube.com/watch?v=xOkHBJs19F8>

⁴⁴ See Statement of Prof. Michael Wesch, attached as Appendix A.

⁴⁵ *Id.*

⁴⁶ Jenna Wortham, *Hitler Remixes are Big-on YouTube*, Wired Underwire blog, May 14, 2008, available at <http://blog.wired.com/underwire/2008/05/adolfo-hitler-is.html>.

- Political criticism of **film**: Videos that utilize clips in the course of explicitly criticizing the underlying themes or politics of a film.

Example: Disney Racism

<<http://www.youtube.com/watch?v=LibK0SCpIkk>>

- "YouTube Poop": Absurdist remixes that ape and mock the lowest technical and aesthetic standards of remix culture to comment on remix culture itself.

Example: Youtube Poop: Arthur's Massive, Throbbing Hit

<<http://www.youtube.com/watch?v=RJk4N9gEEmk>>

In short, Prof. Wesch's research merely confirms what the millions in YouTube's audience already know-there are tens of thousands of amateur creators who rely on clips taken from DVDs in the course of creating remix videos.

3. The Vidding Community is One Example of an Established Remix Creator Community that Relies on Clips from DVDs

A closer examination of one creator community-vidders-supplements Prof. Wesch's research regarding YouTube creators more generally. Vidders are certainly not the only established community of remix video creators. Movie trailer mashups, for example, have proven extremely popular since bursting on the scene in 2005.⁴⁷ The anime music video ("AMV") creator community has also received increasing attention as scholars begin documenting amateur creator communities that are arising around these new video technologies." Vidders, however, are an instructive example because they have a history that predates digital video technologies, and thus a stronger sense of community arising out of that history.

"Vidding" arose in television fan communities in the mid-1970s. In the words of Prof. Francesca Coppa, a scholar who has studied the vidding community:

Vidding is a form of grassroots filmmaking in which clips from television shows and movies are set to music. The result is called a vid or a songvid. Unlike professional MTV-style music videos, in which footage is created to promote and popularize a piece of music, fannish vidders use music in order to comment on or analyze a set of preexisting visuals, to stage a reading, or occasionally to use the footage to tell new stories. In vidding, the fans are fans of the visual source, and music is used as an interpretive lens to help the viewer to see the source text differently. A vid is a visual essay that stages an argument, and thus it is more akin to arts criticism than to traditional music video. As Margie, a vidder, explained: "The thing I've never been able to explain to anyone not in [media] fandom (or to fans with absolutely no exposure to vids) is that where pro music videos are visuals

⁴⁷ See generally The Trailer Mash, a website that collects recut trailers and trailer mash-ups, available at <<http://www.thetrailermash.com>>; David M. Halbfinger, *His 'Secret' Movie Trailer is No Secret Anymore*, N.Y. TIMES, Sept. 30, 2005 (describing the success of one of the first trailer remixes, a trailer for the horror classic, *The Shining*, recut to make it appear to be a romantic comedy).

"Lessig, *supra* n.42, at 77-80 (describing research of Prof. Mimi Ito studying AMV creators).

that illustrate the music, songvids are music that tells the story of the visuals. They don't get that it's actually a completely different emphasis."⁴⁹

In other words, the archetypal "vid" is a music video created by and for fans of a particular television show or film, where the video content is a collection of clips from a favorite television program or film, and where the audio content is a song that comments on the collection of clips.

According to Prof. Coppa, more than 10,000 vids have been created by creators that self-identify as part of the vidding community.⁵⁰ This community embraces a strongly noncommercial ethos and views their works as "a visual essay responding to a visual source."⁵¹ To reiterate the point made by Prof. Coppa above, "fannish vidders use music in order to comment on or analyze a set of preexisting visuals, to stage a reading, or occasionally to use the footage to tell new stories." Vids are commentaries, executed in a visual medium rather than in text, on the original source material-sometimes celebrating or criticizing political, sexual, or cultural elements that were obvious in the original; sometimes uncovering meanings that were latent in the original; and sometimes creating entirely new meanings with the characters and plotlines of the original. In other words, vids are fundamentally transformative visual works, using clips of existing footage in order to comment and build on the meanings of the original source materials.

Vidders frequently rely on footage digitally copied ("ripped") from commercial DVDs in creating their vids, an activity that previous rulemakings have treated as a violation of § 1201(a) (1).⁵² Because the vast majority of vidders are amateur videographers who engage in video creation as a hobby, however, they are unlikely to have access to copyright counsel to explain the nuances of circumvention liability. This is particularly true in light of the counterintuitive nature of circumvention liability as applied to DVDs. For example, it will strike many laypersons as bizarre that relying on infringing copies taken from unauthorized Internet sources is preferable (from a circumvention point of view) to ripping a DVD that you have purchased. Similarly, many may find it hard to believe that taking the same excerpts by means of video capture (an alternative that requires additional equipment and expertise that many amateur vidders lack) carries different legal consequences than using a DVD ripper to accomplish the same thing. In fact, when asked, an active vidder (who insisted on anonymity) and Prof. Coppa both agreed that vidders are not likely to understand the legal distinction between "ripping" a DVD and using alternative methods.⁵³

Nor is the vidding community's practice of ripping DVDs merely an expression of legal naïveté or convenience. The vidding community takes video quality very seriously, and therefore many vidders favor DVD ripping for aesthetic reasons. In the words of Prof. Coppa, "Vidders typically want the cleanest, biggest clips their systems can handle, because they want to transform/rework the footage in various ways-changing speed, color, adding effects, creating

⁴⁹ Francesca Coppa, *Women, Star Trek and the Early Development of Fannish Vidding*, TRANSFORMATIVE WORKS AND CULTURES, Issue 1, September 15, 2008, available at <<http://journal.transformativeworks.org/index.php/twc/article/view/44>>.

⁵⁰ Interview with Prof. Francesca Coppa, attached as Appendix B.

⁵¹ *Id.*

⁵² See, e.g., "Making Fan Videos on Your Mac: Mac Vidding for Newbies," available at <<http://sweeney32.livejournal.com/1354.html>> (recommending the use of Mac the Ripper and Handbrake, two leading DVD rippers for the Macintosh).

⁵³ Interview with Prof. Coppa, attached as Appendix B; Interview with an anonymous vidder, attached as Appendix C.

manipulations, masking out elements-and the better the footage you start with, the more you can do with it.,⁵⁴ This is particularly true for vidders who intend to display their videos at conferences and other gatherings, where display technology is likely to be much better than the typical low-resolution YouTube video. Many vidders also distribute high-quality versions of their works from their own Internet sites, demonstrating a commitment to video quality that far exceeds that of most YouTube creators.

