

Before the
United States Copyright Office
Library of Congress

In the Matter of)
)
)
Exemption to Prohibition on) Docket No. 2014-07
Circumvention of Copyright Protection)
Systems for Access Control Technologies)
)

COMMENT OF
AUTHORS ALLIANCE
AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS
UNIVERSITY FILM AND VIDEO ASSOCIATION
SOCIETY FOR CINEMA AND MEDIA STUDIES
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Submitted For:

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I. COMMENTER INFORMATION

The Authors Alliance, American Association of University Professors, Society for Cinema and Media Studies, University Film and Video Association, Bobette Buster, and Mark Berger (collectively, “Multimedia E-Book Author Commenters”), representing tens of thousands of authors, scholars, and educators respectfully request that the Copyright Office recommend an exemption to Section 1201 of the Digital Millennium Copyright Act (“DMCA”) that would grant multimedia e-book authors access to motion pictures and other similar audiovisual works obtained from lawfully acquired DVDs, Blu-Ray discs, and digitally transmitted video for fair use purposes.

To contact the commenters, please contact the submitter, UCI Intellectual Property, Arts, and Technology Clinic, at dmcaebooks @ law.uci.edu.

The **Authors Alliance** promotes authorship for the public good by supporting authors who write to be read. Authors Alliance embraces the unprecedented potential digital networks have for the creation and distribution of knowledge and culture, and provides a platform for authors to discuss public and institutional policies that might promote or inhibit the broad dissemination they seek.

The **American Association of University Professors (AAUP)** aims to advance academic freedom and shared governance and to define fundamental professional values and standards for higher education. AAUP has helped to shape American higher education by developing the standards and procedures that maintain quality in education and academic freedom in this country’s colleges and universities.

The **Society for Cinema and Media Studies (SCMS)** promotes a broad understanding of film, television, and related media through research and teaching grounded in the contemporary humanities tradition. SCMS seeks to further media study within higher education and the wider cultural sphere, and to serve as a resource for scholars, teachers, administrators, and the public.

The **University Film and Video Association (UFVA)** aims to develop the potentialities of the motion picture and television media for purposes of instruction and communication throughout the world. UFVA works primarily in educational institutions with the goal of serving, encouraging, and assisting individuals who teach arts and sciences of motion picture and television production techniques, history, criticism and related subjects.

Bobette Buster is an Adjunct Professor in the University of Southern California Peter Stark Producing Program who created the first Master of Fine Arts curriculum for Feature Film and Television Development. She served as Guest Faculty to Pixar, Disney Animation, Disney Channel, Sony Animation, Twentieth Century Fox, the University of Milan, La F emis (Paris), Screen Training Ireland, North By Northwest (Denmark), The Sundance Institute Latin American Lab (Oaxaca) and Media Business School (Spain).

Mark Berger is a current Adjunct Professor in the Film & Media Department of the University of California, Berkeley, where he teaches courses on film sound and short narrative production. He is also 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, including *Apocalypse Now*, *The Right Stuff*, *Amadeus*, and *The English Patient*.

II. PROPOSED CLASS: CLASS 5—AUDIOVISUAL WORKS FOR USE IN MULTIMEDIA E-BOOKS

Audiovisual works that are lawfully made and acquired from DVDs protected by the Content Scramble System and Blu-Ray discs protected by the Advanced Access Content System, or, if the motion picture is not reasonably available in sufficient audiovisual quality on DVD or Blu-Ray, then from digitally transmitted video protected by various encryption measures, when circumvention is accomplished solely in order to incorporate 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.

III. OVERVIEW

We are returning to the DMCA exemption process to secure an exemption on behalf of authors seeking to exercise their fair use rights by embedding audio and video into electronic books.¹

Electronic books represent a significant and rapidly evolving form of authorship. Many of today's e-books have groundbreaking multimedia capabilities that fuse literary and audiovisual materials. These multimedia e-books create a unique and dynamic learning experience not possible with the use of mere static text and images. They are not only revolutionizing the reading experience, but expanding the frontiers of modern authorship.

By allowing authors to embed non-static forms of content like audio and video into e-books, multimedia e-book technology empowers authors to express new ideas, facilitate rich discussion, educate others, engage in creative expression, and share novel scholarship in a way that mere prose cannot. While traditional forms of authorship restrict authors to using static text and images to express their ideas, multimedia e-books enable authors to use high-quality video and audio to immerse readers into their scholarship.

Given today's modern technology and market factors, authors are now equipped with highly accessible and easy-to-use tools to incorporate audiovisual content directly into e-books for lawful fair use purposes such as criticism and commentary. Devices capable of supporting

¹ “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” (2012 Comment, Appendix B, Statement of Peter Brantley Statement). Today, e-books and e-readers are ubiquitous in the marketplace. See *Revenue from e-book sales in the United States from 2008 to 2018 (in billion U.S. dollars)*, STATISTA.COM, <http://www.statista.com/statistics/190800/ebook-sales-revenue-forecast-for-the-us-market/> (last visited Feb. 4, 2015); Laura Hazard Owen, *PwC: the U.S. consumer ebook market will be bigger than the print book market by 2017*, GIGAOM.COM (Jun. 4, 2013, 4:01 PM), <https://gigaom.com/2013/06/04/pwc-the-u-s-consumer-ebook-market-will-be-bigger-than-the-print-book-market-by-2017>; Richard Lea, *Self-publishing surging to 31% of ebook market, claims report*, THEGUARDIAN.COM (July 18, 2014, 11:18 AM), <http://www.theguardian.com/books/2014/jul/18/report-self-publishing-surging-ebook-market-amazon>.

such embedded material are not only accessible, but ubiquitous in the United States.² Further, a plethora of widely available file formats and user-friendly publishing platforms support multimedia e-book technology.

This innovative technology facilitates an exciting and revolutionary approach to authorship across a broad range of disciplines, including art, history, film, politics, popular culture, media, law, literature, sociology, and many others. This technology is also essential to authors who write about current events and popular culture. As such, multimedia e-book technology holds great promise that transcends well beyond academia.

Authors have held the right to make fair use of protected material for over 150 years, and fair use is often integral to the ability to criticize, comment on, or educate others about important social, political, historical, and cultural issues.³ Authors have a long track record for doing so responsibly; as rightsholders themselves, authors immensely respect and understand the value of copyright protection.

But in today's rapidly evolving digital environment, technological protection measures ("TPMs") block authors' access to nearly all sources of DVD-or-better quality motion picture material: commercially distributed DVDs contain the Content Scramble System ("CSS"); Blu-Ray discs carry the Advanced Access Content System ("AACS"); and digitally transmitted video employs encryption in various forms. By imposing criminal and civil liability on authors that circumvent TPMs on DVD, Blu-Ray discs, and digitally transmitted video, Section 1201 of the DMCA subjects authors who attempt to exercise fair use to severe criminal and civil liability. In this sense, the DMCA effectively hobbles a widely recognized noninfringing use that Congress and the courts have long protected.

During the 2012 rulemaking, the Register found that authors need to circumvent the TPMs on DVD and online video services in order to make fair use in e-books.⁴ This remains true today. But because an increasing amount of important, high-fidelity motion picture content is exclusive to Blu-Ray, authors now more than ever require the ability to access Blu-Ray materials. Multimedia e-books authors thus need access fixed media content from DVDs and Blu-Ray discs, and digitally transmitted video content from online and cable distributions.

Authors cannot rely on alternatives to circumvention for relief. Tools for circumvention are often incredibly expensive and thus cost-prohibitive for authors. Authors are not typically well-versed in (nor should every author be expected to know how to operate) sophisticated, highly specialized, and expensive technological alternatives. For example, it would create a deep chilling effect to require a self-publishing author to purchase expensive equipment in order to maintain audio and frame rate sync between a DVD player and external recording device simply

² See, e.g., Kathryn Zickhur & Lee Rainie, *E-Reading Rises as Device Ownership Jumps*, PEW RESEARCH CENTER (Jan. 16, 2014), <http://www.pewinternet.org/2014/01/16/e-reading-rises-as-device-ownership-jumps> (reporting that "three in ten adults read an e-book last year" and "half own a tablet or e-reader").

³ See, e.g., *Folsom v. March*, 9 F. Cas. 342 (No. 4,901), 344–45 (C.C.D. Mass. 1841) (holding that 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"). See also *New Era Publications Int'l v. Carol Publ'g Grp.*, 904 F.2d 152, 155 (2d Cir. 1990); *Rosemont Enterprises, Inc. v. Random House, Inc.*, 366 F.2d 303 (2d Cir. 1966).

⁴ Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 77 Fed. Reg. 65,260 (Oct. 26, 2012) (codified at 37 C.F.R. § 201.40) [hereinafter 2012 Final Rule].

in order to access a short clip to make fair use. Nor is clearance an acceptable alternative; rightsholders often refuse to issue a license to authors who seek to criticize, comment on, or educate others about the rightsholders' works in an unflattering manner. It would be inequitable and contrary to the policies of copyright law to require authors to overcome such insurmountable burdens in order to escape DMCA liability and exercise their fair use rights.

Acknowledging these realities, the National Telecommunications and Information Administration ("NTIA") declared that a similar 2012 proposal for a multimedia e-books exemption "holds great potential for educational and noninfringing uses such as comment and criticism."⁵ That potential is even greater in the 2015–2018 period. For these reasons, we respectfully request that the Copyright Office recommend an exemption for e-book authors along the contours set forth in this Comment.

IV. TECHNOLOGICAL PROTECTION MEASURES

As we indicated in our Petition for Exemption, multimedia e-book authors ("e-book authors") need to access motion picture material on (1) DVDs, (2) Blu-Ray discs, and (3) digitally transmitted video in order to criticize or comment on important social issues or history, engage in artistic or literary criticism, or publish for educational purposes. This need is exacerbated in the fast developing digital age, where traditional books are increasingly being replaced by multimedia e-books. However, e-book authors face numerous difficulties in trying to obtain protected material locked behind technological protection measures ("TPM").

