Before the
United States 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 2011-07

PROPOSED CLASS #1 PROPONENTS:

INTERNATIONAL DOCUMENTARY ASSOCATION,
KARTEMQUIN EDUCATIONAL FILMS, INC.,
NATIONAL ALLIANCE FOR MEDIA ARTS AND CULTURE, AND
INDEPENDENT FILMMAKER PROJECT

PROPOSED CLASS #2 PROPONENTS:

MARK BERGER, BOBETTE BUSTER,
BARNET KELLMAN, AND GENE ROSOW

SUBMITTED BY:

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December 1, 2011

David O. Carson
Copyright GC/I&R
United States Copyright Office
PO Box 70400
Washington, DC 20024–0400

RE: In the matter of exemption to prohibition on circumvention of copyright protection systems for access control technologies, Docket No. RM 2011-07

Dear Mr. Carson,

Pursuant to the Notice of Inquiry of Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies ("NOI"), we hereby submit two Comments requesting that the Librarian of Congress exempt the two classes of works from 17 U.S.C. § 1201(a)(1)'s prohibition on the circumvention of access control technologies for the period 2012-2015.

We have submitted these Comments together in one document. Although the proposed classes differ, as do the Commenters requesting each exemption, we have submitted the Comments jointly because the proposed classes and the uses in question share many factual and legal similarities. The proposed classes are:

Proposed Class #1:

Motion pictures that are lawfully made and acquired from DVDs protected by the Content Scrambling System and Blu-Ray discs protected by Advanced Access Content System, or, if the motion picture is not reasonably available on DVD or Blu-Ray or not reasonably available in sufficient audiovisual quality on DVD or Blu-Ray, then from digitally transmitted video protected by an authentication protocol or by encryption, when circumvention is accomplished solely in order to incorporate short portions of motion pictures into new works for the purpose of fair use, and when the person engaging in circumvention reasonably believes that circumvention is necessary to obtain the motion picture in the following instances:

- documentary filmmaking; OR
- fictional filmmaking.

Proposed Class #2:

Motion pictures that are lawfully made and acquired from DVDs protected by the Content Scrambling System or, if the motion picture is not reasonably available on DVD or not reasonably available in sufficient audiovisual quality on DVD, then from digitally transmitted video protected by an authentication protocol or by encryption, when circumvention is accomplished solely in order to incorporate short portions of motion pictures into new works for the purpose of fair use, and when the person engaging in circumvention reasonably believes that circumvention is necessary to obtain the motion picture for multimedia e-book authorship.

Very truly yours,

Jack I. Lerner

USC Intellectual Property and
Technology Law Clinic

Michael C. Donaldson

Donaldson & Callif, LLP

Before the
United States 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 2011-07

COMMENT OF INTERNATIONAL DOCUMENTARY ASSOCIATION, KARTEMQUIN EDUCATIONAL FILMS, INC., NATIONAL ALLIANCE FOR MEDIA ARTS AND CULTURE, AND INDEPENDENT FILMMAKER PROJECT

Submitted For:

International Documentary Association
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Kartemquin Educational Films, Inc.
1901 West Wellington Avenue
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National Alliance for Media Arts and Culture
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Independent Filmmaker Project
68 Jay Street, Room 425
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TABLE OF CONTENTS

Page

I. PROPOSED CLASS

Motion pictures that are lawfully made and acquired from DVDs protected by the Content Scrambling System and Blu-Ray discs protected by Advanced Access Content System, or, if the motion picture is not reasonably available on DVD or Blu-Ray or not reasonably available in sufficient audiovisual quality on DVD or Blu-Ray, then from digitally transmitted video protected by an authentication protocol or by encryption, when circumvention is accomplished solely in order to incorporate short portions of motion pictures into new works for the purpose of fair use, and when the person engaging in circumvention reasonably believes that circumvention is necessary to obtain the motion picture in the following instances:

- documentary filmmaking; OR
- fictional filmmaking.

II. SUMMARY

It is well established that fair use is a critical part of filmmaking. Every day, filmmakers rely on fair use in order to analyze current events, explore our history, and comment on and criticize popular culture. Filmmakers from all walks of life and with vastly different perspectives contribute to a craft that forces us to examine how we look at certain events, subjects and our own lives. Filmmaking contributes to public learning and acts as a critically important forum for the exchange of ideas; and the doctrine of fair use has long been integral to that role.

In the 2008 Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies rulemaking proceeding, the Librarian of Congress recognized that the Digital Millennium Copyright Act's anti-circumvention rules were harming documentary filmmakers' ability to make fair use, and so granted an exemption to the DMCA allowing them to incorporate "short portions of motion pictures [from DVDs protected by CSS] into new works for the purpose of criticism or comment."[1] That exemption remains critical to documentary filmmaking. However, it is no longer sufficient, in two important respects. First, just as documentary filmmakers rely on fair use, so do those who make fictional films; and just as the DMCA is harming documentary filmmaking, it is harming fictional filmmaking in the same way. Second, as we have transitioned into to a fully digital film ecosystem, filmmakers now face technological protection measures at every turn. While filmmakers still need to obtain material from DVDs in some circumstances, DVD distribution is in a rapid decline, and alternative formats such as Blu-Ray and digitally transmitted video contain authentication protocols or encryption, such as Netflix, iTunes, Pay-Per-View, and Digital Video Recorders. If fair use is to remain a viable part of filmmaking in the digital age, the Librarian must permit both documentary and fictional filmmakers to obtain materials for fair use purposes from Blu-Ray and digitally transmitted video in addition to DVD.

The DMCA anti-circumvention rule plays an even greater role now than it did during the previous Rulemaking. Today, virtually all motion pictures are distributed with encryption, authentication protocols, or both. Since VHS distribution ended in late 2008, physical

[1] Final Ruling for 2008-2010 DMCA Rulemaking Proceeding, Section (III)(A), F.R. 43827.

distribution has become dominated by two encrypted formats: DVD for standard-definition and Blu-Ray for high-definition. In addition, since 2009, when the transition from analog to digital television was completed,[2] televised content has become increasingly restricted by TPMs at each stage of distribution: signals are encrypted between the broadcast station and the digital video recorder or cable box, output from the box is encrypted, and the analog output on digital video recorders and cable boxes can be disabled. Similarly, online Internet-based services such as iTunes, Netflix, and Hulu utilize encryption and authentication protocols as standard procedure.[3]

Along with changes in how films are distributed to and viewed by consumers, the technical standards for film distribution have evolved in ways that require filmmakers to obtain high-definition source materials. Since 2009, many television stations have adopted HD distribution requirements such that virtually all major broadcasters now require that filmmakers deliver their films in HD.[4] Because of this new standard, it is now impracticable for filmmakers to distribute films that make fair use without access to an HD source, such as Blu-Ray. In addition, an increasing amount of motion picture material is not available on DVD, but only on Blu-Ray or via digital transmission services such as cable television and Netflix. Furthermore, alternatives to circumvention are impracticable and unrealistic: they are prohibitively expensive, unreasonably cumbersome, and frequently cannot satisfy the technical standards needed for distribution. In short, without an exemption that addresses the need to access material from DVD, Blu-Ray and digitally transmitted video, it will be impossible for filmmakers make fair use of material they need from motion pictures without fear of civil and criminal liability for violation of the DMCA.

The exemption we propose will not lead to copyright infringement. The requested class is narrowly tailored to a specific category of copyrighted works (motion pictures), limited to two specific groups of users that responsibly make fair use (documentary and fictional filmmakers), and limits circumvention through an incremental approach which requires that the filmmaker first seek to obtain the motion picture material from DVD or Blu-Ray. Only if the motion picture material is not reasonably available on DVD or Blu-Ray – if, for example, it was never released on these formats – or is not reasonably available at sufficient quality – e.g., the motion picture is only available on DVD in standard-definition and high-definition is required by film distribution standards – may the filmmaker obtain the motion picture material from digitally transmitted video. Thus, filmmakers are not free to choose between formats but must follow a specific and thorough procedure before obtaining materials from digitally transmitted video.

Furthermore, as copyright holders themselves, filmmakers rely on and respect copyright, and the filmmaking industry uses a robust set of practices to minimize copyright infringement. For example, in 2005 documentary filmmakers and attorneys drafted the *Documentary Filmmakers' Statement of Best Practices in Fair Use*[5], which has become a powerful tool for educating and implementing fair use in films. In addition, all filmmakers are regularly required to obtain Errors & Omissions ("E&O") insurance, and if fair use is employed, their policies must

[2] The television analog-to-digital transition was completed on June 12, 2009. *See* http://www.fcc.gov/topic/digital-television.
[3] *See* Appendix C, Statement of Eric Rescorla on Digitally Transmitted Video.
[4] See Appendix D, Statement of Jim Morrissette on Technical Issues Facing Filmmakers.
[5] *Documentary Filmmakers' Statement of Best Practices in Fair Use* (2005), http://centerforsocialmedia.org/fair-use/best-practices/documentary/documentary-filmmakers-statement-best-practices-fair-use (last accessed on November 30, 2011).

also cover fair use in order to distribute the films. E&O insurance companies are notoriously risk adverse and require a rigorous evaluation as to whether the film is using the copyrighted material pursuant to the doctrine of fair use, including an opinion letter from an independent attorney with extensive experience practicing copyright law.[6] And more than ever before, filmmakers are also learning more about how to make fair use in an informed and responsible way. Since the July 2010 Rulemaking decision was handed down, dozens of seminars, panels and conferences have focused on the education of filmmakers regarding fair use.[7] Finally, we are not aware of any allegations of copyright infringement arising from the DMCA exemption for documentary filmmaking, nor from any other DVD-based exemption.

For these reasons, the International Documentary Association, Kartemquin Educational Films, the National Alliance for Media Arts and Culture, and the Independent Filmmaker Project respectfully request a narrowly tailored exemption to the DMCA that would permit obtaining materials from DVD, Blu-Ray and digitally transmitted video for inclusion in a documentary or fictional film pursuant to the doctrine of fair use. The requested exemption ensures a continuing robust criticism of and commentary about our culture, affairs, and experience.

[6] *See* Appendix E, Statement of Hiscox USA on Errors & Omissions Insurance.
[7] *See e.g.,* Appendix H, Exhibit of Fair Use Outreach and Seminars Conducted for Filmmakers.

III. FACTUAL BACKGROUND

A. Introduction

Filmmakers require fair use in order to create their films. Documentary filmmaking has a long history of using copyrighted materials in order to comment on or critique American society, politics, and culture. Of course, fictional filmmaking also relies on fair use, whether directly in the form of commentary on real events or indirectly in the form of parody or pastiche.

In today's digital world, however, filmmakers are struggling to make fair use because a large number of important motion picture materials are locked away behind technological protection measures ("TPMs") that prevent filmmakers from accessing them for fear of DMCA liability. As the digital ecosystem has evolved, DVD is no longer the default distribution format that it was in 2008. In the next four years, more and more material will be available on Blu-Ray discs or via digitally transmitted video, such as iTunes or pay-per-view television, but not on DVD. Moreover, in many cases filmmakers must access high-definition content in order to distribute their films. As with DVD, theoretical alternatives to circumvention such as the analog transfer method are impracticable if not impossible. Filmmakers' ability to make fair use can only be adequately protected if they are permitted to access materials from DVD and Blu-Ray, and digitally transmitted video when the motion picture material is not reasonably available on DVD or Blu-Ray or not available in sufficient audiovisual quality.

B. Fair Use is Critical to Both Documentary and Fictional Filmmaking

Filmmakers have long had the right to make fair use with copyrighted materials by incorporating motion picture clips into their films for purposes such as criticism, commentary, news reporting, teaching, or scholarship.[8] Such use is common throughout the media industry.[9]

Furthermore, filmmakers require fair use because the alternative – clearing motion picture clips with rightsholders – remains just as prohibitively restrictive, expensive, and time consuming as it was in 2008.[10] In fact, virtually all licenses for footage from the major studios contain language that prevents licensees from casting the studio or the film from which clips are being licensed in a negative light.[11] As a typical example, one studio's license agreement for the use of clips from a television program within a documentary features the following standard language:

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[8] 17 U.S.C. §107. See infra at Section (IV)(B).

[9] Appendix E, Statement of Hiscox USA on Errors & Omissions Insurance.

[10] *See* Patricia Aufderheide & Peter Jaszi, *Untold Stories: Creative Consequences of the Rights Clearance Culture for Documentary Filmmakers* (2004), http://www.centerforsocialmedia.org/rock/backgrounddocs/printable_rightsreport.pdf. *Untold Stories* shows that licensing fair uses is often not a viable option for documentary filmmakers because many copyright owners generally have little or no incentive to allow documentary filmmakers to comment on or criticize their works and as a result seek steep licensing fees, and copyright owners are usually more sophisticated and have more resources than documentary filmmakers.

[11] Many filmmakers, such as Mr. Gary Cohen, producer of *The Real Rocky* (discussed *infra*), can only obtain clip licenses from rightsholders that are prohibitively expensive and contain clauses that prevent the filmmaker from commenting negatively on the film, the characters, or the rightsholder. *See e.g.*, Appendix F, Exhibit #1 of a Studio Clip License Standard Terms and Conditions; and Appendix G, Exhibit #2 of a Studio Clip License Standard Terms and Conditions.

> *The Picture shall not be derogatory to or critical of the entertainment industry or of [the rightsholder], or any officer, director, agent, employee, affiliate, parent or subsidiary of [the rightsholder] or of any motion picture/television program produced or distributed by [the rightsholder] and none of the Footage will be used in a manner which would be derogatory to or critical of the motion picture/television program from which the Footage was taken or to the persons involved with the making of the motion picture/television program from which the Footage was taken.*[12]

In light of provisions such as this, even where a license is financially feasible, content restrictions make the clips unusable for countless forms of criticism and commentary. Without fair use, many filmmakers would not be able to use copyrighted material simply because the rightsholder does not approve of the filmmakers' message.

Steve Boettcher and Mike Trinklein encountered these clearance problems when they produced two of their American historical documentary programs -- *The Oregon Trail* and *The Gold Rush* -- both of which aired on PBS. Told through the stories of a small group of diverse characters -- Chinese and Chilean, Northerner and Southerner, black and white - *The Gold Rush* tracks the evolution of the 19th century Gold Rush from the easy riches of the first few months to the fierce competition for a few good claims. *The Oregon Trail* offers the complete story of the hardy pioneers who changed the course of American history by tracking the trail blazers' journey along the entire length of the Oregon Trail. In many cases, Boettcher and Trinklein found that they could not afford to license the clips, still photos and historic paintings they needed from the entities that controlled them. Since Boettcher and Trinklein were looking at prohibitively expensive fees from copyright holders offering their regular rates for documentaries, in certain instances fair use was the only option for them to use the clips they needed to illustrate the points their interview subjects were making.

Moreover, a filmmaker may be able to find a copyright holder for source footage, but that copyright holder may not be the only copyright claimant for worldwide rights. For a documentary film being distributed internationally, this can present huge problems. Stanley Nelson, producer of a documentary film about Jesse Owens, the American track-and-field legend who defied the Nazi regime by winning several gold medals at the 1936 Olympic Games in Berlin, needed archival footage from several European sources to illustrate several points that the interview subjects and narrator were making in the documentary. Many of the clips, however, were controlled by multiple copyright owners who demanded separate fees and varied limits on the ability to edit, modify or distribute the footage.

Further complicating the clearance process, other copyright owners demand that licensees get permission from specific individuals who appear in the footage or from organizations whose trademarks, trade names or logos appear in the footage.

Furthermore, clearance inherently fails to ensure access regardless of viewpoint, since rightsholders may refuse to license at their discretion. Documentary and fictional film are essential to society since they enhance democratic debate and civic discourse by casting light on topics that may be controversial to some. Sometimes, this criticism and commentary can only be

[12] Appendix F, Exhibit #1 of a Studio Clip License Standard Terms and Conditions. *See also,* Appendix G**,** Exhibit #2 of a Studio Clip License Standard Terms and Conditions.

effectively conveyed by including materials owned by individuals and entities who feel their interests will be harmed by the criticism and commentary. Without access to materials under fair use, many filmmakers risk being unable to comment on, critique, or otherwise make fair use of copyrighted material simply because the copyright holder does not approve of the use in question.

i. Documentary Filmmaking

As we demonstrated in our 2008 comment, documentaries have a long and vibrant history of relying on fair use in order to critique and comment on reality.[13] Since the first documentary was produced in 1922[14], documentaries have made important contributions to commentary, criticism, education, news, and public discourse.[15] It is common practice for documentaries to utilize copyrighted audiovisual materials pursuant to the doctrine of fair use in order to comment on reality. Furthermore, in the last rulemaking, the Register found that "[d]ocumentary filmmakers…may use works in order to criticize or comment upon the copyrighted work being used. When a motion picture is used for purposes of criticism and comment, such a use is a form of quotation, long recognized as paradigmatic productive use with respect to textual works, which is at the core of fair use's function as a free-speech safeguard."[16]

As copyright holders themselves, documentary filmmakers have established standards to ensure that fair use is used responsibly. In 2005, the documentary filmmaking and legal community developed the *Documentary Filmmakers' Statement of Best Practices in Fair Use* in order to codify the industry's principles of fair use.[17] Shortly thereafter, several media insurance companies began to provide errors and omissions ("E&O") insurance to documentary filmmakers that cover fair uses of copyrighted materials.[18] Media insurance companies are notoriously risk adverse, and in order to issue a fair use rider require an opinion letter from an attorney with substantial copyright experience and who understands fair use.[19] Today, all film distributors require that documentary filmmakers obtain E&O insurance prior to distribution. These internal and external oversight mechanisms ensure that documentary films make fair use responsibly.[20]

ii. Fictional Filmmaking

It is well-established that fictional films can and do make fair use. Many fictional films

[13] *See* 2008 Comment for Kartemquin Educational Films, Inc. and International Documentary Association, Section II (Document 11B), http://www.copyright.gov/1201/2008/comments/kartemquin-ida.pdf (last accessed on November 22, 2011).
[14] Robert Flaherty's *Nanook of the North*, which is generally regarded as the first documentary, was released in 1922.
[15] *See* Appendix A, Statement of the International Documentary Association Statement.
[16] Recommendation of the Register of Copyrights, 2010, p. 50.
[17] *See supra* note 5. The *Best* Practices profile four common types of fair use: (1) critique; (2) illustration; (3) incidental use; and (4) historical sequence.
[18] *See* Appendix E, Statement of Hiscox USA on Errors & Omissions Insurance.
[19] *Id.*
[20] As a powerful example, since July 2010, when documentary filmmakers were granted a limited exemption to the DMCA in order to use materials from DVDs protected by Content Scrambling System ("CSS") for the purpose of criticism or commentary,[20] there has not been a single report or allegation of copyright infringement derived from the exemption.

utilize parody, a form of indirect commentary that utilizes some elements of a copyrighted work in order to comment on the work, which has long been recognized as a form of fair use.[21] For example, the upcoming film *South Dakota* portrays two dramatic stories about unplanned pregnancies along with clips of passionate pro-choice and pro-life advocates. The director, Bruce Isacson, uses clips from documentary interviews and news programs, like *The O'Reilly Factor*, with a wide range of political, scientific, legal, and cultural experts who passionately share their views. The clips accentuate the labyrinthine nature of the situation faced by each young woman. The emotional conclusion of each story leaves audiences with a profound new understanding of a woman's right to choose. Furthermore, like documentary filmmakers, fictional filmmakers must increasingly rely on fair use because of the frequent breakdown of licensing negotiations[22]. Thus, like documentary filmmakers, fictional filmmakers need access to digital sources such as DVD, Blu-Ray and digitally transmitted video to obtain material for fair use. However, unlike documentary filmmakers, fictional filmmakers do not have an exemption allowing them to obtain such materials.

While many fictional filmmakers create their films from whole cloth, fictional filmmakers often incorporate aspects of reality in their films in order to comment on or criticize that reality. In order to fulfill these critical and commentary purposes, fictional filmmakers also make fair use of copyrighted works in the form of parody, reference, and pastiche.[23] Though these forms of commentary may be subtle or indirect, they allow filmmakers to make powerful expressive statements by transforming existing material.[24] Furthermore, some types of fictional film, including "cinema verite," use unaltered reality as a background to present fictionalized characters and narrative; as in documentary film, reality-based fictional films will rely on fair use to permit inclusion of copyrighted works captured "incidentally."[25]

Furthermore, fictional filmmakers, like documentary filmmakers, have established practices to ensure that fair use is done responsibly. Filmmaker organizations like Film Independent and the University Film and Video Association put on events to inform filmmakers about best practices in fair use.[26] Today all film distributors require that fictional filmmakers obtain E&O insurance prior to distribution. As with documentary filmmaking, media insurers issue fair use endorsements on E&O insurance, but only when supported by both an opinion letter from an attorney asserting that the use of the copyrighted materials comports with the doctrine of fair use and an independent assessment by the media insurance company.[27]

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[21] *See* Campbell v. Acuff-Rose Music, 510 U.S. 569, 580 (1994). See also infra at Part IV.A.
[22] *See supra* Section B for an example of restrictive licensing terms.
[23] *See* Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569 (1994); (stating that fair use in parody must involve comment on the work used); cf. MCA, Inc. v. Wilson, 677 F.2d 180, 185 (2d Cir. 1981) (stating that permissible parody should target the original, but may also reflect on life in general). *See also* Murav. Columbia Broad. Sys., Inc., 245 F. Supp. 587 (S.D.N.Y. 1965) (reproduction of a copyrighted puppet on a television program); Jackson v. Warner Bros., Inc., 993 F. Supp.585 (E.D. Mich. 1997) (depiction of copyrighted lithographs on wall of set in film). *See also*, Amsinck v. Columbia Pictures Indus., Inc., 862 F. Supp. 1044 (S.D.N.Y. 1994) (display of copyrighted artwork on a mobile in a film).
[24] *See* Section (III)(B)(ii), *supra* on page 6.
[25] *See supra* note 5.
[26] *See* Appendix H, Exhibit of Fair Use Outreach and Seminars Conducted for Filmmakers.
[27] *See* Appendix E, Statement of Hiscox USA on Errors & Omissions Insurance.

C. Without an Exemption, the DMCA will Prevent Filmmakers From Accessing Materials Required to Make Fair Use

Documentary filmmakers established in the 2008 Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies rulemaking proceeding ("2008 Rulemaking") that without an exemption to the DMCA, fair use in documentary filmmaking would be significantly compromised and they would be adversely affected by the DMCA's prohibition on circumvention.[28] In the 2008 Rulemaking, the Register found that "documentary filmmakers have made a compelling case for the need to use portions of digital versions of motion pictures that existed on CSS-protected DVDs for the purpose of criticism and comment within a documentary."[29]

Today, the DMCA poses an even greater threat to fair use in filmmaking. While DVD still represents an important archive of standard-definition ("SD") material, sales are rapidly declining amid a format shift and the technical standards for broadcast and distribution have been upgraded from SD to high-definition ("HD"). As a result, for many filmmakers, access to SD materials from DVD is not sufficient and access to HD materials from Blu-Ray is required.

Furthermore, the ubiquitous use of TPMs with digitally transmitted video, such as internet video streaming websites or broadcasts captured on DVRs, means that when Blu-Ray is not available, filmmakers cannot access many materials without an exemption. To remedy this harm, both documentary and fictional filmmakers must be permitted to access material on DVD and Blu-Ray in order to make fair use, and when access to optical media is not sufficient to make fair use, they must be permitted to access digitally transmitted video.

i. Filmmakers Continue to Require Materials from CSS-Protected DVDs

The 2010 exemption has been profoundly important for documentary filmmaking. Since July 2010, many documentary films have been produced that would not have been possible without the exemption for criticism and commentary in documentary filmmaking.

For example, the documentary *The Real Rocky*[30] utilized the 2010 exemption in order to obtain short clips from major motion pictures such as the *Rocky* films, *Battle Cry*, and *Broadway Danny Rose*. *The Real Rocky* tells the story of how Chuck Wepner, a former heavyweight champion boxer from New Jersey, arguably became the inspiration for the character Rocky Balboa from the *Rocky* film series. The documentary shows that Mr. Wepner and Sylvester Stallone settled out of court for an undisclosed sum after Mr. Wepner sued Mr. Stallone for violating his right of publicity. The *Rocky* clips used in the documentary were critical to showing the parallels between the lives of Mr. Wepner and Rocky Balboa. The producers of the documentary would have licensed the *Rocky* clips, but clearance of the clips would have required Mr. Stallone's consent. The documentary is told through the eyes of its subject – Mr. Wepner – so receiving permission from Mr. Stallone for the use of clips from the *Rocky* films after their recent settlement was highly unlikely. Without the 2010 exemption, *The Real Rocky* would not

[28] *See* 2008 Comment for Kartemquin Educational Films, Inc. and International Documentary Association, Section (III)(C) (Document 11B), http://www.copyright.gov/1201/2008/comments/kartemquin-ida.pdf (last accessed on November 22, 2011); hereinafter 2008 Comment.
[29] Recommendation of the Register of Copyrights (2010), on page 48; hereinafter 2010 Recommendation.
[30] *The Real Rocky* was produced by Mr. Gary Cohen.

have been able to use utilize any clips from any of the *Rocky* films, which would have profoundly undermined a key comparison at the heart of the documentary.

A Fierce Green Fire is a documentary film produced by Mark Kitchell, a veteran producer of several feature-length documentaries, including the Academy Award nominated film *Berkeley in the Sixties*. *A Fierce Green Fire* is vast in scope, chronicling the environmental movement in all its parts and eras. According to Mr. Kitchell, "If we were forbidden from [obtaining materials from] DVDs, we'd be unable to make our films. It's sometimes impossible to get the material in any other way." For example, Mr. Kitchell required access to footage from several of Adrian Cowell's seminal environmental films in order to tell the sequence about Chico Mendes and the rubbertappers saving the Amazon. Although Mr. Kitchell and Mr. Cowell had reached a tentative agreement to include the footage in *A Fierce Green Fire*, Mr. Cowell passed away in October 2011. As a result, Mr. Kitchell had to rely on the DMCA exemption for documentary filmmakers to access some of the most powerful footage captured of a key event in the international environmental movement. As a seasoned documentarian, Mr. Kitchell understands the position of the copyright owner. "Maybe a hundred filmmakers over the years have used my *Berkeley in the Sixties* as a source of archival material for their films," he says.

Also dealing with environmental issues, *SpOILed*[31] is a documentary that explores the relationship between the American public and the oil industry. In order to make the documentary, *SpOILed* required access to clips from *Black Gold* and *Quest for Fire* in order to illustrate how the oil industry got its start in the United States.

Documentaries utilizing the 2010 exemption are not limited to political issues. *Twine*[32] is a documentary that follows the story of the competition to build the world's biggest ball of twine. *Twine* required DVD clips from *UHF*, *Michael*, *Vacation* and *Drop Dead Gorgeous* in order to demonstrate how the world's largest ball of twine had been referenced in, and influenced, popular culture. *Films of Fury* tells the story of the Kung Fu sub-culture from its ancient Peking Opera origins to its superhero-powered future. Because of the 2010 exemption, *Films of Fury* was able to discuss groundbreaking Kung Fu films such as *Enter the Dragon*, *36th Chamber of Shaolin* and *Police Story*.

These examples illustrate the enormous impact that the 2010 exemption is having on filmmaking. Furthermore, given that the exemption has only been in effect for sixteen months out of the three-year exemption period, we expect the number of documentaries utilizing the exemption to grow in the upcoming months as more documentaries enter production and more filmmakers become educated about the exemption and how it applies to their films.