The practices of the vidding community demonstrate that noncommercial video creators have valid, noninfringing uses for clips taken from DVDs protected by CSS. Nor do these creators have realistic access to the same material from non-DVD sources, thanks both to a lack of sophisticated legal counsel and a lack of high quality video alternatives.

C. Without an Exemption, Remix Video Creators are at Risk of Liability if They Circumvent the Content Scramble System (CSS) Used on DVDs

The vast majority of mainstream commercial works released on DVD utilize CSS to encrypt the audiovisual work stored on the DVD. The Copyright Office and the courts have concluded that CSS is an "access control" protected by § 1201(a)(1).⁵⁵ Moreover, major entertainment companies have repeatedly shown a willingness to commence litigation against those who circumvent CSS or traffic in CSS circumvention tools.⁵⁶ Accordingly, but for an exemption granted in this proceeding, those who circumvent CSS to take short clips for inclusion in original remix videos run the risk of civil liability under § 1201(a)(1).

D. Many Remix Videos that Include DVD Clips are Noninfringing Fair Uses

While it is impossible to evaluate the fair use merits of all of the tens of thousands of remix videos that make use of clips taken from DVDs, the general characteristics of these videos make it clear that many qualify as noninfringing fair uses under existing precedents, and many others may qualify, depending on the future development of fair use jurisprudence.⁵⁷ Granting an exemption for circumvention, limited solely to remix videos that qualify as fair uses, would preserve the breathing room for transformative expression that the fair use doctrine has always provided, without giving a free pass to others that are infringing.

Turning to the first fair use factor-the purpose and character of the use-two characteristics of remix videos will generally favor fair use. First, the exemption sought here for remix videos is limited to those created for noncommercial purposes. Noncommercial activities have historically been favored under the first fair use factor.⁵⁸ Second, remix videos are, by their nature, transformative, creating a new work that does not substitute for the original. Remix videos

⁵⁴ Interview with Prof. Coppa, attached as Appendix B.

⁵⁵ 2006 Recommendation at 12; *Universal City Studios v. Corley*, 273 F.3d 429 (2d Cir. 2001).

⁵⁶ See, e.g., *Universal v. Corley*, 273 F.3d 429 (2d Cir. 2001); 321 *Studios v. Metro-Goldwyn-Mayer Studios*, 307 F. Supp. 2d 1085 (N.D. Cal. 2004); *Paramount Pictures Corp. v. 321 Studios*, 2004 WL 402756 (S.D.N.Y. Mar. 3, 2004).

⁵⁷ See generally American University Center for Social Media, *Code of Best Practices in Fair Use for Online Video*, June 2008, <http://www.centerforsocialmedia.org/resources/publications/fair_use_in_online_video>.

⁵⁸ See *Sony v. Universal*, 464 U.S. at 449 (first factor favored a fair use finding for noncommercial time-shifting of broadcast television programming); *Perfect 10 v. Amazon.com*, 508 F.3d at 1169 (finding that noncommercial, private creation of browser cache copies is a fair use).

are frequently parodic, satiric, or created for purposes of commentary or criticism, precisely the kind of transformative uses that have been treated favorably by courts with respect to the first factor.⁵⁹

The third fair use factor—the amount taken—also tips in favor of remix video creators. The excerpts taken by remix video creators from films or television programs will generally comprise only a small fraction of the works from which they are taken.⁶⁰ Where the amount taken is both qualitatively and quantitatively small, and reasonable in light of the purpose of the copying, courts generally find that the third factor favors fair use."

The fourth fair use factor—the effect of the use on the potential market for the work—also favors remix video creators. Where noncommercial uses are concerned, copyright owners bear the burden of proving that the use in question undermines the economic value of the copyrighted work.⁶² It is unlikely that a copyright owner will be able to meet that burden in challenging remix videos. These videos will almost never be a substitute for the original works. In fact, in many cases, a remix video will be hardly comprehensible to someone who has not already seen the original video "texts" from which the clips are drawn. In the vidding community, for example, fan-made vids often presuppose a high level of familiarity with the source material, without which the vids cannot be fully appreciated.⁶³ Moreover, to the extent that any particular remix video is a parody of the original, or associates the original work with any political message or controversial subjects, it is unlikely that the copyright owner would license the remix. Courts have found that a fair use finding is appropriate where these considerations make licensing unlikely or impossible.⁶⁴

Finally, even if the second fair use factor—the creative nature of the original work—tips in favor of copyright owners, courts have recognized that this factor is likely to be of little importance in fair use cases involving the creation of transformative, original works.⁶⁵

⁵⁹ See *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 579 (1994) (finding that the first factor favors transformative uses); *Blanch v. Koons*, 467 F.3d 244, 253 (2d Cir. 2006) (same).

⁶⁰ Although most vids include only a small fraction of the video sources from which they draw, they generally include a complete sound recording as the audio track. Courts have found, however, that the use of an entire work can nevertheless qualify as a fair use where the use is transformative. See *Bill Graham Archives v. Dorling Kindersley Ltd.*, 448 F.3d 605 (2d Cir. 2006) (fair use where entire poster copied for transformative purpose); *Nunez v. Caribbean Int'l News Corp.*, 235 F.3d 18 (1st Cir. 2000) (fair use where entire photograph copied for news reporting purposes).

" See *Blanch v. Koons*, 467 F.3d at 257-58 (portion of photograph taken); *Consumers Union of U.S., Inc. v. General Signal Corp.*, 724 F.2d 1044, 1050 (2d Cir. 1983) (29 words taken from 2100 word article)

⁶² *Sony v. Universal*, 464 U.S. at 451 ("A challenge to a noncommercial use of a copyrighted work requires proof either that the particular use is harmful, or that if it should become widespread, it would adversely affect the potential market for the copyrighted work.").

⁶³ Jesse Walker, *Remixing Television*, REASON (Aug/Sept. 2008) (quoting Prof. Coppa as saying, "[s]ome of the best vids in the world don't look like anything special unless you know how to read them and interpret them."), available at <<http://www.reason.com/news/show/127432.html>>.

⁶⁴ *Campbell v. Acuff-Rose*, 510 U.S. at 592 ("Yet the unlikelihood that creators of imaginative works will license critical reviews or lampoons of their own productions removes such uses from the very notion of a potential licensing market.").

⁶⁵ *Id.* at 586 (finding that the second factor is of little assistance in parody cases).

Of course, whether any *particular* remix video qualifies as a fair use will depend on the facts of the case and is for a court to determine. For the reasons discussed in detail at the outset of these comments, however, if the courts are to have the opportunity to address these fair use questions, the Librarian must grant an exemption where a plausible fair use argument would otherwise be foreclosed by a § 1201(a)(1) claim. Noncommercial remix videos present precisely such a circumstance—most will have plausible fair use arguments to make, and none will see their day in court unless an exemption to excuse circumvention claims arising from ripping DVDs. And because the proposed exemption is expressly limited to "noncommercial videos that do not infringe copyright," any videos that are deemed to be infringing will not get the benefit of the circumvention exemption.