A. Content Scramble System on DVDs

As in 2012, we propose an exemption that permits circumvention, in certain circumstances, of CSS on DVDs.⁶ CSS employs a mix of access and use control to protect DVD content from being copied, distributed, and viewed from unauthorized devices and the Register has previously concluded that it qualifies as a TPM subject to the DMCA's anti-circumvention provisions.⁷ In general, CSS encrypts, or scrambles, the DVD content to prevent copying.⁸ To decrypt the content, users must have a CSS-licensed hardware device, such as a DVD-ROM, which contains a fixed set of "keys" that can decrypt encryption on DVDs.⁹ The CSS key was cracked in 1999 and distributed freely on the internet.¹⁰ Because CSS provides no mechanism for revoking a compromised key, and it is difficult to revoke such keys from noncompliant devices,

⁵ Letter from Lawrence E. Strickling, Adm'r, Nat'l Telecomm. and Info. Admin. to Maria Pallante, Register of Copyrights, Library of Copyrights (Sept. 21, 2012), at 24, http://copyright.gov/1201/2012/2012_NTIA_Letter.pdf [hereinafter 2012 NTIA Letter].

⁶ See 37 C.F.R. § 201.40 (2010).

⁷ See Recommendation of the Register of Copyrights, at 126 (Oct. 28, 2012) [hereinafter 2012 Recommendation].

⁸ Gregory Kesden, Carnegie Mellon Univ., Lecture 33, Course: 15-412 Operating Systems: Design and Implementation (Dec. 6, 2000), <https://www.cs.cmu.edu/~dst/DeCSS/Kesden>.

⁹ *Id.*

¹⁰ See DVD Copy Control Ass'n, Inc. v. Bunner, 116 Cal. App. 4th 241, 255 (Cal. Ct. App. 2004).

software-based CSS circumvention software has been available for many years. However, DVDs are still being produced with CSS.¹¹

E-book authors still need to be able to access DVDs in order to make fair use, but the DMCA prohibits circumvention of CSS. In the last rulemaking, the Register recognized e-book authors' need to access DVDs and recommended an exemption covering CSS-protected DVDs.¹² As we demonstrate below, the conditions that warranted an exemption in the last round continue to exist today and will continue through the duration of the next exemption period. The proposed exemption is therefore necessary to allow e-book authors to access this motion picture material in order to make fair use.

B. Advanced Access Content System on Blu-Ray discs

The exemption we propose further permits circumvention, in certain circumstances, of AACS on Blu-Ray discs. AACS is also a mixed access and use control, and has also been previously recognized by the Register as a TPM subject to the DMCA.¹³ AACS provides each individual device with a unique set of keys. If the keys are compromised, the licensor can revoke the keys associated with the device and that device will cease to decrypt future titles.¹⁴

AACS on Blu-Ray discs qualifies as a TPM within the meaning of § 1201(a)(3) because it “effectively controls access” to a work by requiring the “application of information” and a process in order to gain access to the work.

C. Encryption Measures on Digitally Transmitted Video

The exemption we propose permits circumvention, in certain circumstances, of technologies that restrict access to digitally transmitted video through various encryption measures. A considerable amount of motion picture material is ephemeral and captured exclusively on digitally transmitted video sources such as cable and online streaming. Much like CSS and AACS, the protection measures found on digitally transmitted video seek to control access through encryption and other mechanisms, and thus qualify as a TPM within the meaning of Section 1201(a)(3) by requiring the “application of information”—namely, encryption keys—in order to gain access to the work.¹⁵ The Register has previously recognized that “a significant number of platforms” that distribute motion pictures online use encryption measures that constitute TPMs that control access to the works.¹⁶

¹¹ See DVD COPY CONTROL ASSOCIATION, Content Scramble System (CSS), <http://www.dvdcca.org/css.aspx> (last visited Feb. 3, 2015).

¹² 37 CFR 201.40.

¹³ 2012 Recommendation at 126.

¹⁴ Ed Felten, *AACS Decryption Code Released*, FREEDOM TO TINKER (Jan. 8, 2007), <https://freedom-to-tinker.com/blog/felten/aacs-decryption-code-released/> (last visited Feb. 3, 2015).

¹⁵ 17 U.S.C. § 1201(a)(1)(3).

¹⁶ 2012 Recommendation at 126.

In general, protection measures on digitally transmitted video operate by utilizing a combination of (i) client verification, which ensures that an authorized client is receiving the content; (ii) encryption, which ensures that the content is delivered securely only to authorized client; and (iii) access controls, which ensure that the client cannot export the content for redistribution.¹⁷ For example, Netflix content streamed to a laptop through a web browser plug-in is protected by both encryption and other protocols. The most popular of these are Microsoft Silverlight and Adobe Flash. A client requests media usage rights from a rights server online and downloads a DRM license or key so that he or she can play the content.¹⁸

The DRM systems that use these protocols are extremely diverse and in a state of constant flux.¹⁹ For instance, even widely used online streaming protocols that update in real time are becoming obsolete; Microsoft and Adobe have announced that Silverlight and Flash will not be supported in the near future.²⁰ In addition, while most browsers are now transitioning to the new Hypertext Markup Language 5 (“HTML5”) created by the World Wide Web Consortium (“W3C”), the W3C as of late 2014 has decided to postpone DRM incorporation until HTML5.1 is released, which is expected to occur later this year.²¹ Put simply, e-book authors cannot predict what kind of DRM will be incorporated into HTML5. What is certain, however, is that DRMs on HTML5 will likely be the most technologically sophisticated and difficult to work around to obtain protected content. Moreover, HTML5’s clear focus on video functionality emphasizes the industry’s focus on video and the high likelihood for further changes in TPM implementation.²²

In addition, it has recently become a common practice by some major studios to release films exclusively online before making them available on fixed format.²³ Some online content is only available online from limited distributors. For instance, two highly popular television series, *Arrested Development* and *Orange is the New Black*, were released exclusively on Netflix for streaming. Similarly, Amazon and Hulu also have their own popular exclusives. Without an exemption, e-book authors will have no alternative to obtaining footage from these DTVs. E-book authors who work on time-sensitive subjects will suffer the most. For example, *The Interview*, a film about the North Korean dictator, provoked a national debate over free speech. E-book authors seeking to use material from the film to facilitate discussion or illustrate another point needed to access the footage promptly, while the issue remained relevant.

¹⁷ See 2012 Comment at Appendix C, Statement of Eric Rescorla on Digitally Transmitted Video; see also Appendix D, Podobas Statement.

¹⁸ See Appendix D, Podobas Statement; see also MICROSOFT.COM, Microsoft Services Agreement, <http://windows.microsoft.com/en-us/windows/microsoft-services-agreement> (last visited Feb. 3, 2015).

¹⁹ See Appendix D, Podobas Statement.

²⁰ See 2012 Recommendation at 126; see also Christopher Mims, *HTML5 Triumphant: Silverlight, Flash Discontinuing*, MIT TECH. REV. (NOV. 9, 2011), <http://www.technologyreview.com/view/426083/html5-triumphant-silverlight-flash-discontinuing>.

²¹ Frederic Lardinois, *W3C Declares HTML5 Standard Complete*, TECH CRUNCH (Oct. 28, 2014), <http://techcrunch.com/2014/10/28/w3c-declares-html5-standard-done>; see also Appendix D, Podobas Statement.

²² See Appendix D, Podobas Statement.

²³ <http://www.wsj.com/articles/SB10001424052702304887104579306440621142958>

TPMs on digitally transmitted video are not only ubiquitous, but diverse across all platforms. For example, cable set-top boxes, DVR machines, Hulu, and Netflix are often protected by hardware encryption through High Definition Multimedia Interface (“HDMI”) cable outputs as well as encryption and other protocols active within DVR and cable boxes.²⁴ Many of these TPMs are not fully developed yet, like HTML5. Nevertheless, as the Register has previously determined, they all likely meet the statutory definition of TPMs, and authors nonetheless need to access them. Absent an exemption covering digitally transmitted sources, authors cannot criticize, comment on, and educate others about a range of important issues, particularly those that include ephemeral content and current events affecting our society.

Given that these TPMS are widely diverse and constantly evolving, any one subset of streaming technologies cannot be identified for purposes of this exemption because it would become obsolete long before the exemption expired. It is clear, however, that all of the TPMs in use today seek to control access through a combination of encryption and other mechanisms that easily qualify as TPMs within the meaning of Section 1201(a)(3).

V. NONINFRINGING USES

A. Fair Use is a Paradigmatic Noninfringing Use.

Fair use is a quintessential noninfringing use expressly recognized by Congress,²⁵ the courts,²⁶ the Register,²⁷ and the Librarian of Congress.²⁸ The doctrine aims to protect democratic ideals of free speech and academic freedom; prevent censorship; and encourage creative expression.²⁹ This, of course, includes fair use in multimedia e-book authorship.³⁰ Excerpted use³¹ of copyrighted multimedia clips in e-books, especially in e-books intended for educational purposes, makes a strong case for fair use.

²⁴ See generally Comment of International Documentary Association, Kartemquin Educational Films, Inc., National Alliance for Media Arts and Culture, and Independent Filmmaker Project, at Section (VI)(C), Docket No. RM 2011-07 [hereinafter 2012 Comment].

²⁵ 15 U.S.C. § 107 (1992).

²⁶ See, e.g., *Rosemont Enterprises, Inc. v. Random House, Inc.*, 366 F.2d 303 (2d Cir. 1966); *Wright v. Warner Books, Inc.*, 953 F.2d 731 (2d Cir. 1991); *Norse v. Henry Holt and Co.*, 847 F. Supp. 142 (N.D. Cal. 1994); *Bill Graham Archives v. Dorling Kindersley Ltd.*, 448 F.3d 605 (2d Cir. 2006).

²⁷ See, e.g., First Anticircumvention Rulemaking, 65 Fed. Reg. 64,556 (Oct. 27, 2000); Second Anticircumvention Rulemaking, 68 Fed. Reg. 62,011 (Oct. 31, 2003); Third Anticircumvention Rulemaking, 71 Fed. Reg. 68,472 (Nov. 27, 2006); Fourth Anticircumvention Rulemaking, 75 Fed. Reg. 43,825 (July 27, 2010).

²⁸ See 2012 Final Rule, *supra* note 6.