As we established in the 2008 DMCA Rulemaking, DVDs are an important source of standard definition[33] motion picture materials for filmmakers.[34] Between 1999 and 2010, approximately $154 billion worth of DVDs[35] were sold or rented. Furthermore, no VHS

[31] Mark Mathis directed and produced *SpOILed*.
[32] Bryan Duggan is the producer of *Twine*.
[33] DVD content has 480 vertical lines by 640 horizontal lines.
[34] *See* 2008 Comment Section (III)(B).
[35] Digital Entertainment Group Year-End 2010 Home Entertainment Report, http://degonline.org/pressreleases/2011/f_Q410.pdf (last accessed November 13, 2011).

alternative has existed since December 2008.[36] As a result, a large number of motion picture materials are only available on DVD and may never be re-released in a different format.

ii. Filmmakers Require Material from Blu-Ray Discs Protected by AACS

As the Register acknowledged in her 2010 Recommendation to the Librarian of Congress, it is "clear that a transition is currently taking place to new forms of digital distribution, such as Blu-ray discs protected by the AACS system."[37] Within the next four years, this transition will be complete.[38]

Since 2006, DVD sales have been in a rapid year-over-year decline.[39] Between 2006 and 2010, U.S. DVD revenue declined approximately 31%[40] and the expectation is that DVD sales and rentals will continue to decline. The DVD sales decline is compounded by and intertwined with an ongoing shift in distribution from DVD to Blu-Ray and digitally transmitted video[41] caused by the television industry's transition to HD broadcast standards, increasing penetration of Blu-Ray players[42], and increasing penetration of high-speed internet and internet-enabled televisions. According to Eddie Schmidt, an Oscar-nominated filmmaker and President of the Board of Directors of the International Documentary Association, while the "death of the DVD format … may be perceived as only a slow demise to the general public, it seems like a much quicker nosedive from within the film industry's own production and distribution ranks."[43]

As we established in our 2008 Comment, television distribution is a crucial means by which filmmakers exhibit their works and reach their audiences.[44] As a result, filmmakers are required to produce films and documentaries that meet the technical standards of their television distributors. However, since the 2008 Rulemaking an important change has occurred in television distribution.

On June 12, 2009, the U.S. transitioned from analog to digital television as mandated by Federal Communications Commission ("FCC").[45] The transition to a digital signal made it possible for the first time to deliver HD[46] quality content over TV distribution networks.[47]

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[36] *See* Geoff Boucher, *VHS Era Is Winding Down*, L.A. TIMES (Dec. 22, 2008), http://articles.latimes.com/2008/dec/22/entertainment/et-vhs-tapes22. VHS tapes stopped being commercially distributed in December 2008 when the last commercial distributor, Digital Video and Audio, Inc., stopped producing VHS.

[37] 2010 Recommendation, at 57.

[38] *See* Section (III)(C)(ii), *supra* on page 8.

[39] Digital Entertainment Group Year-End 2010 Home Entertainment Report, *supra* n. 35.

[40] In 2006, U.S. DVD revenue was $20.2 billion. In 2010, U.S. DVD revenue was $14.0 billion. The percent change of approximately 31% was calculated as (20.2-14.0) / (20.2) = 0.307 (30.7%). Digital Entertainment Group Year-End 2010 Home Entertainment Report, *supra* n. 35.

[41] In 2010, Blu-Ray revenue increased 53% and Digital Transmission revenue increased 19%. Digital Entertainment Group Year-End 2010 Home Entertainment Report, *supra* n. 35.

[42] 28.5 million Blu-Ray players have been sold to-date in the U.S with 39% (11.25 million) being sold in 2010. In comparison, approximately 297 million DVD players have been sold in the U.S. to date. Thus, as Blu-Ray player penetration grows, the number of Blu-Ray discs sold will likely also grow.

[43] *See* Appendix B, Statement of Eddie Schmidt on the "Death of DVD."

[44] *See* 2008 Comment Section (III)(D).

[45] http://www.fcc.gov/topic/digital-television (last accessed on November 21, 2011).

[46] SD refers to an image resolution of 480 vertical lines by 640 horizontal lines. True HD refers to 1080 vertical lines by 1920 horizontal lines. Due to the transition period from SD to HD, some televisions only support up to a quasi-HD image resolution that is 720 vertical lines by 1,280 horizontal lines.

Spurred by the opportunity to deliver HD content, many television stations upgraded their transmission infrastructure from SD to HD.[48] For example, prior to the 2009 transition, the Public Broadcasting Station's ("PBS") technical standards only required 480p[49], the SD resolution for DVDs. However, PBS's technical standards now require that all television content be delivered at 1080p[50], the HD resolution for Blu-Ray discs.[51]

For many motion picture materials, Blu-Ray is the only source of HD content that can meet the technical requirements for distribution. Put simply, in order to create 1080p HD films in compliance with TV distribution standards, filmmakers require access to HD materials. The process of film editing typically requires that the source material be of a higher or equal resolution because the editing process inherently degrades the resolution of the source material at numerous points in the process.[52] Due to the stringent HD requirements of the TV stations, many stations reject films that started with one-hundred percent SD source material which was subsequently edited.[53] Furthermore, as we discuss below, the proposed alternatives to circumvention – analog transfer method, scan conversion, and up-conversion – are impracticable if not impossible.[54]

For example, Alfred Spellman – a veteran documentary producer who has produced such acclaimed films as *Cocaine Cowboys*, *The U*, *Square Grouper* and *Raw Deal: A Question of Consent* – is in the development stage for a new documentary, *The Ponzi State*, which explores the Great Recession and investigates how Florida always seems to be on the leading edge of every fraud, scheme, con and hustle. In order to comply with his distributor's technical requirements, Mr. Spellman will require access to HD Blu-Ray materials, which he currently cannot access for fear of DMCA liability.

Many other films require access to HD motion picture materials. *Mormons Make Movies*[55] is a documentary in development that examines the Mormon film industry, its origins

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[47] Unlike analog signals, digital signals are represented by binary numbers (i.e. 0s and 1s) that can be compressed, and therefore increase the efficiency of data transfers. *See e.g.*, http://cnx.org/content/m0074/latest/ (last accessed on November 11, 2011); http://cs110.wellesley.edu/lectures/M07-analog-and-digital/ (last accessed on November 11, 2011); and Milos Ercegovac, Introduction to Digital Systems, John Wiley & Sons, Inc., 1999.

[48] *See e.g.*, Discovery Channel, http://dsc.discovery.com/hdtv/ (last accessed on November 11, 2011); NBC, http://www.nbc.com/hdtv (last accessed on November 11, 2011); and ABC, http://www.directv.com/see/landing/abc_hd.html (last accessed on November 11, 2011).

[49] 480p refers to an image resolution with 480 vertical lines and 640 horizontal lines.

[50] 1080p refers to an image resolution with 1,080 vertical lines and 1,920 vertical lines.

[51] *See* Appendix D, Statement of Jim Morrissette on Technical Issues Facing Filmmakers. *See also*, *PBS Technical Operating Specifications: Program Submission* (2010 Edition), http://www-tc.pbs.org/producing/media/producing/cms_page_media/1/TOS-1-2010%20(Submission%20to%20PBS)%20Revised.pdf (last accessed on November 30, 2011).

[52] The degradation is a result of the frequent decompression and compression of the source video files. In order to edit a video file, the file must be decompressed. However, once the edit is complete, the file must then be re-compressed. At both the de-compression and compression points the image is degraded because the compression algorithms are "lossy," which means that they lose some information every time the compression or decompression algorithms are executed. *See generally*, Appendix D, Statement of Jim Morrissette on Technical Issues Facing Filmmakers.

[53] For example, the television station would like reject a documentary that was originally filmed in standard definition and was simply up-converted to technically have 1080p resolution.

[54] *See* Section (III)(C)(iv)**,** *infra* on page 15.

[55] Xan Aranda is the film's director and a former fifth-generation Mormon.

within the Brigham Young University Motion Pictures Studio, and its development since the 1960s. In order to illustrate the creativity, craft, and social identity of Mormon culture and films since the 1960s while complying with the film's distribution requirements, *Mormons Make Movies* will need to obtain short HD clips from feature films released on Blu-Ray such as *Napoleon Dynamite*. In addition, the movie will address Mormon-produced films that are released in the next two to three years. Similarly, *American Arab* is an in-development film about the identity of and perception of Arab Americans, in which the Iraqi-American filmmaker, Usama Alshaibi, shares his story and the stories of others through the use of historical footage, animation, and real-life footage. In order to illustrate perceptions of Arabs in mainstream media, *American Arab* requires access to HD clips on Blu-Ray discs of recent feature films and television shows that portray Arabs.

Jeffrey Schwarz directed and produced the documentary film *Vito*, which examines the life and activist work of Vito Russo, who found his voice as a gay activist and critic of LGBT representation in the media. Mr. Russo was a passionate activist in the ACT UP movement during the AIDS crisis of the 1980s and also wrote *The Celluloid Closet*, the first book to critique Hollywood's portrayal of gays on screen. Mr. Schwarz used clips from DVDs of several Hollywood films as samples of the films that Russo critiqued for their portrayal of gays in his lectures and his book, including *Dracula's Daughter*, *Strangers on a Train*, *Caged*, *Lawrence of Arabia* and *Rope*. However, Mr. Schwarz recognizes that as the digital ecosystem continues to evolve, his need for higher-quality footage will evolve as well. "Chances are high that I will need to pull clips from …Blu-Ray on future projects," Schwarz notes.

Blu-Ray is also quickly overtaking DVD as the dominant physical media distribution format. DVD is now considered a "declining format" and is expected to experience a significant negative decline over the next three years and ultimately become a defunct format similar to VHS.[56] In contrast, Blu-Ray is rapidly growing and predicted to continue to do so in part because of the strong consumer demand for HD content.[57] In fact, some motion picture materials are now only available on Blu-Ray and will never be released on DVD. For example, *Mortal Kombat: Legacy* was only released on Blu-Ray.[58] In addition, some motion pictures are being released with exclusive materials for Blu-Ray. *Star Wars* was re-released on Blu-Ray in September 2011 with forty hours of special materials.[59]

iii. Filmmakers Require Motion Pictures from Digitally Transmitted Video Protected by Encryption or Authentication Protocols

Today a significant portion of motion picture material is delivered to consumers not by optical media, but by digital transmission.[60] Digitally transmitted video includes services such as

[56] *See e.g.*, http://latimesblogs.latimes.com/entertainmentnewsbuzz/2011/05/dvd-revenue-plummets-44-in-2010-study-says.html (last accessed November 21, 2011).
[57] *See e.g.*, http://www.nytimes.com/2011/10/31/business/media/for-home-entertainment-industry-a-bright-spot.html?_r=1 (last accessed November 22, 2011).
[58] http://www.amazon.com/Mortal-Kombat-Michael-Jai-White/dp/B005H7NO5E (last accessed on November 30, 2011).
[59] *See 'Star Wars' Blu-Ray: An Early Look*, http://blogs.wsj.com/speakeasy/2011/09/16/star-wars-blu-ray-an-early-look/ (last accessed on November 30, 2011).
[60] According to Nielson, in the second quarter of 2011, approximately 143,000,000 Americans watched video on the Internet for approximately 4.5 hours per month. In addition, approximately 110,000,000 Americans watched time-shifted TV (e.g., on a DVR) for approximately 10.5 hours per month. *State of the Media: The Cross-Platform*

cable or satellite television, pay-per-view television, television recorded on digital video recorders, digital downloads from iTunes, and streaming video from many online sites such as Netflix.com or, in some cases, YouTube. Many forms of audiovisual materials are being re-broadcast and stored online. For example, many major news agencies allow consumers to view portions of their news broadcasts online.[61] In addition, many television shows can be lawfully downloaded or streamed soon after they are broadcast on TV. However, most of these digitally transmitted video services are protected by TPMs that prevent filmmakers from making fair use of the materials. Additionally, given that traditional distribution, such as a cable or satellite transmission, of important materials is ephemeral, many filmmakers would not be able to utilize or comment on recent events, politics, or pop culture without access to such digitally transmitted materials.

A large amount of motion picture materials are distributed *solely* via digitally transmitted video. Traditionally, news broadcasts have not been distributed on physical media, but only via terrestrial and satellite distribution. However, recently news broadcasts have been distributed simultaneously or shortly thereafter via Internet streaming, which is also a form of digitally transmitted video. In addition, many streaming video sites have acquired exclusive licenses to distribute content. For example, Netflix's streaming video service will be the exclusive distributor for the 2013 season of *Arrested Development*, a six-time Emmy award-winning television show.[62] Netflix is not alone; Hulu and myriad other services are acquiring exclusive distribution rights for new programming.[63] In addition, many internet streaming services may act as archives of motion picture materials that are not reasonably available on DVD or Blu-Ray.[64]

Many documentary and fictional films require access to motion picture materials that are only available as digitally transmitted video. For example, *The Trials of Muhammad Ali* is an in-development documentary produced by Kartemquin Educational Films that will cover Ali's toughest bout – his battle to overturn the five-year prison sentence that he received for refusing US military service during the Vietnam War. In order to tell this story, Kartemquin will require access to archival footage and news clips of Muhammad Ali that are only available through Internet services such as news websites. In addition, *American Arab*, discussed above in Section III(C)(ii), will require access to both news clips recorded on DVRs and archived on online news sites such as CNN.com.

Report, Nielsen, (Quarter 2, 2011), at page 5, http://www.nielsen.com/content/dam/corporate/us/en/reports-downloads/2011-Reports/nielsen-cross-platform-report-q2-2011.pdf (last accessed November 30, 2011). In addition, well-known Internet video service Netflix.com, recently announced that it has 21,000,000 paying subscribers for its streaming video service. *See* Netflix Amended Quarterly Report 10-Q/A (November 7, 2011), http://ir.netflix.com/common/download/sec.cfm?companyid=NFLX&fid=1193125-11-297992&cik=1065280 (last accessed on November 30, 2011).

[61] *See e.g.*, http://video.foxnews.com/ (last accessed November 22, 2011); http://www.cnn.com/video/ (last accessed November 22, 2011); http://espn.go.com/video/ (last accessed November 22, 2011); http://www.ktla.com/videogallery/ (last accessed November 22, 2011); http://www.msnbc.msn.com/id/8004316/ns/video/ (last accessed November 22, 2011); and http://video.pbs.org/program/newshour/ (last accessed November 22, 2011).

[62] http://www.huffingtonpost.com/2011/11/18/netflix-arrested-development_n_1102443.html

[63] *See e.g., Hulu Expands Original Programming with Sci-Fi & Comedy Shows*, http://mashable.com/2011/06/14/hulu-misfits-booth-at-the-end-whites/ (last accessed on November 30, 2011).

[64] *See e.g., The Keep* (1983); *Song of the South* (1946); and *Captain EO* (1986) – none of which are reasonably available on DVD.

Many digitally transmitted videos are protected by TPMs. However, unlike TPMs on DVD or Blu-Ray, which remain static, TPMs for digitally transmitted videos are dynamic and can be frequently updated or replaced. For example, both CSS on DVD and AACS on Blu-Ray are static TPMs. For both DVD and Blu-Ray, the type and strength of the TPM (e.g., encryption) generally cannot be modified once the material is distributed because both the motion picture material and the TPM were inscribed into the discs. However, digitally transmitted videos – which include Internet streaming websites like Netflix, digital download services like iTunes, pay-per-view television, and television stored on digital video recorders (DVRs) – are capable of utilizing dynamic TPMs that are continually updated and modified. For example, Adobe Flash – one of the most common streaming video platforms for the Internet – requires users to update the Flash software on a regular basis.[65] And although Adobe Flash has been a key platform for digitally transmitted video mobile devices for many years, Adobe recently announced that it will no longer support mobile Flash development and will instead rely on the open HTML5 standard.[66] In short, over the next four years even some of the most well-established platforms for digitally transmitted video will likely change the TPM technology they use.[67]

Because TPMs for digitally transmitted videos are updated and modified on a regular basis, filmmakers face myriad and constantly changing TPM platforms and implementations. However, nearly all of the TPMs share a common framework for protecting access.[68] The common TPM[69] framework for digitally transmitted videos has three components: (1) authentication of the video player by the video source; (2) encryption of the transmitted video file; and (3) active controls on the video player that prevent copying or downloading the video file to a local hard drive.[70] For example, with Adobe Flash, the server hosting the video file will first authenticate that the video player (a Flash video client) is running the correct version of Flash and has not been modified. Second, if the server has been properly configured, it will stream the video file in an encrypted format, utilizing Adobe's RTMPE[71] protocol. Third, the local Flash video player will be configured to allow display of the video file but not copying or download to the local hard drive.[72] This framework also applies generally to two other major video streaming platforms: Silverlight and HTML5.

The same TPM framework applies to recording non-internet transmissions, such as cable or satellite television broadcasts. Digital Video Recorders ("DVRs") have become a common consumer device for recording television programming. However, many DVRs store the recorded television shows on an encrypted hard drive and output the video through an HMDI

[65] Flash's most recent software is the eleventh major iteration of the software. See http://www.adobe.com/software/flash/about/.
[66] *See Flash to Focus on PC Browsing and Mobile Apps; Adobe to More Aggressively Contribute to HTML5* (November 9, 2011), http://blogs.adobe.com/conversations/2011/11/flash-focus.html (last accessed on November 26, 2011).
[67] *See* Appendix C, Statement of Eric Rescorla on Digitally Transmitted Video.
[68] As we discuss in Section (IV)(C)(iv), *infra* on page 26, because most TPMs for digitally transmitted video share a common framework the optimal way to articulate a workable exemption for filmmakers is by identifying the overall framework rather than specific TPMs.
[69] In the context of digitally transmitted videos, TPMs are also called Digital Rights Management ("DRM").
[70] *See* Appendix C, Statement of Eric Rescorla on Digitally Transmitted Video.
[71] RTMPE stands for Encrypted Real-Time Messaging Protocol, which is a proprietary protocol developed by Adobe that is used in lieu of the common HTTP (hypertext transport protocol) to transmit the video file.
[72] *See generally*, Appendix C, Statement of Eric Rescorla on Digitally Transmitted Video.

cable. As with Adobe Flash, HDMI transmissions are protected by (1) an authentication protocol that confirms that the display device is authorized, (2) encryption of the video signal, and (3) a licensing agreement with display device manufacturer that the display device will not allow the video file to be copied.[73]

Because digitally transmitted videos are a growing repository of important motion picture materials that are not otherwise available on DVD or Blu-Ray, without an exemption the DMCA will prohibit filmmakers from making fair use with critical sources of audiovisual information.

iv. Alternatives to Circumvention are Impracticable

In the previous rulemaking, we demonstrated that proposed alternatives to circumventing CSS on DVDs are impracticable. The Register found that "alternative means of obtaining clips [from DVD]…are insufficient to accomplish the intended use."[74] For example, the Register found that the "significant higher monetary investment" of the scan conversion (camcorder) alternative both created a "significant obstacle for use" and led to a degradation in video and audio quality that "diminish[ed] the value of this alternative."[75] This continues to be the case for DVDs, and it is also true for proposed alternatives to circumvention of TPMs implemented for Blu-Ray and digital transmission: among other problems, the alternatives prevent filmmakers from meeting the technical requirements imposed by distributors, they are unreasonably expensive, and they require an unreasonable level of time and expertise for many filmmakers.

1. The Analog Transfer Method Is Impracticable

The analog transfer method[76] is impracticable because it significantly degrades the audiovisual file, requires technical expertise above that of all but the most sophisticated filmmaker, and requires an unreasonable level of financial expenditure.[77] As we discussed in our 2008 Comment, analog transfer involves recording the audiovisual material by connecting the analog output for a video player to the analog input for a VCR, camcorder, or personal computer. Whether used on DVD players, Blu-Ray players, Digital Video Recorders ("DVR"), or computers, when the analog output is connected to a VHS tape, the image degradation is so severe that the captured audiovisual material is virtually useless to filmmakers. In addition, when the analog output is connected to a camcorder, the image is heavily degraded because the audiovisual material's frame structure is unable to stay intact during the analog transfer process.

Even when the analog input for analog transfer method is a computer, the video and audio signals are degraded to an unacceptable level.[78] The analog output for a DVD player is a "composite signal," which combines the three separate video colors into a single signal; this

[73] HMDI is protected by HDCP (high-bandwidth digital content protection), which is licensed to manufacturers by Digital Content Protection, LLC (http://digital-cp.com). HDCP will only send a video file from the video source (e.g., the DVR) to the video display (e.g., a TV) in an encrypted format. Furthermore, HDCP will only authenticate the video display if it has a licensed key from Digital Content Protection, LLC. Digital Content Protection, LLC will only license the keys to a video display manufacturer if the manufacturer agrees to the license terms, which include not allowing the transmitted video to be copied from the display device. *See* Appendix C, Statement of Eric Rescorla on Digitally Transmitted Video.
[74] 2010 Recommendation at 69.
[75] 2010 Recommendation at 59-60.
[76] The analog transfer method is also sometimes called the analog hole.
[77] *See generally*, Appendix D, Statement of Jim Morrissette on Technical Issues Facing Filmmakers.
[78] *Id.*

overlay of three digital video signals into a single analog signal degrades the color contrast of the images. In addition, in order to use the composite signal filmmakers must bypass Rovi Corporation's[79] Analog Copy Protection ("ACP") technology, which comes standard on all commercially-released DVDs. According to Rovi Corporation's website, "ACP prevents or distorts copies made over an analog connection … and substantially degrades or blocks copies from being made."[80] In order to remove ACP, the analog signal must be run through a visual stabilizer or digital time base corrector. As we established in the 2008 Rulemaking, these devices are not widely available and all but one manufacturer have stopped producing them.[81] In addition, even if the ACP can be removed the filmmaker still must overcome the technical and financial challenge of maintaining audio sync and frame rate between the DVD player and the recording device.[82]

Blu-Ray players present a different set of challenges for the analog transfer method. First, as of January 1, 2011, manufacturers are only allowed to include SD analog outputs on Blu-Ray players and starting on January 1, 2014 manufacturers will no longer be allowed to include analog outputs on Blu-Ray players.[83] In addition, for Blu-Ray players purchased before 2011, rightsholders can activate the Image Constraint Token ("ICT") on the Blu-Ray disc, which down-grades the video resolution on the analog output to SD.[84] Second, some of the commonly used digital editing programs for filmmakers, such as Apple's Final Cut Pro, no longer support analog input and require a digital input. While some digital editing technologies, such as AVID or Adobe Premier, do allow for analog input, the many filmmakers who rely on Final Cut Pro would have to make the additional financial and time investment to purchase an additional digital editing technology and be retrained in the new technology simply in order to use the analog transfer method for Blu-Ray. This expense would represent a significant burden, especially for independent or self-financed film projects. Finally, for Blu-Ray players purchased before 2011 and for Blu-Ray discs that do not have ICT activated, the analog signal will be output in a *component* format, which transmits the three video colors separately. However, in order to utilize the analog signal, it must be run through a digitizer in order to convert the signal into a digital file and input into an AVID system, which could cost an individual filmmaker upwards of $4,000 excluding training with the hardware.[85]

DVRs are capable of digitally recording television broadcasts and then storing them on their local hard drives. While some DVRs still have analog outputs, they output a composite signal, which presents degradation and conversion issues similar to the DVD player's composite signal.[86] Furthermore, since May 2010, the FCC has allowed cable transmission companies to disable the analog output on newer DVR devices for limited periods of time.[87] As a result, if the

[79] Rovi Corporation was known as Macrovision until 2009.
[80] http://www.rovicorp.com/products/content_producers/protect/acp.htm (last accessed on November 28, 2011).
[81] *See* 2008 Comment Appendix A.
[82] *Id.*
[83] *See Goodbye, HD component video: Hollywood hastens the 'analog sunset'*, http://news.consumerreports.org/electronics/2011/02/goodbye-hd-component-video-hello-analog-sunset.html.
[84] *Id.*
[85] At the very minimum it would cost a filmmaker $500 for the digitizer card and $3,500 for the AVID system. *See* Appendix D, Statement of Jim Morrissette on Technical Issues Facing Filmmakers.
[86] *See* Appendix D, Statement of Jim Morrissette on Technical Issues Facing Filmmakers.
[87] On May 7, 2010, the FCC granted a waiver for Multichannel Video Programming Distributors (MVPD), allowing them to utilize Selectable Output Controls (SOC) to disable the analog output for enabled set-top boxes. *See* In Re

filmmaker owns a DVR he or she may be unable to use the analog output for a digitally recorded television broadcast.

2. The Scan Conversion (Camcorder) Method is Impracticable

The scan conversion method is impracticable because it significantly degrades and modifies the source audiovisual file. In the last rulemaking the Register found that the "[high] cost and degradation issues related to camcording the screen diminish the value of this alternative to circumvention in a significant number of situations relevant to the proposed class."[88]

The scan conversion method involves setting up a camcorder in front of a television or projector screen on which the audiovisual material is playing, recording the screen image, and transferring the content from the camcorder to a computer. Scan conversion creates multiple forms of image and audio degradation. First, it may not be possible to capture a full, consistent image playing on the television screen due to inconsistent dimensional formats between the television and camcorder.[89] In addition, the scan conversion will record all of the physical and environmental imperfections including screen glare, screen curvature, and sound distortion. Finally, the transfer of material from a camcorder to a computer severely degrades the image resolution to the point that it is often not suitable for distribution.

3. The Screen Capture Method for Computers is Impracticable

The screen capture method for computers is totally unsuitable for today's filmmaking because the image and audio quality are significantly degraded. Screen capture software can only be utilized to capture videos that are played through the computer's DVD or Blu-Ray disc reader or streamed via the Internet. Screen capture functions by simultaneously taking digital pictures of the entire computer screen and recording the audio output from the video file. However, screen capture technology is rarely able to record enough digital images per second to comply with television standards.[90] In addition, most screen capture software records the entire computer screen which often can include images that are not part of the source material.[91] Finally, screen capture software has problems keeping the audio and video files in sync due to the separate processes of recording the audio and capturing the video images.

4. Up-conversion from SD to HD is Impracticable

The up-conversion process does not create a true HD resolution video file. Rather, it mimics HD resolution by copying lines of image data to create the requisite number of horizontal and vertical lines. In up-converting a DVD, which is 480p, to meet a TV HD broadcast standard

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MPAA (2010), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-10-795A1.pdf (last accessed on May 7, 2010).

[88] 2010 Recommendation at 60.

[89] For example, a widescreen television may play the audiovisual material in a 1.85:1 format, while the camcorder may be recording in a 16:9 format.

[90] For example, television requires 29.97 frames per second ("fps") of video. However, most screen capture programs are not able to capture HD source material, in order to comply with the television HD technical requirements, at more than 24 fps. As a result, the screen capture often leads to noticeable jumping or skipping in the image.

[91] For example, the screen capture software could record the taskbar, the mouse icon, the navigation tools on the video player, or the black bars above and below a wide screen video file.

of 1080p, the up-converter would need to copy each line of image data approximately 2.25 times.[92] The resulting image would have a "soft focus" and could include "digital artifacts" such as "moiré patterns, strobing on motion, and color bleeding."[93] In fact, many TV stations will not broadcast SD television shows that are merely up-converted to "HD" and severely limit the amount of up-converted content permitted in an HD motion picture.[94]

IV. ARGUMENT

A. Introduction

The DMCA's prohibition on anti-circumvention is deeply compromising filmmakers' ability to make fair use. Because of access-control measures, documentary and fictional filmmakers throughout the nation cannot access important material from DVDs, Blu-Ray discs, and digitally-transmitted video without a reasonable fear of DMCA liability;[95] as a result, they

[92] *See* Appendix D, Statement of Jim Morrissette on Technical Issues Facing Filmmakers.
[93] *Id.*
[94] *Id.*
[95] It is not entirely clear whether circumventing these control measures would actually violate the DMCA's prohibition. However, filmmakers have a reasonable fear of liability that discourages them from making fair use and the DMCA thus has a "substantial adverse effect" upon this non-infringing use.

There is some disagreement among federal courts as to whether fair use may be used as an affirmative defense to circumvention of a TPM in violation of 17 U.S.C. §1201(a)(1). In 2001, the Second Circuit held that fair use does not guarantee access to a copyrighted work. Universal City Studios, Inc. v. Corley, 273 F.3d 429, 459 (2d Cir. 2001); see also Universal City Studios v. Reimerdes, 111 F. Supp. 2d 294 (S.D.N.Y. 2000). In contrast, the Federal Circuit held in 2004 that the DMCA only protects circumvention of a TPM when the circumvention would result in copyright infringement, and has affirmed this approach in subsequent decisions. Chamberlain Group, Inc. v. Skylink Techs., Inc., 381 F.3d 1178, 1202-03 (Fed. Cir. 2004) rehearing and rehearing en banc denied, certiorari denied 544 U.S. 923; Accord Storage Tech. Corp. v. Custom Hardware Eng'g & Consulting, Inc., 421 F.3d 1307, 1318 (Fed. Cir. 2005) However, the Ninth Circuit has declined to follow the Federal Circuit's approach. MDY Indus., LLC v. Blizzard Entm't, Inc., 629 F.3d 928, 944-942 (9th Cir., 2011), amended on denial of rehearing, amended and superseded on denial of rehearing, 2011 WL 538748, on remand 2011 WL 2533450. In light of this circuit split documentary filmmakers legitimately fear liability under the DMCA should they circumvent TPMs beyond CSS for purposes of criticism and commentary.