E. Section 1201(a)(1) Adversely Affects Remix Video Creators

Section 1201(a)(1)'s prohibition on circumvention has, and will continue to, adversely affect the noninfringing activities of remix video creators. Most obviously, to the extent the circumvention ban prohibits ripping DVDs in order to extract clips, the law puts remix video creators in legal jeopardy when they engage in authorship that would otherwise be protected by fair use. This adverse affect is compounded by a lack of access to sophisticated copyright counsel and the fact that DVD ripping is an "attractive nuisance"—the fastest, cheapest, and easiest way for most amateur videographers to obtain clips from DVD. These two realities mean that the majority of remix video creators will unintentionally violate § 1201(a)(1) in the course of authoring their noninfringing videos.

There is another, more subtle, way in which § 1201(a)(1) is adversely affecting the noninfringing activities of video remix creators: the interaction between the DMCA's online service provider safe harbors and § 1201(a)(1) frequently makes it impossible for remix video creators to keep their videos online. Large media companies are delivering hundreds of thousands of "takedown" notices each month to online service providers who host and link to information posted by Internet users. While many of those notices target clear cases of copyright infringement, remix video creators have found themselves mistakenly caught in the takedown notice driftnet.⁶⁶ Assuming the creator had ripped DVDs in order to obtain clips included in the video, she would face a difficult set of choices. If she were to insist on her right to "counter-notice" pursuant to 17 U.S.C. § 512(g) in an effort to have her video restored, she would be exposing herself to a potential circumvention claim from the copyright owner who sent the DMCA takedown demand. In other words, thanks to § 1201(a)(1)'s ban on circumvention, remix video creators are unable to take full advantage of the protections they would otherwise enjoy against having their noninfringing works improperly censored off the Internet.

F. The Four Nonexclusive Statutory Factors

⁶⁶ For example, the creators of the renowned trailer mashup, *Ten Things I Hate About Commandments*, saw their video taken down from YouTube thanks to a DMCA takedown notice issued by Viacom. See <<http://blog.myspace.com/index.cfm?fuseaction=blog.view&friendID=134516305&blogID=278439535>>. Similarly, after the video, *Vogue*, was featured in *New York Magazine*, it was removed from iMeem, apparently in response to a DMCA takedown notice. See Walker, *supra* n.63.

1. The Availability for Use of Copyrighted Works

Section 1201(a)(1)(C) instructs the Librarian of Congress to consider four nonexclusive considerations in weighing proposed circumvention exemptions. The first consideration is "the availability for use of copyrighted works."⁶⁷ In the context of exemptions that would permit the circumvention of CSS on DVDs, the Copyright Office has interpreted this statutory instruction to require "examination of the alternative forms in which the 'work,' i.e., the motion picture or audiovisual work, was available for use."⁶⁸

In previous rulemaking proceedings, the motion picture industry has argued that circumvention of CSS on DVDs should not be permitted so long as noninfringing uses can be accomplished by other, albeit more expensive and less convenient, means. These alternatives are impractical, inadequate, or both, for many remix video creators engaged in the noninfringing uses describe above. In other words, even one were to assume, *arguendo*, that CSS has made more copyrighted works available for purely consumptive uses, it has simultaneously made those works *less available* to remix video creators.

The alternatives for taking clips from DVDs proposed in previous rulemakings fall short for most remix video creators for one simple reason: they lack the legal sophistication necessary to understand that their legal risk may vary based on the technologies they use to capture DVD clips. The proposed exemption is limited to noncommercial remix video creators, the group that is most likely to lack access to legal advice in advance of creating their videos. While these creators might have a rudimentary understanding of copyright law, and perhaps even some notion of fair use, they are particularly unlikely to appreciate the different (and counterintuitive) ways that § 1201(a)(1) treats the following scenarios:

- Ripping from a DVD you lawfully possess, using widely available free software such as Handbrake, in order to take short clips for use in a remix video (viewed as illegal circumvention by major motion picture studios);
- Using a camcorder and flat screen TV in order to capture the same clips for the same purpose (no circumvention);
- Connecting the analog outputs from a DVD or VHS player to a personal computer equipped with video capture capabilities in order to capture the same clips for the same purpose (no circumvention);
- Downloading a digital copy of a DVD from an unauthorized BitTorrent site, like those that can be found through The Pirate Bay, in order to excerpt the same clips for the same purpose (no circumvention).

As applied to hobbyist creators engaging in noncommercial creativity, these legal distinctions amount to little more than a trap for the unwary. By taking the course that seems most fair and "legitimate"-namely, using your own DVD drive to take excerpts from a DVD you lawfully possess-these creators will have unknowingly violated § 1201(a)(1).

In short, in the absence of sophisticated copyright counsel, the "alternatives" posited by motion picture studios are largely irrelevant to remix video creators-they will never know to seek

⁶⁷ 17 U.S.C. § 1201(a)(1)(C)(i).

⁶⁸ 2006 Recommendation at 22.

them out in the first place. Their first encounter with § 1201(a)(1) and its counterintuitive set of distinctions is likely to come only if their video is targeted for enforcement action, whether in the form of a DMCA takedown notice or direct threat of suit.

Moreover, many of the "alternatives" theoretically available to remix video creators require additional equipment and technical expertise that are beyond their reach. Many computers of recent vintage include a DVD drive and video editing software (all Apple Macintosh computers, for example, include software like iMovie). Simply downloading one of a number of free DVD "rippers," such as Handbrake, DVD Shrink, or Mac The Ripper, equips the aspiring remix video creator with the tools to take high-quality excerpts from DVDs. In contrast, "camcording" alternatives require that the creator purchase a camcorder, find a flat screen display⁶⁹ from which to record, and figure out how to import the resulting footage into video editing software on a personal computer. Alternatives that rely on the "analog hole" or the use of VHS source materials require creators to obtain and learn how to use additional video capture hardware for their computers. These additional hurdles will increase costs (in both time and money) for many noninfringing amateur creators, and may well deter others from undertaking projects at all.

Strict application of § 1201(a)(1) would also result in perverse incentives for remix video creators. Of all the "alternatives" available to creators who understand the circumvention restrictions imposed by § 1201(a)(1), by far the easiest and least cumbersome would be to simply download content from unauthorized Internet sources. This outcome seems distinctly less desirable than permitting remix video creators, many of whom are fans who eagerly purchase the works that they remix, to use their own DVD copies in the course of creating noninfringing remix videos.