²⁹ See generally *Penelope v. Brown*, 792 F. Supp. 132, 136 (D. Mass. 1992) (stating that purpose of fair use is “to prevent strict enforcement of the copyright law when its enforcement would inhibit the very Progress of Science and useful Arts that copyright is intended to promote.” (quoting *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 477 (1984) (Blackmun, J., dissenting)) (quotation marks omitted); COPYRIGHT § 10.2.1 (Aspen Publishers 2d ed. 2000) (describing fair use as “situations in which social, political, and cultural benefits of use will outweigh any consequent losses to copyright proprietor”).

³⁰ 2012 NTIA Letter at 5; 2012 Recommendation at 125.

³¹ See generally *Sofa Entertainment, Inc. v. Dodger Productions, Inc.*, 782 F. Supp. 2d 898 (C.D. Cal. 2010).

B. Authors Routinely Rely on and Responsibly Exercise Fair Use.

Authors' reliance on the fair use doctrine dates back to the 19th century.³² In particular, courts have acknowledged that authors have depended on the doctrine in order to make original written contributions to society.³³ Authors have continued to make fair use ever since by criticizing, commenting on, and educating others about important social, political, historical, and economic issues in our society.³⁴ Doing so has enabled authors to contribute substantially to academia, scholarship, and society as a whole.³⁵

As the beginning of the 21st century marked a shift from printed to online media,³⁶ authors began relying increasingly on making fair use of copyrighted material in order to publish virtual works such as e-books.³⁷ The digitization of the publishing industry is a positive evolutionary step of a civilization developing exponentially quickly because it has “necessitated the development and distribution of devices . . . within an industry that ha[s] not previously required consumers to purchase devices to enjoy content”.³⁸ Such digitization encourages authors to create works in a new medium, which in turn reaches a broader audience. It also inspires non-authors to become authors for the first time—an economically and intellectually fruitful endeavor for both writers and readers.

As we discuss in the next Part, by criminalizing circumvention of TPMs such as CSS, AACS, and various encryption measures on digitally transmitted video, the DMCA serves as a significant copyright hurdle that prevents multimedia e-book authorship from flourishing. The process of obtaining a license or the copyright owner's permission to use the work is frequently convoluted and expensive. For many e-book authors who are looking to self-publish, this process is financially insurmountable and logistically unfeasible. And even if e-book authors managed to overcome problems of access and costs, rightsholders may still deny their requests for licensing. After all, rightsholders, who may choose to refuse to license at their discretion, may not want to be criticized or commented on in an unflattering manner. This potentiality leaves e-book authors

³² See *Folsom v. March*, 9 F. Cas. 342 (C.C.D. Mass. 1841).

³³ *Sony Corp.*, 464 U.S. at 417; *Harper & Row, Publishers, Inc. v. Nation Enters.*, 471 U.S. 539 (1985); *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569 (1994).

³⁴ *Campbell*, 510 U.S. (finding a rap crew's parody version of Roy Orbison's hit song to be fair use); *Monster Commc'ns, Inc. v. Turner Broad. Sys. Inc.*, 935 F. Supp. 490 (S.D.N.Y. 1996) (finding fair use where boxing documentary used movie clips); *Hofheinz v. AMC Productions*, 147 F. Supp. 2d 127 (E.D.N.Y. 2001) (finding fair use where documentary filmmaker used clips and photographs of copyrighted films); *Hofheinz v. A&E Television Networks*, 146 F. Supp. 2d 442 (S.D.N.Y. 2001) (finding fair use of movie clip in TV biography of an actor); *Wade Williams Distrib., Inc. v. ABC*, No. 00 Civ. 5002 (LMM), 2005 U.S. Dist. LEXIS 5730 (S.D.N.Y. Apr. 5, 2005) (finding fair use in clips of Ed Woods film in a TV commentary); *Lennon v. Premise Media Corp.*, 556 F. Supp. 2d 310 (S.D.N.Y. 2008) (finding fair use of Lennon's song in a documentary film).

³⁵ See *Loew's Inc. v. Columbia Broadcasting System*, 131 F. Supp. 165 (S.D. Cal. 1955); *Berlin v. E.C. Publications, Inc.*, 329 F.2d 541 (2d Cir. 1964); *Rosemont Enterprises, Inc.*, 366 F.2d.

³⁶ See Niva Elkin-Koren, *The Changing Nature of Books and the Uneasy Case for Copyright*, 79 GEO. WASH. L. REV. 1712 (2011).

³⁷ *Id.*

³⁸ Jacqueline D. Lipton, *Copyright, Plagiarism, and Emerging Norms in Digital Publishing*, 16 VAND. J. ENT. & TECH. L. 585 (2014).

with no legal ways to obtain needed multimedia content. It also prohibits the very types of uses that the fair use doctrine purports to protect.

Despite these and other hurdles, authors have taken several steps to exercise fair use responsibly and in the least restrictive manner. For example, authors typically utilize best practices guides on e-book publishing, often produced by publishing companies.³⁹ Such guides usually discuss copyright issues involving authors, such as obtaining a copyright license and securing copyright in one's own work. E-book authors also obtain Errors and Omissions Insurance as a precaution, much like the filmmakers in *Lennon v. Premise Media Corp*⁴⁰ and hundreds of other instances have done for the protected work they were seeking to use. Furthermore, as rightsholders themselves, authors have a profound and abiding interest in preserving copyright protection.⁴¹

Many courts have permitted authors to use protected audiovisual material in their works for fair use purposes, such as criticism, commentary, and education.⁴² For example, in *Hofheinz v. AMC Productions*, the court held that AMC's use of six film clips in a documentary was non-infringing fair use. The copyrights in question were for monster movies and related still photographs. All four of the fair use factors weighed in AMC's favor, in part because the copyrighted material was used for a television documentary on the development of monster movies.⁴³ Both the Register and the Librarian have acknowledged authors' reliance on fair use.⁴⁴ Put simply, fair use is integral to modern authorship.

As the appended statements demonstrate, and as we discuss below,⁴⁵ multimedia e-book authors specifically rely on making noninfringing fair use of protected material from DVDs, Blu-Ray discs, and digitally transmitted video. Accordingly, only an exemption that permits authors to exercise their noninfringing right to make fair use of protected material from DVDs, Blu-Ray discs, and digitally transmitted video will suffice to remedy the DMCA's harms.

³⁹ See, e.g., BOOK TANGO, <http://www.booktango.com> (last visited Feb. 3, 2015).

⁴⁰ Michael Donaldson, *Refuge From the Storm: A Fair Use Safe Harbor for Non-Fiction Works*, 59 J. COPYRIGHT SOC'Y 477, 546 (2012).

⁴¹ See, e.g., Comment of International Documentary Association et al., Docket No. RM 2011-07, at 25 (2011), http://www.copyright.gov/1201/2011/initial/IDA_Mark_Berger.pdf ("As copyright holders themselves, filmmakers rely on and respect copyright protection and thus have proposed an exemption that respects the balance of interests").

⁴² See Donaldson, *supra* note 38, at 494–505 (citing *Hofheinz*, 147 F. Supp. 2d; *Hofheinz*, 146 F. Supp. 2d; *Hofheinz v. Discovery Commc'ns*, No. 00 civ. 3802 (HB), 2001 U.S. Dist. LEXIS 14752, at *1 (S.D.N.Y. Sept. 10, 2001); *Wade Williams Distrib'n, Inc.*, No. 00 Civ. 5002, 2005 U.S. Dist., LEXIS 5730; *Sofa Entertainment, Inc. v. Dodger Productions, Inc.*, 782 F. Supp. 2d).

⁴³ *Hofheinz*, 147 F. Supp. 2d at 141.

⁴⁴ See 17 U.S.C. § 107 (2012); 2012 Recommendation at 126–27 ("Proponents . . . have shown that a significant number of the proposed uses reproduce short excerpts of motion pictures for the purposes of criticism and commentary. Such uses fall within the favored purposes referenced in the preamble of Section 107 and therefore are likely to be fair uses."); 2012 NTIA Letter ("Proponents advanced a proposed exemption for multimedia e-books that holds great potential for educational and noninfringing uses such as comment and criticism.").

⁴⁵ See Part VI; Appendices B and C.

VI. ADVERSE EFFECTS

By preventing multimedia e-book authors from accessing material from DVDs, Blu-Ray discs, and digitally transmitted video for criticism, commentary, and educational purposes, the DMCA serves as a significant barrier that prevents multimedia e-book authorship from flourishing. Previously proposed alternatives to circumvention are either unworkable or simply unavailable to most authors. For many e-book authors who are looking to self-publish, highly technical alternatives are both financially insurmountable and logistically unfeasible. As for clearance as a potential alternative, rightsholders may still overprice, fail to respond, or simply deny licenses to authors. This is especially so where an author aims to criticize or comment on the rightsholder in a negative or unflattering manner.

These problems, taken together, show that the DMCA causes “actual instances of verifiable problems occurring in the marketplace” of authors that are far “more than de minimis.”⁴⁶ As in 2012, there do not “exist sufficient alternatives to obviate the need for an exemption.”⁴⁷ The examples that follow—along with the statements supplied by several multimedia e-book industry experts⁴⁸ and filmmakers⁴⁹—are illustrative of these substantial adverse effects.

A. The DMCA Imposes Substantial Adverse Effects on Authors’ Ability to Make Fair Use of Protected Material from DVDs, Blu-Ray, and Digitally Transmitted Video.

As we discuss above, authors have long held and responsibly exercised the right to make fair use—particularly in the form of criticism, commentary, and educational use.⁵⁰ Given the nature of their craft, multimedia e-book authors rely on their ability to criticize and comment on copyrighted material much more than traditional authors. But to exercise this quintessential noninfringing use, e-book authors need to be able to access motion picture material from DVD protected by CSS, Blu-Ray discs protected by AACS, and digitally transmitted video protected by various encryption measures. Because the DMCA prohibits circumvention of these TPMs, and alternatives to such circumvention are expensive, impracticable, and unduly burdensome on authors, the DMCA poses a substantial adverse effect on fair use in multimedia e-books that is felt heavily in the marketplace.

i. Inability to Make Fair Use of Material on DVDs

As in 2012,⁵¹ multimedia e-book authors rely on their ability to make fair use of DVDs. Yet DVDs are locked away under CSS, which the Register recognizes “is a technological

⁴⁶ 2012 Final Recommendation at 7-8.