Similarly, there is some debate as to whether CSS constitutes an access control measure, a use-control measure, or both. *See* R. Anthony Reese, *Will Merging Access Controls and Rights Controls Undermine the Structure of Anticircumvention Law?*, 18 BERKELEY TECH. L.J. 619, 643-47 (2003). However, CSS has previously been characterized as an access control measure under Section 1201 of the DMCA. Recommendation of the Register of Copyrights, 65 Fed. Reg. 64555, 64568 & n.14 (2000). Therefore, Commenters request this exemption under the assumption that CSS, AACS, and encryption and authentication protocols will be considered an access control measure, at least in part.

Finally, the DMCA only protects measures that are sufficiently "effective" at controlling access. 17 U.S.C. §1201(a)(2); See Lexmark Int'l, Inc. v. Static Control Components, Inc., 387 F.3d 522, 547 (6th Cir. 2004) (holding that prohibition does not apply to a technological measure that "restricts one form of access but leaves another route wide open," since the alternate route makes the restriction insufficiently effective at controlling access). While it is safe to assume that CSS and AACS "effectively control access" within the meaning of the DMCA, Reimerdes, 111 F. Supp. 2d at 317, the same may not be true of all encryption or authentication protocols employed by digital transmission services. Because the way these measures operate is not transparent, it will be difficult for a user to determine how any given measure actually works, and thus whether it is a measure protected by the DMCA's prohibition. For instance, it is possible that any digital transmission service stores copies of copyrighted works on a user's hard drive as part of a buffer cache designed to improve performance. Even if such a digital transmission service used virtually unbreakable encryption and authentication protocol to deliver the content to the user's computer, the presence of an alternate means of access to the content via the hard drive's file structure would arguably foreclose DMCA liability for circumvention—even though the user would not necessarily be aware of this

cannot comment on or criticize a broad and important body of materials. In short, the DMCA's effect on fair use in filmmaking is adverse, and substantial. To remedy this harm, the proponents have proposed an exemption that is narrowly tailored to a specific class of works, the TPMs affected, and the particular use at issue—so as to remedy the adverse effect while avoiding prejudice to rightsholders. Because filmmakers need an exemption to make fair use and the exemption is narrowly tailored to accomplish this, the balancing of factors under Section 1201(a)(1)(C) favors granting the exemption. Thus, the Copyright Office should grant an exemption for both documentary and fictional filmmaking.

B. The DMCA Imposes a Substantial Adverse Effect on Non-Infringing Uses by Severely Harming Filmmakers' Ability to Make Fair Use

i. Filmmakers Rely on Fair Use

Courts and creators have long recognized that fair use is critically important to film. We have demonstrated that many documentary filmmakers rely on fair use to create their films, especially those that comment on current reality or historical events, engage in artistic or literary criticism, or are produced for educational purposes.[96]

The variety of ways in which filmmakers take advantage of fair use shows that fair use is more important than ever. *Inside Job*, the Academy Award winner for Best Documentary in 2010, forced us to take a critical look at the American financial sector and its contribution to the economic collapse.[97] *Inside Job* relied on fair use in order to incorporate articles, news clips and other copyrighted materials into the film. Without fair use the materials could never have been included. *Bellflower*, which premiered at the Sundance Film Festival in 2011, offered a revealing take on the fantasies and fears of the young adult male. *Bellflower* tells the fictional story of two men who build flamethrowers and other weapons inspired by the film *Mad Max 2* in an attempt to clear the way for the rise of their makeshift gang. The two men emulate the character "Lord Humungous" from *Mad Max 2*, who they see as the archetypal symbol of masculinity, and even build their version of the iconic car from the film. One of the men consistently draws images of "Lord Humungous" in his sketch pad. *Bellflower* does more than just describe a deranged attempt to take over the world – it becomes a parable about the young adult male ego. Without fair use, the filmmakers would not have been able to tell their story effectively.

As another indication of the growing importance of fair use in this field, the 2005

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alternate means and would still reasonably fear liability under the DMCA. See, e.g., Blizzard Entm't, Inc., 629 F.3d, at 952 (concluding that measure protecting access to elements of a computer game did not "effectively control access" to elements that the game copied to a user's hard drive).

[96] *See* Section(B), *supra* on page 4.

[97] *See e.g.*, *Academic Economists to Consider Ethics Code*, The New York Times (December 30, 2010), ("the proposal [to adopt an ethics code for academic economists] … is partly a response to "Inside Job," a documentary film … that excoriates leading academic economists for their ties to Wall Street as consultants, advisers or corporate directors."), http://www.nytimes.com/2010/12/31/business/economy/31economists.html?pagewanted=all (last accessed November 28, 2011); and'*Inside Job' Causes Changes at Columbia*, Poets and Quants (attributes the adoption of more stringent conflicts of interest disclosure rules at Columbia Business School to the documentary *Inside Job*), http://poetsandquants.com/2011/05/18/inside-job-causes-changes-at-columbia/ (last accessed November 28, 2011).

Documentary Filmmakers' Statement of Best Practices in Fair Use ("Statement")[98] has become an important tool for filmmakers who seek to make fair use. The Statement is now widely used by documentary filmmakers and has found broad acceptance among insurers, distributors, and others.[99]

As we demonstrated in Section (III)(B)(ii), fictional filmmakers can and do make fair use, because fictional films criticize and comment on reality and existing culture.[100] While many fictional filmmakers create their films from whole cloth, fictional filmmakers often incorporate aspects of reality in their films in order to comment on or criticize that reality. In order to fulfill these critical and commentary purposes, fictional filmmakers also make fair use of copyrighted works in the form of parody, reference, and pastiche.[101] Though these forms of commentary may be subtle or indirect, they allow filmmakers to make powerful expressive statements by transforming existing material. Furthermore, some types of fictional film, including "cinema verite," use unaltered reality as a background to present fictionalized characters and narrative; as in documentary film, reality-based fictional films will rely on fair use to permit inclusion of copyrighted works captured "incidentally."[102] Accordingly, courts have recognized fair use in many fictional projects.[103] Furthermore, fictional filmmakers, like documentary filmmakers, have established practices to ensure that fair use is done responsibly. Filmmaker organizations like Film Independent and the University Film and Video Association put on events to inform filmmakers about best practices in fair use.[104] Furthermore, like documentary filmmakers, fictional filmmakers regularly obtain errors and omissions insurance policies that cover fair use. The fact that such policies require an attorney to review the film and issue an opinion letter that the use is fair encourages filmmakers to comply with established limits of the fair use doctrine.[105]

In resolving claims involving fair use, courts have consistently focused on applying the statutory factors to the particular case at hand, and have uniformly refused to draw bright lines excluding entertainment or fiction from the realm of uses that may be fair. In Wade Williams Distribution, Inc. v. Am. Broad. Co., Inc, the Southern District of New York considered whether use of video clips in an entertaining morning talk show was fair use. Explicitly rejecting the argument that "there can be no 'fair use when copyrighted excerpts are used for entertainment," the Court found the use was fair since, "what is most persuasive in this case is that…use of the

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[98] *See* note 17, *supra.*
[99] *See* Appendix E, Statement of Hiscox USA on Errors & Omissions Insurance. *See also,* Aufderheide, Pat & Jaszi, Peter, *Fair Use and Best Practices: Surprising Success*, Intellectual Property Today (October 2007).
[100] *See* Section (III)(B)(ii) *supra* on page 6.
[101] *See* Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569 (1994); (stating that fair use in parody must involve comment on the work used); cf. MCA, Inc. v. Wilson, 677 F.2d 180, 185 (2d Cir. 1981) (stating that permissible parody should target the original, but may also reflect on life in general). See also Murav. Columbia Broad. Sys., Inc., 245 F. Supp. 587 (S.D.N.Y. 1965) (reproduction of a copyrighted puppet on a television program); Jackson v. Warner Bros., Inc., 993 F. Supp.585 (E.D. Mich. 1997) (depiction of copyrighted lithographs on wall of set in film). *See also,* Amsinck v. Columbia Pictures Indus., Inc., 862 F. Supp. 1044 (S.D.N.Y. 1994) (display of copyrighted artwork on a mobile in a film); Sofa Entertainment, Inc. v. Dodger Productions, Inc., 782 F.Supp.2d 898 (C.D.Cal., 2010) (use of a film clip from a television show in fictional theatre).
[102] *See* note 5, *supra.*
[103] *See* Section (III)(C)(iv), *supra* on page 6.
[104] *See* Appendix H, Exhibit of Fair Use Outreach and Seminars Conducted for Filmmakers.
[105] *See* Section (III)(B), *supra* on page 4.

films was clearly transformative."[106] Avoiding such bright lines is wise, because it would require courts to make subjective assessments of what constitutes entertainment and what does not, and "Courts have consistently and prudently avoided subjective judgments in copyright cases."[107] "Subjective line-drawing" is particularly unwise in fair use cases, since, as the Southern District of New York recognized in Hofheinz v. Discovery Communications, Inc., when it observed that "[s]ection 107 does not explicitly distinguish between entertaining and serious, plausible and implausible, or weighty or frivolous commentaries."[108] The court further observed that the legislative history behind section 107 explicitly states that "the courts must be free to adapt the doctrine to particular situations on a case-by-case basis."[109]

In Campbell v. Acuff-Rose, the Supreme Court confirmed that parodies produced for commerce could make fair use when the parodic work uses "some elements of a prior author's composition to create a new one that, at least in part, comments on that author's works"[110] and declined to impose a presumption that a commercial use was not a fair use.[111] Following Campbell, courts have recognized that fictional dramatic works and films can make fair use through parody.[112] Some examples include a 25-minute television skit that engaged in parody by using plot, character and other expressive elements of the motion picture "From Here to Eternity;"[113] the television show Family Guy's use of imagery and theme music to parody Carol Burnett's television persona;[114] and the same show's parodic use of "When You Wish Upon A Star" to criticize Walt Disney and the song.[115]

Major scholars of fair use have made the same observation. For example, William Patry has observed that the argument "that there can be no fair use 'when the copyrighted excerpts are used for entertainment'… is spurious: all parodies, and much comment and criticism are made in an entertainment context."[116]

ii. The Proponents Have Met the Required Evidentiary Burden by Showing "Actual Instances of Verifiable Problems Occurring in the Marketplace" that Are Far "More than De Minimis."

In order to successfully petition for an exemption to the DMCA, the Copyright Office requires that the petitioner show that the DMCA's prohibition on circumvention is imposing a substantial adverse effect on the noninfringing use at issue. The Register has defined "substantial

[106] Wade Williams Distribution, Inc. v. Am. Broad. Co., Inc., 00 CIV. 5002 (LMM), 2005 WL 774275 (S.D.N.Y. Apr. 5, 2005) at *9
[107] Wade Williams Distribution, Inc. v. Am. Broad. Co., Inc., 00 CIV. 5002 (LMM), 2005 WL 774275 (S.D.N.Y. Apr. 5, 2005) at *9.
[108] *Hofheinz v. Discovery Communications, Inc.*, 2001 U.S. Dist. LEXIS 14752 at *13.
[109] 1976 CR Act, Notes of Committee on the Judiciary, House Report No. 94-1476
[110] Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 580 (1994).
[111] Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 594 (1994).
[112] *See* Metro-Goldwyn-Mayer, Inc. v. Showcase Atlanta Co-op. Productions, Inc., 479 F.Supp. 351, 357 (D.C.Ga., 1979) (Holding that, though a commercial play could, as a matter of law, make fair use through parody, the factual showing indicated that the play in question here took more material than was appropriate under fair use)
[113] Columbia Pictures Corp. v National Broadcasting Co. 137 F Supp 348 (DC Cal, 1955)
[114] Burnett v. Twentieth Century Fox Film Corp. 491 F.Supp.2d 962 (C.D.Cal., 2007)
[115] Bourne Co. v. Twentieth Century Fox Film Corp., 602 F.Supp.2d 499 (S.D.N.Y., 2009)
[116] Patry on Fair Use § 3:8; cf. Pierre N. Leval, Nimmer Lecture: Fair Use Rescued, 44 UCLA L. Rev. 1449, 1456 (1997) (arguing that a categorical exclusion of commercial uses would cause "fair use…to be found only in sermons and classroom lectures. This would not be a very useful doctrine.").

adverse effect" as any negative effect that is "more than de minimis."[117] In addition, the proponent's arguments cannot be supported by speculation alone, but should provide "actual instances of verifiable problems occurring in the marketplace" or circumstantial evidence "reasonably demonstrat[ing]" that a protection measure has caused or is likely to cause harm in the three-year period following the Rulemaking.[118] To the extent exemption requests are premised on likely harm, such harm should be shown to be "more likely than not to occur."[119]

By any measure, the proponents have met this burden. The DMCA's prohibition on anti-circumvention is preventing or seriously hindering thousands of filmmakers from making fair use when they create new films. As demonstrated by the many examples we discuss in Section III together with statements provided by organizations representing thousands of filmmakers, the prohibition's adverse effects on non-infringing uses are far more than de minimis: in fact they have caused thousands of "actual instances of verifiable problems occurring in the marketplace." And for every story we have provided here, there are hundreds of additional filmmakers who are experiencing similar problems.

It is well-established that filmmaking depends on fair use of copyrighted materials. In addition, it has been true for some time that clearance often cannot provide access for purposes such as criticism or commentary. As discussed above in Section (III)(B), the clearance process is prohibitively expensive, time-consuming, and complex for countless filmmakers.[120] Moreover, a filmmaker may be able to find a copyright holder for source footage, but that copyright holder may not be the only copyright claimant for worldwide rights. For a documentary film being distributed internationally, this can present huge problems. Further complicating the clearance process, other copyright owners demand that licensees get permission from specific individuals who appear in the footage or from organizations whose trademarks, trade names or logos appear in the footage. Finally, clearance inherently fails to ensure access regardless of viewpoint, since rightsholders may refuse to license at their discretion. Documentary and fictional film are essential to society since they enhance democratic debate and civic discourse by casting light on topics that may be controversial to some. Sometimes, this criticism and commentary can only be effectively conveyed by including materials owned by individuals and entities who feel their interests will be harmed by the criticism and commentary. Without access to materials under fair use, many filmmakers risk being unable to comment on, critique, or otherwise make fair use of copyrighted material simply because the copyright holder does not approve of the use in question.

Although filmmakers rely on fair use and clearance is not an option in many cases, in today's digital ecosystem many copyrighted materials are only available in digital formats protected by TPMs such as encryption and authentication protocols,[121] and technical and financial constraints make alternatives to circumvention impracticable.[122] In light of this reality, access to copyrighted works for purposes of fair use can often be accomplished only by circumventing protection measures on DVD, Blu-Ray, or digitally transmitted video. When

[117] *See e.g.*, Recommendation of the Register of Copyrights, at 10 (June 11, 2010) and Notice of Inquiry, 76 Fed. Reg. 60,400 (Sept 9, 2011); hereinafter 2011 NOI.
[118] 2011 NOI at 60400.
[119] 2011 NOI at 60400.
[120] *See* Section (III)(B), *supra* on page 4.
[121] *See* Section (III)(C)(iii), *supra* on page 12.
[122] *See* Section (III)(C)(iv), *supra* on page 15.

filmmakers cannot obtain materials with which to make fair use, they are prevented from engaging in criticism and commentary by making a certain point or exploring a certain theme, must leave out an integral part of the film, or are prevented from making the film altogether.[123]

The DMCA's prohibition on circumvention effectively prevents filmmakers from engaging in a non-infringing practice essential to their craft: accessing important copyrighted materials in order to include short clips under fair use. Of course, it is not just the individual filmmaker who suffers as a result of the DMCA's prohibition; ultimately the public suffers when it does not receive the benefits of these films, many of which convey valuable criticism, comment, reporting, teaching, scholarship, or research. In short, the DMCA currently imposes a "substantial adverse effect" on non-infringing use by filmmakers, and this effect will surely continue during the next exemption period.

iii. CSS Technology on DVDs Has a Substantial Adverse Effect on Fair Use in Filmmaking

Even though the shift away from DVD and toward Blu-Ray is occurring rapidly, DVD still is, and is likely to remain, an important archive of motion picture materials.[124] Without an exemption that permits filmmakers to obtain material on DVDs protected by CSS, filmmakers will be unable to make fair use of thousands of motion pictures that are only available on DVD and have not yet been upgraded to a high-definition ("HD") format.

As we have shown above, fair use in documentary filmmaking depends in many cases on access to motion picture materials, and many of these materials are available exclusively on DVD. The 2010 exemption has relieved many filmmakers of this adverse effect by allowing documentary filmmakers to include material that is integral to their films; if the exemption were not renewed, countless fair uses would be foreclosed, and many films would simply not be made.

The same is true for fictional filmmaking. Given the established tradition of fair use in fictional filmmaking, such filmmakers need access to DVD for the same reasons as documentarians: many motion picture materials are still only available on DVD, or must be accessed on DVD to obtain the video quality required by broadcasters and distributors; licensing is often prohibitively expensive for small and independent filmmakers; and content owners may refuse to license clips because they are hostile to the film's message.

iv. AACS Technology on Blu-Ray Discs Has a Substantial Adverse Effect on Fair Use in Filmmaking

As we demonstrate in Part II, both documentary and fictional filmmakers require access to HD motion picture materials in order to comply with the technical requirements that broadcasters and distributors impose. Since film distributors and broadcasters imposed HD technical standards in 2009,[125] Blu-Ray has become the primary source of motion picture material in HD.[126] Furthermore, an increasing number of motion picture materials are and will be released exclusively on Blu-Ray.

[123] *See* Section (III)(B), *supra* on page 4.
[124] *See* Section (III)(C)(i), *supra* on page 8.
[125] *See* Section (III)(C)(ii), *supra* on page 10.
[126] True HD refers to 1080 vertical lines x 1920 horizontal lines of resolution.

However, all Blu-Ray discs are protected by AACS. As established in the factual background, filmmakers are routinely unable to clear HD clips from rightsholders[127], and alternatives to circumventing AACS are impracticable.[128] Therefore, filmmakers must choose between removing the clip entirely to the detriment of the film, limiting their ability to distribute their film by using lower resolution versions of the clips, or risking DMCA liability by circumventing AACS.

v. Encryption and Authentication Protocols for Digitally Transmitted Video Have a Substantial Adverse Effect on Fair Use in Filmmaking

Proponents have provided substantial evidence showing that, in today's digital ecosystem, many motion picture materials required by documentary and fictional filmmakers are only available through digital video services protected by authentication or encryption, such as iTunes, Netflix, or FiOS Pay-Per-View.[129] Furthermore, certain programming like news is ephemeral and may never be aired or commercially distributed after initial broadcast. Ephemerally-broadcast content such as this often also contains unique material of high value to journalism and art; as a result, documentary and fictional filmmakers have an especially compelling reason to access it. [130] However, the only way to access this content is to record the content on a DVR likely to contain access-control mechanisms preventing exporting of material stored on the DVR.[131] Filmmakers are entitled to make fair use of content contained in these digital transmissions, but authentication and encryption measures prevent access, and filmmakers cannot circumvent these measures without a reasonable fear of liability under the DMCA. By denying filmmakers access to content unavailable elsewhere, the DMCA's prohibition on circumvention imposes a substantial adverse effect on their ability to make fair use of such material.

C. The Proposed Class is Narrowly Tailored to Prevent Harm to the Legitimate Interests of Rightsholders

i. Introduction

Proponents have proposed a narrowly tailored exemption that remedies the substantial adverse effect caused by the DMCA, while avoiding prejudice to the legitimate interests of copyright holders. The proposed exemption is limited using several means, including the category of work that can be used, the format and protection measure subject to circumvention, the particular purpose of the use, and the particular class of users included in the exemption.

The DMCA requires that exemptions be granted to "users of a copyrighted work which is in a particular class of works."[132] The Register has interpreted this requirement to mean that the "class of works … be a narrow and focused subset of the broad categories of works of authorship that is identified in section 102,"[133] The Register has further specified that a proposed class

[127] *See* Section (III)(C)(iii), *supra* on page 4.
[128] *See* Section (III)(C)(iii), *supra* on page 15.
[129] *See* Section (III)(C)(iii), *supra* on page 12.
[130] *Id.*
[131] *See* Section (III)(C)(iii), *supra* on page 15.
[132] 17 USC 1201(a)(1)(B)
[133] Recommendation of the Register of Copyrights, at 15 (June 11, 2010), quoting Report of the House Committee on Commerce on the Digital Millennium Copyright Act of 1998, H.R. Rep. No. 105-551, pt. 2, at 38 (1998)

begin by identifying a "class of works … based upon attributes of the works themselves." Proponents may further tailor the class to address the harm alleged, including by limited to particular uses, or a particular group of users.[134]

As copyright holders themselves, filmmakers rely on and respect copyright protection and thus have proposed an exemption that respects the balance of interests between rightsholders and the public by strictly limiting the exemption to only those works, purposes, and uses necessary to prevent the harm caused by the DMCA's prohibition.[135] The proposed class covers "motion pictures," which is a subset a category enumerated in 17 USC §102(a)(6) ("motion pictures and other audiovisual works"). The class is further refined by limiting the purpose of the use and the conditions of use. Circumvention is only permitted for the limited purpose of making fair use in documentary or fictional filmmaking, which we expect will be primarily via criticism and commentary. As we discuss below, the class is further limited by an incremental approach that does not allow a filmmaker to utilize digital transmission services unless the material is not available on DVD or Blu-Ray, or is not available on DVD or Blu-Ray in sufficient quality. Taken together, these limitations ensure the exemption is narrowly tailored to remedy particular harms while limiting prejudice to rightsholders.

ii. The Proposed Class is Limited to Motion Pictures, a Subset of a Category of Works Enumerated in 17 U.S.C. §102(A)(6), and is Further Tailored by Type of Format and Protection Measure

The proposed class of works that would be eligible for the requested exemption is a focused subset of "motion pictures and other audiovisual works," a category enumerated in 17 USC §102(a)(6). Material can only be used if it has been "lawfully acquired."[136] The class is also narrowed by the type of format, which includes only motion picture works distributed via DVD protected by CSS, Blu-Ray protected by AACS, or, in some circumstances, a digital transmission protected by an encryption or authentication protocol.[137] Audiovisual works available in other formats, such as works contained on media intended for theatrical distribution or used in the editing and production process, would not be eligible, nor would works protected by technological measures not listed herein.

Furthermore, the proposed class is further narrowed by the type of protection measure employed on the format. DVD may only be circumvented if protected by CSS; Blu-Ray may only be circumvented if it is protected by AACS; and digitally transmitted video may only be circumvented if it is protected by an encryption or authentication protocol. The functional definition is necessary to provide flexibility in the face of the diverse and dynamic protection measures on digitally transmitted video.[138] The measures that protect digitally transmitted video have myriad names, and so it would be impractical to list them all comprehensively in the class of works. Furthermore, the specific measures currently in existence are likely to change over the next four years, so even if measures currently in use could be comprehensively listed, such a list would likely become obsolete soon after the Rulemaking process, and would thus fail to remedy the harm to filmmakers over the three-year period following the rulemaking. Since nearly all of

[134] Notice of Inquiry, 76 Fed. Reg. 58,076-58,077 (2008); hereinafter 2008 NOI.
[135] *See* Section (III)(B), *supra* on page 4.
[136] *See* Section (I), *supra* on page 1.
[137] *Id.*
[138] *See* Section (III)(C)(iii), *supra* on page 12.

the protection measures for digitally transmitted video services share a common framework for protecting access that involves encryption and authentication protocols, it is possible to define the measures using a functional approach that does not suffer from the under-inclusiveness that would result if proponents were required to comprehensively list the names of current measures. This functional approach is not over-inclusive, because it includes only a specific type of measure - those involving encryption or authentication protocols. Technologies that rely on a different framework would not be included.

The Librarian has granted many proposed classes that utilized a functional definition of the TPM. In fact, in the 2008 Rulemaking, more granted classes utilized functional definitions that non-functional. For example, in the 2010 exemption Class 3 covered "[c]omputer programs that enable wireless telephone handsets to execute software applications." No specific technology was discussed and multiple distinct technologies were covered, due to the different firmware utilized by different wireless telephone companies. Class 4 covered "[v]ideo games accessible on personal computers and protected by technological protection measures that control access to lawfully obtained works," and did not specify the operating system of the computer or the type of protection used by the video game. In fact, the Class 1 DVD exemption was the only class of six granted classes that specifically identified the technology by name (Content Scrambling System).[139]

iii. The Proposed Class is Limited to Two User Groups that Responsibly Make Fair Use

The class only provides an exemption for fair use in documentary or fictional filmmaking. As copyright holders, both documentary and fictional filmmakers rely on and respect the use of copyrighted material through fair use. For example, both documentary and fictional filmmakers regularly observe fair use "best practices" such as the Documentary Filmmakers' Statement of Best Practices in Fair Use which ensure that unlicensed inclusion of copyrighted works will be non-infringing. In addition, as we discuss above, film distributors require filmmakers to obtain E&O insurance prior to distribution, and media insurers regularly offer fair use endorsements for E&O policies. As a condition of issuing such an endorsement, media insurance carriers require that filmmakers obtain an opinion letter by an attorney asserting that the unlicensed use of the copyrighted materials comport with the doctrine of fair use.[140] Attorneys are able to issue such letters by evaluating whether the films comply with legal standards and established "best practices in fair use" that reflect cautious views of what constitutes fair use.[141]

iv. The Proposed Class of Works is Further Tailored by Employing an Incremental Approach

Even though the proposed class is already narrowly tailored by limiting the exemption to only those works, purposes, and uses necessary to prevent the harm caused by the DMCA's prohibition we have developed an additional limit: the incremental approach. The incremental approach limits the class so as to permit only those uses strictly necessary to prevent particular harm to filmmakers' ability to make non-infringing use by only allowing circumvention of

[139] *See* http://www.copyright.gov/1201/2010/ (last accessed on November 26, 2011).]
[140] *See* Section (III)(B), *supra* on page 4.
[141] *Id. See also* note 5.

digitally transmitted videos if the materials are not reasonably available on DVD or Blu-Ray. The relevant portion of the proposed class reads:

> …or, if the motion picture is not reasonably available on DVD or Blu-Ray or not reasonably available in sufficient audiovisual quality on DVD or Blu-Ray, then from digitally transmitted video protected by an authentication protocol or by encryption…

The proposed incremental approach requires filmmakers to endeavor to find material on DVD or Blu-Ray prior to obtaining it through a digital transmission service. While the exemption will not prejudice the availability of motion pictures on any of the proposed formats because the class is premised on fair use, DVD and Blu-Ray are the most mature formats proposed, so it is reasonable to require that filmmakers seek material from these formats first. After all, a filmmaker's natural first step when seeking material is to look on DVD, given that it is still the format through which the majority of titles are available. A filmmaker may also obtain the material from Blu-Ray, since providing an exemption for DVD alone would be insufficient to remedy the prohibition's harm, given that not all motion pictures are available on DVD, and many more will be available exclusively on Blu-Ray and digital transmission services in the next four years.

The incremental approach proposed here would allow filmmakers to obtain digitally transmitted video only if access to the service is required because the material is not reasonably available through other sources, or if it is required because the material is not available in sufficient quality through another source. The exemption embeds an objective "reasonableness" standard that ensures that filmmakers and make reasonable efforts to obtain the material from DVD or Blu-Ray prior to seeking the material from a digital transmission service. For instance, some DVDs or Blu-Ray discs may have been issued in limited quantities, or may now be out of print and thus cannot be reasonably obtained. In such cases, the filmmaker would be permitted to obtain the motion picture material from a digital transmission service.