Finally, as the Copyright Office recognized in 2006, many "alternatives" for taking clips from DVDs result in compromised video quality. Video quality matters to many kinds of remix creators today and is likely to become more important in the next three years. For example, in the vidding community, using the highest quality video available is frequently critical to the expressive message that vidders are attempting to convey. In the words of one vidder:

Vidders want to create immersive experiences, and they are highly invested in visual communication and aesthetics. Poor-quality source interferes with all of these, hence the community's determination to use the best-quality source footage available.⁷⁰

Professor Coppa agrees:

Vidders want the best-looking footage available, and will rate "crisp source" highly when discussing a vid's merits. While there are some folks who still capture, capturing is more expensive, requires more technical expertise, and typically looks less good. Ripping from DVDs tends to get you better source than downloaded .avis, which are frequently recorded off broadcast television, and may be low-resolution or have bugs or other visual artifacts⁷¹

⁶⁹ Recording from a traditional CRT displays frequently results in "roll bar" distortion unless a "sync box" is used. *See generally* Kris Malkiewicz, M. David Mullen & Jim Fletcher, CINEMATOGRAPHY: A GUIDE FOR FILMMAKERS AND FILM TEACHERS 213 (3d ed. 2005).

⁷⁰ Interview with anonymous vidder, attached as Appendix C.

⁷¹ Interview with Prof. Coppa, attached as Appendix B.

The critically acclaimed vid, *Vogue*, created by a vidder known as Luminosity, illustrates the importance of video quality to the expressive content of vids. *Vogue* sets a montage of expertly edited, visually arresting excerpts from the film *300* against the music of Madonna's hit song, *Vogue*, thereby commenting on both the film and the song. Comparing the YouTube version with the original makes the importance of video quality starkly obvious. Viewed in "full screen" mode, the high quality original has a clean, professional look that reminds viewers of the self-conscious visual extravagance of the original film, even as Madonna's song reminds us that the film's imagery is an exercise in sexual objectification and violence.⁷² Viewed in YouTube's "full screen" mode, in contrast, the same video loses much of its visual impact and therefore fails to deliver its message with the same emotional force.⁷³ In this context, it is plain that having access to high-quality video excerpts is "necessary to achieve a productive purpose,"⁷⁴ namely to engage in effective criticism and comment within the meaning of § 1201(a)(1)(C)(iii).

Vogue is a reminder that many remix videos are not intended (or not solely intended) for distribution in low-quality mediums like YouTube. Rather, as personal computers and living room home theater systems continue down the road to "convergence," remix videos will increasingly be called upon to deliver their messages on large, high-definition screens. If remix video creators are to have meaningful access to this medium, they have to be able to take high-quality, full-resolution excerpts from DVDs.

2. The Availability for Use of Works for Nonprofit Archival, Preservation, and Educational Purposes

According to the Copyright Office, "the second factor requires a more particularized inquiry than the first," examining the impact of technical protection measures on nonprofit archival, preservation, and educational uses." While EFF believes that CSS has also had a deleterious effect on these uses, the proposed exemption for remix video creators is not aimed at those categories of uses. In any event, for the reasons discussed below, there is no reason to believe that granting an exemption to noncommercial video remix creators will harm the availability of copyrighted works for these nonprofit uses.

3. The Impact on Criticism, Comment, News Reporting, Reaching, Scholarship, or Research

The third statutory factor "requires consideration of whether the [§ 1201(a)(1)] prohibition has an impact on criticism, comment, news reporting, teaching, scholarship, or research."⁷⁶ This consideration reflects Congress' special solicitude for these "traditionally socially productive noninfringing uses."

As discussed above, the prohibition on circumvention of CSS is having a deleterious effect on the a wide variety of remix video creators who are engaged in criticism and commentary. Many of the most widely known remix videos are exercises in (often humorous) commentary or criticism. For example, many leading examples of the so-called "trailer mashup" genre find their

⁷² Available at <<http://slum.slashcity.com/llumleyecandy/multi/vogue-xvid.zip>>.

⁷³ Available at <<http://www.youtube.com/watch?v=IBnKivzLbJE>>.

⁷⁴ 2006 Recommendation at 22.

" *Id.*

⁷⁶ 2006 Recommendation at 23.

" *Id.*

humor in exposing, and thereby commenting on, the emotional manipulation that is the stock in trade of many movie trailers.⁷⁸ One of the most popular trailer mashups, *Brokeback to the Future*, uncovers latent homoerotic themes and possibilities in the midst of the *Back to the Future* family film franchise.⁷⁹

Members of the vidding community are also engaged in a project of criticism and commentary, with many leading vids acting as visual essays regarding the characters and plots of the sources from which they are excerpted. In the words of an anonymous vidder:

Vidding aims to create new meanings from the juxtaposition of video clips and music. These meanings may include parody, criticism, the creation of entirely new stories, meta-discussion, and beyond.⁸⁰

Professor Coppa also emphasizes the centrality of commentary and criticism to vidding:

Vids are arguments. A vidder makes you see something. Like a literary essay, a vid is a close reading. It's about directing the viewer's attention to make a point.⁸¹

Examining the history of vidding, Professor Coppa finds a consistent focus on the part of vidders, who are predominantly female, on fleshing out marginalized (often female) perspectives that are implicit in television shows like *Star Trek* or *Quantum Leap*.⁸² A vid like *Vogue* is a direct exercise in cultural criticism—a stylish attack on the romanticized conjunction of violence and male sexuality in a major Hollywood film. Some vids (such as *Us* by the vidder known as Lim⁸³) can be far-reaching commentaries on vidding and fan culture itself, while other vids (like *Superstar* by the vidder known as here's luck⁸⁴) serve the more modest (but equally fair) purpose of commenting on characters in a favorite TV show.

Professor Wesch has identified a number of popular genres of remix videos on YouTube that are expressly devoted to criticism and commentary.⁸⁵ For example, he points to some 10,000 videos dedicated to film analysis, as well as to videos that collect and comment on "movie mistakes." He also identifies videos that directly criticize the racist stereotypes contained in Disney films or implicit politics of Hollywood blockbusters like *300*. He also notes that clips taken from films or television programs are often used to illustrate political commentaries, such as the speeches of Rev. Jeremiah Wright. And even absurdist videos like those grouped together in the genre "YouTube Poop" can be read as a commentary on remix culture more generally.

Because remix videos are so often created for the purpose of commentary or criticism, the third statutory factor favors the granting of an exemption to alleviate the adverse affects that § 1201(a)(1) has inflicted on remix video creators.

⁷⁸ See, e.g., *Scary Mary Poppins*, <http://www.youtube.com/watch?v=2T5_OAGdFic>; *Must Love Jaws*, <<http://www.youtube.com/watch?v=92yHyxeju1U>>.