⁴⁷ 2012 NTIA Letter, *supra* note 43, at 21.

⁴⁸ See Appendices B and C.

⁴⁹ *Id.*

⁵⁰ See *supra* note 3.

⁵¹ See 2012 NTIA Letter, *supra* note 43, at 20.

measure that controls access to motion pictures on DVDs”.⁵² The DMCA thus prevents authors from, or breaking CSS encryption and, by extension, ripping from DVDs. In doing so, the DMCA severely hinders authors’ ability to criticize and comment on important protected material from DVDs.

Since the Librarian granted an exemption permitting authors to circumvent CSS in certain circumstances in 2012,⁵³ authors have successfully authored numerous multimedia e-books⁵⁴ and begun work on new ones. Given that DVDs are still among the most common sources of motion picture material, and at times, the only source,⁵⁵ the DMCA’s prohibition on circumvention of CSS will continue to pose a substantial adverse effect on fair use in e-book authorship during the 2015-2018 exemption period.

As an example, the Academy Award-winning sound editor Mark Berger seeks to make an e-book, *Listening to Movies*, that will explore in detail the many uses of sound and how it relates to the film’s moving images. The book will present the concepts and vocabulary necessary to analyze the inner workings of a film soundtrack. The first volume will concern production and post-production: script, camera, set design, directing, lighting, sound, editing, and mixing. The second will focus on understanding sound: history, analysis of image and sound, genres, and directors. These cannot be accomplished without actually seeing and hearing the scene as it was intended to be heard.

In Mr. Berger’s experience, a major problem with lower-fidelity formats is that they utilize compression. Compression sacrifices the video and audio image’s quality and introduces artifacts such as stutters and noise. As a result, he needs at a minimum to be able to obtain materials from DVD if not higher quality.

As another example, Jiliann Spitzmiller is a filmmaker, educator, and author. She has made many documentaries and has made a few e-books on filmmaking techniques, critique, and editing. In her e-books, she includes clips to highlight the filmmaking techniques being discussed in her book. Currently, she only uses clips that come from her own documentaries but would like to be able to use clips from other projects. She has plans to publish additional e-books in the future. Because of the subject matter of her e-books, , which depends on close analysis of visual elements, she seeks to use the highest quality footage possible.⁵⁶

These examples demonstrate that these substantial adverse effects are continuous and pervasive; more than de minimis; and keenly felt in the marketplace. Accordingly, only an

⁵² See 2012 Recommendation at 126 (“It is well established, and the record confirms, that CSS is a technological measure that controls access to motion pictures on DVDs.”).

⁵³ See 2012 Final Rule, *supra* note 6.

⁵⁴ See, e.g., Recommendation of the Register of Copyrights (June 11, 2010) at 57 (stating, “[it is] clear that a transition is currently taking place to new forms of digital distribution, such as Blu-ray discs protected by the AAC3 system. . .”) [hereinafter 2010 Recommendation].

⁵⁵ 2012 Recommendation at 7 (quoting 2003 Final Rule at 62,013 (internal quotation marks omitted)).

⁵⁶ Telephone interview with Jiliann Spitzmiller, Adjunct Professor of Film at Santa Fe Community College and a documentary filmmaker (Feb. 4, 2015).

exemption that covers CSS will suffice to restore authors' noninfringing fair use rights

ii. Inability to Make Fair Use of Material on Blu-Ray Discs

The DMCA also causes a substantial adverse effect on e-book authors' ability to make fair use of material on Blu-Ray. As the Register has previously recognized, Blu-Ray is protected by AACS, a form of access control.⁵⁷

As NTIA recognized in 2012, many authors require the ability to access an HD source of footage, such as that provided by Blu-Ray.⁵⁸ While DVDs are not entirely obsolete, Blu-Ray is quickly supplanting DVDs as the predominant source of motion picture material, especially high fidelity material and bonus outtakes.⁵⁹ Furthermore, a substantial and increasing amount of motion picture material is now available exclusively on AACS-protected Blu-Ray.⁶⁰ As such, e-book authors have a pressing need to access Blu-Ray in order to create multimedia e-books with sufficient quality.

Professor Pamela Samuelson of UC Berkeley School of Law, for example, is a copyright scholar who seeks to create a multimedia e-book that would facilitate an in-depth classroom discussion closely examining whether James Bond is a copyrightable character in light of significant changes to his character over time, including facial features, clothing, and culture. Allowing students to take a fine-grained look at the development of James Bond's character requires, at a minimum, the use of a high quality source such as Blu-ray. High quality is essential to her use for a number of reasons. For example: What kind of watch does he wear? How buffed was this one as compared with that one? What age is Bond in this film as compared with that one and how is it shown? How similar or different are the details of his dress, such as shoes, cufflinks, and textiles? How one determines what is the essence of the character and why it should be protected is not just about the overall impression one has, but it is also about fine details and these details must be observed in high quality.

In addition, because a number of older James Bond movies are available in limited quantity on DVD, Blu-Ray discs are Professor Samuelson's only accessible option. Furthermore, many film exclusives and extra feature content are exclusive to Blu-Ray. For example, a behind-the-scenes look at *Skyfall*, a 2012 James Bond film, and *Being Bond*, a profile of actors who played Bond, are only available in a collectible Blu-Ray box set sold exclusively at Best Buy and Target stores.⁶¹

⁵⁷ 2012 Recommendation at 126. ("It is well established, and the record confirms, that . . . AACS is a measure that controls access to motion pictures on Blu-ray discs.")

⁵⁸ See 2012 NTIA Letter at 21 (acknowledging educators' need for high quality material).

⁵⁹ See Lucas Mearian, *Bye-bye Blu-ray: Video-on-demand and streaming options are gaining on you*, COMPUTERWORLD, <http://www.computerworld.com/article/2488931/data-center/bye-bye--blu-ray--video-on-demand-and-streaming-options-are-gaining-on-you.html> (May 2, 2014) (stating that in 2013, "about 124 million Blu-ray discs were sold in the U.S., a 4.2% increase over 2012 . . . DVD sales, which have been plummeting for years, dropped 13/6% last year.") (last visited Feb. 5, 2015); see also 2012 Recommendation at 135 (attesting that some footage is, and some films in their entirety are, only available on Blu-Ray).

⁶⁰ See, e.g., 2010 Recommendation at 57 (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").

⁶¹ See generally Appendix E, Exclusive Blu-Ray and Extra Content.

Bobette Buster is an Adjunct Professor in the University of Southern California's Peter Stark Producing Program and an internationally known lecturer and consultant on story development, who is developing a four-part e-book called *Deconstructing Masters of Cinema*. In her statement appended to this comment at Appendix B, she explains why it is necessary that she be permitted to access Blu-ray.

The commonly accepted viewing standard of images on DVD is now HD or Blu-Ray. To use an analogy, Standard Definition is to monaural recordings in recorded music, television or cinema (a technology that became obsolete in the 1960s), what High-Def or Blu-Ray is to stereo recording, moving now onto Dolby 5.1/Atmos today. Technological wonder drives the marketplace. The consumer expects, even demands the highest affordable quality of viewing and listening experience. As well, the lesser format of Standard Def now scratches easily, or pixelates after repeated viewings, thereby making the selling of this item dubious.

In my live Keynote lectures, wherein I have embedded film clips, I use Standard Definition DVDs. I always have to preface my comments with, "In ideal viewing circumstances, you *would* see the following . . ." or, "Ideally, you *would* hear the following. . ." And then I have to describe fully what the class should be experiencing from the filmmaker's original vision.

It is worth noting that Hollywood films are renowned for costing millions to make. Each shot is labored over by a small army of highly experienced artisans, craftspeople, and technicians—from the cinematographer to production/art designer, lighting crew, sound, costume, props—all of whom *plus* the story of the film with their various expertises [sic]. One shot can cost literally millions of dollars and take days to complete. Major beloved and talented directors take great pains orchestrate these shots, while also directing the actors. This is what the audience the world over has come to expect from this entertainment form. Why then would the studios want any of this work shown at a sub-standard level in any form?⁶²

Among other analyses, Ms. Buster seeks to profile famed cinematographer Gordon Willis, who shot *The Godfather* series and:

is also known as The Prince of Darkness. Willis purposefully shoots in very low-light settings with one note of color—such as a bloody red rose or Kay Adams' red dress. His cinematography choices are essential for understanding the story. In Standard Definition clips, it can be difficult, if not impossible after repeated uses to see the correct range of dark colors such as black, brown, and red.⁶³

In her statement, Ms. Buster relates numerous other uses that require the most fine-grained detail possible in order for her to conduct the criticism and analysis she seeks to make. She has also experienced that Standard Definition files degrade over time, becoming pixillated and creating other defects—another reason why DVD alone is not suitable for her use, nor many others.

⁶² See generally Appendix B, Buster Statement.

⁶³ *Id.*

These stories represent but a few examples of the type of activity that Section 1201's prohibition on circumvention is stifling. Given that Blu-Ray is the most widely available and standardized format for obtaining high quality material, multimedia e-book authors such as these need access to material that is exclusively available on Blu-Ray.

The DMCA's prohibition on circumvention of AACS thus prohibits authors from making noninfringing fair use of important copyrighted material from Blu-Ray discs and causes actual instances of verifiable problems occurring in the marketplace. These instances are far "more than de minimis."⁶⁴ Only an exemption, covering in part AACS on Blu-Ray discs, would suffice to restore authors' noninfringing fair use rights.

iii. Inability to Access Digitally Transmitted Video

The DMCA further causes a substantial adverse effect on e-book authors' ability to make fair use of digitally transmitted video, including cable and online distributions. Digitally transmitted video sources range from cable set-top DVRs to online distributors and streaming services. These sources often include many materials unavailable through other means, such as news broadcasts, commercials, and other ephemeral content. As with filmmakers, more and more authors have either created an e-book that included clips from a digitally transmitted video source or implemented a plan to do so in order to criticize, comment on, or educate others about important current events or issues.