Filmmakers may also require access to digital transmission services when the material is not otherwise available in sufficient quality. As discussed above in Part C, filmmakers must obtain materials that meet a certain level of video and sound quality. In particular, the video resolution, black levels, color contrast, and frame structure of the source material must be of sufficient quality such that, once the clip is edited into the film, the edited clip meets distribution standards for these measures.[142] Because many distributors now require films to distributed in HD, sometimes even DVD-quality sources may not allow filmmakers to obtain clips at a sufficient level of quality to warrant including them in a new work. In these cases, a filmmaker would need to find the material on Blu-Ray or through digitally transmitted video; or even if the material is available through both Blu-Ray and a video transmission service, a Blu-Ray disc may contain material of varying quality—perhaps even lower than a DVD—even though the Blu-Ray format allows material to be encoded at a very high level of quality. It is thus possible that a particular video transmission service would provide material at a sufficient level of quality while the corresponding Blu-Ray disc for that material would not. If that were the case, the filmmaker

[142] *See e.g.*, Section (III)(C)(ii), *supra* on page 10; Appendix D, Statement of Jim Morrissette on Technical Issues Facing Filmmakers.

would have a need to obtain material from the video transmission service, even though the material is available in lower quality on multiple formats.

Accordingly, under this approach, a user covered by the exemption must first look to see if the material is available on DVD or Blu-Ray. Only if the material is not available on DVD or Blu-Ray, or if the material is not available in sufficient quality on DVD or Blu-Ray, may the user obtain material from a digitally transmitted video. For example, if the motion picture material is available on both DVD and Netflix at the same level of quality, the filmmaker would only be permitted to obtain the material from DVD. If the motion picture material is available on both DVD, in an SD format, and on iTunes, in an HD format, and the filmmaker's needs call for source material in HD format, then the filmmaker would be able to obtain the material from iTunes. However, if the same motion picture is available on both Blu-Ray and via digitally transmitted video, and both formats provide the same level of quality, then the filmmaker would only be permitted to obtain the material from Blu-Ray.

By taking this incremental approach, the Commenters have proposed an exemption that requires that filmmakers take the most conservative route practicable, limiting risk of harm to rightsholders while preserving filmmakers' ability to make fair use.

D. An Analysis Under the 17 U.S.C. §1201(a)(1)(C) Factors Favors Granting the Proposed Exemption for Each of the Requested Formats

The DMCA Rulemaking process is critical to maintaining the balance copyright seeks to strike between meaningful exclusive rights on the one hand, and popular access to culture on the other. Because the proponents have established that the DMCA's anticircumvention rules are causing harm well above the threshold standard of "substantial adverse effect," the proposed exemption's ability to prevent this harm must be considered against the Section 1201(a)(1)(C) "statutory considerations [that] require examination and careful balancing."[143] An analysis of these five statutory factors favors the exemption because the class is narrowly tailored to prevent harm to important and socially-favored educational and expressive purposes served by fair use while avoiding prejudice to the interests of rightsholders.

i. The Availability of the Copyrighted Works

The Register has stated the relevant inquiry into the first factor should include: "(1) whether the availability of the work in protected format enhances and/or inhibits public use of particular works, (2) whether the work protected is also available in other formats (and whether those formats are protected by access controls), and (3) if alternative formats are available, whether such formats are sufficient to accommodate non-infringing uses."[144] In conducting this inquiry, the Register has stated that, as with the fourth factor, it is relevant to consider whether the format is part of a "'use-facilitating' business model that offers the public access to works in a variety of new ways" and whether the proposed exemption would prejudice this model.[145]

In today's digital ecosystem, the ubiquity of protection measures across nearly every

[143] 2011 NOI at 60403.
[144] Recommendation of the Register of Copyrights, 2010, p. 56
[145] Recommendation of the Register of Copyrights, 2010, p. 56.

format effectively means that filmmakers do not have access to a large amount of material that they need—and that the doctrine of fair use gives them the right to use. An exemption that remedies this problem will not harm distribution of motion pictures on any of the formats included in the class, because the proposed exemption would apply only to a narrowly-tailored group of filmmakers who responsibly engage in best practices in fair use, and would institute an incremental approach that allows circumvention of new services only when necessary to prevent particular harm.

1. Whether the Availability of the Work in Protected Format Enhances and/or Inhibits Public Use of Particular Works.

As proponents have demonstrated, the DMCA prevents many filmmakers from making fair use of works in the protected formats identified in the proposed class. It is therefore clear that "the availability of the work in a protected format…inhibits public use of particular works." This exemption would remedy this problem, but would do nothing to harm the public availability of motion pictures on DVD, Blu-Ray, or digitally transmitted video. In 2010, the Register observed that the "realities of the current marketplace" show that an exemption for certain non-infringing uses will not end digital distribution of DVDs, given that "protected DVDs have continued to be the dominant format even though circumvention tools have long been widely available online."[146] The continued distribution of DVDs for years after CSS was first circumvented has proved the Register correct.[147] The shift to Blu-Ray has occurred largely as a result of the public's demand for other formats, including online delivery and higher-resolution video—but certainly not as a result of circumvention of CSS by a narrowly-tailored class of responsible users who themselves create new copyrighted works.[148] In 2010, the Register observed that "the availability of motion pictures generally is unlikely to be diminished by designating such a class of works."[149] The same is true for the proposed class here.

This request seeks a similarly narrow and well-defined class of users, so whether or not the particular source material that a filmmaker needs is actually part of a "use facilitating model," it will encounter no prejudice from the proposed exemption. Just as the previous exemption caused no harm to the public availability of motion pictures generally, or DVD in particular, this proposed exemption will not harm the public availability of Blu-Ray. Harm to digital transmission services as a result of the exemption is even more unlikely, since the impact of the exemption will be dispersed; given the great variety of such services currently available, the impact will be minimal when applied to any one service.[150] Furthermore, the incremental approach will ensure that filmmakers only obtain material from a digital transmission service when the filmmakers reasonably require it..

2. Whether the Work is Available in Alternative Formats and Whether those Formats Have Access Controls

In today's digital ecosystem, the only commercial formats that filmmakers can use to

[146] 2010 Recommendation at 57.
[147] *See* Section (III)(C)(i), *supra* on page 8.
[148] *See* Section (III)(B), *supra* on page 4.
[149] 2010 Recommendation at 57.
[150] *See* Section (III)(C)(iii), *supra* on page 12.

obtain materials for fair use are DVD, Blu-Ray, and digitally transmitted video.[151] VHS tapes are no longer an alternative because commercial distribution ended in late 2008.[152] The Register acknowledged the transition to a digital ecosystem in the 2008 Rulemaking, stating that it is "clear that a transition is currently taking place to new forms of digital distribution, such as Blu-ray discs protected by the AACS system."[153] Within the next four years, this transition will be complete.[154]

While each format in the proposed class may contain material that is also available in another format (e.g., on both DVD and Blu-Ray), all three formats are protected by a form of DRM such as encryption that filmmakers reasonably fear will be covered by the DMCA. Furthermore, in an increasing number of cases, important motion picture materials are only available on one of the formats, and thus there is no alternative for accessing the specific and necessary motion picture material.

3. Whether Alternative Formats are Sufficient to Accommodate Non-Infringing Uses

None of the formats proposed here (DVD, Blu-Ray, and digitally transmitted video) are sufficient alternatives in themselves. As we demonstrated above, no one format is sufficient in itself to accommodate the non-infringing use, since some motion picture formats are available exclusively on one format, or are available in sufficient quality only on one format. Furthermore, alternatives to circumvention – such as the Analog Transfer Method, Scan Conversion, Screen Capture, and Up-Conversion – are impracticable for both documentary and fictional filmmakers.[155] Furthermore, as discussed in section (III)(C)(iv), alternatives to circumvention are even more impracticable now than they were in the last Rulemaking due to the upgrade in distribution technical requirements from SD to HD.

Furthermore, as discussed in section (IV)(C)(iv) the proposed class's incremental approach does not allow the filmmaker to freely choose among multiple formats. Rather, the filmmaker must first attempt to obtain the material from the most mature and widely available formats. A filmmaker may only circumvent protection on a digital transmission service if the service provides the only reasonable way to obtain the material, or if neither DVD nor Blu-Ray provide material of reasonably sufficient quality.[156]

ii. <u>The Availability for Use of Works for Nonprofit Archival, Preservation, and Educational Purposes.</u>

In 2010, the Register found that this factor weighs in favor of crafting a class that includes use in documentary films because proponents successfully argued that "documentary films are intrinsically educational in that they purport to tell the truth or document reality, and of course, many documentary films are made specially for use in the classroom setting. Additionally, documentary films are used as teaching tools at all educational levels for a variety

[151] *See* Section (III)(C), *supra* on page 8.
[152] 2010 Recommendation at 58.
[153] 2010 Recommendation at 57.
[154] *See* Section (III)(C)(i), *supra* on page 8.
[155] *See* Section (III)(C)(iv), *supra* on page 15.
[156] *See* Section (I), *supra* on page 1.

of purposes."[157] Of course, this continues to be true today; documentary films remain a powerful educational and teaching tool both inside and outside of the classroom. Many documentaries explore political, social, cultural, and scientific issues of both modern and historical societies. As an example, the Academy Award-winning documentary *Inside Job*, which explored the causes and consequences of the recent economic collapse and criticized academic economists with undisclosed ties to Wall Street, caused universities and other institutions of higher learning to examine tightening their disclosure requirements regarding academic economists who also work on Wall Street as advisers, consultants or corporate directors.[158] *Inside Job* relied on fair use to illustrate certain points made in the documentary and was able to secure E&O insurance coverage for materials used pursuant to fair use. The Academy Award-nominated documentary *Gasland* took advantage of fair use to explain how natural gas drilling negatively impacted communities across the United States.

Many fictional films likewise serve an important educational and social commentary purpose. Fictional films are often employed in the classroom as teaching tools because they often dramatically illustrate historical and contemporary events and concepts with significance in disciplines including but not limited to sociology, psychology, law, business, film studies, and literary criticism.[159] Even outside the classroom setting, fictional films are potent catalysts for thought and inquiry, because they depict fictional events and characters that prompt us to ask questions about and reexamine our own reality.

iii. The Impact that the Prohibition on the Circumvention of Technological Measures Applied to Copyrighted Works has on Criticism, Comment, News Reporting, Teaching, Scholarship, or Research.

In 2010, the Register found that this factor weighs in favor of crafting a class that includes use in documentary films because documentary filmmakers showed that "their ability to use motion pictures for purposes of non-infringing criticism, comment or illustration is inhibited by the prohibition."[160] As the proponents have shown in this Comment, documentary filmmaking remains an important avenue for comment and criticism as well as news reporting, teaching, journalism, and scholarship.[161] Without a renewal of the 2010 Exemption for DVDs and an exemption for Blu-Ray and digitally transmitted video, documentary filmmakers will be precluded from accessing and incorporating into their documentaries many critical sources of fair use material such as films, television shows, and news broadcasts.

Fictional filmmakers are also inhibited from making fair use by the prohibition, because many fictional films criticize and comment on aspects of reality, and often include existing copyrighted materials under fair use to illustrate that reality.[162] The prohibition prevents fictional filmmakers from making fair use of works through parody, reference, juxtaposition, and

[157] 2010 Recommendation at 69.
[158] *See* Sewell Chan, *Academic Economists to Consider Ethics Code*, The New York Times (December 30, 2010), http://www.nytimes.com/2010/12/31/business/economy/31economists.html?adxnnl=1&pagewanted=all&adxnnlx=1322770071-xyFc8P4AGHspOAxRbH7I3Q (last accessed on November 30, 2011); John A. Bryne, *'Inside Job' Causes Changes at Columbia*, http://poetsandquants.com/2011/05/18/inside-job-causes-changes-at-columbia/ (last accessed on November 30, 2011).
[159] *See* Section (III)(B)(ii), *supra* on page 6.
[160] 2010 Recommendation at 70.
[161] *See* Section (III)(B)(i), *supra* on page 6.
[162] *See* Section (III)(C)(iii), *supra* on page 6.

pastiche, all forms of criticism and commentary. Though these techniques may be subtle or indirect, they are incredibly powerful tools for stimulating thought precisely because they are multifaceted and open to interpretation.[163]

iv. The Effect of Circumvention of Technological Measures on the Market for or Value of Copyrighted Works.

The legitimate interest of motion picture rightsholders lies in preventing motion pictures from "being copied in their entirety" or being used in an infringing manner that would adversely affect markets for these works, including derivative markets such as for sequels and adaptations.[164] The doctrine of fair use ensures that new works that make fair use do not serve as market substitutions for the original work by requiring that a fair use involve a "transformative use" of the original work.[165] In clarifying that harm cognizable under the Copyright Act consists of "market substitution" effects, not "criticism that merely suppresses demand," the Supreme Court has recognized that there is no protectible derivative market for criticism" because

> the market for potential derivative uses includes only those that creators of original works would in general develop or license others to develop. 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.[166]

Indeed, in 2010, the Register concluded that transformative uses are "unlikely to affect the relevant markets for the original work."[167]

As we have discussed previously, we are aware of no allegations that previous exemptions pertaining to DVDs have resulted in infringing uses.[168] This fact confirms the intuitive concept underlying the proposed exemption: when a class is narrowly tailored to a small group of users who follow established best practices in fair use, the exemption will not prejudice the market for or value of copyrighted works. Our proposed incremental approach further limits any risk of prejudice by ensuring that this small group of users makes use of the most mature format that is sufficient to accommodate the particular non-infringing use. Finally, an exemption is likely to benefit owners of the copyrighted material because inclusion of copyrighted material in new works may often increase the appetite for the original material by bringing it to consumers' attention.

v. Such Other Factors as the Librarian Considers Appropriate.

In the 2008 Rulemaking, the Register found it relevant that the measure at issue "merged" access and use controls, and was "being used predominantly for the purpose of preventing reproduction and other rights of the copyright owner" even though it was characterized as an access control. The Register found that this factor weighed in favor of the Proponents, since the "effect of the access control is not to prevent unauthorized access, but

[163] *Id.*
[164] 2010 Recommendation at 70.
[165] Campbell v. Acuff-Rose Music, Inc., 114 S.Ct. 569, 592-94 (1994)
[166] Campbell v. Acuff-Rose Music, Inc., 114 S.Ct. 569, 592-94 (1994)
[167] 2010 Recommendation at 71.
[168] *See* Section (III)(C)(i), *supra* on page 8.

rather to restrict uses of motion pictures" in ways that harm "socially-beneficial noninfringing uses."[169] The same applies to the protection measures on the formats included in the class of works requested here. AACS on Blu-Ray is analogous to CSS on DVD; and encryption and authentication protocols on digital transmission services restrict access for the same purpose and to the same effect.[170] As in 2010, the measures at issue here are principally used not to prevent unauthorized access in order to completely conceal the protected material, but to prevent the public from engaging in lawful uses that the rightsholder has not approved.

An exemption that applies to a limited number of users for the purpose of creating new works will not permit or encourage members of the public to reproduce the material for recreational use, or any use other than incorporation into new works for fair use purposes. But failure to grant an exemption *will* prevent filmmakers from engaging in an important non-infringing use.

V. CONCLUSION

For the reasons set forth above, the International Documentary Association, Kartemquin Educational Films, the National Alliance for Media Arts and Culture, and the Independent Filmmaker Project respectfully request that the proposed exemption be approved for the 2012-2015 period.

[169] 2010 Recommendation at 71.
[170] *See e.g.*, Section (III)(C)(ii), *supra* on page 10; Section (III)(C)(iii), *supra* on page 12.

VI. APPENDIX

A. Statement of the International Documentary Association

Mission and Background

Founded in 1982, the International Documentary Association (IDA) is a non-profit 501(c)(3) organization that promotes nonfiction filmmaking, and is dedicated to increasing public awareness for the documentary genre. At IDA, we believe that the power and artistry of the documentary art form are vital to cultures and societies globally, and we exist to serve the needs of those who create this art form.

At IDA, we help advocate for, protect and advance the legal rights of documentary filmmakers. Our major program areas are: Advocacy, Filmmaker Services, Education, and Public Programs and Events. IDA also has a long history of protecting documentary filmmaking as a vital art form, and we continue to seek ways to ensure that the artists who make documentaries receive the funding that they deserve. For almost 30 years, IDA has worked to become the primary organization that people think of when they think of support for the documentary art form.

IDA's Documentary Filmmaker Membership

Since its founding in 1982, IDA has been the nation's leading arts organization dedicated solely to the art of the documentary form. In a challenging economic environment where many other arts non-profits have closed their doors, IDA has remained strong, perhaps stronger than ever, because of the unique and valuable service we provide to this growing community. Over three decades, we have worked on behalf of this community, and our history of filmmakers, members and collaborators has included the Who's Who of documentary filmmaking.

Currently, we reach over 28,000 individuals each month through our eNewsletter, emails, and website, and we actively carry out programs across the country that regularly receive the attention of the national media. In short, the IDA represents documentary, at its core.

Educational Programs

As educators, we run two major educational programs designed to nurture the documentary filmmakers of today and tomorrow. We educate young filmmakers to enhance their understanding and appreciation for the art form, and provide fair use education to all our members in order to promote responsible and ethical practice of the craft. Our educational programs include:

- Doc U, a series of hands-on educational seminars and workshops offered locally, online and around the country for aspiring and experienced documentary filmmakers, taught by artists and industry experts. Participants receive vital training and insight on various topics including fundraising; distribution; marketing; sound business management, legal rulings that affect our community and technique and craft. This program is supported by major grants, and is a core piece of IDA's work, reaching 2,000 in person and thousands online.

- Docs Rock is a two-semester program that introduces high school students to the world of documentary filmmaking. The first semester focuses on critical viewing and analyses of nonfiction films, and during the second semester the students apply their new knowledge and produce their very own documentary. With IDA's curriculum, the filmmakers of tomorrow inherit the fundamental knowledge to grow as non-fiction storytellers.

- IDA's Fiscal Sponsorship program helps documentary filmmakers apply and receive funding and grants, and includes a mentorship component where seasoned filmmaking experts on our Board of Directors, as well as our dedicated staff, provide feedback and input on projects in development and production.

Since 2010, when the DMCA exemption was granted to filmmakers, we have continued to educate our community about the responsible use of the exemption, as well as the doctrine of fair use, so that the community may use this vital exemption responsibly and legally.

In this time, we have noted that many members of the community were aware of the DMCA exemption, but still had concerns about how to use the exemption without incurring any liability, and had specific questions about many of the new digital formats. In speaking to many filmmakers for this 2011 rulemaking, we learned that there are still many in our community whose concerns about potential liability have caused them to abandon projects, and we have seen how these restrictions have had a chilling effect on filmmaker's ability to pursue their art.

An Exemption to the DMCA is Necessary for Documentary Filmmakers

Documentary Filmmaking is an Important Form of Journalism that is Essential to American Discourse

Documentary films are an important source of commentary and criticism in American society. They frequently address topics that are ignored or marginalized by mainstream media. Even when the topic is heavily addressed in the media, documentaries frequently provide an important new perspective that furthers or changes the public discussion. They are viewed in theaters, on television, on DVD, on Blu-Ray, and increasingly over the internet. At times, a documentary has been able to influence domestic or foreign policy.

Fair Use is Critical to Documentary Filmmaking

Documentary filmmakers tell stories through the combination of pictures, video, and sound. In order to effectively comment on the real world – past, present, and future – documentary filmmakers frequently need to incorporate small portions of pre-existing works that are still under copyright such as news broadcasts, feature films, television shows, and sound recordings. However, it is often not possible for a documentary filmmaker to license all of the clips for a variety of reasons, which may include inability to identify or contact the copyright holder; the copyright holder's insistence on an unreasonably high price; or the copyright holder's refusal to license the clip at all. As a result, many documentary filmmakers rely on fair use in order to comment on or comment with the copyrighted works.

In 2005, IDA worked with a number of film organizations and attorneys to develop the *Documentary Filmmakers' Statement of Best Practices in Fair Use.* The purpose of the statement

was to support documentary filmmakers ability to make fair use through a simple and clear explanation of the common implementations of fair use in a documentary filmmaking context. The Statement has been a renowned success, helping to spur media insurance companies to provide Errors & Omissions insurance for fair use to filmmakers, as it has become a common tool used by attorneys to draft opinion letters for E&O insurance.

The DMCA is Handicapping Documentary Filmmakers' Ability to Make Fair Use

Since the DVD exemption was granted for documentary filmmakers in July 2010, many of our members have utilized the exemption to incorporate clips from DVD that are essential to their documentaries. The need for and benefit of this exemption will only continue to grow as more documentary filmmakers become aware of the exemption and start production. However, for many of our members standard-definition (SD) materials from DVD is no longer enough. Many distributors have upgraded their technical requirements and now require films to be delivered in high-definition (HD). In addition, fewer and fewer materials are being distributed on DVD due to DVD's rapid decline in sales and the increased use of digital services such as iTunes, Netflix, and Verizon FiOS Pay-Per-View.

Under the current exemption, documentary filmmakers are not allowed to obtain HD materials or SD materials not on DVD if they are protected by technological protection measures, even when including the clips would be fair use, without the fear of liability. Because of the continuing decline of DVD and rise of alternative distribution formats, this means that many documentary filmmakers are prevented from utilizing important audiovisual materials in order to comment on real world stories.

B. Statement of Eddie Schmidt, President of the Board of Directors of IDA, on the "Death of DVD"

The death of the DVD format is on its way – next year or the year after – and while it may be perceived as only a slow demise to the general public, it seems like a much quicker nosedive from within the film industry's own production and distribution ranks.

For smaller, independent films – and particularly documentaries – it is inevitably coming sooner, because these films are niche products, and this is a volume business. The costs involved with pressing, stocking and shipping physical product make less and less sense with smaller films. Particularly when the customers for independent and documentary films, as recognized by outlets like Netflix Instant, Amazon streaming and iTunes (where documentaries are plentiful and popular) are exponentially more likely to seek out smaller movies through digital means. It is perhaps not surprising that the taste for material on the cutting edge reflects a cutting edge way of consuming it.

In 2011, I personally orchestrated the distribution of an independent film, Harry Shearer's *The Big Uneasy*. After a five-month DIY (do-it-yourself) theatrical run in 80 theaters with a box office cume of approximately $175,000, in approximately six weeks, via cable video on demand and digital means, the film grossed approximately $120,000. In that same time frame, the physical DVD of the film grossed approximately $12,000. Literally, DVD accounted for one tenth of the digital gross.

This discrepancy is even more pronounced when considering that our sales agent and distributor, FilmBuff, let us know early on that its usual home video partner, MPI, was not interested in carrying the film on DVD at all. When 'running the numbers' (it's all a numbers game, of units in and units out), they said it didn't make sense. However, the filmmakers wanted the film available to the consumer in this format, so a deal was arranged with Amazon for a "press to order" release (the customer orders it, Amazon presses the disc – one disc at a time).

The notion that this film – from a famous personality known for pop cultural phenomena like *This Is Spinal Tap* and *The Simpsons*, and media breaks including *Real Time With Bill Maher* – could be available simultaneously in 50 million homes via digital means, yet our only option for DVD release was the hi-tech equivalent of the filmmaker burning a disc on his laptop and putting it in the mail, is profound.

The Big Uneasy is by no means an exception. In fact, the 'exception' in this case is our insistence on being available via DVD at all. Many of FilmBuff's titles are digital only.

Truth be told, FilmBuff, and other companies like them – Gravitas Ventures is another – exist almost entirely to capitalize on a digital marketplace that larger organizations have been slow to figure out. DVD is a non-starter for them, in terms of their business plans.

The Sundance Film Festival, the premier U.S. launching pad for new independent films, also recently launched a distribution arm focusing on digital platforms.

This should tell you where things are headed – and fast.

And so, as we look to the documentary filmmakers who employing fair use this year, next year and beyond, we see a group whose OWN films are less and less likely to appear on DVD. And as THEY look to the films of their peers documenting the culture with which to excerpt, they will more and more often be forced to obtain these clips through digital transmission or broadcast.

The current DMCA exemption is hugely necessary for filmmakers, but it is already outdated. In order to keep pace with a rapidly changing industry, the exemption must cover the media outlets that are actually available in order to keep fair use truly fair. So we ask that the exemption extend to Blu-Ray discs as well as to means of digital transmission (on-demand cable TV, streaming, download).

C. Statement of Eric Rescorla on Digitally Transmitted Video

Biography

My name is Eric Rescorla. I am Founder and Principal Engineer of RTFM, Inc., a software and network security consulting firm specializing in communications security. I have worked in the field of computer and network security for over 16 years.

I am the author of the popular SSL/TLS debugging tool "ssldump" and the PureTLS Java TLS stack and have contributed to a number of other Open Source software projects including OpenSSL and libjingle. I am the author of the standard reference on TLS, "SSL and TLS: Designing and Building Secure Systems" (Addison-Wesley 2000). I am co-chair of the IETF Transport Layer Security (TLS) Working group, co-editor of RFC 5246 (TLS 1.2) and RFC 4347 (Datagram TLS). In addition, I served on the Internet Architecture Board (IAB) between 2002 and 2008.

I have published widely in academic conferences including USENIX Security, Electronic Voting Technology/Workshop on Trustworthy Elections, USENIX Workshop on Large-Scale Exploits and Emergent Threats (LEET), ISOC Network and Distributed Systems Symposium (ISOC NDSS), Internet Measurement Conference (IMC), and the Workshop on Economics and Information Security (WEIS). I have served on the program committee for numerous conferences and was the Program Co-Chair for EVT/WOTE 2010. In 2007 I served on California Secretary of State Debra Bowen's Top-to-Bottom Review of voting systems on the Hart Source Code team.

Introduction

Digital Rights Management (DRM) technologies are used by content providers to control access to and redistribution of content such as text, audio recordings and video recordings. The general purpose of these technologies is to allow users to make some use of a piece of content (e.g., to watch it) but not to make full use of it (e.g., to redistribute it or excerpt from it).

Restrictions Imposed by DRM

The general setting for DRM technology is as follows: a content producer has some piece of content (e.g., an audio recording, video recording, etc.) that they wish to distribute to users, but only under certain conditions. Typically they want to impose one or more restrictions.

1. Distribute the content only to authorized users. For instance, content might be sold and the content provider might wish to ensure that users who have not paid cannot view it.

2. Avoid redistribution of content by authorized users. Although I may be authorized to view the content, the content producer may wish to prevent me from redistributing it, making copies, etc.

In some cases, the content producer will also want to limit the time period during which an authorized user can access the content, but this can be viewed as avoiding redistribution from from a user at time A to the same user at time B rather than between two different users.

This document focuses on the second objective: limiting redistribution, and specifically limiting the ability of users who are authorized to consume a given piece of media to export it into a form which can be redistributed, modified, or incorporated into some other work.

General Technical Mechanisms

While each DRM system is different, since they are generally designed to solve the same set of problems, most such systems conform to a common technical architecture. The basic problem which must be solved is that the content must be delivered to the user in such a way that they can view it but not copy it. This restriction must be enforced by software or hardware which is located near the user (typically on their computer). Thus, the basic challenge of designing a DRM system is to deliver the content only to software or hardware which the content producer trusts not to allow the user direct access to the data. In order to achieve this, DRM systems typically one or more of the following technical mechanisms:

1. A client verification system to ensure that they are sending the content to a trustworthy client, i.e., one which enforces the desired access controls.
2. Encryption to ensure that the content is delivered only to the trustworthy client.
3. Access control measures on the client to ensure that the user cannot export the content.

Note that not all systems employ all of these mechanisms, which in some cases leads to potential avenues for circumvention.

For clarity, this discussion focuses on "on-line" distribution systems where the content distributor interacts directly with the viewing system. "Off-line" systems such as CSS[171] generally employ both encryption and access control and implicitly verify the client by its ability to decrypt the content.

Client Verification

The first stage of the process is for the distribution server to verify that a given client instance is trustworthy, i.e., that it enforces the appropriate access controls. As the distribution server has no direct access to the client, it must depend on its behavior as observed from the perspective of the network, so client verification mechanisms generally involve embedding some secret information in the client and then either (a) forcing potential clients to prove knowledge of that secret information [an interactive process] or (b) encrypting the data directly under that secret [a non-interactive process]. The interactive version is what's relevant in the online setting, so we confine our discussion here to that model.