⁷⁹ See *Brokeback to the Future*, <<http://www.youtube.com/watch?v=8uwuLxrv8jY>>.

⁸⁰ Interview with anonymous vidder, attached as Appendix C.

⁸¹ See Walker, *supra* n.63.

⁸² See Coppa, *supra* n.49.

⁸³ Available at <http://www.imeem.com/sublimlvideo/LQU2ToIY/lim_us/>.

⁸⁴ Available at <<http://www.heresluck.net/videos/index.html>>.

⁸⁵ Statement of Prof. Wesch, attached as Appendix A.

4. The Effect on the Market for, or Value of, Copyrighted Works

In weighing proposed exemptions to § 1201(a)(1), Congress instructed the Librarian to consider "the effect of circumvention of technological protection measures on the market for or value of copyrighted works." In previous rulemaking proceedings, motion picture studios have asserted that any exemption that permits circumvention of CSS would reduce their willingness to make films available on DVD. In the 2000 and 2003 rulemaking proceedings, the Copyright Office accepted these assertions, finding that "the motion picture industry's willingness to make audiovisual works available in digital form on DVDs is based in part on the confidence it has that CSS will protect it against massive infringement."⁸⁶ Whatever the merits of that view as applied to the facts in 2003, the facts have plainly changed since then, as EFF explained in its submission during the 2006 rulemaking proceeding." Simply put, if the widespread, free availability of CSS circumvention tools since the 2003 rulemaking has not dampened Hollywood's ardor for DVDs, authorizing remix video creators to circumvent CSS will hardly tip the scales.

Notwithstanding the anti-trafficking prohibitions contained in § 1201(a)(2), tools capable of circumventing CSS have been widely, continually, and freely available since the 2003 rulemaking proceeding. Free, easy-to-use DVD ripping software has been continually available on the Internet for all major personal computer operating systems. DVD Shrink, Mac The Ripper, Handbrake, and dvd:rip are among the most popular DVD decryption solutions—all are available free-of-charge and have remained continually available since the 2006 rulemaking.⁸⁸ Many other less popular DVD ripper alternatives, some distributed for free, others for a small fee, also compete with these leading products. Even DeCSS, the first widely distributed DVD decryption software, remains widely available online, even though it has long-since been surpassed in ease-of-use and sophistication by its descendants."

These tools have been readily accessible to mainstream personal computer users for many years. DVD ripping software, once the domain of a small band of enthusiasts, is now regularly reviewed in mainstream publications, including *USA Today*, *MacWorld*, *PC World*, *PC Magazine*, and the *Fort Worth Star Ledger*.⁹⁰ In light of this reality, millions of Americans have had DVD circumvention tools at their disposal for many years.

⁸⁶ 2003 Recommendation at 119.

"Reply Comment of the Electronic Frontier Foundation, Docket No. RM 2005-11 (filed Feb. 2, 2006).

⁸⁸ See Adam Pash, *Five Best DVD Ripping Tools*, LifeHacker blog, Apr. 17, 2008, available at <<http://lifehacker.com/380702/five-best-dvd-ripping-tools>>.

" See Anuj C. Desai, *Software as Protest: the Unexpected Resiliency of U.S. Based DeCSS Posting and Linking*, 20 THE INFORMATION SOCIETY 101 (2004), available at <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=729931>.

⁹⁰ See Christopher Breen, *Updated Handbrake encodes more than DVDs*, MACWORLD, Oct. 1, 2008, available at <http://www.macworld.com/article/135834/2008/10/handbrake_update.html>; Kyle Monson, *7 Tools for Ripping Your DVDs*, PC MAGAZINE, Sept. 11, 2008, available at <<http://www.pcmag.com/article2/0.2817.2330176.00.asp>>; Preston Gralla, *14 Great Multimedia Utilities*, PC WORLD, May 28, 2007, available at <http://www.pcworld.com/article/131990-3/14_great_multimedia_utilities.html>; *What Apple TV Hackers are Hacking*, USA TODAY, Apr. 15, 2007, at 3B; Michael Gerst, *Dr. Emilio Bombay Column*, FT. WORTH STAR-LEDGER, June 11, 2004.

The potential impact of these CSS circumvention tools on movie industry incentives has doubtless been exacerbated now that DVD burners have been eclipsed by devices that can play video files directly without the need for optical media. Whereas many consumers in 2006 needed to copy a DVD to recordable DVD blanks before they could play them, today even that minor inconvenience has been eliminated. For example, digital media players like the iPhone and iPod Touch allow consumers to watch movies ripped from DVD. Media extenders, such as the Apple TV and Microsoft Xbox 360, also permit consumers to watch content ripped from DVDs on their TVs. As a result, today most DVD ripping software comes preconfigured to rip, transcode, and compress DVDs so as to enable direct playback of the video files. The continued popularity of "all you can rent" video rental operations, the model pioneered by Netflix, has also facilitated access to a large library of DVDs from which copies can be made. Over the next three years, none of these realities is likely to change.

The efficacy of CSS as a mechanism for preventing widespread unauthorized copying has also been eroded by the continued popularity of peer-to-peer file sharing and other so-called "darknet" technologies." In a digital environment characterized by high-bandwidth communications channels, the leakage of even a small number of formerly "protected" copies into these channels leads to their widespread distribution without any further need for circumvention by the ultimate users. Accordingly, so long as even a small number of individuals are able to circumvent CSS, decrypted copies of formerly CSS-encrypted films will be widely distributed to large numbers of less sophisticated users, none of whom will need access to circumvention tools themselves. This reality accounts for the near-instantaneous availability of a vast library of films and television programs from sites like The Pirate Bay, which recently boasted 25 million users simultaneously sharing material over the Internet. Downloading these films does not require any circumvention tools—the content drawn from DVDs comes "pre-circumvented." Despite efforts by law enforcement and the motion picture industry, it seems apparent that much of the most popular material released on DVD will continue to be freely available through Darknet channels during the next 3 years.

In summary, developments during the most recent exemption period have made it clear that, whatever its efficacy in the past, CSS is no longer protecting digital content on DVD from widespread infringement. Millions of U.S. consumers already possess circumvention tools capable of defeating CSS. Millions more are able to download DVD content from P2P networks and other darknet channels without having to circumvent CSS at all. And new technologies, including portable media players and home media servers, are giving consumers ever more reasons to copy their DVDs.