The problem is that a significant and increasing amount of motion picture material is available only through digitally transmitted video sources protected by encryption,⁶⁵ which deeply chill the fair uses that e-book authors wish to make. In addition, some studios and producers have developed the common practice of releasing films exclusively online before making them available on fixed format.⁶⁶ Some online content is only available online from limited distributors. For instance, two highly popular television series, *Arrested Development* and *Orange is the New Black*, were released exclusively on Netflix. Similarly, Amazon and Hulu also have their own popular exclusives. Without an exemption, e-book authors will have no alternative to obtaining footage from these DTVs. E-book authors who work on time-sensitive subjects will suffer the most.

The experience of Professor Steve Anderson provides an instructive example. Professor Anderson is an Associate Professor of the Practice of Cinematic Arts at the University of Southern California School of Cinematic Arts. He recently completed two electronic journal articles for peer-reviewed journals (*American Literature* and *The Italian Journal of Game Studies*) which are also part of a larger e-book project that uses short clips from dozens of Hollywood films and TV shows in order to make a critical, historical argument about popular

⁶⁴ 2012 Recommendation at 7 (quoting 2003 Final Rule at 62,013 (internal quotation marks omitted)).

⁶⁵ See, e.g., *id.* at 154 (concluding that "Proponents have established that there is a great deal of content available only online. . .").

⁶⁶ Ben Fritz, *Sales of Digital Movies Surge*, WALL ST. J. (Jan. 7, 2014), available at <http://www.wsj.com/articles/SB10001424052702304887104579306440621142958>.

depictions of computer and gaming technologies. Research for this work was done over the last three years, with publications in 2014 and 2015.

In order to prepare his e-book, he has obtained content from numerous DVDs using the existing exemption. Because his work emphasizes visual effects and technological details in film, he often finds that he is unable to accurately portray his research through the DVD ripped content alone. Steve is frequently unable to find all of the historical content he needs on DVD, and finds that some content is only available streaming or on broadcast television. Because Steve's scholarship is dependent on the ability to embed this content, this limitation negatively impacts his work.⁶⁷

This example, together with the others we present here and in the Appendices, constitute “actual instances of verifiable problems occurring in the marketplace” that are far “more than *de minimis*” and therefore constitute “substantial adverse effects.”⁶⁸ Importantly, both the author and the public suffer as a result of the DMCA’s prohibition, as both are unable to present or consume valuable criticism, comment, news reporting, teaching, scholarship, or research.

The DMCA’s prohibition on various encryption measures on digitally transmitted video continues to pose substantial adverse effects on fair use in e-book authorship.⁶⁹ The Copyright Office should therefore recommend an exemption for authors who seek to make fair use of copyrighted material on digitally transmitted video, including cable and online sources. Only an exemption, covering in part the various encryption measures on digitally transmitted video would suffice to restore authors’ lawful, noninfringing fair use rights.

B. Alternatives to Circumvention Remain Costly, Impracticable, Inferior, and Unduly Burdensome for Multimedia E-Book Authors.

i. Circumvention Alternatives are often Prohibitively Expensive.

Alternatives to circumvention remain an out-of-reach and unrealistic option for the vast majority of e-book authors. First, the technology required for these alternatives is often cost-prohibitive for authors.⁷⁰ For many authors attempting to make fair use of copyrighted material in the form of criticism and commentary, the cost to purchase tools to circumvent TPMs are exorbitant and prohibitively expensive fees. This is especially true for self-published authors that lack the resources to invest in highly technical circumvention alternatives.

Moreover, to require a self-publishing author to buy a costly visual stabilizer or digital time base corrector in order to maintain audio and frame rate sync between the DVD player and recording device, and purchase additional film editing software merely to access a few minutes of footage, would be unfair and patently unreasonable. The NTIA has specifically acknowledged that, “for educators and students, screen capture software and hardware may not be universally

⁶⁷ Telephone Interview with Steve Anderson, Associate Professor of the Practice of Cinematic Arts Media Arts + Practice Division (Feb. 4, 2015).

⁶⁸ Notice of Inquiry and Request for Petitions, 79 Fed. Reg. 55,687 (Sept. 17, 2014).

⁶⁹ 2012 Recommendation at 154.

⁷⁰ See 2012 NTIA letter at 21.

available due to high costs and tight budgets. . . .”⁷¹ Similarly, multimedia e-book authors often cannot afford to purchase alternatives to circumvention.

ii. Circumvention Alternatives are often Impracticable to Use.

Second, the technology required for these alternatives are impossibly difficult for authors to operate.⁷² Authors who embed audio and video content into their e-books are not necessarily film editors or technical experts. As an example, in 2015 a self-publishing e-book author can use self-publishing e-book software such as Adobe InDesign in lieu of doing advanced video editing. It would also be unreasonable to expect a self-publishing e-book author to know how to correct the audio sync issues and degradation of video resolution caused by operating screen-capture software.

While purchasing screen capture software is less costly than analog transfer machines, screen capturing cannot be used without degrading the resolution and quality of the video. Furthermore, it cannot capture the required video and audio elements without inserting audio sync issues and creating a perceptible skipping in the video. The degradation of videos become even more obvious when e-books are presented through a projector screen in education setting.⁷³

These examples demonstrate that previously suggested alternatives to circumvention, including analog transfer method, scan conversion, or screen capture, pose an enormous challenge for multimedia e-book authors given their low likelihood of having inherent film editing or technical expertise.

iii. Circumvention Alternatives Often Produce Footage of Inferior and Quality Unsuitable for the Uses E-book Authors Seek to Make

Where it is possible to use an alternative to circumvention, the resulting video quality is in the overwhelming majority of circumstances so degraded as to be unusable.⁷⁴ This is because it is not of sufficient quality to make the point the e-book author is trying to make, because it does not meet distributor minimum standards, or both.⁷⁵ At a minimum, many e-book authors need access to at least standard-definition quality digital files. This is especially so where the author’s e-book aims to comment or criticize audio and visual elements of the motion picture material.

⁷¹ *Id.*

⁷² *Id.*

⁷³ 2012 Comment at 15; *see generally* Appendix B, Buster Statement.

⁷⁴ *See* 2012 Recommendation at 65268 (“for certain uses—i.e., when trying to convey a point that depends upon the ability to perceive details or subtleties in a motion picture excerpt—documentary filmmakers and ebook authors would likely suffer adverse effects if they were unable to incorporate higher-quality images.”); *see also* 2012 NTIA Letter at 21.

⁷⁵ *See generally* Appendix B, Buster Statement.

The examples we discuss in Part demonstrate the type of adverse effects on noninfringing uses that the exemption process was designed to remedy.⁷⁶ As such, only an exemption could protect multimedia e-books authors' ability to make fair use of the high quality material they need for their works.

iv. Clearance Culture Remains Unduly Burdensome to Authors.

Finally, clearance—or licensing—continues to be an unrealistic option for e-book authors.⁷⁷ First, nearly all licenses from major studios contain provisions with language bars licensees from casting the studio or the film in a negative light. In a New York Times article containing an interview with Kirby Dick of *This Film Is Not Yet Rated*, Mr. Dick explained that “projects that ruffle the feathers of the media establishment . . . face insurmountable challenges” and observed that “[s]ome licensing agreements prohibit negative portrayal of copyright holders.”⁷⁸ Rightsholders are therefore unlikely to grant e-book authors a license to criticize, comment on, or negatively portray their works.

Second, even where a rightsholder is willing to award a license to an author, the rightsholder has unequal bargaining power and can charge the author an exorbitant fee, burdening the type of expression that ebook authors seek to make.⁷⁹

The NTIA's observations in 2012 explicitly acknowledge this problem:

[P]roponents have introduced evidence supporting the conclusion that copyright license negotiations are expensive and burdensome, especially when the licensee seeks to critique the copyrighted work. Proponents note that these burdens alone provide ample reason to support exemptions for documentary filmmakers, consistent with the Register's previous recommendation. Therefore, with the following consideration, NTIA supports a continuation of the current exemption as well as several proposed expansions [including an exemption applicable to multimedia e-book authors].⁸⁰

The same conditions exist today.

Hence, fair use is critical for e-book authors seeking to criticize, comment on, or cast in a negative light certain motion picture material. To require authors to seek clearance rather than circumvent in order to make fair use is anathema to the policy rationale behind the fair use doctrine and subverts its constitutional importance as copyright's “safety valve.” Absent the

⁷⁶ *But cf.* 2012 NTIA Letter at 21 (“Generally, the technological alternatives produce low-quality videos, and associated license agreements often impose significant content limitations on the final work product. . . [E]ducators and students that are able to access such software and hardware may find the quality insufficient for the pedagogical purpose and distracting in a classroom setting.”) (citing Comments of the Media Education Lab at the Harrington School of Communication and Media at the University of Rhode Island (*URI Comments*) at 10-11, Docket No. RM 2011-7, http://www.copyright.gov/1201/2011/initial/media_edu_lab.pdf; *June 4 Transcript* at 32).

⁷⁷ 2012 Comment at 5; *see* Brantley Statement at 30; *see also* 2012 NTIA Letter at 21.

⁷⁸ Elaine Dutka, *No Free Samples for Documentaries: Seeking Film Clips With the Fair-Use Doctrine*, N.Y. TIMES, May 28, 2006, http://www.nytimes.com/2006/05/28/movies/28dutr.html?_r=0

⁷⁹ 2012 Comment at 5.

⁸⁰ 2012 NTIA Letter at 21.

ability to make fair use, many authors would be prohibited from using copyrighted material merely because the rightsholder disapproves of the authors' message.

Altogether, the DMCA continues to have substantial adverse effects on e-book authors' ability to make fair use of DVDs protected by CSS, Blu-Ray discs protected by AACS, and digitally transmitted video protected by various encryption measures. Alternatives to circumvention of these mediums are costly, impracticable, inferior and unduly burdensome. Unless the Copyright Office resolves this substantial adverse effect by recommending an exemption, it will continue to have deleterious effects on the marketplace.