[171] http://www.cs.cmu.edu/~dst/DeCSS/Kesden/index.html (last accessed on November 30, 2011).

In general, secret information can come in two forms:

1. The client can have an explicit secret (e.g., an encryption key) which is compiled into it.
2. The client can implement some proprietary (undisclosed) protocol which the server is designed to speak.

In many systems, both methods are used.

Because DRM systems are designed to provide protection against users who are in possession of the viewing device, it is very hard to protect secrets which are embedded in software products. Some systems instead embed the secret in a trusted hardware module, which is intended to be harder to analyze. An example of a system of this type is the Trusted Platform Module (TPM) developed by the Trusted Computing Group (TCG).[172]

Example: RTMPE

Flash Player implements a mechanism called RTMPE[173] for content delivery. RTMPE involves the establishment of a proprietary cryptographic handshake which also depends on knowing a secret which is compiled into the client. Thus, in theory only a legitimate RTMPE client has enough information to communicate with an RTMPE server. If all legitimate RTMPE clients implement access control functionality, then verifying that a prospective client speaks RTMPE is sufficient to verify that it will enforce access control. In practice, however, RTMPE has been reverse engineered and there are independent RTMPE implementations which do not enforce the desired access controls.[174]

In some cases, client verification is a two stage process, i.e., there will be a client side piece of software which is not itself the media viewer but which acts as a trusted computing base and attests to the server about the client which is connecting to it. For instance, in the case of Flash, the RTMPE stack is in Flash Player but the actual video is played by a SWF (a program provided by some Web site and running inside of Flash Player); a malicious SWF could accept the flash video data and then export it to disk. Thus, Flash contains a SWF verification mechanism whereby Flash Player cryptographically authenticates the SWF it is running using a secret embedded in Flash Player. Servers thus have a list of acceptable SWFs (those which are known to enforce access controls) and refuse to send media to other SWFs. This pattern can be repeated at a lower level as well, in which the component trusted by the distributor is a piece of trusted hardware that verifies the software loaded on a general purpose computer.

[172] http://www.trustedcomputinggroup.org/developers/trusted_platform_module/ (last accessed on November 30, 2011.
[173] http://lkcl.net/rtmp/RTMPE.txt (last accessed on November 30, 2011).
[174] http://rtmpdump.mplayerhq.hu/ (last accessed on November 30, 2011).

Content Encryption

Once the trustworthiness of the viewing software has been verified, the system must protect the content in transit between the content distribution server and the viewer client. This protection serves two purposes:

1. It prevents someone from sniffing the cleartext content off the wire.
2. It prevents modification of the content to remove any content control bits, such as those indicating that the content should not be exported or that access expires after a given time. [Note that not all systems do this.]

As we saw with RTMPE, the encryption is often tied into the client verification, with the idea being that only a valid client can establish a secure connection to the server and other clients just see junk.

Client-Side Access Control

Once the content has been securely delivered to a trustworthy client, that client must actually enforce access controls. The most basic access control measure is for the client to refuse to export the media into a redistributable form. At minimum, this means that the client won't explicitly save the media in copyable form to some defined location. Many clients simply aren't set up for this. For instance, on an embedded platform there may not even be such a feature. Other clients, however, may have an export feature which then must be disabled.

However, just not exporting the data explicitly is not necessarily sufficient. If the content is encrypted between the distribution server and the viewing software and the viewing software then decrypts it and stores it somewhere accessible to the user, then this becomes a failure of client-side access control. Generally, "somewhere accessible" means the disk, but even clients which do not store decrypted content on disk, generally decrypt it and store it in memory, which provides a potential attack vector. Similarly, when dealing with digital outputs such as HDMI, the connection to the display system also becomes a potential vector for data export. Systems exist to protect this interface, as discussed below.

Example: HDMI/HDCP

High-Definition Multimedia Interface (HDMI)[175] is a high-bandwidth audio/video interface standard.[176]

> HDMI (High-Definition Multimedia Interface) is the first and only industry-supported, uncompressed, all-digital audio/video interface. By delivering crystal-clear, all-digital audio and video via a single cable, HDMI dramatically simplifies cabling and helps provide consumers with the highest-quality home theater experience. HDMI provides an

[175] http://www.hdmi.org (last accessed on November 30, 2011).
[176] http://www.hdmi.org/learningcenter/faq.aspx#1 (last accessed on November 30, 2011).

> interface between any audio/video source, such as a set-top box, DVD player, or A/V receiver and an audio and/or video monitor, such as a digital television (DTV), over a single cable.

Because HDMI is a digital interface, any HDMI display device can in principle record a high quality, unprotected, copy of the desired content. Thus, the problem of securely displaying data via the HDMI interface is effectively the DRM problem in miniature, with the content producer being the media client (e.g., a Blu-Ray player) and the viewing platform being the display device (e.g., a television).

In order to protect this mechanism, HDMI can be deployed with the High-bandwidth Digital Content Protection (HDCP) system[177]. HDCP is a cryptographic content protection mechanism in which Digital Content Protection, LLC issues cryptographic keys to devices (which are intended to implement some access control policy). The source device verifies the authenticity of the sink device using a cryptographic handshake and then transmits the content encrypted to the sink device.

Online Versus Offline Systems

Systems intended for online content distribution are generally more flexible than those intended for offline content distribution via physical media. Once a significant amount of content has been placed on media using some DRM system, then any circumvention mechanism still allows export of content from a large population of extant media even if the content providers develop a new DRM scheme and use it for future media. Moreover, unless the devices intended to play media can be upgraded remotely, any new DRM scheme must be backward compatible with older devices, which severely limits the range of new technologies which can be deployed. CSS is a good example of such a case; even once information on how to circumvent CSS was published, manufacturers simply continued to ship DVDs with CSS protection.

By contrast, with online systems, content producers and distributors can force users to upgrade to newer DRM systems as older systems are analyzed by refusing to deliver new content to users with old software. This allows them not only to limit the exposure from extant content but also to release new content exclusively protected by entirely new DRM mechanisms without having to protect backward compatibility with older viewing systems. Moreover, because viewing software is downloadable, each distributor can require their own DRM software. Thus, a user operating on a Mac might easily have three distinct pieces of viewing software (Adobe Flash Player, Microsoft Silverlight, and Apple iTunes), each with its own variety of DRM, and each allowing the viewing of different sets of content.

[177] http://www.digital-cp.com/ (last accessed on November 30, 2011).

D. Statement of Jim Morrissette on Technical Issues Facing Filmmakers

I would like to thank the Copyright Office for the opportunity to speak in support of our proposed exemption to the DMCA. We truly appreciate the chance to explain to you in detail how the DMCA has affected the filmmaking community. In addition to requesting a renewal to the exemption allowing us to break CSS encryption from DVD's, we are also requesting that the exemption be expanded to include two crucial new sources of content: Blu-Ray discs and digitally transmitted video, or Digital Video Transmission (DVT). DVT includes internet streaming, internet downloads, TV Pay-Per View, and recordings from DVR devices connected to cable or satellite dishes.

I am the Technical Director at Kartemquin Films in Chicago, and I feel strongly the proposed exemption is necessary for documentary filmmakers to include "fair use" or public domain works in their films. It should be noted here that, when making fair use of a clip, documentary filmmakers only need access to short clips, often less than a minute each, on formats protected by Technology Protection Measures (TPM). It is only these small portions that are converted to computer files and used for editing.

Documentary filmmakers need to directly obtain video material on CSS copy protected DVDs, Blu-Ray discs, and DVT sources because the legal alternatives to circumvention of TPMs are not technically viable, and are so burdensome that they price out a large percentage of documentary filmmakers. This is because the video and audio distortion and loss of image resolution that comes from so-called "analog" alternatives seriously degrade picture and sound, are not acceptable to everyday viewers, not to mention broadcasters – and in the rare case in which those defects can be remedied, it takes an enormous amount of time, money, and expertise to do so.

Since the DVD exemption was granted two years ago, all production of our documentaries has shifted 100% to High Definition. This is because broadcasters like PBS, and cable networks like ESPN are demanding that all programs be delivered in 1080i HD. It is therefore essential that we have digital access to fair use content in HD.

The so-called "analog" alternatives to circumvention of TPMs on HD sources are even more difficult and problematic than they were with standard definition DVD's. Here is a brief explanation.

Blu-Ray Analog Transfer involves connecting a Blu-Ray player to a computer capture card using the analog outputs of the player. Until recently this was possible to do in HD using the component outputs. However, this required a $500 digitizer card, editing software, and a very fast, high-end computer to create edit ready files. The most popular edit software, Final Cut Pro, in its current version no longer supports any analog capture at all. This would force us to buy into an Avid or similar system for $3500 to capture analog signals.

While Blu-Ray players don't have the Macrovision analog copy protection as do DVD players, Blu-Ray players manufactured after January 2011 will no lonnger output high-definition but only standard-definition through the analog jacks, and by 2013 all analog outputs will be removed from Blu-Ray players. Movie studios can also have ICT (image constraint token) placed on Blu-Ray discs which will force even older players like ours to output only standard definition from

the analog connections. This leaves us with video that is no better than we can get from DVD's.

Up-Conversion is a method of artificially increasing the picture resolution of a standard definition signal to 1080 lines from 480 lines, and it is often suggested as a solution. It is basically relies on line doubling and produces soft focus "fake" HD which does not meet broadcast standards. Most TV and Cable networks severely limit the amount of "up-converted" content they will permit in an HD program because of the digital artifacts visible in the up-converted picture. These include moiré patterns, strobing on motion, and color bleeding.

Scan Conversion is the method of shooting video content off of a television using a camcorder. The problems with this method of content capture were discussed at length in our original exemption request and exist here as well. With High Definition, the quality loss is even more severe. Issues with aliasing and moiré patterns in fine detail abound. This setup also requires an HD monitor and HD camcorder, both significant costs.

Screen Capture is a method that uses computer screen recording software such as "Snagit" or "Jing Pro" to create a digital video file of what is displayed on the computer screen. Capturing just the video window of a computer Blu-Ray playback is difficult, even with a very fast computer. Frame rates are much less than the video being played back, causing dropped frames and stuttering Furthermore, if the size of the recording window on the computer screen doesn't match EXACTLY the video frame size required for broadcasting, the resulting file will have black lines on top & bottom or on left and right sides. This results in a file that is not usable for editing. Here again: severe degradation at every step, and there's only so much you can do to try to deal with that degradation.

Mac computers don't even play Blu-Ray discs, which is a very big problem in a production facility that uses all Mac computers. Of course, a significant segment of the filmmaking community works in the Mac environment.

Digitally Transmitted Video

For our most recent Frontline documentary "The Interrupters", we recorded several months of CNN newscasts with stories on gang violence onto a two-year-old DVR. We recorded from our satellite dish in HD and were able to access these clips using the HD analog outputs from the DVR. However, more recent DVR's have Selective Output Control (SOC) which turns off the analog outputs when playing recorded premium content. It is only a matter of time before Dish network will require an updated version of their DVR and we will loose analog access to the premium content we are paying for.

The analog transfer method also produces numerous technical problems that must be "Fixed in Post-production". For example, while it does not produce the same level of image degradation as the other alternatives, the Blu-Ray video quality is still degraded during the transfer. The darkest parts of an analog video picture or so called "black level" coming out of the player's analog outputs is technically different than the black level of the digital recording on the disc. This difference is highly visible in the transferred recording as a washed out looking image. These levels can be adjusted in editing, but at the expense of rendering time and additional loss of visual quality.

While Kartemquin has its own post-production team, many independent filmmakers must learn

post-production themselves or hire a third party to do the technical finishing work at a very high cost. For example, if you're including degraded analog material instead of all digital video and sound, you will likely have to spend additional money on "color correction" at a third party lab in order to fix the video taken from analog sources to make it legal for broadcast. Most documentary filmmakers in this situation have to pay $250 to $350 an hour for both a "colorist" – the technician who does the color correction – and for use of the color correction suite. I've been doing this work for 30 years, and even I still have to send analog material out to a third party for technical fixes.

But it's not just the video that needs fixing; sometimes the audio can be distorted, especially when using analog material. To meet PBS's standards, the peak digital audio level can never exceed -10 decibels. The dialogue norm level, which measures the average dialogue level in an entire film, should be at –20, plus or minus 2. The dialogue norm level is pretty difficult for filmmakers to measure. In order to fix it, the production house Pillar-to-Post uses a Dolby Broadcast Loudness Meter (LM100), which costs around $3,000.

In short, when you're trying to use material obtained using the so-called analog alternatives, the entire post-production process becomes vastly more difficult. It takes more time, more expertise, and more money to hire third party experts who can do this work. All told, take these costs and this delay, and a documentary filmmaker is paying exorbitantly more just to deal with the distortion and video and audio degradation if he has to use an analog alternative. This is not a trivial difference. It prices many documentary filmmakers out of making fair use of material on Blu-Ray, DVDs, and DVT.

Internet Streams and Downloads

Kartemquin also needs access to content that is only available online as a video stream or download. Here again the legal options to capture this content when it has DRM produce unacceptable results. Computer screen capture software cannot maintain the full frame rate of the stream, especially with HD content. Video downloads and rentals, such as those from iTunes, contain DRM that makes the downloaded file self-destruct 24 hours after the first playing. These files can only play on "authorized" computers and are not useable for editing without breaking the encryption. There is no "analog hole" option here either. This is why a DMCA exemption would be our only way to access these DRM content sources.

To the best of my knowledge, there are several methods by which to obtain material from DVDs without circumventing Content Scramble System technology. All result in severe degradation in the quality of the image and audio, require considerable time and expertise to implement, and, worst of all, severely hamper documentary filmmakers' ability to have their films shown.

The alternative to circumvention that results in the least amount of degradation is the analog transfer method, sometimes referred to as use of the so-called "analog hole," wherein the analog output of a DVD player is connected to a DV camcorder via the line- in input or to a personal computer equipped with an analog capture card. Compared to the process of obtaining material directly from a DVD, analog transfer methods require additional hardware and a substantial amount of time and technical expertise—and they still result in unacceptably degraded image and audio.

For example, the "analog transfer" method requires the use of special equipment to remove Macrovision's Analog Copy Protection ("ACP") copy control from the analog video signal; this process must be undertaken because virtually all computers and consumer camcorders recognize ACP and will not copy the material. To remove ACP, the analog video signal must be run through a time base corrector or visual stabilizer, which removes the ACP from the video signal sent by a DVD player. To my knowledge, only one firm still manufactures time base correctors.

The resolution, or sharpness, of video transferred using an analog process is *always* far worse than that which is taken from a DVD. One of the main sources of degradation results from problems synchronizing frame rates, the rates at which imaging devices produce unique consecutive images, between the two formats. The analog transfer method often causes a "flicker" effect in video, which is a result of the inherent difficulty in synchronizing the frames of the DVD source video with the frames of the new recording medium. This problem is exacerbated during analog transfer when the material must be obtained from a DVD with a frame rate of 24 frames per second. In such cases, the DVD player must convert the 24 FPS signal into an analog signal with a 29.97 FPS rate. Some DVD players, however, do not perform this conversion well, causing yet more degradation and flicker.

The difference in visual quality between the two methods is plainly evident from a visual comparison of images. The two Figures included in this statement are stills taken from *Mapping Stem Cell Research: Terra Incognita,* a Kartemquin-produced film that aired on PBS in January 2008.

Figure 1 shows an image that was obtained using the analog transfer method. The DVD was played, the analog signal was run through a time base corrector, and the signal was then recorded to DV tape. The DV tape was then captured with a computer's film editing software. The still in Figure 1 was pulled from that capture file.

Note that along with the loss of resolution resulting from the analog transfer, there is a wider black line on the left of the frame in Figure 1. A broadcasting system such as PBS can reject footage on this basis alone. The only solution to the "black line" problem is to "blow up" the material in order to remove the black line from view. However, this solution only degrades the material even further because it has been magnified.
Figure 2 was taken directly from a DVD of *Mapping Stem Cell Research: Terra Incognita* without copy protection. The material was removed from the DVD with the HandBrake software, which was then converted into a DV video file using DVDxDV software. Not only is the image quality on Figure 2 vastly superior to that of Figure 1, but the "black line" along the left edge of the image is barely noticeable.

The difference in image quality is clearly evident in these small images; when the film is screened in a theater or on a large television screen, of course, the disparity is far more pronounced.

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Figure1:
Still from *Mapping Stem Cell Research: Terra Incognita*
obtained using analog transfer method

Figure 2:
Still from *Mapping Stem Cell Research: Terra Incognita*
obtained directly from DVD

Analog transfer also negatively affects the material's audio quality. Where a direct digital transfer of material has no loss of quality, analog processes degrade the audio, picking up hums and buzzes. Worse yet, the audio itself is sometimes distorted. Additionally, the audio will often un-synchronize from the video during the conversion process, which causes, among other things, a person's audio dialogue to occur before or after the visual image of their lips moving. This problem can be ameliorated by a savvy technician or editor, but not without significant time and effort.

Visual and audio degradation problems such as these can have severe consequences for filmmakers who wish to share their films with the public. For example, a documentary film that has used analog transfer to obtain material from a DVD may not be accepted under the strict standards of many broadcasting systems. The Public Broadcasting System ("PBS"), an important broadcasting avenue for documentary filmmakers, requires *digital* video tapes for all submissions. Even filmmakers who convert analog material into digital form, however, will have difficulty meeting PBS's standards. For example, PBS requires a black level of zero for all digital submissions. "Black level" is a measurement of the degree to which the black displayed on screen is true to the black information in the video signal, and operates on a scale of zero to 100; true black is zero, and true white is 100. The default black level setting for analog video is 7.5 units, while digital video's black level defaults to zero units. Where material is taken from a DVD via analog transfer, the video requires additional processing in the editing room to restore the digital footage's black level back to zero. As a result, documentary filmmakers using the analog transfer method permanently lose about 7.5% of the luminance range in their videos during the transition from 7.5 units to zero units.

Ultimately, where a filmmaker must obtain video from a DVD via analog methods, the resulting degradation of the visual and audio quality of footage is so severe that even when an experienced and technically savvy filmmaker or editor performs the transfer, the footage will often be unusable in several contexts that are critical to documentary filmmaking. In particular, broadcasting systems such as PBS may reject the video, and the film will not be suitable for viewing in theaters or on large-screen televisions.

E. Statement from Joanne Richardson, Hiscox USA on Errors & Omissions Insurance

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HISCOX

November 30, 2011

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Mr. Donaldson and Mr. Lerner:

Hiscox USA is a major provider of media liability insurance for a large number of filmmakers against such risks as defamation, plagiarism, piracy, and misappropriation of content. As Managing Director for US Media and Entertainment E&O at Hiscox, I am responsible for underwriting these policies, maintaining their profitability and controlling our exposure to risk.

Fair use of third party copyrighted works is ubiquitous in today's media and print industries. To address this need, Hiscox and its industry competitors issue Fair Use riders on our insurance policies with frequency. These riders, or endorsements, provide affirmative coverage for copyright infringement claims where a copyright license has not been obtained. Importantly, they prevent, us, the insurance carrier, from disclaiming coverage on the grounds of wilfulness for a claim arising from media content that counsel has opined is within the scope of the Fair Use Doctrine.

In order to be eligible to receive these riders/endorsements, the insured must consult with and fully comply with the advice of legal counsel regarding the applicability of 17 U. S. C. 107 (the "Fair Use Doctrine"). We require the attorney be experienced on copyright matters and have a solid understanding of fair use and its application. The attorney must provide us with a letter affirming that the material has been vetted and meets the Fair Use standard. It has been our experience that attorneys, filmmakers and media companies act very responsibly when asserting fair use. We have accordingly been able to offer broad coverage grants under our insurance policies.

Neither the recent widespread adoption of digital encryption and authentication protocols nor exemptions allowing circumvention of Copyright Protection Systems enabled by these technologies has caused us to change our practices in this area, which rest on the responsible estimation that particular use of a third party work correctly falls under Fair Use standards.

Our incentives to avoid losses due to infringement are independent of the particular access technologies used at any particular time to secure created works. We do not foresee commercial reasons why any extension in current exemptions for circumvention of these technologies would cause us to relax the precautions I have described above. Nor do we foresee from an underwriting perspective an increased risk of noncompliance by insureds who avail themselves of such exemptions.

Joanne Richardson, CPCU

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F. Exhibit #1 of a Studio Clip License Standard Terms and Conditions

STANDARD TERMS AND CONDITIONS

1) GRANT OF LIMITED LICENSE: Upon receipt by [redacted] of this Agreement, signed by Licensee, Licensee is granted by [redacted] without any representations or warranties of any kind, expressed or implied, a non-exclusive and non-transferable license to use the Footage pursuant to the terms hereof. The Footage shall only be used in and as part of the Picture, for exhibition in the Media, in the Territory, and for the Term. The Footage will not be used for any other purposes whatsoever. Licensee will not make any reproduction of or from the Footage whatsoever in whole or in part, except for use in and as part of the Picture. Unless otherwise set forth herein, Licensee may not use the Footage in connection with the main or end titles of the Picture nor shall the Footage be used in any manner such that it appears that artists appearing in the Footage have rendered services for the Picture or Licensee.

2) LICENSE FEE: If Licensee has not signed and returned this Agreement along with the License Fee to [redacted] within sixty days after Licensee's receipt of this Agreement, then this Agreement shall automatically terminate in its entirety and be deemed void *ab initio* and Licensee shall be in breach of its obligations herein.

3) RELEASES: Licensee shall not have the right to use the Footage without obtaining all required individual authorizations, releases, consents, clearances and licenses (**"Releases"**) as may be necessary with respect to the use of the Footage including, without limitation, the Releases set forth below:

   a) Written releases from all individuals appearing recognizably in the scene(s) contained in the Footage and from all stunt persons appearing in any stunt identifiable in the scene(s) contained in the Footage.

   b) Written releases from any unions or guilds to the extent required under applicable collective bargaining agreements in connection with the use of the Footage.

   c) If any music is included in the Footage, master use, synchronization and performing licenses must be obtained from the copyright proprietors of the applicable master recording(s) and composition(s) and such other persons, firms or associations, societies or corporations as may own or control the performing rights thereto.

   Licensee shall pay any fees and other payments required in connection with the Releases and furnish [redacted] with copies of all such Releases upon request.

4) COSTS: Licensee will pay all costs arising in connection with the license granted hereunder including screening, processing, laboratory, transfer and shipping charges attributable to the manufacture of any pre-print material and positive prints or tape of the Footage, the return of materials and the costs involved in replacing any lost or damaged materials delivered to Licensee.

5) EDITING, DUBBING AND COLORIZING: Licensee shall not edit, dub, colorize or otherwise alter the Footage, except to edit for time.

6) NATURE OF PICTURE: The Picture shall not be derogatory to or critical of the entertainment industry or of [redacted], or any officer, director, agent, employee, affiliate, parent or subsidiary of [redacted] or of any motion picture/television program produced or distributed by [redacted] and none of the Footage will be used in a manner which would be derogatory to or critical of the motion picture/television program from which the Footage was taken or to the persons involved with the making of the motion picture/television program from which the Footage was taken.

7) RETURN OF MATERIALS: Upon the completion of production of the Picture, Licensee shall promptly return all preprint material and positive prints or tape of the Footage to such location as [redacted] shall designate.

8) ADVERTISING: Licensee shall not use the Footage or the name of [redacted] for any purposes in connection with the advertising, publicizing or any other promotion of the Picture.

9) COPYRIGHT: Licensee represents, warrants and agrees that the incorporation of the Footage into the Picture shall in no way affect [redacted] continued and separate copyright ownership in the Footage and the motion picture/television program from which the Footage was taken and that the copyright ownership of [redacted] will not merge with the Picture nor deprive [redacted] of its copyright ownership. Licensee further represents, warrants and agrees that Licensee shall be the copyright proprietor of the Picture, that the Picture shall bear a copyright notice thereon and that if the Picture is exploited in the United States, it shall be registered for copyright in the United States Copyright Office and the Picture shall be registered for copyright protection, and all formalities shall be complied with, in all other countries where the Picture will be exploited.

10) CONDITI ONS OF USE: The consent of [redacted] is conditioned upon Licensee's compliance with the provisions of the Universal Copyright Convention and of the laws of the United States to protect the copyrighted Footage. Licensee shall not have the right to use the Footage unless it complies with said laws.

h:\tcflegal\share\clip\fm033v06.doc 04-05-00
Film Footage License (FORM)
"PICTURE" – Licensee

G. Exhibit #2 of a Studio Clip License Standard Terms and Conditions

2. Licensee represents, warrants and agrees that in connection with Licensee's use of the clip, Licensee will obtain all other authorizations, consents and releases and pay all re-use fees and other compensation required by applicable collective bargaining or individual contracts or otherwise required by law. Without limiting the foregoing, if any music is included in the clip as exhibited, Licensee will obtain all necessary music synchronization and performance rights from the copyright proprietors of such music and such other persons or entities, including performing rights societies, as may own or control the rights thereto, and will obtain all necessary master recording licenses required in connection with any music included in the soundtrack of the clip, including without limitation master recordings owned or controlled by Licensor (other than incidental background score owned by Licensor, permission for which is included herein).

3. In addition to the above license fee, Licensee shall reimburse Licensor for all laboratory and shipping charges and all other direct costs and expenses incurred by Licensor in making the clip available, including, but not limited to, the cost of replacing any material that may be damaged in the process of making the clip available hereunder. Such reimbursement shall be made promptly on receipt of Licensor's invoice thereof.

4. Licensee represents, warrants and agrees that the production in which the clip is used shall not be derogatory to or critical of the entertainment industry or of Licensor or any officer, director, agent, employee, affiliate, parent or subsidiary of Licensor or of any motion picture produced or distributed by Licensor or of any characters owned or controlled by Licensor, and will not be used in a manner derogatory to or critical of the motion picture from which the clip was taken, any character owned or controlled by Licensor or any person involved with the production of said motion picture. This license shall be null and void in the event the MPAA/CARA rating given to the production is more restrictive than "R".

5. Promptly upon the completion of the use permitted hereunder, Licensee shall at Licensee's expense return all preprint material and positive prints of the clip (including any video copies of the clip) to Licensor at the same address where Licensee obtained the clip material.

6. Licensee shall not use the name of Licensor for any purposes in connection with the distribution, advertising and publicizing of the production in which the clip is used without the prior written consent of Licensor.