What impact has the widespread circumvention of CSS had on the availability of digital audiovisual content on DVD? As mentioned above, the Copyright Office in 2000 and 2003 feared that the grant of even a limited DVD exemption might undermine the motion picture industry's incentives to continue making content available on DVD. Had those anxieties been well-founded,

⁹¹ The term "darknet" and its implications for digital distribution were developed in a paper authored by senior Microsoft engineers in 2002. See Peter Biddle, Paul England, Marcus Peinado & Bryan Willman, *The Darknet and the Future of Content Distribution* (2002), available at <<http://crypto.stanford.edu/DRM2002/darknet5.doc>>; see also Fred von Lohmann, *Measuring the Digital Millennium Copyright Act Against the Darknet: Implications For the Regulation of Technological Protection Measures*, 24 LoY. ENT. L. REV. 635 (2005).

then the broad availability of DVD ripping software should have resulted in a conspicuous downturn in the number of DVDs released.

The empirical evidence proves just the opposite. Even though DVD sales have begun to plateau as the format reaches its maturity, major motion picture studios have continued to release new DVD titles in ever-increasing numbers, including classic titles, television series, and growing array of "direct to DVD" releases⁹² DVD sales and profitability continue to account for a large portion of movie studio revenues.⁹³ This evidence suggests that, whatever the contribution of CSS to the availability of content on DVD may have been in the past, today the motion picture industry's willingness to release material on DVD is not correlated to any illusory security provided by CSS.

Moreover, the proposed exemption for remix video creators would authorize circumvention solely for noninfringing purposes and would not authorize distribution of CSS circumvention devices. Accordingly, nothing about the proposed exemption would hinder any enforcement efforts by movie studios against those who traffic in circumvention tools, just as the exemption granted to film professors in 2006 had no impact on those efforts.

Accordingly, if the widespread circumvention of CSS has not adversely affected movie studio incentives to release material on DVD, the activities of remix video creators certainly will not do so. If anything, granting this exemption will support legitimate sales of DVDs, as many video remix creators will have a reason to prefer purchasing DVDs over utilizing unauthorized sources.⁹⁴

EFF expects the motion picture studios will once again rely on self-serving statements regarding the industry's reliance on CSS as a linchpin for DVD distribution. Unless those assertions are backed by concrete evidence that an exemption for noncommercial video remix creators will result in diminished availability of audiovisual content on DVDs, the Librarian should discount those assertions. Moreover, because the Copyright Act has never granted copyright owners any right to control fair uses, any argument that an increase in fair use (as distinguished from infringements) might diminish copyright owners' incentives to release their works should also be discounted, as the right to control fair uses were never meant to be part of those incentives in the first place.

V. Conclusion

For the reasons described above, the Librarian should determine that the noninfringing uses described herein are, and are likely to be, adversely affected by the prohibitions of § 1201(a)(1), and therefore approve the two proposed exemptions for the period 2009-2012.

December 2, 2008

Submitted by:

⁹² According to The Digital Bits, <<http://thedigitalbits.com>>, there are more than 93,000 titles available on DVD as of November 2008, as compared to 65,937 as of November 2006.

⁹³ Brooks Barnes, *DVDs, Hollywood's Profit Source, Are Sagging*, N.Y. TIMES, Nov. 20, 2008, available at ><http://www.nytimes.com/2008/11/21/business/21dvd.html>>.

⁹⁴ See Interview with Prof. Coppa, attached as Appendix B (noting that vidders often purchase multiple versions of their favorite shows from which to draw clips).

Fred von Lohmann
Jennifer S. Granick
Electronic Frontier Foundation
454 Shotwell St.
San Francisco, CA 94110
(415) 436-9333
(415) 436-9993 (fax)
fred@eff.org

APPENDIX A

Statement of Prof. Michael Wesch

Assistant Professor of Cultural Anthropology and Digital Ethnography

Kansas State University

November 28, 2008

I am Assistant Professor of Cultural Anthropology and Digital Ethnography at Kansas State University in Manhattan, Kansas. My research is focused on exploring the impact of new media on society and culture. More information about my publications and research interests can be found at my website, Mediated Cultures (<<http://mediatedcultures.net/ksudigg/>>).

As part of my research, I teach a course in digital ethnography and am the project director for the Digital Ethnography of YouTube project. Combining the efforts of both professors and students, the project has since 2007 simultaneously participated in and observed (a technique known as "participant observation") the YouTube community. On June 23, 2008, I presented a talk entitled "An Anthropological Introduction to YouTube" at the Library of Congress describing some of the early insights gleaned from this research effort.⁹⁵

During October and November 2008, the Digital Ethnography project examined two separate random samples of YouTube videos in an effort to roughly estimate how many YouTube videos are "remixes" that include clips taken from television or films.

Our October random sample consisted of 240 videos, of which 18 were remixes. Of the 18 remixes, half (9) involved clips that appear to have been taken from DVDs, and thus whose creation may have involved a violation of the Digital Millennium Copyright Act's prohibition on ripping DVDs. Although this sample suggests that only 7.5% of the videos uploaded to YouTube are remixes, and only 3.75% include clips taken from DVD sources, even these small percentages translate into large numbers of videos, given the enormous number of videos uploaded to YouTube. For example, 7.5% of YouTube videos translates into approximately 15,000 videos uploaded each day.

In November, we repeated our experiment and found 5 remixes that included movie clips in a relatively random sample of 240, suggesting that about 4,000 are uploaded every day. However, given the small number in our sample, the actual daily average is more likely to fall somewhere between 2,000 and 6,000.

Given the small sample sizes involved, these numbers are necessarily only suggestive. We would have to do several more studies before coming to firm conclusions regarding the overall number of movie-related remixes on YouTube. Nevertheless, based on these two samples, as well as my anecdotal experience with the Digital Ethnography project, I believe that there are large communities of YouTube users who regularly, albeit unintentionally, violate the DMCA's ban on ripping DVDs in the course of creating original remixes.

⁹⁵ The presentation can be viewed at <http://www.youtube.com/watch?v=TPAO-lZ4_hU>.

The following constitute a sampling of established, popular YouTube remix genres and communities that are likely to fall into this category of unintentional DMCA violators:

1. Movie Trailer Remixes.

A search for "remix trailer" on YouTube returns more than 17,000 hits, and, based on analysis of a sample of these results, we estimate that there are probably about 13,000 of these posted on YouTube.