VII. SECTION 1201(A)(1)(C) STATUTORY FACTORS

The 1201 rulemaking process is critical to maintaining the balance that copyright law seeks to strike between providing meaningful exclusive rights to rightsholders and facilitating the public's access to important works. It does so by ensuring that the statutory protection for access controls does not violate the First Amendment. The Supreme Court has held that fair use is an important "first amendment accommodation" "built-in" to copyright law.⁸¹ This accommodation, together with the DMCA's exemption process, is vital to e-books, specifically multimedia e-books, which offer valuable scholarship, educational potential, social commentary, and cultural criticism. Because the DMCA's anticircumvention rules cause substantial "adverse effect[s]" well above the threshold of "more than de minimus,"⁸² we urge the Register to recommend our proposed exemption to the Librarian of Congress. A consideration of the factors set forth at Section 1201(a)(1)(C)(i)-(v) favors the exemption because the proposed class is narrowly tailored to prevent harm to important purposes served by fair use while avoiding any harm whatsoever against other copyright interests.

A. Availability of Copyrighted Works.

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), [3] if alternative formats are available, whether such formats are sufficient to accommodate noninfringing uses,⁸³ and [4] whether the format is part of a "use-facilitating" business model that offers the public access to work in a variety of new ways, and whether the proposed exemption would prejudice this model.

Without an exemption, the DMCA's anticircumvention provision will prohibit e-book authors from accessing material that is lawful to use under the fair use doctrine, but illegal to obtain under Section 1201. This material is of the utmost importance to their works. The exemption would apply only to a narrowly tailored group of authors who responsibly make fair use, and the exemption would institute an incremental approach that allows circumvention of

⁸¹ Eldred v. Ashcroft, 537 U.S. 186, 219 (2003).

⁸² 2012 Recommendation at 7 (quoting 2003 Final Rule at 62,013).

⁸³ 2010 Recommendation at 56 (quoting 2006 Recommendation of the Register of Copyrights at 19-22).

new services only when necessary to prevent a specified harm.

i. The Register Considers Whether the Availability of the Work in Protected Format Enhances and/or Inhibits Public Use of Particular Works.

The Register recognized in 2012 that the DMCA’s anticircumvention prohibition prevents many e-book authors from making fair use of works in the protected formats identified in the proposed class. The same true today and will continue throughout the 2015-2018 exemption period. As such, “the availability of the work in a protected format” actually inhibits fair use of particular works.⁸⁴ Our proposed exemption would resolve this problem while doing no harm to the public availability of motion pictures on Blu-Ray, DVD, or digitally transmitted video.

The Register acknowledged in 2010 that the “realities of the current marketplace” show that an exemption for certain noninfringing uses will not harm digital distribution of DVDs because “protected DVDs have continued to be the dominant format even though circumvention tools have long been widely available online.”⁸⁵ Furthermore, in 2012, the Register stated:

[T]he record here does not support a finding that there can be no exception to the prohibition on circumvention for the purpose of facilitating noninfringing uses or that the overall availability of motion pictures will suffer if such an exemption is adopted. Accordingly, the first statutory factor does not weigh against properly tailored exemptions to permit the fair use of protected motion picture material.⁸⁶

This argument has only strengthened since the last rulemaking, and applies equally to Blu-ray and digitally distributed video. Not a single rightsholder has come forward with even an allegation of abuse, and we know of no new evidence that would undermine these conclusions.

ii. The Register Considers Whether the Work is Available in Alternative Formats and Whether those Formats Have Access Controls.

The only commercial formats that authors can use to obtain materials for fair use are on DVD, Blu-Ray, and digitally transmitted video.⁸⁷ VHS tapes are no longer a viable alternative, as the image quality is extremely poor and commercial distribution ceased in 2008.⁸⁸ As the Register anticipated, new forms of digital distribution have arisen—and even dominated—since the last rulemaking.⁸⁹ One such form of digital distribution is AACS-protected Blu-Ray. Thus, we now request access to Blu-Ray because an exemption covering only DVD and digitally transmitted video is no longer sufficient to reflect the realities of today’s evolving digital environment.

⁸⁴ *Id.*

⁸⁵ *Id.* at 57.

⁸⁶ 2012 Recommendation at 136.

⁸⁷ See Appendix C, Berger Statement.

⁸⁸ 2012 Recommendation at 131 (citing P7D (Joint Filmmakers) at 1).

⁸⁹ *Id.* at 57.

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), all three of the requested formats are protected by a form of DRM that authors reasonably fear is covered by the DMCA.

In an increasing number of cases, motion picture materials are available exclusively on only one of these formats, as we demonstrate at Appendix E⁹⁰ Thus, there is no viable alternative for accessing the specific and necessary motion picture material without circumvention.

iii. If Alternative Formats are Available, The Register Considers Whether Alternative Formats are Sufficient to Accommodate Noninfringing Uses.

No alternative format to the proposed formats—Blu-Ray, DVD, and digitally transmitted video—is available that will be sufficient to accommodate the noninfringing uses authors desire to make. In Part VI.B., we demonstrate that various encryption measures are constantly evolving. In previous rulemakings, the Register acknowledged that alternative means to circumvention are impracticable, even for those who tend to possess some expertise with video technology and relevant software.⁹¹ These alternative measures are even more impracticable for e-book authors than for filmmakers because e-book authors generally have less financial resources and less exposure to and expertise with relevant video technology.

Alternatives to circumvention are also impracticable due to the upgrade in technical requirements and consumer expectations from SD to HD, as we explain above at Part IV.

iv. Whether the Format is Part of a “Use-Facilitating” Business Model that Offers the Public Access to Work in a Variety of New Ways and Whether the Proposed Exemption would Prejudice this Model.

The TPMs on Blu-ray, DVD, and digitally transmitted video are, by definition, use-limiting. TPMs restrict public access to copyrighted materials, particularly in the case of critical reviews and commentary. Our request seeks a narrow, well-defined, and incremental class limited by both use and user. 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 2012 exemption for multimedia e-book authors caused no harm to the public availability of motion pictures, neither would our proposed exemption. 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.⁹² Furthermore, the incremental structure of the

⁹⁰ See Appendix E, Material Available Exclusively on Blu-ray or DTV.

⁹¹ 2010 Recommendation at 59 (stating, “It is specious to suggest that such an alternative means of copying CSS-protected DVDs is a reasonable substitute for circumvention.”); 2012 Recommendation at 65268 (“clip licensing was not a reasonable alternative, as the scope of content offered through reasonably available licensing sources was far from complete; 2012 NTIA Letter at 16.

⁹² 2012 NTIA Letter at 17 (citing Filmmakers’ Comment, Section (III)(C)(iii))

proposed class will ensure that filmmakers only obtain material from a digital transmission service only when necessary.

Furthermore, studies show that TPMs have not reduced piracy.⁹³ Rightsholders appear to use TPMs to finely tuned permitted uses. For example, many videos are available on the streaming service Hulu. Streaming some material is free on a computer but the same material comes with a fee for use on a mobile device.⁹⁴ In general, rightsholders appear to be using TPMs to control how their material is used—despite the guarantees that fair use is supposed to provide. For example, a growing number of rightsholders are successfully persuading content users to sign licensing agreements in lieu of allowing fair use.

Thus, this exemption would allow e-book authors to use material that they should be able to access under fair use, which ultimately allows the public greater access to new uses. Rather than upsetting any “use-facilitating” business model, this exemption would allow the public greater access to the works that are currently protected by TPMs.

Finally, we know of no evidence that the “use-facilitating” business model is affected by whether or not TPMs are broken.

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

In previous rulemakings, the Register found that this factor either is neutral or weighs in favor of crafting a class that includes use in multimedia e-books 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.”⁹⁵

Multimedia e-books have a similar educational value and are intrinsically archival. Many multimedia e-books are created as a teaching tool and they can be used as a reference and resource. Every level of education can benefit from high-quality multimedia e-books featuring a range of fair uses that will only be possible if this exemption is granted.

⁹³ Pamela Samuelson, *DRM {AND, OR, VS.} THE LAW*, 46 COMM. OF THE ACM 4, 41 (April 2003); J. Alex Halderman & Edward W. Felten, *Lessons from the Sony CD DRM Episode*, Center for Information Technology Policy Department of Computer Science Princeton University, <https://jhalderm.com/pub/papers/rootkit-sec06.pdf> (last visited Feb. 5, 2014).

⁹⁴ See *Help Center: Using Hulu.com on your phone or tablet browser*, HULU, (accessed Jan. 29, 2015), <http://www.hulu.com/help/articles/23875521>.

⁹⁵ 2010 Recommendation at 69.

C. 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.

Authors began the tradition of fair use to accomplish the purposes of criticism and comment.⁹⁶ Books are the quintessential repository for sustained scholarship and are the primary teaching tool at all levels of education. In 2012, the Register noted that this factor “is a critical consideration in relation to noncommercial videos, documentary filmmaking, multimedia e-book authorship, and educational uses. Each of these proposed categories seeks to enable criticism, comment, teaching, and/or scholarship. This factor therefore weighs strongly in favor of appropriately tailored exemptions to foster such uses.”⁹⁷

Since 2012, this argument has only strengthened. Multimedia e-book authors will propel the fair use tradition into the twenty-first 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. Such material is significantly more effective and dynamic than prose alone.

Our proposed exemption can help to facilitate a revolution in scholarship and contribute to a profound change in the way people learn and the way education is approached in the United States. The multimedia e-books that the proponents wish to create serve as compelling examples of such critical scholarship. If granted this exemption, many other scholars will have the opportunity to translate their research into multimedia e-books.

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

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.”⁹⁸ The Supreme Court has recognized that there is “no protectable 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.”⁹⁹ Harm cognizable under the Copyright Act consists of “market substitution” effects, not “criticism that merely suppresses demand.”¹⁰⁰ Indeed, in 2012 the Register concluded that transformative uses are “unlikely to affect [or supplant] the relevant markets for the original work.”¹⁰¹ This has not changed since the doctrine of transformativeness was adopted and is not likely to change in the foreseeable future.

Furthermore, we are not aware of any allegations that previous exemptions pertaining to DVDs have resulted in infringing uses. This confirms the logic underlying the requested

⁹⁶ *Folsom v. Marsh*, 9 F. Cas. 342 (C.C.D. Mass. 1841) (establishing the principle of “fair use.”).

⁹⁷ 2012 Recommendation at 136 (*emphasis added*).

⁹⁸ See 2012 Comment at 19 (citing Filmmakers’ Comment, Section (IV)(D) (3)(iv)).