7. Licensee acknowledges that its use of the clip will not affect the copyright proprietor's continued and separate copyright ownership of the clip or the motion picture from which the clip was taken and Licensee represents and warrants that its use of the clip will not adversely affect the copyright ownership of the clip or such motion picture. Licensee represents, warrants and agrees that it shall be the copyright proprietor of the production in which the clip is used, that said production will bear a valid copyright notice and be protected under applicable copyright laws (or, alternatively, the

H. **Exhibit of Fair Use Outreach and Seminars Conducted for Filmmakers**

Title	Type	Date	Location	Amount of Time
Beyond the Copyright Wars	Lecture	11/8/11	University of Colorado, Boulder, Boulder, Colorado	2 hours
Fair Use in Filmmaking	Lecture	11/2/11	Latin American Teaching Center Immersion Program, Los Angeles, CA	1.5 hours
Fair Use without Fear	Workshop	10/29/11	Union Docs, Brooklyn, NY	3 hours
Copyright, Clearance and Fair Use	Lecture	10/28/11	American University, Washington, DC	3 hours
Fair Use and Media for Young Filmmakers	Workshop	10/28/11	Media That Matters, Arts Engine, New York	2 hours
Copyright, Fair Use and Public Policy: Why Practice Is the Best Reform Today	Lecture	10/27/11	Columbia University, New York	2 hours
Negotiating the Fair Use Thicket	Seminar	10/25/11	C&S Insurance, BAFTA and Hiscox New York Seminar, New York, NY	2 hours
Copyright, Clearance and Fair Use	Lecture	10/24/11	Columbia College Chicago, Chicago, IL	2 hours
How to Swim Safely in Treacherous Waters: Fair Use, Hidden Cameras, and All those pesky clearance questions that keep you up at night	Lecture	10/24/11	Chicago Filmmakers, Chicago, IL	2 hours
The Law of the	Panel	10/22/11	Film Independent,	1.5 hours

Title	Type	Date	Location	Amount of Time
Doc: Recent Legal Battles			Film Forum, Los Angeles, CA	
Safe Harbor for Fair Use in Non-Fiction Books and Films	Lecture	10/21/11	Texas Bar CLE Entertainment Law Institute, Austin, TX	1 hour
Defining Fair Use for the Digital Age	Lecture	10/11/11	Educause	1 hour
Panel: Copyright Education	Conference	9/10/11	Open Video Alliance, New York Law School	2 hours
Clearance and Copyright	Lecture	8/20/11	Art Directors Guild Master Class, Los Angeles, CA	3 hours
Fair Use: In the Library, the Classroom and the Field	Panel Discussion	8/3/11	University Film and Video Association, Boston, MA	2 hours
Fair Use without Fear	Lecture	7/22/11	Missoula Filmmakers Workshop, Missoula, MT	2 hours
Summer in LA (James Madison University)	Lecture	Summer 2011	Los Angeles, CA	
Semester in LA	Lecture	7/20/11	Columbia College, Chicago, Los Angeles, CA	3 hours
Fair Use, Used Well	Panel Discussion	6/24/11	Silverdocs Film Festival, Silver Spring, MD	2 hours
Fair Dealing and Fair Use	Panel Discussion	5/6/11	HotDocs, Toronto, Canada	1 hour
Digital Hollywood	Workshop	5/3/11	Los Angeles, CA	
Fair Use as Free Speech	Conference	4/9/11	National Conference on Media Reform, Boston, MA	1 hour
Film Independent Documentary Lab		3/31/11	Film Independent, Los Angeles, CA	3 hours
Semester in LA		3/23/11	Columbia College,	3 hours

Title	Type	Date	Location	Amount of Time
			Chicago, Los Angeles, CA	
Creativity, Culture and Copyright	Panel Discussion	3/14/11	South by Southwest, Austin, TX	1 hour
			Berkeley School of Law, Berkeley, CA	3 hours
The Cinefamily	Panel Discussion	2/21/11	IDA Doc U	2 hours
Let's Make it Legal		2/14/11	Berlinale Talent Campus, Berlin, Germany	
Binger Summit			Binger Film Institute, Amsterdam	7 hours
Copyright, Clearance and Fair Use	Lecture	2/2/11	American University, Washington, DC	1 hour
New Fair Use Battleground	Panel	2/1/11	Real Screen Summit	1 hour
Copyright and Creativity	Workshop	11/21/10	European Documentary Network and European Federation of Film Directors, Amsterdam	1 hour
The Harry Potter Lexicon Case: Pushing the Limits of Fair Use	Panel Discussion	11/13/10	Cooley Law School, Grand Rapids, MI	
Best Practices in Practice	Copyright Understanding Symposium	10/19/10	Towson University, Towson, MD	3 hours
Filmmaker Forum	Panel Discussion	10/31/10	Santa Monica, CA	1 hour
Future of Music Video: Copyright Issues	Panel Discussion	10/5/10	Future of Music Coalition, Georgetown University, Washington, DC	1 hour
Beyond the Copyright Wars	Conference	10/1/10	Open Video Alliance, New York, NY	1 hour

Title	Type	Date	Location	Amount of Time
Best Practices Strategies in Copyright Reform	Panel Discussion	9/25/10	Innovate/Participate, New York Law School and Yale Law School	1 hour
Clearance & Copyright	Lecture	9/11/10	Binger Film Institute, Amsterdam	6 hours
Fair Use & Filmmakers	Symposium	9/9/10	Berlin Legal Symposium, Berlin, Germany	2 hours
Fair Use in Filmmaking		8/10/10	UFVA, Burlington, VT	1 hour
Fair Use in Filmmaking	Lecture	7/26/10	UCLA, Summer Program in Producing, Los Angeles, CA	3 hours
Documentary Ethics	Lecture	6/27/10	American Library Association Convention	
Fair Use, Practice Makes Perfect	Symposium	6/25/10	Silverdocs, AFI Theater, Silver Spring, MD	2 hours

I. About the Proponents

International Documentary Association

[*See* Appendix A, Statement of the International Documentary Association]

Kartemquin Educational Films, Inc.

Kartemquin Educational Films is a nonprofit organization of documentary filmmakers located in Chicago. Since its first film in 1966, *Home For Life*, a powerful chronicle of two elderly people entering a home for the aged, Kartemquin has been making documentaries that examine and critique society through the stories of real people. With a record number of films currently in development and production, Kartemquin is poised to continue this legacy for years to come. Kartemquin was recently honored to receive one of eight international 2007 MacArthur Awards for Creative and Effective Institutions.

Kartemquin's best known film, *Hoop Dreams*, won every major critics prize and journalism award in 1995 and was named on over 150 "ten best" lists. The film examines the complex role basketball plays in the lives of two inner-city high school players. After garnering the Audience Award at the Sundance Film Festival, *Hoop Dreams* was released theatrically by Fine Line Features and became the highest grossing documentary at that time and one of highestrated documentaries broadcast on PBS.

Kartemquin's most recent documentary, *In the Family*, premiered at SILVERDOCS in 2008 and was recently broadcast nationally on PBS's P.O.V. Just prior to that, *At the Death House Door* premiered at the 2008 SXSW film festival, with an extensive festival run and national broadcast on the Independent Film Channel following. *Mapping Stem Cell Research: Terra Incognita* put a human face on stem cell research and was broadcast internationally on PBS, the CBC, and SBS Australia.

National Alliance for Media Arts and Culture

The National Alliance for Media Arts and Culture ("NAMAC") consists of 225 organizations that serve over 335,000 artists and media professionals nationwide. Members include community-based media production centers and facilities, university-based programs, museums, media presenters and exhibitors, film festivals, distributors, film archives, youth media programs, community access television, and digital arts and online groups. NAMAC's mission is to foster and fortify the culture and business of the independent media arts. NAMAC believes that all Americans deserve access to create, participate in, and experience art. NAMAC co-authored the Documentary Filmmakers' Statement of Best Practices in Fair Use and has advocated for orphan works reform.

Independent Filmmaker Project

After debuting with a program in the 1979 New York Film Festival, the nonprofit IFP has evolved into the nation's oldest and largest organization of independent filmmakers, and also the premier advocate for them. Currently, IFP represents a network of 10,000 filmmakers in New York City and around the world. Through its workshops, seminars, conferences, mentorships, and Filmmaker Magazine, IFP schools its members in the art, technology, and business of independent filmmaking. Since its start, IFP has supported the production of 7,000 films and provided resources to more than 20,000 filmmakers. Through IFP's prestigious Independent Filmmaker Lab, first-time directors of dramatic features and feature-length documentaries take part in three-day intensive workshops that focus on preparing the films for the festival circuit. IFP fosters the development of 200 feature and documentary films each year.

Before the
United States 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 2011-07

COMMENT OF
MARK BERGER, BOBETTE BUSTER, BARNET KELLMAN, AND GENE ROSOW

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TABLE OF CONTENTS

Page

I. PROPOSED CLASS

Motion pictures that are lawfully made and acquired from DVDs protected by the Content Scrambling System or, if the motion picture is not reasonably available on DVD or not reasonably available in sufficient audiovisual quality on DVD, then from digitally transmitted video protected by an authentication protocol or by encryption, when circumvention is accomplished solely in order to incorporate short portions of motion pictures into new works for the purpose of fair use, and when the person engaging in circumvention reasonably believes that circumvention is necessary to obtain the motion picture for multimedia e-book authorship.

II. SUMMARY

For over 150 years, authors have relied on the doctrine of fair use to conduct criticism and comment about culture, politics, history, and current affairs. Historically, fair use in printed books has involved the lawful use of a quotation, photograph, or illustration for purposes such as criticism or commentary. Now, for the first time ever, multimedia e-book technology permits authors to make fair use with non-static forms of content like video and audio.

Multimedia e-books represent a technological innovation in the centuries-long tradition of using visual material to explore, demonstrate, or explain arguments in ways that mere prose could never do. Multimedia e-books are quickly becoming the modern embodiment of this traditional exercise of authorship, allowing readers to interact with sustained scholarship in an immersive manner never before possible. This is because technology and market factors have finally made it possible for authors to provide the public with e-books that use high-quality video, in addition to images, as essential components of their textual arguments.

Authors can now use widely available tools to incorporate video and audio content directly into e-books for the purposes of fair use, as documentary filmmakers have done for decades. Millions of devices capable of consuming multimedia e-books have been sold in the United States, and many millions more are likely to be sold in the next three years; multiple file formats are capable of embedding video into an e-book; authors can utilize multiple user-friendly platforms to create and publish e-books themselves; and the number of multimedia e-book titles is growing exponentially. This new form of multimedia authorship enables powerful new modes of expression across a wide range of disciplines, including film studies, history, art, political science, media literacy, and many others. The technology now available is particularly important to authors who study popular culture and current affairs. For example, *Our Choice* is a new multimedia e-book written by former Vice President Al Gore that discusses global climate change through the use of text, voiceovers, video, and interactive graphics.[1]

The problem is that the DMCA's anti-circumvention provisions prevent authors from accessing important copyrighted motion picture materials for the purpose of fair use. In today's digital ecosystem, countless motion pictures utilize technological protection measures that may be covered by the DMCA. For example, all commercially distributed DVDs containing motion pictures materials are protected by the CSS encryption technology. In addition, many digitally transmitted materials such as those available on iTunes, television, and Netflix utilize encryption,

[1] *See e.g.*, Appendix B, Statement of Peter Brantley on Multimedia E-Books; http://ourchoicethebook.com (last accessed on November 30, 2011).

authentication protocols, or both. Many multimedia authors must obtain content with at least DVD-quality fidelity, and alternatives to circumvention are impossible or impracticable particularly for authors with small budgets or limited technical expertise. As a result these authors are unable to make commentary or criticism of a wide range of materials without fear of substantial civil and criminal liability under the DMCA. Thus, although e-books are quickly becoming the dominant format for sustained scholarship—with multimedia e-books becoming an increasingly important segment of e-book authorship—the DMCA threatens to handicap the development of this innovative new industry by preventing access to a vital body of materials needed for fair use.

The proposed exemption will not lead to copyright infringement. The requested class is narrowly tailored to a specific category of copyrighted works—motion pictures—limited to a single group of users that responsibly make fair use (multimedia e-book authors), and limits circumvention through an incremental approach. The incremental approach requires that the e-book author first attempt to obtain the motion picture material from DVD. Only if the motion picture material is not reasonably available on DVD – e.g., it was never released on DVD – or is not available in a sufficient format – e.g., the motion picture is only available on DVD in standard-definition and high-definition is required for the e-book author's argument – may the e-book author obtain the motion picture material from digitally transmitted video. Furthermore, as copyright holders themselves, the multimedia e-book authors rely on and respect copyright, including abiding by the stringent fair use standards imposed by media insurance companies.

It is for these reasons that Mark Berger, Bobette Buster, Barnet Kellman, and Gene Rosow respectfully request an exemption to the DMCA's prohibition on circumvention for DVDs and digitally transmitted video in order to remedy the substantial adverse impact that the DMCA is having on multimedia e-book authors attempting to make fair use. Without an exemption to the DMCA, this promising new use will remain severely compromised.

III. FACTUAL BACKGROUND

A. Introduction

Electronic books ("e-books") are an important and rapidly expanding form of authorship and communication in today's society. Today's multimedia e-books are capable of intermingling literary and audiovisual materials. For the first time, authors can make important visual and audiovisual arguments that were not possible solely with the use of static text and still images.

This powerful and innovative form of multimedia authorship is hindered by the DMCA, which makes it illegal to access important motion picture materials for the purpose of fair use simply because the materials are protected by a TPM. While traditional authors could utilize their fair use rights without fear of DMCA liability, multimedia e-book authors are unable to do so because of the ubiquitous use of TPMs for motion picture materials. Thus, it is critical that e-book authors receive a narrowly-tailored exemption to the DMCA in order to contribute to this new and revolutionary form of authorship.

B. Multimedia E-Books are an Innovative and Increasingly Important Form of Authorship

Electronic books ("e-books") are digital files capable of displaying written words on an electronic reader ("e-reader") generally without Internet access.[2] E-books do not include websites, which by definition require Internet access because the information is not stored locally on the display device, but on one or more Internet connected servers. A multimedia e-book[3] is capable of displaying both the audiovisual and textual content without Internet access.

Two types of e-readers have become standard in the United States. The first, popularized by the Amazon Kindle and Barnes & Noble Nook, utilizes electronic ink ("e-ink"), which allows the consumer to read the digital text without a backlit screen. The second, popularized by the Apple iPad, utilizes a backlight digital screen to display the e-book and is typically capable of other computing functions such as games, e-mail, and Internet browsing.

Multimedia e-books are a highly innovative form of authorship that allow the reader to interact with the e-book by choosing when and how watch the video.[4] Multimedia e-books are changing the way in which books are being published, designed, and consumed.[5]

i. E-Books are Rapidly Becoming a Dominant Form of Authorship in the United States

Since 2007, when Amazon launched its Kindle e-reader, the e-book industry has been growing at an exponential rate. With annual growth rates cited at over 200%[6], many analysts

[2] *See* Appendix B, Statement of Peter Brantley on Multimedia E-Books.
[3] Multimedia e-books are also called "enhanced e-books" in the publishing industry.
[4] *See generally,* Appendix B, Statement of Peter Brantley on Multimedia E-Books.
[5] *Id.*
[6] The article cited a 202% growth rate year-over-year between February 2010 and February 2011. http://money.cnn.com/2011/04/15/technology/ebooks_beat_paperbacks/index.htm (last accessed October 10, 2011).

predict that U.S. e-book sales will grow from $1 billion in 2010 to between $3 billion[7] and $5.6 billion[8] in 2015 and thus capture approximately 23% of all U.S. book sales[9]. Regardless of the exact growth rate for e-books as compared to print books, today more e-books are sold than paperback books in the U.S. [10] and Amazon.com, a major book retailer, sells more e-books than both paperback and hardcover print books[11].

ii. Multimedia E-Books are Available Today and Will Become Increasingly Available in the Next 4 Years

As it exists today, every stage of the e-book value chain[12] is equipped to support multimedia authorship: (1) the media assets; (2) the e-book file format; (3) the process of creating the e-book from the media assets; (4) the e-reader rendering engine; and (5) the e-reader. Thus, individual authors, without the support of traditional publishers, are capable of self-publishing multimedia e-books. However, the importance of multimedia e-books has also been recognized by larger publishers. For example, as of November 2011, all ten of the major American publishers were selling e-books, six of the ten major publishers were selling multimedia e-books or had announced a multimedia e-book strategy, and multiple publishers have developed e-book-specific imprints.[13] These developments, and the fact that the technology is coalescing around widely adopted standards and platforms, means that independent authors can readily create and self-publish multimedia e-books.

First, the media assets, specifically the video files, are being encoded with audio and video "codecs" such as H.264 and VP8 that can be easily viewed and rendered.[14]

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[7] http://www.forrester.com/rb/Research/ebook_buying_is_about_to_spiral_upward/q/id/57664/t/2 (last accessed October 10, 2011).

[8] *Turning the Page: The Future of E-Books*, PriceWaterhouseCoopers, http://www.pwc.com/en_GX/gx/entertainment-media/pdf/eBooks-Trends-Developments.pdf (last accessed October 10, 2011).

[9] *Id.*

[10] http://money.cnn.com/2011/04/15/technology/ebooks_beat_paperbacks/index.htm (last accessed October 10, 2011).

[11] Amazon.com sells 105 e-books for every 100 print books. http://www.bloomberg.com/news/2011-05-19/amazon-com-says-kindle-electronic-book-sales-surpass-printed-format.html (last accessed October 10, 2011).

[12] The value chain refers to the end-to-end process of commercializing a product.

[13] *See* Random House, http://www.randomhouse.com/category/ebooks/ (last accessed November 30, 2011); Pearson's (Penguin), http://us.penguingroup.com/static/pages/whatsnext/eBooks.html (last accessed November 30, 2011); Hachette, http://www.hachettebookgroup.com/publishing_hachette-digital.aspx (last accessed November 30, 2011); HarperCollins, http://www.harpercollins.com/imprints/index.aspx?imprintid=517980 (last accessed November 30, 2011); Simon & Schuster, http://www.simonandschuster.com/search/Format-eBook/_/N-i8f?Ns=ON_SALE_DATE|1 (last accessed on November 30, 2011) and http://www.mediabistro.com/ebooknewser/simon-schuster-releases-its-first-enhanced-ebook_b1404 (last accessed November 30, 2011); Holtzbrinck (Macmillan), http://us.macmillan.com/NewsDetails.aspx?id=18089 (last accessed November 30, 2011); Thomas Nelson, http://www.frontgatemedia.com/news.php?mod=template&id=763 (last accessed November 30, 2011); Scholastic, http://www.scholasticdealer.com/products/ebook.shtml (last accessed November 30, 2011) and http://www.mediabistro.com/galleycat/scholastic-teams-up-with-ruckus-media-group-to-launch-new-transmedia-imprint_b37709 (last accessed November 30, 2011); John Wiley (Wiley), http://www.wiley.com/WileyCDA/Section/id-302039.html (last accessed November 30, 2011) and http://www.teleread.com/ebooks/dummies-for-e-books-wiley-converts-660-titles-to-epub/; Workman, http://www.workman.com/ebooks/ (last accessed November 30, 2011).

[14] *See* Appendix B, Statement of Peter Brantley on Multimedia E-Books.

Second, the two dominant e-book formats, EPUB[15] and MOBI[16], are incorporating best practices from HTML5, the newest standard for website coding, in order to streamline and simplify the process of incorporating video into the electronic reading experience.[17] For example, many e-books file formats are being designed to work with touch screen interfaces available on the Apple iPad, Kindle Fire, and Barnes & Noble Nook Tablet.

Third, given the standardization and maturation of e-book file formats, e-book authors and publishers have a growing number of software options to choose from when creating the e-book. An established program is Adobe's InDesign, which allows an author to simply create a multimedia e-book in the standard EPUB format without any knowledge of how to code the underlying HTML5 language.[18] In addition, a growing number of new software tools are being developed with even simpler publication workflows.[19] For example, PressBooks allows an author to create an e-book from WordPress, an open source blogging platform that allows posts to incorporate both video and literary elements.[20]

Fourth, e-reader rendering engines are capable of rendering e-book files because of the inclusion of HTML5 elements and best practices in e-book formats. For example, WebKit - an open source rendering engine that powers many computer internet browsers[21] and most mobile browsers – is increasingly capable of rendering e-book formats and will likely allow a single e-book format (e.g., EPUB) to be read on multiple devices.[22]

Finally, the e-readers themselves are being designed with hardware capable of displaying vivid and higher definition video. The three major multimedia e-readers – Apple iPad, Kinlde Fire, and Barnes & Noble Nook Tablet – are capable of displaying videos in significantly higher resolution than DVD.[23] Because of the recent explosion in Apple iPad, and more recently Kindle Fire, millions of tablet e-readers have already been sold in the U.S. and millions more are predicted to be sold in the upcoming 4 years.[24]

In sum, all aspects of the multimedia e-book value chain are capable of supporting multimedia e-books today. As a result, the obstacle to fair use for multimedia e-book authors is not the technology: rather, it is the DMCA.

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[15] EPUB is maintained by the International Digital Publishing Forum.
[16] MOBI is maintained by Amazon for its proprietary Kindle e-reader. *See* Appendix B, Statement of Peter Brantley on Multimedia E-Books.
[17] *See Id.*
[18] *See Id.*
[19] *See Id.*
[20] *See Id.*
[21] For example Google Chrome, Apple Safari, and Mozilla Firefox.
[22] *See* Appendix B, Statement of Peter Brantley on Multimedia E-Books.
[23] The three major multimedia e-readers are capable of displaying videos with higher resolution than DVD (480 x 640). The iPad2 has a screen resolution of 768 x 1024. http://www.apple.com/ipad/specs/ (last accessed November 13, 2011). The Kindle Fire has a screen resolution of 600 x 1024. http://www.amazon.com/dp/B0051VVOB2/?tag=googhydr-20&hvadid=7618695807&ref=pd_sl_2mbtm9jwz8_b (last accessed November 13, 2011). The Barnes & Noble Nook Tablet has a screen resolution of 600 x 1024. http://www.barnesandnoble.com/p/nook-tablet-barnes-noble/1104687969 (last accessed on November 13, 2011).
[24] According to e-Marketer, there are an estimated 34 million tablet users currently in the U.S. and there will be 90 million tablet users in 2014. http://www.emarketer.com/Article.aspx?R=1008701 (last accessed on November 22, 2011).

C. Fair Use is Critical to Authorship

Authors were making transformative use of existing works long before the Supreme Court first established the doctrine of "fair use" in *Folsom v. Marsh* in 1841.[25] Authors routinely quote other works, and many genres of authorship, such as literary criticism,[26] depend particularly heavily on fair use. Of course, many authors have relied on fair use in order to incorporate pictorial works, such as photographs or drawings, into books.[27]

Until the 21st Century, books were only available in a print format, and were only capable of displaying static works. However, with the advent of backlight display e-readers and e-book formats, authors are now able to make multimedia works that combine literary and audiovisual elements into the same work. In theory, authors should be able to make multimedia fair use regardless of the type of media.

When authors are able to make fair use in multimedia e-books, they utilize established standards to ensure that it is done in a responsible manner. As in filmmaking, media insurance carriers provide fair use writers for multimedia e-books when an attorney submits an opinion letter asserting that the unlicensed uses comport with the doctrine of fair use.[28] As a condition of issuing a policy, E&O insurance carriers require that authors obtain an opinion letter by an attorney asserting that the unlicensed use of the copyrighted materials comport with the doctrine of fair use. Attorneys are able to issue such letters by evaluating whether the films comply with legal standards and established "best practices in fair use" that reflect cautious views of what constitutes fair use. While there is no Statement of Best Practices specifically tailored to multimedia e-book authors, many Statements do relate to the multimedia e-book authorship process and can be used to guide the author or his or her attorney in making fair use. For example, multimedia e-book authors could use the *Documentary Filmmakers' Statement of Best Practices in Fair Use* if the e-book incorporates multiple clips into a single segment in the e-book because it would function like a mini-documentary. In addition, multimedia e-book authors can turn to the *Code of Best Practices in Fair Use for OpenCourseWare*, the *Code of Best Practices in Fair Use for Media Literacy Education*, and the *Code of Best Practices in Fair Use for Online Video*,[29] for additional guidance on how to make fair use responsibly.

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[25] Folsom v. Marsh, 9 F. Cas. 342 (C.C.D. Mass. 1841) is considered the seminal case establishing the principle of "fair use."

[26] *See, e.g.*, Folsom v. March, 9 F. Cas. 342, 344-345 (CC Mass. 1841) ("[A] reviewer may fairly cite largely from the original work, if his design be really and truly to use the passages for the purposes of fair and reasonable criticism."); New Era Publications Int'l ApS v. Carol Pub. Group, 904 F.2d 152, 155 (2d Cir. 1990) (quotations in a biography was held to be fair use); Rosemont Enterprises, Inc. v. Random House, Inc., 366 F.2d 303 (2d Cir. N.Y. 1966) (quotations from 3 magazine articles held to be fair use).

[27] *See e.g.*, Baraban v. Time Warner, Inc., 2000 U.S. Dist. LEXIS 4447 (S.D.N.Y. Apr. 6, 2000) (the inclusion of a photograph used nuclear energy advertising in a book was held to be fair use); Time, Inc. v. Bernard Geis Associates, 293 F. Supp. 130 (S.D.N.Y. 1968) (the inclusion of copy of a singe frame from a motion picture, which constituted an image, in a book was held to be fair use).

[28] *See* Comment of International Documentary Association, Kartemquin Educational Films, Inc, National Alliance for Media Arts and Culture, and Independent Filmmaker Project, Appendix E, Statement of Hiscox USA on Errors & Omission Insurance; hereinafter *Filmmakers' Comment.*

[29] *See Documentary Filmmakers' Statement of Best Practices in Fair Use,* http://www.centerforsocialmedia.org/fair-use/best-practices/documentary/documentary-filmmakers-statement-best-practices-fair-use (last accessed on November 13, 2011); *Code of Best Practices in Fair Use for Online Video,* http://www.centerforsocialmedia.org/fair-use/related-materials/codes/code-best-practices-fair-use-online-video (last

D. The DMCA is Harming Multimedia E-book Authorship

Multimedia e-book authors are being harmed by the Digital Millennium Copyright Act ("DMCA") in a way very similar to filmmakers. Both are attempting to make fair use with motion picture materials, in the face of a legitimate fear that their non-infringing use of audiovisual materials will create legal liability under the DMCA.[30] However, in reality the DMCA disproportionately affects multimedia authorship. While print authors are often able to freely utilize literary and pictorial works, because they do not utilize TPMs. In contrast, in today's digital world nearly all motion picture materials are protected by TPMs, whose circumvention is made illegal by the DMCA. As a result, one form of multimedia authorship and fair use – literary and pictorial - is being favored over another – literary and audiovisual.

Furthermore, many multimedia e-book authors, like filmmakers, are unable to license short clips in today's prohibitive clearance environment. For example, when Bobette Buster attempted to clear a one-second clip of *It's A Wonderful Life* for a lecture series that formed the basis of her in-development multimedia e-book, the rightsholder attempted to charge several thousand dollars. When she tried to clear the "Show me the money!" dialog in *Jerry McGuire*, it took months of emails and calls to simply have an initial discussion with the rightsholders. But the terms of the negotiation were prohibitive, including a flat fee of several thousand dollars simply to cover the motion picture copyright, not including the payments to actors for their use of his image and likeness. Ultimately, a license could never be acquired, even for a well-respected academic and lecturer such as Ms. Buster. In another discussion to clear a short clip from *Golddiggers of 1933* which included the song "We're In the Money!" Ms. Buster would have needed to negotiate a license for the motion picture from the studio and a separate license for the song, and for the actors for the use of their images and likeness. Of course, multimedia e-book authors will be subject to the same restrictive license terms that were discussed in the *Filmmakers' Comment*.[31]

Without an exemption to the DMCA, many multimedia e-books will likely not be made simply because the authors cannot lawfully obtain short clips of copyrighted works in order to make fair use.

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accessed on November 13, 2011); *Code of Best Practices in Fair Use for OpenCourseWare*, http://www.centerforsocialmedia.org/ocw (last accessed on November 13, 2011); and *Code of Best Practices in Fair Use for Media Literacy Education*, http://www.ncte.org/positions/statements/fairusemedialiteracy (last accessed on November 13, 2011).

[30] Since 2004 the courts have continued to disagree over whether fair use may be used as an affirmative defense to circumvention of a TPM in violation of 17 U.S.C. §1201(a)(1). In 2001, the Second Circuit held that fair use does not guarantee access to a copyrighted work. Universal City Studios, Inc. v. Corley, 273 F.3d 429, 459 (2d Cir. 2001), *aff'd*, Universal City Studios v. Reimerdes, 111 F. Supp. 2d 294 (S.D.N.Y. 2000). In contrast, in 2004 the Federal Circuit held that the DMCA only protects circumvention of a TPM when the circumvention would result in copyright infringement. Chamberlain Group, Inc. v. Skylink Techs., Inc., 381 F.3d 1178, 1202 (Fed. Cir. 2004). Most recently, in 2009 the Ninth Circuit declined to follow the Federal Circuit ruling and held that fair use did not apply to the DMCA's §1201(a) anti-circumvention right because it was a distinct right from copyright. MDY Indus., LLC v. Blizzard Entm't, Inc., 2011 U.S. App. LEXIS 3428, *46 (9th Cir. Ariz. Feb. 17, 2011).

[31] See *Filmmakers' Comment*, Section (III)(B).

E. The DMCA is Preventing Multimedia E-book Authors from Accessing Materials on DVD and Digitally Transmitted Video that Are Required to Make Fair Use

As is established in Section III(C)(i) of the filmmaker comment, DVD is an critical source of SD material and certain important motion picture materials are only available via Digital Video Transmission.[32] Without access to materials on DVD, many multimedia e-book authors would be unable to complete their multimedia e-books, whose subject may pertain directly to the copyrighted material.