Examples include:

- Brokeback to the Future (viewed more than 5 million times)

<<http://www.youtube.com/watch?v=8uwuLxrv8jY>>

- Scary Mary Poppins (viewed more than 7 million times)

<http://www.youtube.com/watch?v=2T5_OAGdFic>

2. Fihn Analysis.

There are probably about 10,000 of these, such as:

- Psychological Aspects of the Matrix

<<http://www.youtube.com/watch?v=AEisRob4xKw>>

3. Movie Mistakes.

People like to share little inconsistencies, anachronisms, and other mistakes they find in the movies. It is hard to estimate how many of these there are. Here is an example:

Movie Mistakes 1

<<http://www.youtube.com/watch?v=8ra-7brEEsg>>

Harry Potter Movie Mistakes

<<http://www.youtube.com/watch?v=FiZHji1CE9I>>

4. Comic Juxtaposition Remixes.

The most popular of late would be the Downfall remixes (Hitler Remixes)

<<http://blog.wired.com/underwire/2008/05/adolf-hitler-is.html>>

5. Political commentary.

People often borrow clips from movies and television to illustrate political points in various ways. Here is an example:

- Jeremiah Wright Illustrated with Movies

<<http://www.youtube.com/watch?v=xQkHBJS19F8>>

6. Political Criticism of Movies

Here are 2 examples:

- 300 Epithets <<http://www.youtube.com/watch?v=XwFopYOXBQ0>>

- Disney Racism <<http://www.youtube.com/watch?v=LibK0SCpIkk>>

7. "YouTube Poop"

A small but thriving community making remixes that ape and mock the lowest technical and aesthetic standards of remix culture to comment on remix culture itself. For example:

- Youtube Poop: Arthur's Massive, Throbbing Hit

<<http://www.youtube.com/watch?v=RJk4N9gEEmk>>

APPENDIX B

Interview with Prof. Francesca Coppa
Director of Film Studies at Muhlenberg College
November 18, 2008

Professor Francesca Coppa is the Director of Film Studies at Muhlenberg College and a founding member of the Board of Directors for the Organization for Transformative Works (OTW), a nonprofit organization dedicated to celebrating and preserving fanworks and fan practices, including vidding.

She has written and lectured extensively on vidding and directed a series of short films explaining vidding to middle and high schoolers for MIT's New Media Literacy project.⁹⁶ She is also the director of the OTW's "Vidding History" project, which is documenting the oral history of some of the first vidders. Her lectures and publications on vidding include:

"A Fannish Taxonomy Of Hotness," *Cinema Journal* (forthcoming Summer, 2009)

"Vidding," for *Women in Science Fiction and Fantasy: An Encyclopedia*, ed. Robin Reid (North Carolina: Greenwood, 2008)

"Women, Star Trek and the Early Development of Fannish Vidding," for *Transformative Works and Cultures* (Published by the Organization For Transformative Works.) Issue I, September IS, 2008.⁹⁷

"A Brief History of Media Fandom," in *Fan Fiction and Fan Communities in the Age of the Internet*, ed. Hellekson & Busse, (MacFarland, 2006) p. 41-59.

Curator, *In Media Res*, an experiment in collaborative, multi-modal scholarship sponsored by Media Commons.

Panelist, "Media Cannibals: A History of Vidding Women," *IP/Gender: Mapping the Connections* (American University School of Law, April 4, 2008)

Speaker, "Media Fetish: The Vidshow," *Beyond Queer: The Spectacle of the Performing Body* (Brown University, April 6, 2008)

Panelist, "From Number One to First Lady: Trek's Christine Chapel and the Development of Fannish Music Video," *Slash 3: The Final Cut* (Leicester, UK; Feb 25, 2008)

Presenter, "Geneology of Vidding," *24/7: A DIY Video Summit* (February 8-10, 2008; School of Cinematic Arts, University of Southern California)

⁹⁶ Available at <<http://techtv.mit.edu/tags/2522-otw/videos>>.

⁹⁷ Available at <<http://journal.transformativeworks.org/index.php/twc/article/view/44>>.

Panelist, "'We are controlling transmission': Female Video Editors and the Literary Music Video," "Creative Transformation: Specificity and Continuity in Unofficial Creative Authorship," MIT5: Creativity, Ownership, and Collaboration in the Digital Age (MIT, April 27-29, 2007)

Panelist, "Media Cannibals: A History of Vidding Women," Inside/Outside: The Gaze and PsychoAnalysis. Feminism(s): Film, Video, and Politics Symposium. (University of Hartford, April 21, 2007)

Could you briefly describe what sets the vidding community apart from other clip-based video creators? Do vidders see themselves as different from many more recent creator communities who have been getting attention on sites like YouTube?

I think that vidders, who are overwhelmingly female, differ from other DIY artists in their aesthetics and purpose. Many vidders use vids to analyze or supplement their mainstream film and television viewing, to draw out their preferred subtextual readings or otherwise reframe visual elements.

Vids are visual essays that respond to a visual source. Many vidders use music to create, extrapolate, or analyze the relationships between characters, or to articulate a character's otherwise opaque interiority. (One of the first VCR vids ever made, in 1980, set the Who's "Behind Blue Eyes" to a single, wavering frame of Starsky from Starsky and Hutch—the best she could do—thereby imputing an interiority and emotional subjectivity to the Starsky character that the show never gave him.)

Vidders tend to feel that they were making "user-generated content" uphill in the snow both ways—that is to say, long before the internet and the rise of digital culture made it much easier. The organized vidding community dates their art form from the slideshows that Kandy Fong made in 1975, and there was a twenty-five year period where VCRs were the dominant technology. Many of the aesthetic and technical problems vidders face existed before the web and digital video. For example, vidders have always wanted to get clean source, to isolate the most beautiful frames, to be able to color tint footage, or otherwise create emotionally meaningful color palettes. They're now artists working mainly with digital tools, but they're trying to solve technical problems and work to aesthetic standards that predate the digital world.

Are most vidders amateurs in video editing? Are their activities generally noncommercial?

Yes, most vidders are amateurs with no professional training in filmmaking or film editing, though many of the best vidders did some sort of art (drawing, painting) at school, and others have technical or computer backgrounds. I have argued that this latter point was important in the vidding community: vidding women tend to be women who are not afraid of technology, and they tend to see vidding as a series of technical challenges without being aware of the legal issues associated with those technologies. The vidding community is a great source of technical and aesthetic mentoring, particularly for women who might not otherwise ever have thought of themselves as filmmakers, but it does not prepare them to deal with the legal questions.

Vidding is entirely noncommercial, part of fandom's "gift culture." Vidders just want to share their work with like-minded fans, and so will stream their vids online, or offer them for

download, or give DVDs away at cons. Some vidders charge for the cost of the DVD disc or shipping. (I saw my first vids on VHS, on a tape that was mailed to me for the cost of shipping.)

That being said, non commercial does not mean "not serious." Vidders take their art seriously, and there is a culture of public review and criticism. Moreover, vids are being recognized as "art" in various ways. My essay in *Cinema Journal*, above, is one of three dealing with vids in that issue. Lim's vid "Us," which was shown at 24/7 DIY at USC and was part of Michael Wesch's presentation on YouTube to the Library of Congress, is now going to appear in an exhibition entitled "Mediated" at the California Museum of Photography (January 24, 2009 - April 4, 2009). Luminosity's vid "Vogue" was cited as one of the 20 best user-generated videos of 2007 by *New York Magazine*.⁹⁸ Seah and Margie's vid "Handlebars" was sent to the creative team behind *Doctor Who*, who then raved about it in their blog. Those are only three of many recent examples.