⁹⁹ *Campbell v. Acuff-Rose Music, Inc.*, 114 S.Ct. 569, 592-94 (1994).

¹⁰⁰ *Id.*

¹⁰¹ 2010 Recommendation at 71; 2012 Recommendation at 136.

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. Berger, Ms. Buster, Professor Samuelson, and others engage in commentary, criticism, and analysis that reveals subtle, yet powerful, techniques used by authors.

Inclusion of copyrighted material in new works often increases the visibility of and appetite for the original material by bringing it to consumers' attention and highlighting the technique and skill involved. 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 noninfringing use.

E. Such Other Factors as the Librarian Considers Appropriate.

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.”¹⁰² 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.”¹⁰³

The same applies to the protection measures on the formats included in the class of works requested here. AACS on Blu-Ray is similar to both CSS on DVD, various encryption measures on digitally transmitted video, because each has the same purpose and effect.¹⁰⁴ Like in 2010, the TPMs at issue are not used to prevent unauthorized access or to conceal copyrighted material. Rather, they are being used to manage rights and to prevent the public from engaging in lawful, noninfringing, and fair uses. To the extent that TPMs are being used for anticompetitive purposes, this exemption should be granted to prevent unfair business practices.

This proposal asks for a narrow exemption that allows for fair use in multimedia e-books. It will not permit or encourage piracy or other illegal uses. Thus, this factor again weighs in favor of granting the exemption. Should this exemption fail, multimedia e-book authors will be prevented from engaging in their lawful right to make noninfringing fair use in their works.

VIII. INQUIRIES FROM THE COPYRIGHT OFFICE

A. “Whether the exemption should be limited to multimedia e-books containing film analysis or whether a broader exemption is warranted.”

We strongly oppose such a limitation. E-book authorship is wide ranging and we have provided examples, such as those from Pam Samuelson,¹⁰⁵ that may not constitute film analysis but

¹⁰² See 2012 Comment at 19 (citing Filmmakers' Comment, Section (IV)(D) (v)).

¹⁰³ 2010 Recommendation at 71.

¹⁰⁴ 2012 Recommendation at 126.

¹⁰⁵ See discussion at Part VII.D.

nonetheless constitute valuable fair use. E-book authors, who vary from educators, to scholars, to commentators and journalists, need an exemption that embraces more than simply film analysis.

- B.** “Whether and how the need for an exemption has increased over the last three years due to ‘new authorship tools, sophisticated digital distribution networks, and widespread consumer adoption of e-book readers.’”

We address this question above in Part III.

- C.** “Any changed circumstances in the need for an exemption over the last three years, including whether any viable alternatives to circumvention have emerged or evolved during this period.”

We address this question above in Part IV.

- D.** “Whether the previously granted exemption has had an adverse effect on the marketplace for the accessed copyrighted works.”

We are not aware of any adverse effects, or even any allegations of such, on the marketplace for the accessed works due to the current exemption.

TABLE OF CONTENTS

APPENDIX A: ABOUT THE INDIVIDUAL COMMENTERS

APPENDIX B: STATEMENT OF BOBETTE BUSTER

APPENDIX C: STATEMENT OF MARK BERGER

APPENDIX D: STATEMENT OF ALEX PODOBAS

APPENDIX E: EXCLUSIVE BLUE-RAY AND EXTRA CONTENT

APPENDIX A: ABOUT THE INDIVIDUAL COMMENTERS

Bobette Buster is both a graduate of and Adjunct Professor in the University of Southern California Peter Stark Producing Program, where she created the first MFA curriculum for Feature Film and Television Development, The Art and Craft of Cinematic Storytelling. Her international lecture series, Deconstructing Master Filmmakers, has positioned her on the Guest Faculty of Pixar, Disney Animation, Disney Channel, Sony Animation, Twentieth Century Fox, the University of Milan, La Fémis (Paris), Screen Training Ireland, North By Northwest (Denmark), The Sundance Institute Latin American Lab (Oaxaca) and Media Business School (Spain).

She is frequently requested to create guest lectures for diverse groups on such subjects as Story Physics, The History of Hollywood Economics, Hard-Wired for Wonder, The Uses of Enchantment, Violence in Entertainment, The Purpose of Happily Ever After, Hollywood Economics 101, Epiphany, and The Ten Stages of Transformation. She is the author of DO STORY: How To Tell Your Story So The World Listens (Do Book Co., 2013).

Mark Berger is an Adjunct Professor of Film Studies at UC Berkeley, and a supervising rerecording sound mixer and sound editor. He teaches a very popular course giving students the vocabulary, history, concepts, and experience necessary for understanding a film soundtrack in real time, and a course in short narrative film production. He also taught courses about film sound in various countries abroad.

He has received four Academy Awards for uses of sound in film (Apocalypse Now, The Right Stuff, Amadeus, and The English Patient), and is 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.

Appendix B

Statement of Bobette Buster

busterfilms

BOBETTE BUSTER

I am Bobette Buster, a graduate (1989) and Adj. Professor of the University of Southern California's Peter Stark Producing Program since 1992, where I created the first MFA curriculum for Feature Film and Television Story Development. This course was based on my seven years experience working in Hollywood as a Creative Executive for A-level talent, including director Tony Scott (*Top Gun, Man on Fire*), writer Larry Gelbart (HBO, Emmy Best Film, *Barbarians At The Gate, Weapons of Mass Distraction*) and producer Ray Stark. I continue to consult on projects for the major Hollywood studios, and production companies worldwide. Since 2000, my lecture series "Deconstructing Master Filmmakers" has been requested yearly by Pixar Studios, Disney Animation, Sony Animation, Twentieth Century Fox, Catholic University of Milan, La Fémis (Paris), Screen Training Ireland, North By Northwest (Denmark). I have also guest lectured for the DO LECTURES (Great Britain), the Hay Literary Festival (Wales), Sydney Writers Festival, and for corporations, charities, and colleges around the world. I am also the author of DO STORY: How To Tell Your Story So The World Listens (Do Book Co., 2013), available on Amazon, iTunes, and in favorite bookstores. Currently, I am the writer and producer of the feature documentary, *MAKING WAVES: THE ART OF CINEMATIC SOUND*, (projected release 2016).

I plan to write an e-book series, based on my lecture series, "Deconstructing Master Filmmakers", based on my 22 years in cinema education, so that this body of knowledge can be disseminated democratically to students, filmmakers and cinemaphiles the world over. As is, I can only present this lecture series—which is a Keynote Presentation featuring numerous film clips—in live settings, to at most a couple hundred people a year.

I have discovered the following impediments to my putting the series of lectures in an e-book format:

The commonly accepted viewing standard of images on DVD is now HD or Blu-Ray. To use an analogy, Standard Definition is to monaural recordings in recorded music, television or cinema (a technology that became obsolete in the 1960s), what High-Definition or Blu-Ray is to stereo recording, moving now onto Dolby 5.1/Atmos today. Technological wonder drives the marketplace. The consumer expects, even demands the highest affordable quality of viewing and listening experience. As well, the lesser format of Standard Definition now scratches easily, or pixelates after repeated viewings, thereby making the selling of this item dubious.

In my live Keynote lectures, wherein I have embedded film clips, I use Standard Definition DVDs. I always have to preface my comments with, "In ideal viewing circumstances, you *would* see the following . . ." or, "Ideally, you *would* hear the following. . ." And then I have to describe fully what the class should be experiencing from the filmmaker's original vision.

It is worth noting that Hollywood films are renowned for costing millions to make. Each shot is labored over by a small army of highly experienced artisans, craftspeople, and technicians—from the cinematographer to production/art designer, lighting crew, sound, costume, props—all of whom *plus* the story of the film with their various expertises. One shot

can cost literally millions of dollars and take days to complete. Major beloved and talented directors take great pains orchestrate these shots, while also directing the actors. This is what the audience the world over has come to expect from this entertainment form. Why then would the studios want any of this work shown at a sub-standard level in any form?

As a professor, I can only teach live to about 200 people a year: from the University of Southern California where I am an Adjunct Professor, to my international status as Visiting Faculty at Catholic University in Milan, the Media Business School in Spain, La Femis in Paris, and Screen Training in Ireland (among many recognized film and business schools all over the world). In addition, I regularly guest lecture at Pixar Studios, Disney Animation, Disney Toons, Disney Channel and Sony Animation, as well as Twentieth Century Fox. Frequently, I am asked to guest lecture to corporate, charity, and religious groups about the Power of Storytelling, with groups ranging anywhere from 100, 400, or 1000 people. I am often in TED-talk like settings, whereby myself and the other lecturers are imparting our wisdom in 20-minutes, live before an audience. Each talk is taped for later viewing on the event holder's website. **Except mine**, because of copyright concerns. This means that none of my lectures can be seen by anyone other than in a live setting.

My lecture series has been accessible only with the Ivory Tower experience of USC, top film and business schools, and the Hollywood studios for now almost 25 years. The Studio System Network daily e-newsline has now commissioned me to give a series of talks to their subscribers (some 30,000+ Hollywood Insiders), in order to bring my information further to the masses.

The 4 part e-book series I am producing, "Deconstructing Master Filmmakers: The Uses of Cinematic Enchantment", requires the hiring of a graphic designer and specialist in e-book layout presentation. This is a personal expense I must make as no current publisher will invest in ebooks with film clips. In addition, I must buy E&O insurance. My initial outlay of expense is \$15,000 – 25,000 for this series. I am projecting 4 books for now, selling at \$9.99 each, or a series at \$27.99.

For my e-book series, I am working with a literary agency with extensive experience in this field. Their considerable advice is to use the Creatavist platform (www.creatavist.com). This platform allows authors to embed large digital film files in a more stable, consistent way. The author can then launch on the Creatavist app or on *one's own* app, with unlimited outputs. This means the files can be consistently overseen and managed in order to insure high-quality performance. Also – and this is important for Fair Use -- I can make the sure the film content shown is positioned correctly both with the surrounding text and voice-over, all laid out artfully by graphic designer, so that Fair Use is maintained. The issue is the size of the digital clips per book. They cannot exceed 1GB per book. Hence, the need for multiple books in the series.