For example, Bobette Buster – a renowned film critique and academic – is developing a multimedia e-book called *The Use of Cinematic Enchantment: Deconstructing Master Filmmakers*, which will discuss how master filmmakers have discovered the methods of cinematic storytelling. One chapter of the book will focus on "threshold" moments in movies, juxtaposing two important scenes from iconic films of the 1970s and 1980s. From the description given in the text, it may not be clear to the reader what these scenes have in common and why they are "threshold moments." Multimedia e-books have a unique capacity to allow readers to inspect, compare, and deconstruct the relevant scenes so that they can truly understand the argument being made. Before the advent of multimedia e-books it would have been impossible to compare the two clips in a book format; however, with today's technology Ms. Buster is now able to describe the concept of "threshold moments" in words and then effectively illustrate an example through the use of clips pursuant to the doctrine of fair use. Unfortunately, because Ms. Buster would need to source the video clips from DVD, Ms. Buster is not able to make this powerful argument in her e-book.

The challenges caused by the DMCA are not limited to a single chapter, but pervade the entire multimedia e-book. For example, in another chapter Ms. Buster addresses the use of foreshadowing in Steven Spielberg's *Schindler's List*. The chapter will analyze how the shot of how pots are being systematically made in Mr. Schindler's factory informs and compares to the systematic process by which possessions were taken from Jews by the Germans. If the scene were described only through text, the reader would not truly be able to understand Spielberg's use of storytelling because the reader could not first see the factory's industrial process and then see the methodical steps used to destroy the Jews' lives.

Gene Rosow – a producer, director and writer – is also facing similar challenges in developing his multimedia e-book, *Born to Lose: The Gangster Film in America*, which explores the interplay between American history and the gangster film genre. In order to introduce and analyze the elements of the gangster genre, Mr. Rosow will need to access DVD clips from early gangster films to show the early establishment of the gangster genre and the connection between historical crime figures and their fictional counterparts. In addition, Mr. Rosow will require DVD clips from the film *Underworld* to illustrate how 1920s and 1930s popular culture elevated gangster characters from mere criminals to sympathetic victims of Prohibition. Given the amount of information conveyed in the motion picture clips – sound, movement, clothing, and camera framing – it would impossible simply to discuss the clips in text or through the use of pictures.

[32] *See Filmmakers' Comment*, Section (III)(C)(i).

In addition, Mr. Rosow will need to access clips from digitally transmitted video that are not reasonably available on DVD. Mr. Rosow will need to access gangster films that have not been released on DVD, but are available over the internet or on television pay-per-view, such as *7-11 Ocean Drive*, *The Racket*, *Hoodlum Empire*, and *Blondie Johnson.* In addition, in order to show the relationship between gangster films and organized crime in real life, Mr. Rosow will need to access footage of the Kefauver, Kennedy, and McClellan committees that investigated organized crime and news stories about the organized crime connections to the purchase of RKO Studios, none of which are readily available on DVD, if they were ever released at all.

Barnett Kellman is in the process of developing a multimedia e-book tentatively called *In a Comic Direction: The Common and Not So Common Sense of Directing Comedy*, which will be one of the first attempts to explain to directors how to use comic perspective and techniques. The book will be broken in chapters about different elements or types of comedy. For example, in the "Physics of Comedy" chapter, Mr. Kellman would like to utilize a clip from Francois Truffaut's *Stolen Kisses* to show comic disproportion. The clip will include a brief setup conversation in which the small-statured Jean Pierre Leaud asks his employer's opinion about dating taller women, with an immediate cut to Mr. Leaud, filmed from behind, chatting up an enormously tall woman. While the scene could be described with text, without the use of a short clip pursuant to the doctrine of fair use, the reader would be unable to observe the tone of the actors' voices, the use of editing to create the juxtaposition of the conversation to the visual of the tall woman, and the use of perspective to emphasize the absurd height of the woman.

Not all multimedia e-books utilize video clips for visual reasons; some utilize clips in order to emphasize the importance of audio elements in the excerpt. For example, Mark Berger is developing an e-book called *Listening to Movies*, which will explore in detail the many uses of sound and how it relates to the film's moving images. For example, in one chapter Mr. Berger will explore how the use of background dialog can subtly influence the emotional development of a film scene. In order to illustrate this complex point, Mr. Berger will show a short clip from *Citizen Kane* on DVD, in which an argument between Kane and a supporter begins in a busy and bustling news room – with reporters in the background typing and talking on the telephone. However, once the argument heats up, the reporters stop their activity and start to listen to the argument, which increases the tension of the argument solely through the use of background dialog without any direct shots on the reporters.

In sum, without an exemption for both DVD and digitally transmitted video, many multimedia e-book authors will be unable to make important audiovisual arguments necessary to the thesis of their book.

F. Alternatives to Circumvention are Impracticable

As we discussed in the *Filmmakers' Comment*[33], the theoretical alternatives to circumvention for DVD and digitally transmitted video are frequently not sufficient for inclusion in a film. The challenges in using alternatives – such as analog transfer method, scan conversion, or screen capture – are even greater for multimedia e-book authors than for filmmakers, who often have more film editing technical expertise. The self-publishing e-book author is often unable to do more than basic video editing and can be expected to rely on heavily simplified e-publishing software such as Adobe InDesign. It is unreasonable to require a self-publishing author to purchase an expensive visual stabilizer or digital time base corrector in order to remove Analog Copy Protection, maintain audio and frame rate sync between the DVD player and recording device, and purchase additional film editing software simply in order to access a short clip from DVD for fair use. In addition, screen capture software, which is often less expensive than the analog transfer method, frequently is unable to capture the required video and audio elements without inserting audio sync issues, degrading the resolution of the video, and creating a perceptible skipping in the video. Furthermore, many e-book authors like Ms. Buster, Mr. Rosow, Mr. Kellman, and Mr. Berger require access to at least standard-definition quality digital files because the purpose of the e-book is to comment specifically on audio and visual elements of the motion picture, which could be significantly altered and degraded if they are obtained via an alternative to circumvention.[34]

IV. ARGUMENT

A. Introduction

The DMCA's prohibition on anti-circumvention is deeply compromising multimedia e-book authors' ability to make fair use. Because of access-control measures, authors throughout the nation cannot access important material from DVDs and digitally-transmitted video without a reasonable fear of DMCA liability;[35] as a result, they cannot make fair use of a broad and important body of motion picture material. In short, the DMCA's effect on fair use in multimedia authorship is adverse and substantial. The proposed exemption is narrowly tailored to remedy this harm while avoiding prejudice to rightsholders. The class of works is limited by use, format, protection measure, and an "incremental approach" to allow circumvention only when necessary to avoid harming authors' ability to make fair use. Because authors need an exemption to make fair use, the exemption is narrowly tailored to accomplish this, and this narrow tailoring will prevent prejudice to the legitimate interests of rights-holders, the balancing of factors under Section 1201(a)(1)(C) favors granting the exemption. Thus, the Copyright Office should grant an exemption for multimedia e-book authors.

[33] *See Filmmakers' Comment,* Section III(C)(iv)**.**
[34]*See Filmmakers' Comment*, Appendix D, Statement of Jim Morrissette on Technical Issues Facing Filmmakers.
[35] As discussed in the *Filmmakers' Comment* at footnote XX, it is not entirely clear whether circumventing these control measures would actually violate the DMCA's prohibition. However, like filmmakers, multimedia e-book authors still have a reasonable fear of liability under the DMCA that discourages them from making fair use.

B. The DMCA Imposes a Substantial Adverse Effect on Non-Infringing Uses by Severely Harming Filmmakers' Ability to Make Fair Use

i. The proponents have met the required evidentiary burden by showing "actual instances of verifiable problems occurring in the marketplace" that are far "more than de minimis."

As discussed in *Filmmakers' Comment* at Section (IV)(B)(ii) the proponents must show that the DMCA's prohibition on circumvention is imposing or is "more likely than not to" impose an adverse effect on non-infringing use.[36] The adverse effect must be "substantial" in that it is "more than de minimis,"[37] and the best evidence will come from "actual instances of verifiable problems occurring in the marketplace" or circumstantial evidence "reasonably demonstrat[ing]" actual or likely harm.[38]

By any measure, the proponents have met this burden. The DMCA's prohibition on anti-circumvention is preventing or seriously hindering multimedia e-book authors from making fair use to create new works using innovative technology. As the many examples we discuss in Section III demonstrate, together with statements provided by organizations representing thousands of filmmakers, the prohibition's adverse effects on non-infringing uses are far more than de minimis: in fact they have caused many "actual instances of verifiable problems occurring in the marketplace."

Authors have practiced fair use to accomplish the purposes of criticism and comment, as well as for education, scholarship, and other socially valuable purposes, for over 150 years.[39] Multimedia authors, like their traditional counterparts, make fair use regularly. However, multimedia authors depend on fair use to an even greater degree than traditional authors, since their craft inherently depends on using copyrighted works to illustrate the author's criticism and commentary. This is because multimedia e-books provide an opportunity for readers to experience scholarship through a blend of text and audiovisual material that is more compelling and immersive than traditional texts. But multimedia authors can only create these innovative e-books if they can include portions of the works they criticize, or primary material that illustrates their commentary.[40]

Along similar lines, it is clear that licensing practices are so difficult that they cannot be relied on to provide access to these materials. Multi-media e-book authors seek to make fair use by utilizing innovative technology to include video along with images, allowing readers to immerse themselves in scholarship and journalism to a degree never before possible. Sometimes, this criticism and commentary can only be effectively conveyed by including materials owned by individuals and entities who are unwilling to license the material at a reasonable cost. The clearance process is often prohibitively expensive, time-consuming, and complex for authors, many of whom do not have great financial resources. Ms. Buster's difficulty licensing clips is

[36] Notice of Inquiry, 76 Fed. Reg. 60,400 (Sept 9, 2011)
[37] Notice of Inquiry, 76 Fed. Reg. 60,400 (Sept 9, 2011)
[38] Notice of Inquiry, 76 Fed. Reg. 60,400 (Sept 9, 2011)
[39] Folsom v. Marsh, 9 F. Cas. 342 (C.C.D. Mass. 1841) is considered the seminal case establishing the principle of "fair use."
[40] *See e.g.,* Section (III)(C), *supra* on page 6. *See also* Appendix B, Statement of Peter Brantley on Multimedia E-Books.

one among many "actual instance of problems occurring in the marketplace" that shows the barriers that the clearance system poses to authors.[41]

Furthermore, as demonstrated in the *Filmmakers' Comment*, rightsholders may refuse to license at their discretion. Authors enhance democratic debate and civic discourse by casting light on topics that may be controversial to some. Sometimes, this criticism and commentary can only be effectively conveyed by including materials owned by individuals and entities who feel their interests will be harmed by the criticism and commentary. Without access to materials under fair use, many authors would be at risk of not being able to comment on copyrighted material simply because the copyright holder does not approve of the commentary. Indeed, in Campbell v. Acuff-Rose Music, the Supreme Court acknowledged this inherent problem in the licensing market, recognizing "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."[42]

Finally, as also demonstrated in the *Filmmakers' Comment*, in today's digital ecosystem many copyrighted materials are only available in digital formats protected by TPMs such as encryption and authentication protocols.[43] Because alternatives to circumventing CSS are costly and complicated, they are impracticable for e-book authors, many of whom work independently, fund their own writing process, and seek to self-publish.[44] Given the substantial evidence we have provided, it follows that access to copyrighted works for purposes of fair uses can often be accomplished only by circumventing protection measures on DVD or digital transmission services. Without an exemption, authors will be forced to remove clips entirely to the detriment of their e-book or risk DMCA liability by circumventing a TPM. Each of these results creates a substantial adverse effect on fair use, since the former often makes it impossible to effectively express some or all of the author's argument.

The DMCA's circumvention on prohibition effectively prevents multimedia e-book authors from engaging in a non-infringing practice essential to their craft: accessing important copyrighted materials in order to make fair use of short clips. Of course, it is not just the individual filmmaker who suffers as a result of the DMCA's prohibition; ultimately the public suffers when it does not receive the benefits of these innovative and compelling new works of expression, many of which convey valuable criticism, comment, news reporting, teaching, scholarship, or research. In short, the DMCA currently imposes a "substantial adverse effect" on non-infringing use by multimedia e-book authors, and this effect will surely continue during the next exemption period.

ii. CSS Technology on DVDs Has a Substantial Adverse Effect on Fair Use in Multimedia E-book Authorship

Multimedia e-books depend on including using audiovisual material to illustrate an argument or narrative. This practice depends on access to relevant materials, and many of these materials are available exclusively on DVD. Especially for film scholars like Ms. Buster, Mr. Rosow, Mr. Berger, and Mr. Kellman, access to DVD is the sine qua non of being able to make

[41] *See* Section (III)(D), *supra* at page 7.
[42] Campbell v. Acuff-Rose Music, Inc., 114 S.Ct. 569, 592-94 (1994)
[43] *See Filmmakers' Comment*, Section (III)(A).
[44] *See* Section (III)(B), *supra* at page 3.

an effective multimedia e-book about film, since most of the film material they need to include is contained on DVD. As discussed in *Filmmakers' Comment* at Section (IV)(B)(iii) market evidence shows that DVD still is and is likely to remain an important archive of motion picture materials.[45] Thus, without an exemption for DVDs protected by CSS, authors will be unable to make fair use of thousands of motion pictures that are only available on DVD, since licensing is often prohibitively expensive for individual authors; and content owners may refuse to license clips because they are hostile to the e-book's message.

iii. Encryption and Authentication Protocols for Digitally Transmitted Video Have a Substantial Adverse Effect on Fair Use in Multimedia E-book Authorship

As discussed in *Filmmakers' Comment* at Section (IV)(B)(v), there is substantial evidence that, in today's digital ecosystem, many motion picture materials are only available through digital transmission services protected by authentication or encryption, such as iTunes, Netflix, and FiOS Pay-Per-View. Furthermore, ephemeral programming such as news can only be obtained by recording the content on a DVR likely to contain access-control mechanisms that prevent the content from being exported.[46] Not only are authors entitled to make fair use of content contained in these digital transmissions, this content is essential for many e-books, especially those concerning current affairs and matters of public concern. Ephemeral programming from cable news, serial television program, and other sources provide our society's most potent record of popular culture and current events. Despite the high value of this unique material to scholarship and research, multimedia authors cannot include it in their works, because access to the content is often protected by authentication and encryption measures, and authors cannot circumvent these measures without a reasonable fear of liability under the DMCA. By denying authors access to content unavailable elsewhere and to ephemeral programming, the DMCA's prohibition imposes a substantial adverse effect on their ability to make fair use of this material.

C. The Proposed Class is Narrowly Tailored to Prevent Harm to the Legitimate Interests of Rightsholders

i. Introduction

Proponents have proposed a narrowly tailored exemption that remedies the substantial adverse effect caused by the DMCA, while avoiding prejudice to the legitimate interests of copyright holders; the proposed exemption is limited using several means including: the category of work that can be used; the format and protection measure subject to circumvention; the particular purpose of the use; and the particular class of users included in the exemption.

The DMCA requires that exemptions be granted to "users of a copyrighted work which is in particular class of works."[47] The Register has interpreted this requirement to mean that the "class of works … be a narrow and focused subset of the broad categories of works of authorship that is identified in section 102,"[48] The Register has further specified that a proposed class begin

[45] *See Filmmakers' Comment* at Section (IV)(B)(iii).
[46] *See Filmmakers' Comment* at Section (III)(C)(iii).
[47] 17 USC 1201(a)(1)(B); See *Filmmakers' Comment* at Section (IV)(C)(i), at page XX, supra.

by identifying a "class of works … and then by attributes of the works themselves.[49] Proponents may further tailor the class to address the harm alleged, including by limiting it to particular uses, or a particular group of users.[50]

As copyright holders themselves, authors rely on and respect copyright protection and thus have proposed an exemption that respects the balance of interests between rightsholders and the public by strictly limiting the exemption to only those works, purposes, and uses necessary to prevent the harm caused by the DMCA's prohibition.[51] The proposed class only covers "motion pictures," which is a subset a category enumerated in 17 USC §102(a)(6). The class is further refined by limiting the purpose of the use and the conditions of use. Circumvention is only permitted for the limited purpose of making fair use in multimedia e-books, which include criticism and commentary, but also scholarly, educational, and news reporting uses. The condition of use is further limited by an "incremental approach" that does not allow an author to utilize a higher definition format unless the higher definition material is required for distribution or the material is only available in the higher definition format. Taken together, these limitations ensure the exemption is narrowly tailored to remedy particular harms while limiting prejudice to rightsholders.

ii. <u>The Proposed Class is Limited to Motion Pictures, a Subset of a Category of Works Enumerated in 17 U.S.C. §102(A)(6)</u>

The proposed class of works that would be eligible for the requested exemption is a focused subset of "motion pictures and other audiovisual works," a category enumerated in 17 USC §102(a)(6). The class includes only motion picture works distributed via DVD protected by CSS or, in some circumstances, a digital transmission protected by an encryption or authentication protocol.[52] Audiovisual works available in other formats, such as works contained on Blu-Ray, media intended for theatrical distribution or used in the editing and production process, would not be eligible, nor would works protected by technological measures not listed here. In contrast to the filmmaker proposal, proponents here are not seeking access to Blu-Ray, since access to DVD and digital transmission services will be sufficient to allow many non-infringing uses by e-book authors. Of course, material can only be used if it has been "lawfully acquired."[53]

[49] Recommendation of the Register of Copyrights, at 15 (June 11, 2010), quoting Report of the House Committee on Commerce on the Digital Millennium Copyright Act of 1998, H.R. Rep. No. 105-551, pt. 2, at 38 (1998); hereinafter 2010 Recommendation.
[50] Notice of Inquiry, 76 Fed. Reg. 60,402 (Sept 9, 2011). See also *Filmmakers' Comment* at Section (IV)(C)(i),
[51] *See* Section (III)(C), *supra* on page 6.
[52] *See* Section (I), *supra* on page 1.
[53] *Id.*

iii. The Proposed Class is Limited to a User Group that Responsibly Makes Fair Use

The class only provides an exemption for fair use for those that conduct multimedia e-book authorship. As copyright holders, multimedia e-book authors rely on and respect the use of copyrighted material through fair use. As discussed above, e-book authors can and do observe fair use "best practices" such as the Documentary Filmmakers' Statement of Best Practices in Fair Use,[54] among others; this is because multimedia e-book authors, much like documentary filmmakers, often include clips for purposes of criticism and commentary or for other socially valuable purposes.[55] In addition, publishers may require multimedia authors to obtain E&O insurance, which will further ensure that unlicensed inclusion of copyrighted works will be non-infringing, because media insurance carriers provide fair use writers for multimedia e-books only if an attorney submits an opinion letter asserting that the unlicensed uses comport with the doctrine of fair use.[56]

iv. The Proposed Class of Works is Further Tailored By Employing an Incremental Approach

Even though the proposed class is already narrowly tailored by limiting the exemption to only those works, purposes, and uses necessary to prevent the harm caused by the DMCA's prohibition, the class also includes an "incremental approach."[57] As discussed in the *Filmmakers' Comment* at Section (IV)(C)(iv), the incremental approach permits a user to circumvent technological measures protecting a digital transmission service only if there is no other reasonable alternative, which limits the class so as to permit only those uses strictly necessary to prevent particular harm to filmmakers' ability to make non-infringing use.[58] The relevant portion of the requested class reads:

> …or, if the motion picture is not reasonably available on DVD or not available in sufficient audiovisual quality on DVD, then from digitally transmitted video protected by an authentication protocol or by encryption…

The incremental approach recognizes that, while material may often be obtained from DVD in sufficient quality, this may not always be the case. As discussed in *Filmmakers' Comment* at Section (IV)(B)(v), many motion picture materials are only available through digital-transmission protected by authentication or encryption.[59] As discussed in this comment in Section (IV)(C)(iii), digital transmission services may also provide ephemeral material that is of particular value to e-book authors and is not available elsewhere. Furthermore, as discussed in this comment in Section (III)(F) many e-book authors require access to high quality digital files, and so may need to obtain material from digital-transmission services if the material is not available in sufficiently high quality from DVD. Only if the material cannot reasonably be obtained from DVD,

[54] *See* Section (III)(C), *supra* on page 6.
[55] *Id.*
[56] *See Filmmakers' Comment*, Appendix E, Statement of Hiscox USA on Errors & Omissions Insurance.
[57] *See* Section (I), *supra* on page 1.
[58] *See Filmmakers' Comment* at Section (IV)(C)(iv).
[59] *See Filmmakers' Comment* at Section (IV)(B)(v).

or if the DVD material is of insufficient quality, may an author circumvent a protection measure on a digital transmission service.

D. An Analysis Under the 17 U.S.C. §1201(a)(1)(C) Factors Favors Granting the Requested Exemption for Each of the Requested Formats: DVDs protected by CSS and Video-on-Demand services protected by encryption or an authentication protocol

The DMCA Rulemaking process is critical to maintaining the balance copyright seeks to strike between meaningful exclusive rights on the one hand and the public's access to culture on the other. This rulemaking process is essential to ensuring that the statutory protection for access controls does not abridge the First Amendment right to freedom of speech, since the Supreme Court has held that fair use is an important "first amendment accommodation" that is "built-in" to copyright law.[60] This First Amendment consideration is particularly relevant to the work of e-book authors, who provide valuable scholarship, social commentary, and cultural criticism. Because the proponents have established that the DMCA's anticircumvention rules are causing harm well above the threshold standard of "substantial adverse effect," the proposed exemption's ability to prevent this harm must be considered against the Section 1201(a)(1)(C) "statutory considerations [that] require examination and careful balancing."[61] An analysis of these five statutory factors favors the exemption because the class is narrowly tailored to prevent harm to important and socially-favored educational and expressive purposes served by fair use while avoiding prejudice to the interests of rightsholders.

i. The Availability of the Copyrighted Works

As discussed in the *Filmmakers' Comment* at Section (IV)(D)(i), the relevant inquiry into the first factor includes: "(1) whether the availability of the work in protected format enhances and/or inhibits public use of particular works, (2) whether the work protected is also available in other formats (and whether those formats are protected by access controls), and (3) if alternative formats are available, whether such formats are sufficient to accommodate non-infringing uses."[62]

Without an exemption, e-book authors will not have access to material that is the lifeblood of their craft—and that the doctrine of fair use gives them the right to use. An exemption that remedies this problem will not harm distribution of motion pictures on any of the formats included in the class, because the proposed exemption would apply only to a narrowly-tailored group of authors who responsibly make fair use, and would institute an incremental approach that allows circumvention of new services only when necessary to prevent particular harm.

1. Whether the Availability of the Work in Protected Format Enhances and/or Inhibits Public Use of Particular Works.

Because the proponents have demonstrated that the DMCA prevents many multimedia e-book authors from making fair use of works in the protected formats covered here, it is clear that

[60] Eldred v. Ashcroft, 537 U.S. 186, 219 (2003)
[61] Notice of Inquiry, 76 Fed. Reg. 60,403 (Sept 9, 2011)
[62] 2010 Recommendation at 56.

"the availability of the work in a protected format…inhibits public use of particular works." This exemption would remedy this problem, but would do nothing to harm the public availability of motion pictures on DVD or digital transmission services. As discussed in *Filmmakers' Comment* at Section (IV)(D)(i)(1), the Register stated in 2010 that the "realities of the current marketplace" show that an exemption for certain non-infringing uses will not end digital distribution of DVDs, since "protected DVDs have continued to be the dominant format even though circumvention tools have long been widely available online."[63]

This request seeks a similarly narrow and well-defined class of users, so, whether or not the format is actually part of a "use facilitating model," it will encounter no prejudice from the proposed exemption. Just as the 2010 exemption for documentary filmmakers caused no harm to the public availability of motion pictures generally, or DVD in particular, this proposed exemption will not harm the public availability of motion pictures through digital transmission services. This is not least because the impact of the exemption will be dispersed among many services, and will be minimal when applied to any one service, given the great variety of such services currently available, and the near certainty that even more will become available in the future.[64] Furthermore, the incremental approach will ensure that filmmakers only obtain material from a digital transmission service only when absolutely necessary.

2. Whether the Work is Available in Alternative Formats and Whether those Formats Have Access Controls

In today's digital ecosystem, the only commercial formats that authors can use to obtain materials for fair use are DVD, Blu-Ray, and digital transmission services.[65] VHS tapes are no longer an alternative because commercial distribution ended in 2008.[66] Proponents do not request access to Blu-Ray now because an exemption for DVD and video-transmission services would be sufficient to prevent the harm that would otherwise be caused by the DMCA, because these two formats provide access to most works needed for fair use by multimedia authors.

While each format in the proposed class may contain material that is also available in another format (e.g., on both DVD and digital transmission services), both requested formats, along with Blu-Ray are protected by a form of DRM, such as encryption, that filmmakers have a reasonable fear will be covered by the DMCA. Furthermore, in an increasing number of cases, important motion picture materials are only available on one of these formats, and thus there is no alternative for accessing the specific and necessary motion picture material.

[63] 2010 Recommendation at 57.
[64] *See Filmmakers' Comment*, Section (III)(C)(iii).
[65] See *Filmmakers' Comment*, Section (III).
[66] 2010 Recommendation at 58.

3. Whether Alternative Formats are Sufficient to Accommodate Non-Infringing Uses

No alternative format to the proposed formats (DVD and digital transmission) is sufficient to accommodate the non-infringing use. Analog formats, such as VHS, are no longer commercially distributed. Blu-Ray is also protected by a TPM. Furthermore, as discussed in *Filmmakers' Comment* at Section (IV)(D)(i)(3), the Register acknowledged in 2010 that alternative means to circumvention are impracticable even for filmmakers who tend to possess some expertise with video technology.[67] These alternative means are even more impracticable for e-book authors than they are for filmmakers, since e-book authors generally have less financial resources and less technical sophistication with relevant video technologies than filmmakers.

Furthermore, the proposed class' incremental approach does not allow authors to freely choose among multiple formats. The author must choose the more mature DVD formats unless the motion picture material is only available through a digital transmission service.[68]

ii. The Availability for use of Works for Nonprofit Archival, Preservation, and Educational Purposes.

In 2010, the Register found that this factor weighs in favor of crafting a class that includes use in documentary films because proponents successfully argued that "documentary films are intrinsically educational in that they purport to tell the truth or document reality, and of course, many documentary films are made specially for use in the classroom setting. Additionally, documentary films are used as teaching tools at all educational levels for a variety of purposes."[69] The same is true of multimedia e-books. Indeed, the e-books that proponents plan to write if granted an exemption critically analyze film in a manner posing great educational value.

iii. The Impact that the Prohibition on the Circumvention of Technological Measures Applied to Copyrighted Works has on Criticism, Comment, News Reporting, Teaching, Scholarship, or Research.

In 2010, the Register found that this factor weighs in favor of crafting a class that includes use in documentary films because documentary filmmakers showed that "their ability to use motion pictures for purposes of non-infringing criticism, comment or illustration is inhibited by the prohibition."[70] As mentioned earlier, authors began the tradition of fair use to accomplish the purposes of criticism and comment.[71] Furthermore, books are the traditional repository for sustained scholarship and are the primary teaching tool at all levels of education. Multimedia e-book authors will translate that tradition into the 21st century by making use of innovative technologies to provide scholarly research and arguments to readers in a manner that efficiently embeds content essential to understanding the scholarship. The books planned by proponents

[67] See *Filmmakers' Comment* at Section (IV)(D)(i)(3), at page XX, Supra
[68] *See* Section (I), *supra* on page 1.
[69] 2010 Recommendation at 69.
[70] 2010 Recommendation at 70.
[71] Folsom v. Marsh, 9 F. Cas. 342 (C.C.D. Mass. 1841) is considered the seminal case establishing the principle of "fair use."

serve as compelling examples of critical scholarship oriented at film. If granted an exemption, many additional scholars will have the opportunity to translate their research into e-books.

iv. The Effect of Circumvention of Technological Measures on the Market for or Value of Copyrighted Works.