Do vidders frequently rip commercially-released DVDs in order to extract clips? It sounds like some vidders use .avis downloaded from unauthorized BitTorrent sources (are all the source materials available that way? obscure shows?). Others rely on video capture from analog outputs. Is DVD viewed as superior to these alternatives?

Vidders want the best-looking footage available, and will rate "crisp source" highly when discussing a vid's merits. While there are some folks who still capture, capturing is more expensive, requires more technical expertise, and typically looks less good. Ripping from DVDs tends to get you better source than downloaded .avis, which are frequently recorded off broadcast television, and may be low-resolution or have bugs or other visual artifacts.

Vidders typically want the cleanest, biggest clips their systems can handle, because they want to transonnrework the footage in various ways-changing speed, color, adding effects, creating manipulations, masking out elements-and the better the footage you start with, the more you can do with it.

This was always a concern, even before DVDs. First generation broadcast tapes (VHS taped off television) were prized; in the days before everything was on DVD, you might only have seen an old show because someone had double-taped their tapes for you, so most vidders were working from tapes of tapes of tapes. Vidders raced to buy the first professional VHS issues of popular fannish shows like *Star Trek* and *Highlander* when they became available, though few TV shows made it to professional VHS. Vidders then bought the DVDs of those same shows when they became available, and are likely customers for anything with bonus footage or extended editions. (For example, the blooper clip version!easter egg clip of Yoda dancing that appeared on the *Star Wars* extended edition was featured in a vid. It is also worth noting that vidders tend to keep every version of a beloved source, so many *Star Wars* vidders are holding onto their VHS cassettes of *Star Wars* to vid with since Lucas changed the source in subsequent editions.)

Could you make a rough order of magnitude estimate of the number of vids that have been created by self-identified vidders?

By self-identified vidders, tens of thousands easily. That number goes into the millions if you look at YouTube and what organized vidders sometimes call the "feral" vidders-vidders who

⁹⁸ Logan Hill, *The Vidder*, NEW YORK MAGAZINE, Nov. 12, 2007, available at <<http://nymag.com/movies/features/videos/40622/><.

have been inspired by vids they've seen, or have just invented some version of the idea for themselves in their basement, without becoming involved in the community of self-identified vidders.

Is the quality of the video source important to members of the vidding community?

Yes, very much so, see question four, above. I want to reiterate again that vidders are visual artists. They are deeply invested in aesthetics. They want to make smart vids that are also beautiful. And the better the source footage you start with, the more you can do to it, the "shinier" it looks. It is also worth noting that vidding is a real labor of love. Some vidders may spend half a year on a single vid.

Do you think the vidding community has a clear understanding of what the DMCA prohibits, particularly the legal difference between digitally "ripping" a DVD and using the "analog hole" to capture from a DVD?

While vidders tend to think more about copyright and DMCA than the average person, no, I don't think there's a clear understanding of DMCA: certainly not of any legal difference between capturing and ripping.

I'd say that the big legal line many vidders draw is between "paying" and "not paying" for source footage-vidders are likely to pay for DVDs, even to pay multiple times for multiple sets of DVDs, and to feel that they have the right to make art from them.

APPENDIX C

Interview with an anonymous vidder

November 18, 2008

The anonymous subject of this interview has been vidding since 2000. In that time, she has made approximately 30 vids. She has also mentored young vidders, provided "beta" (critique) for dozens of other vidders seeking help with their vids in progress, led panels on vidding at conventions, and curated vid shows.

Could you briefly describe what sets the vidding community apart from other clip-based video creators? Do vidders see themselves as different from many more recent creator communities who have been getting attention on sites like YouTube?

Vidders definitely see themselves as different from other creator communities. The differences are in part historical—we've been doing this since the 1970s—but primarily artistic and aesthetic. Vidding aims to create new meanings from the juxtaposition of video clips and music. These meanings may include parody, criticism, the creation of entirely new stories, meta-discussion, and beyond. Many vidders see themselves as visual storytellers.

Are most vidders amateurs in video editing? Are their activities generally noncommercial?

Very few vidders have any training in film arts or video editing, although a handful have studied them in college.

The vidding community, like the larger media fandom community, has long-held standards against any vidder making a profit from her work. The primary means of distribution is on the Internet, for free. Secondarily, vidders show their vids at conventions, where they are not paid for their submissions. A small number of vidders release collections of their work, often for free, sometimes for the cost of materials and postage. No one makes money from this hobby; in fact, we tend to spend a good deal of money on it, from souped-up computers and external hard drives to high-end professional editing and post-production software to the show DVDs and music we buy.

Do vidders frequently rip commercially-released DVDs in order to extract clips? Is DVD ripping viewed as superior to other available alternatives?

Most vidders I know rip source from commercially-released DVDs. Some also download footage, but not all sources are available for download. Some vidders still use video capture, but the community at large is very concerned with the quality of the footage, and video capture results in noticeable quality loss. Increasingly, Windows-based vidders rip DVDs and work directly with the VOB files in AVISynth in order to avoid any quality loss at all.

Could you make a rough order of magnitude estimate of the number of vids that have been created by self-identified vidders?

I have thousands of vids in my personal collection alone. My guess is that there are tens of thousands of vids in the world at the moment, and that number is increasing all the time.

Is the quality of the video source important to members of the vidding community?

Source quality is very important. It always has been, even when vidders were using videotaped source-dedicated vidders would buy high-end "prosumer" machines that could record S-VHS (Super-VHS) for the best possible quality in that medium. *You* worked from first-generation tapes as much as possible.

Vidders want to create immersive experiences, and they are highly invested in visual communication and aesthetics. Poor-quality source interferes with all of these, hence the community's determination to use the best-quality source footage available.

Do you think the vidding community has a clear understanding of what the DMCA prohibits, particularly the legal difference between digitally "ripping" a DVD and using the "analog hole" to capture from a DVD? How likely is it that vidders will have access to the legal expertise to address these subtle issues?

Some vidders are fairly savvy on copyright issues in general, but as most of us are not lawyers, it doesn't make sense to us to differentiate ripping from video capturing. And increasingly, vidding is being practiced by large numbers of young people who may have no roots in the traditional vidding community, who came of age with the Internet, and who have no sense of the legal restrictions that may affect their hobby. These are the people the rest of us tend to worry most about, in terms of potential legal liability.