As discussed in *Filmmakers' Comment* at Section (IV)(D)(iv), the doctrine of fair use protects rightsholders' interest in protecting the market for their works, because the doctrine requires a "transformative use" of the original work that prevents a fair use from serving as a "market substitution."[72] In clarifying that harm cognizable under the Copyright Act consists of "market substitution" effects, not "criticism that merely suppresses demand," the Supreme Court has recognized that there is "no protectible derivative market for criticism" because "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."[73] Indeed, in 2010, the Register concluded that transformative uses are "unlikely to affect the relevant markets for the original work."[74]

Furthermore, we are aware of no allegations that previous exemptions pertaining to DVDs have resulted in infringing uses.[75] This fact confirms the intuitive concept underlying the requested exemption: when a class is narrowly tailored to a small group of users who follow established best practices in fair use, the exemption will not prejudice the market for or value of copyrighted works. It is especially unlikely that fair use in this context will prejudice the market for the original works, because authors like Mr. Rosow, Mr. Berger, Ms. Buster, Mr. Rosow, and Mr. Kellman engage in film criticism that often reveals the subtle yet powerful techniques used by filmmakers. This sort of examination is likely to increase the appetite for the original material by highlighting the technique and skill involved. Furthermore, inclusion of copyrighted material in new works often increases the appetite for the original material by bringing it to consumers' attention. Finally, an incremental approach further limits any risk of prejudice by ensuring this small group of users makes use of the most mature format that is sufficient to accommodate the particular non-infringing use.

v. Such Other Factors as the Librarian Considers Appropriate

As discussed in *Filmmakers' Comment* at Section (IV)(D)(v), in considering this factor in 2010, the Register found it relevant that the measure at issue "merged" access and use controls, and was "being used predominantly for the purpose of preventing reproduction and other rights of the copyright owner" even though it was characterized as an access control.[76] The Register found that this factor weighed in favor of the Commentators, since the "effect of the access control is not to prevent unauthorized access, but rather to restrict uses of motion pictures" for "socially-beneficial noninfringing uses."[77] The same applies to the protection measures on the formats included in the class of works requested here. This factor weighs in favor of granting the exemption.

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[72] See *Filmmakers' Comment*, Section (IV)(D)(i)(3).
[73] Campbell v. Acuff-Rose Music, Inc., 114 S.Ct. 569, 592-94 (1994)
[74] 2010 Recommendation at 71.
[75] *See Filmmakers' Comment*, Section (III)(C)(i).
[76] See *Filmmakers' Comment*, Section (IV)(D)(v).
[77] 2010 Recommendation at 71.

V. CONCLUSION

Copyright's laudable goal is to encourage cultural innovation by incentivizing the creation of new works. The introduction of a truly innovative medium is rare, and we are lucky to live in a time in which multi-media e-book technology is available. For thousands of years, books have meant one thing: static pages, filled with text, perhaps supplemented with photographs or illustrations. Now books can come alive, showing us the films that authors critique, allowing us to understand the events on which authors comment, immersing us in the scholarship. In order to create these magical works of cultural criticism and social commentary, multimedia authors must be able to make fair use of motion picture content. Without an exemption, the DMCA's prohibition will foreclose this important non-infringing use, resulting not only in a substantial adverse effect on fair use by multimedia authors, but the suppression of a medium that represents a significant step forward for literacy and media.

VI. APPENDIX

A. About the Proponents

Mark Berger

Mark Berger is an Adjunct Professor of Film Studies at UC Berkeley, and a supervising rerecording sound mixer and sound editor who has won four Academy Awards for some of the most innovative uses of sound in film (*Apocalypse Now*, *The Right Stuff, Amadeus*, *The English Patient*). He is the only person in the history of the Academy who has been nominated four times, and won four times. He has been responsible for the sound of more than 165 feature films, among them in addition to the above, *Godfather II* with Francis Coppola, *Blue Velvet* with David Lynch, *One Flew Over the Cuckoo's Nest* with Milos Forman, *Mr. Wonderful* and *The Talented Mr. Ripley* with Anthony Minghella, *Rushmore* and *The Royal Tenenbaums* with Wes Anderson, *Serial Mom* and *Pecker* with John Waters, and *Capote* with Bennett Miller. His craft is about subtlety, not the sheer power of loud soundtracks.

Mr. Berger is part of the generation of Northern California filmmakers who emerged in the early seventies around Francis Ford Coppola and who then helped build a viable film making community there in the Bay Area. As part of his contributions to the local film community, he has served as a jurist for the SF Film Festival and moderated discussions at the 'Talk Cinema' program in Berkeley and Palo Alto. He has been an Adjunct Professor of Film Studies at UC Berkeley for the past 11 years, teaching a very popular course giving students the vocabulary, history, concepts, and experience necessary for understanding a film soundtrack in real time. He has also taught courses about film sound in Ireland, Chile, Argentina, Brazil, Canada, Spain, The Republic of Georgia, and Iceland.

Bobette Buster

Bobette Buster is a world-renowned film scholar whose lectures include "Deconstructing Master Filmmakers," "What's the Big Idea? The Art and Craft of Feature Film Development," "How Hollywood Makes Money (Or Not!...And Other Inconvenient Truths)," and "Fox Thru Film" (a History of Hollywood for Twentieth Century Fox), a screenwriter, script consultant and creator of numerous international script development programs.

A long time creative executive for Tony Scott, Larry Gelbart and Ray Stark, Bobette has worked as an Adjunct Professor since 1989, teaching Hollywood's top decision makers and creatives through her graduate course at USC's acclaimed Peter Stark Producing Program, via Pixar University's in-house program, and for Sony Animation Studios, Disney Animation Studios, Disney Toons Studios, Oprah's Harpo Films and Twentieth Century Fox. She has been tapped by the most elite film programs around the world to help them understand what makes a universally successful film. She has taught at La Fémis in Paris, the University of Milan, the University of Montevideo in Uruquay, Cattleya in Rome, Media Business School in Spain, Sundance Lab for Latin American Writers in Mexico, EIC-TV in Havana, DFFB in Berlin, FAMU in Prague, and film programs in Ireland, Denmark, Norway, Mexico, Bulgaria and Japan.

Bobette's students have gone on to consistently rank in the Top 10 box-office worldwide. They have made hit television series, and won Industry awards including Academy Awards, Emmys, Cannes Special Jury Prizes and BAFTAS.

Barnet Kellman

Barnet Kellman made his feature film debut with the 20th Century Fox screen adaptation of *Key Exchange* starring Brooke Adams. He went on to direct Dolly Parton and James Woods in *Straight Talk* for Disney, and *Stinkers* for Sony. He is perhaps best known as one of the preeminent directors of television pilots. He won two Emmy Awards and a Directors Guild Award for his work on *Murphy Brown.* In addition to the pilot, he directed the first seventy-five episodes of *Murphy*, as well as the series' final episode at the end of its ten-year run. His other pilots include the acclaimed *Mad About You*, starring Helen Hunt and Paul Reiser, the long-running series *Suddenly Susan* starring Brooke Shields, George Lopez in *The George Lopez Show*, *My Boys* on TBS, and he created the Gene Wilder series, *Something Wilder*. In all he is responsible for over thirty pilots, more than half of which have gone to series. For the past twenty years there has always been at least one (and as many as six) of his shows playing in first run, along with innumerable episodes in reruns. Barnet directed the movie *Mary and Rhoda*, which reunited Mary Tyler Moore and Valerie Harper, and has directed episodes of *E.R.*, *Alias, Ally McBeal, Monk, Samantha Who?* as well as many other distinguished series. Currently he is represented by episodes of *The Middle* on ABC. In all, he has received seven Emmy and three DGA nominations for his work on the small screen. Before arriving in Los Angeles, Kellman was a prominent director of American play premieres in New York City. He was educated at Colgate University and the Yale School of Drama. He received his Ph.D. from Union Institute at Antioch. A recipient of the prestigious Danforth Graduate Fellowship, and the Thomas J. Watson Fellowship, he has traveled to observe the work of theatres throughout Europe and the United States. In addition to teaching at USC School of Cinematic Arts, he has been on the faculties of the American Film Institute, Columbia University Film School, CCNY, NYU, The Circle in the Square Acting School and has served as a resource person at the Sundance Institute June Lab, and the Eugene O'Neill Theatre Center's National Playwrights Conference.

Gene Rosow, Ph.D.

Gene is a producer, writer and director with over 30 years experience in documentary and feature film, television, music, and internet media production. After graduating from University of California Berkeley in pre-med and history Gene Rosow did a year of post-graduate work in Ecology, Biochemistry, Cellular Physiology and Photography. He returned to UC Berkeley to complete his Ph.D. in History. His 90-minute feature length documentary dissertation on the social history of American gangster films *Born to Lose* was the first dissertation accepted as a film in the United States. Gene's book on the same subject *Born to Lose: A Social History of American Gangster Films*, (Oxford, University Press) was praised as the definitive work on the subject. Rosow taught courses in the history of film and popular culture, in the U.C. Berkeley History Department as well as courses in film theory and history at the Pacific Film Archives.

While teaching Rosow continued writing, shooting, and directing experimental and dramatic short films including *L.A. Too Much*, (which was about over-development in Berkeley), *Mountain Men and Country Women* (a short fiction film based on Ozark folk tales), *Metamorphosis*, (an animated film based on the graphic work of Hans Escher), *Interview*, (a short fiction film about an anarchist). These films were shown at various festivals, including group shows at the Whitney Museum and the Museum of Modern Art.

Subsequent documentary films include *San Francisco Good Times*, that explores the turbulent times in the Bay Area from 1969-1972 as covered by pioneers of the underground press; *Routes of Exile: A Moroccan Jewish Odyssey* - a feature length theatrical release (First Run Features) that examined two thousand years of Jews and Muslims living together and the aftermath of that history, *Doctora* (Channel 4 in England) which tells the story of an amazing 78 year old woman doctor in Bolivia known as the "The Doctor Schweitzer of the Andes," whose work has served as a model for public health workers in some of the most disadvantaged communities around the world, and *Routes of Rhythm with Harry Belafonte* - a three part series for national prime time PBS broadcast tracing Afro-Cuban music from its origins in Africa, Spain and Cuba, to its popularity and impact on culture in the U.S. Rosow produced 4 sound track record albums (Rounder Records) as a cultural extension of the project.

His feature film producing credits include -- among others-- the family film *Zeus and Roxanne* for MGM, about a friendship between a dog and a dolphin; Sam Shepard's *Silent Tongue*, a gothic western tale and *Britney Baby- One More Time* – which had their world premieres in competition at the Sundance Film Festival, as well as his most recent feature documentary DIRT! The Movie which was broadcast nationwide on PBS as an Independent Lens Earth Day 40th Anniversary special.

B. Statement of Peter Brantley on Multimedia E-Books

My Background and Experience

I am currently the Director of the BookServer Project at the Internet Archive ("IA"), a non-profit digital library dedicated to delivering as much information to as many people as possible. At the IA, I am also responsible for helping to formulate and represent IA's interests in international copyright issues.

I am also a contributing editor at Publishers Weekly, the leading trade journal in the U.S. publishing industry, blogging on changes in the publishing industry, with a focus on library issues. I have keynoted and presented at a wide range of international conferences, summits, and other gatherings and am the convener of the Books in Browsers ("BiB") conference, a highly regarded publishing meeting that discusses the 2-5 year time horizon in reading and book design.

I have served on technical committees for Open e-book Forum, which was the predecessor of the International Digital Publishing Forum ("IDPF"), which manages the open-source EPUB e-book format. In addition, I was a board member of the IDPF from 2007 through 2009.

Introduction

Multimedia e-books represent a technological innovation in the centuries-long tradition of authors using visual aids to assist with the understanding of their prose. In the 21st century, multimedia e-books will be the modern embodiment of the traditional exercise of authorship, allowing readers to interact with sustained scholarship in an immersive manner never before possible. Technology and market factors have finally made it possible for authors to provide the public with works that use high-quality video, in addition to still images, to illustrate textual points and arguments. A substantial number of authors are interested in developing multimedia e-books, and, for many of them, the only thing standing in their way is the DMCA's prohibition on circumvention. Because authors of multimedia e-books rely on archival video stored on DVD or Blu-Ray, and delivered via digitally transmitted video, they need access to these sources to obtain material critical to their projects. Thus an exemption to the DMCA is necessary to allow avoid handicapping this burgeoning and innovative form of literature and education.

What is a Multimedia E-Book?

An e-book is essentially a set of digital media assets, including text and audiovisual components, which are encapsulated in a file that can be viewed offline. To be more specific, an e-book consists of a set of HTML tags that mark up text and other forms of content in compliance with a set of specifications and additional instructions for how an application should display the content to the reader. This application might exist self-contained within an e-book reader device (e.g., Apple iPad, Amazon Kindle Fire, or Barnes & Noble Nook Tablet). However, it can also be in the form of software installed on an Apple iPad or iPhone, an Android tablet or mobile phone, or a standalone computer.

For the foreseeable future, e-books will be self-contained digital files that can be viewed offline on a device with supporting software. . This distinguishes e-books from websites and other media that can distribute files over a network, such as the World Wide Web, and

dynamically update the content, even though e-books are based on the coding language and specifications developed for the web.

The most common e-book formats utilize the standard "Zip" container format often used for file archives to contain all HTML content within a single file package, including text, images, and video; the display and formatting instructions; table of contents; and descriptive data about the book. E-book reading applications understand how to unzip an e-book and then display the book for the reader. Because every content asset of the book is contained within the zip archive, the book can be read offline, or moved from one device to another.

Because e-books utilize HTML, they can intersperse a wide variety of content, such as text, images, video, and audio – similar to websites. Although authors and publishers have long incorporated graphs, charts, maps, and photographs into print books, the use of audio and video was not feasible before the development of e-books. Furthermore, e-book content is inherently capable of being resizable or reflowable - it can adjust the spacing of the content depending on the size of the display.

After EPUB became the dominant e-book format, the first multimedia experiments involved publishers adapting an existing text-based book and inserting additional media elements into it, such as short videos. The term "enhanced book" is often used to describe these resulting products, which typify a simple manipulation of the original book. However, as it has become easier to imagine and work with more complex creative products for textbooks, children's books, non-fiction narratives, game-based storytelling, cookbooks, and other markets, the publishing community is starting to refer to these products as "multimedia books" or even "transmedia books."

The Technical Components of Multimedia E-Book Support the Inclusion of High-Quality Video

E-book technology has led consumers to expect high-quality video in multimedia e-books just as they expect it in other audiovisual works, and the capabilities of multimedia e-books have made it possible for authors to provide this video. The great advantage of HTML and other standards underpinning e-book files is that they allow ready development and distribution of reading applications, production platforms, and e-books themselves. From the creative side, all of the capabilities of the web are available for authors and publishers to use, albeit constrained so that reader applications know how to render the book.

In summary, the technical components of a multimedia e-book are: the reader hardware (e.g., a Kindle); the rendering engine; a file package that organizes the assets in a "manifest" (e.g. EPUB file); the production platform used to create the file package (e.g., Adobe InDesign); and digital media assets stored locally or on the web (e.g., text and specific video or image files).

<u>E-Reader hardware is designed to display high-quality video</u>

E-reader hardware is capable of displaying and storing high-fidelity video. The major e-readers have high-resolution screens that reach or approach HD-quality. For instance, the iPad has HD quality at a resolution of 768x1024 and the Amazon Kindle and Barnes & Noble Nook Tablets have near-HD quality at a resolution of 600x1024. Given the rapid pace of development for e-readers and tablets, it is a near-certainty that many tablets and e-readers will reach and

surpass HD-quality in the next three years. The next generation Apple iPad is widely expected to present QXGA resolution of 2048 x 1536.

The local storage capacity of many of these players permits high-quality video to be stored in files contained on the hardware itself. In addition, many of these readers are networked devices that can store and access video assets from servers on the internet. This means that even if video assets are too large to be practicably stored on the local drive, they can still be included in a multimedia e-book as assets that are stored on a network.

E-Reader rendering engines can render high-quality video

The development of standard coding language and specifications have made it possible for diverse e-reader rendering languages to render high-quality video. Over the last few years, a coordinated effort among computer engineers has worked to update key elements of HTML in order to support greater interactivity. This web page language standard is called "HTML5,"[78] and it is accompanied by a corresponding updating of the specifications used to control how content is displayed, "CSS3."[79] In addition, there has been a great deal of work to modernize the standards used by video and audio software so that browsers will no longer need separate small software applications called "plug-ins" in order to run them; instead video support is embedded within the browser itself.

With the rise of HTML5, Apple and Google have coordinated the development of a new "rendering engine"– software within web browsers that reads the HTML and CSS code, processes it, and then figures out what to do with it. This new common rendering engine is called "WebKit." It lies at the heart of the browsers Safari and Chrome, but it also powers web browsers for every major mobile platform worldwide. In yet another critically important endorsement of the HTML5/CSS3 family of standards, Adobe announced on November 9, 2011 that it would migrate its own interactive media platform, Flash, to support design tools that work with HTML5.[80] Furthermore, Microsoft's streaming video platform, Silverlight, will no longer be supported in the Microsoft's most recent browser, IE10. Instead IE10 will be based on HTML5 standards.[81]

The existence of an increasingly prevalent open source rendering engine has had a profound and positive impact for e-book developers as well as web designers: it means that there is an increasing likelihood that an e-book or website that works in one environment will work in others, with no modification. Where Webkit exists, there we will inherently find strong support for HTML5.[82]

Increasingly, HTML5, WebKit, and EPUB3 are becoming intertwined. For example, there is early-stage work on WebKit that would incorporate basic EPUB3 support directly into the rendering engine. This would mean that WebKit browsers and layout engines would understand how to handle e-book files natively, obviating the imperative for a separate reading application. This rapid pace of change in digital publishing is unheralded.

E-Reader file formats are being designed to contain multimedia content

[78] http://online.wsj.com/article/SB10001424052970203537304577030033160849296.html

[79] CSS3 stands for "Cascading Style Sheets," a specification for rendering content, not to be confused with "Content Scramble System," the protection measure used on DVDs.

[80] http://blogs.adobe.com/conversations/2011/11/flash-focus.html

[81] http://blogs.msdn.com/b/b8/archive/2011/09/14/metro-style-browsing-and-plug-in-free-html5.aspx;

[82] For a comparison of browser compliance with HTML5 standards, see http://www.browserscope.org/.

E-book file format standards already allow for inclusion of high-quality video. Due to the fast pace of development of these standards, they will permit even greater quality video in short time windows, which will drive consumer expectations. Two dominant e-book file formats exist: EPUB, an open standard maintained by the International Digital Publishing Forum (IDPF), and the Mobi format, maintained by Amazon for its Kindle platform. Mobi is broadly similar to EPUB, and its essential elements correspond closely. Both file formats have seen recent enhancements: EPUB to EPUB3 and Mobi to Kindle Format 8 (KF8)[83]. The IDPF rushed through a major enhancement of EPUB, called EPUB3, within the lightning fast period of less than 18 months, embracing and fostering development of the new web standards.[84]

These enhancements have incorporated many improvements in HTML5 and CSS3, which create greater standardization across e-book files and permits video playback without plug-ins.[85] An example of seamless embedded video playback in an EPUB3 can be viewed in a demo e-book at http://epub3.ibisreader.com using the Google Chrome browser, or directly via the link http://threepress.org/static/epub3/html5-video.epub. Another example of an adaptive book using EPUB3 features can be seen through a video demonstration from the French publishing design company Walrus.[86]

EPUB3 has greatly enhanced support for e-book accessibility by the visually- and learning-impaired, and the relevant international standards organization, the DAISY Consortium, has deprecated its own standard in favor of EPUB3, permitting a single e-book format to serve all sectors of the reading population. EPUB3's rapid development in turn pushed the world web standards agency, the W3C, to more rapidly advance its own specifications: perhaps the first time that e-book standards have accelerated the development of web standards.

Production platforms permit users to create e-books without significant financial investment or technical expertise

Today, multimedia e-book publication technologies allow for a basic user to create multimedia e-books without great financial resources or technical sophistication. The process will only become simpler as the technology shifts from a "prosumer"[87] model to a consumer one.

Although for many years publishing has been centered on a print-first methodology, increasingly it is focused on creating books that can be digital or may even be exclusively digital. Currently, most publishers produce e-books by taking a draft manuscript from the author in a word processing format, with professional editors reviewing the text. Once the text of the manuscript has reached a certain stage of readiness, it is imported into a higher end production tool such as Adobe InDesign, which enables the designer to lay out the text, design major structural elements, such as chapters and headings, embed media such as video, and begin the packaging of the book. InDesign can then output the e-book into the EPUB e-book format. Adobe's blessing of HTML5 means that advanced media support will inevitably be incorporated

[83] http://www.amazon.com/forum/kindle%20publishing?_encoding=UTF8&cdForum=Fx21HB0U7MPK8XI&cdThread=Tx1WLZBM1MN8M6Z

[84] Video of Bill McCoy on the development of EPUB3, https://www.youtube.com/watch?v=xnM_HhD57sI

[85] See http://idpf.org/epub/30/spec/epub30-overview.html

[86] http://www.walrus-books.com/2011/06/epubdemo3/.

[87] Prosumer, a conjunction of professional and consumer, is often defined as high-end hardware or software that has fewer features than its professional grade counterpart.

into the output options for EPUB3 files from InDesign, making the creation of multimedia products much more straightforward.

Furthermore, a growing number of web based authoring tools have emerged that make developing and publishing mixed media literature as straightforward as writing a blog. One of the newest and most interesting of these is called "Pressbooks" which operates by taking the content from a WordPress[88] blog, and creating a multimedia e-book in the EPUB format. Several publishers, including some university presses, are considering endorsing the use of Pressbooks for their authors because of its simplicity and support for multimedia. For example, O'Reilly Media is using PressBooks to publish "Book: A Futurist's Manifesto," in the EPUB e-book format.[89] The use of simple online tools for e-book publishing is not limited to PressBooks, many other tool sets are being developed, including Pandamian[90] and Booki[91].

The Multimedia E-Book Market

The market for multimedia books incorporating video excerpts is ripe for explosion. EPUB3's inclusion of HTML5 support for embedded video playback along with rich interaction elements, and the availability of free or low cost web authoring tools along with high end design software such as InDesign from Adobe means that novice writers, academics, and professional publishers will be able to readily prepare materials that entertain, explain, and educate with video support. The widespread adoption of Apple's iPad tablets, and the obvious popularity of Amazon's Kindle Fire will provide a dramatic element of encouragement to the production of enhanced works with video, audio, and interactive elements.

Furthermore, firms are starting to invest in creating content. Inkling is a San Francisco startup that is seeking to develop a range of interactive textbooks and reference materials that incorporate significant video-enhanced material. Inkling has just entered the consumer market with the publication of "*The Professional Chef*", the official textbook of the Culinary Institute of America[92].

An exemption to the DMCA is necessary to avoid handicapping this burgeoning and innovative form of literature and education

Multimedia e-books are radically changing how authors tell stories and comment on reality

Because EPUB3 and KF8 permit much richer design and interaction constructs, leading user interaction experts have begun to consider how to craft innovative experiences. Designers like Craig Mod of Flipboard; Blaine Cook, the original technical architect for Twitter; Liza Daly, a cutting edge "book engineer"; and Pablo Defendini of Open Road Media all recently discussed new visions of book production at a conference in San Francisco called "Books in Browsers"[93]. The Japanese e-book company Voyager Japan, an off-shoot of the original U.S. Voyager

[88] WordPress is a popular blogging platform.
[89] See http://book.pressbook.com
[90] http://www.pandamian.com/
[91] http://www.booki.cc/
[92] https://www.inkling.com/store/professional-chef-cia-9th/
[93] http://bib.archive.org

company, demonstrated extremely advanced programming work to showcase native HTML5 reflowable text and graphics rich manga.[94]

When new design paradigms begin to take hold, it is common for a small number of examples of the newly emerging craft to define opportunities. In the world of multimedia e-books, perhaps the most inspiring recent example of design is "*Our Choice*" by Albert Gore, Jr., an Apple iPad book which mixes highly interactive design with text, voiceover, video, and reader engagement. Design elements encourage the reader to push on images with their fingers, expand pictures, listen to Gore speak about environmental concerns, and swipe their way through the text. "*Our Choice*" was designed and published by a startup publisher, Push Pop Press[95].

The release of Apple's iPhones and then the iPad tablet strongly influenced designers of digital books, magazines, and other content with an awareness that readers would increasingly be directly touching the books, magazines, and journals that they were reading and viewing. Increasingly fluid video playback, complex multi-touch zoom, pan, and rotation capabilities, and highly sensitive screen surfaces combine to suggest that we will literally not want to keep our hands off e-books in the future.

The release of Amazon's Kindle Fire Android tablet is expected to further heat up multimedia and enhanced design.[96] Some estimates suggest that Amazon is expected to sell between 3-5 *million* Fire tablets by the end of the year, within three months of its release for pre-orders.[97] [Amazon reported that the Kindle Fire was the top-selling Amazon listed product early in the 2011 holiday shopping season]. Coincident with the release of the Fire, Amazon announced that the tablet would use a brand new browser, Silk, that optimizes user performance by leveraging Amazon's massive network storage and processing cloud; Silk also uses the WebKit rendering engine.

The highly respected journalist Peter Osnos recently wrote in The Atlantic about the appeal and value of multimedia e-books on the release of Jacqueline Kennedy's audio memoirs, "*Jacqueline Kennedy: Historic Conversations on Life with John F. Kennedy,*" which like "*Our Choice*" has become a beacon for new multimedia e-book design. Mr. Osnos extols the virtues of the enhanced e-book that includes an appreciable amount of interwoven video, recordings, and other material. Observing the imminent release of the Kindle Fire, he notes, "[a]ssuming that forthcoming enhanced e-books are comparable in quality to the best of those already in circulation, they will add a major new element to the digital market, which has already surged by over 150 percent in the past year. In the meantime, the success of the Kennedy book has set a meaningful bar for bestsellers in the enhanced format. Based on my initial experience, books in multimedia presentation are an exciting prospect."[98]

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[94] See Explanatory videos from "Books in Browsers 2011": Craig Mod, https://www.youtube.com/watch?v=7z169AfJvM4; Blaine Cook, https://www.youtube.com/watch?v=UIwk8TeF2h0; Liza Daly, https://www.youtube.com/watch?v=E18osIYEOGc; Pablo Defendini, https://www.youtube.com/watch?v=f3WXEgPU1zc; Kevin Kelly, https://www.youtube.com/watch?v=HdtXo9z7uaI; Voyager Japan, https://www.youtube.com/watch?v=I8fLK8h32b0

[95] http://pushpoppress.com/ourchoice/. PushPopPress has since been acquired by Facebook.

[96] http://www.amazon.com/Kindle-Fire-Amazon-Tablet/dp/B0051VVOB2

[97] http://latimesblogs.latimes.com/technology/2011/11/amazon-kindle-fire.html

[98] http://www.theatlantic.com/entertainment/archive/2011/10/enhanced-e-books-and-the-future-of-publishing/246111/

The DMCA's prohibition on circumvention is the only barrier preventing authors from taking advantage of what these technical components permit

An author wishing to incorporate video in a multimedia work is likely to first attempt to locate acceptable clips online in resources such as YouTube, or alternatively in higher-quality video archive collections such as the Library of Congress' Packard Audio/Visual Collections[99] or the Internet Archive's inventory of ephemeral and studio film content.[100] Because the selection of AV content online is fragmentary and incomplete, adequate resources may prove scarce, driving the author to material available only on physical formats such as DVD or Blu-Ray, or transmitted via content-protected services. Save for content protection, content on these devices is readily manipulated by standard software tools and selections can be easily incorporated into educational and creative works published in EPUB3 or KF8.

Fair use is essential to independent authors and small publishing houses who may not be able to license content because of financial constraints or the unwillingness of content owners. Without being able to access content from DVD, Blu-Ray, and online and television sources, many authors will not be able to use this innovative medium to tell compelling stories and make important arguments. As Peter Osnos noted in his review of *Jacqueline Kennedy: Historic Conversations on Life with John F. Kennedy* "[w]hat is essential to the process of producing an enhanced e-book such as *Jacqueline Kennedy* is having full access to the relevant archival material."[101]

[99] http://www.loc.gov/avconservation/packard
[100] http://www.archive.org/details/movies
[101] http://www.theatlantic.com/entertainment/archive/2011/10/enhanced-e-books-and-the-future-of-publishing/246111/