After extensive research into the state-of-the-art e-book platforms now available, including Vook, the ideal platform for an ebook of this size (1 GB minimally) appears to be the iBook, distributed solely on iTunes. However, iTunes (Apple) has a somewhat opaque standard of what projects they will allow distributed on their platform, and have apparently been reluctant to get

into Fair Use film clips e-book territory. So investing in a graphic designer to lay out an iBook, using iAuthor, could be for naught, as iTunes may simply decide to not allow it to be published.

Within each of my four books, I highlight five separate films to demonstrate and illustrate my points. I plan to use up to twenty clips of varying lengths. Under the overall title, “Deconstructing Master Filmmakers: The Uses of Cinematic Enchantment”, this will be an on-going series with these initial four titles:

Book 1: Orchestrating Emotions: How Cinema Language Works

Book 2: The Artform of Transformation

Book 3: Theme as Character

Book 4: The Last Emotion

For example, in book one, I will be covering the story uses of cinematography. The following points exemplify what I will be illustrating:

- a. Gordon Willis, Honored Academy Award winning cinematographer for *The Godfather* series, is also known as The Prince of Darkness. Willis purposefully shoots in very low-light settings with one note of color—such as a bloody red rose or Kay Adams’ red dress. His cinematography choices are essential for understanding the story. In Standard Definition clips, it can be difficult, if not impossible after repeated uses to see the correct range of dark colors such as black, brown, and red.
- b. Roger Deakins, the cinematographer for the now iconic *The Shawshank Redemption* (director: Frank Darabont; Columbia Pictures), created a two-hour color palette for all the scenes to be shot in shades of blue-grey. All of the prisoners wore the exact same shade of blue-grey in their uniforms and even the prison walls were painted to match this color. This was to create the feeling of “institutionalization.” When Andy Dufresne, played by Tim Robbins, escapes, we see him drive away in a red convertible. The color red becomes the color of freedom and is only used three times in the film. When the character, Red, played by Morgan Freeman, is finally paroled after 40 years in prison, he travels—in a red Ford pick-up—to a vast green field with a heavenly green oak tree. Green becomes the color of hope. All of these color choices are purposefully orchestrated to create the powerful emotional effect of the film’s cathartic ending. When I use Standard Definition clips repeatedly, these colors become dulled, bleached, and even pixilated. This significantly dilutes the power of these scenes.
- c. In David Lynch’s masterful, *The Elephant Man* (Paramount Pictures), Freddie Francis, the cinematographer, created a black-and-white film showing very dark ranges of blacks-to-white until the Elephant Man (played by John Hurt) develops the confidence to speak for the first time. Then, the blacks became grey—lighter and brighter. At the film’s end, when the Elephant Man is dying, the film returns to the very dark blacks to emphasize the shining white of the pillows upon which the Elephant Man will rest his head to die. The cinematography directly plusses the story’s narrative theme, and can only be shown to explain its profound emotional impact. Again, after repeated viewings on Standard

Definition, a **wholly new DVD must be purchased**, because the viewing experience becomes be so distorted.

In the book about Last Emotion, I seek to show the power of various plot-lines that must come together to create the final emotional chord of the film:

- a. In Steven Spielberg's *ET: The Extra-Terrestrial* (Universal Pictures), the final heart-wrenching scene of ET and Eliot's parting is reinforced by ET's finger lighting up and touching Eliot's forehead. John Williams' brilliant score underscores this profoundly moving moment. In the Standard Definition clips I have, the figure of ET becomes so shiny and pixilated as to be laughable while the film score pops.
- b. In Tom Hooper's *The King's Speech* (Weinstein Company), the sound design is essential for underscoring the Duke of York's (played by Colin Firth) difficulty with public speaking. In addition, the Production Designer, Eve Stewart, has created awkward physical spaces where the Duke of York sits uncomfortably—such as Lionel Logue's (played by Geoffrey Rush) new Harley Street office, where the wallpaper has been stripped. These mottled walls reveal the inner life of the Duke—how exposed and ugly he feels with his very public stammer. Later we see the Duke walking through a low-lit cellar arguing with his brother, David, now King Edward VII. The Duke, overcome with stammering, hovers outside the grand room of partiers. These scenes are low lit with almost no ornamentation. This is used to set-up the overwhelmingly powerful experience of Buckingham Palace at the end of the film, when the Duke has now become King George VI. Now, we see him framed in white rooms with gold all around him. Lush, imposing wall tapestries, stately white-and-gold doors frame the King's every entrance. All this reveals his King's majesty, which has been the trajectory of the film. In the end, he must give the speech of a true King in order to embolden the people of his Empire to face another world war. And he must do this, live on radio, as he gathers the courage to speak without his stammer. And he succeeds. All these intricate reveals of the production design, lighting, sound design and cinematography are essential to illustrate in their cinematic fullness—i.e. using film clips, as they were intended by Tom Hooper, in order to immerse the audience fully into the story's full emotional narrative experience. Again, the Standard Definition clip is sub-standard to show these vagaries, often causing the sound to pop, and the colors to dull in substandard settings or just few viewings of the same DVD.

At the DMCA Hearing, on June 4, 2012, I provided a six and one-half minute Keynote Presentation of brief clips from my Cinematic Language series. Three film clips from Paramount Pictures/Francis Ford Coppola's *The Godfather* illustrate *juxtaposition*, the colliding of two opposing ideas to create a wholly new idea. In this film, Coppola always stages an innocent child next to a murderer to underscore the theme: how far would you go to protect your family? As I stated at the DMCA hearing in 2012:

Actually, it was D.W. Griffith who first understood this. It's the principle of editing. And he got this from Charles Dickens. Basically -- how do you create a big idea? You combine two colliding ideas, and that's what we call juxtaposition. So in 1972, Francis Ford Coppola in the *Godfather* decided to do the following. This little girl in white crosses over past Barzini. He's the uber villain of the

Godfather. What we're doing here is setting up a DNA in the story that every time you see a mafioso, you're going to see an innocent child, the question being, how far would you go to protect your family? In this world, you go as far as murder.

Three clips from Pixar Studios/John Lasseter's *Toy Story 2*, highlight the importance of visual design to communicate the importance of Theme: what it is to love yourself? In this case, we see the toy cowgirl, Jessie, being thrown away by her beloved owner (note: the dust under the bed reveals that Jessie has been there 10–15 years). As I showed in 2012:

So the next instance I want to show you is a turning point in Pixar's history. John Lasseter had given *Toy Story 1* to another director. When he saw it, he was devastated. He said it had no heart. He took it back. And Ed Catmull said, in the *Harvard Business Review*, that it was this scene, of which we're only going to see a minute out of four-and-a-half minutes, that was the turning point in Pixar's history. Notice, the reflection of Jessie. She has been thrown under the bed by her child. As it turns out, she will have been there perhaps 10 or 15 years. Notice the dust and, as the pink is taken out from under her, we turn to a world of autumn colors. There's even dust on her hat. And what we're learning here, as Bruno Bettelheim said in the *Uses of Enchantment*, is that fairy tales very necessarily psychologically prepare children for life's inevitable tragedies. In this sequence, the music is so sad, it's in direct contrast to the rest of the film which is in 18 blues and yellows and upbeat and fun. And what Jessie learns is what we all have to learn, that some day someone we love will throw us away. Our hearts will be broken. We'll be thrown into a nursing home. We will be abandoned. This is extremely important to the power of the entire film. And once they understood this, Ed Catmull said, that transformed Pixar's history, and they now have the greatest track record of blockbusters in history. But they forget you. And this is Woody's journey. At the very end of the film, he has to say to -- he's standing on the threshold of a window looking out at Andy, knowing he's going to grow up and go away to college. And Buzz says, well, what do you think about that? And he says, I'm going to cherish every day as long as it lasts. I'm going to love anyway. Such is the power of cinematic story-telling.

Finally, three clips from Universal Pictures/Steven Spielberg's *Schindler's List* illustrate the importance of The Power of Rhymes, cinema's fundamental storytelling tool that reveals emotional transformation, as well as the Big Idea. In *Schindler's List*, we see the theme: What are the uses of Industrialization? Again, as I stated in 2012:

And, finally, I'd like to talk about a concept called the power of rhymes. This is extremely important in cinema story-telling. In Steven Spielberg's tour de force film, *Schindler's List*, we have the concept of, what is the power of industrialization? Notice, this is a master shot, all in one sequence. As the camera dollies in and out, the lighting, Cartier-Bresson-like lighting, high key whites and darks. Notice, we can see the steam coming out of this, and we are watching in real time as a pot is made, and it's astonishing; it's wonderful, isn't it? And we are on the same wavelength as this man here who is -- who would have had a destiny

going to Auschwitz, but Schindler hired him just to bring him into his -- because he was cheaper -- to be in the factory. Now, this last shot we just saw, that's eight 8 seconds long. That is the fulcrum of the story. It proves that Schindler is going to be a huge success. He's got millions of pots and pans. He's going to make a lot of money with the SS. And, guess what? It shows the volume of industrialization. And then, in our final shot here, this is the shot we call the rule of threes that leads us to the emotional horror of Schindler's List. Because guess 16 who else had this idea of industrialization? Hitler. So in a rhyming shot of dollying, going in and out, very painstakingly with the same lighting gray scale we see how deliberate and intentional the process was for Hitler and the SS to eliminate an entire 6 million race of people. Its volume, industrialization. And what happens in cinema is all about the orchestration of emotions. What you want to do is take people from the opposite emotion first, which in this case was delight and wonder -- and now, as we're facing this and taking it in, we are waking up and going, oh, my God. And what we are on is the same wavelength as the jewelry appraisers we are about to meet -- and I want you to notice they're all wearing the gold Star of David. They're Jewish men working for the SS. And, finally, one man wakes up. We are on his wavelength. We are waking up to the horror of industrialization. And in this scene, which is a classic Spielberg scene, he makes it very clear now -- this is 50 minutes into the story -- what this film is about. And finally it climaxes -- because cinema is the art form of transformation -- in this. I saw a documentary shortly after World War II in which an SS officer said very matter-of-factly, you know, that the job of killing millions of people, it's a messy business, and the big problem is management because the men on the front line go crazy. So it's a management issue. You need to separate them from the problem. Hence the gas ovens. He said it very matter-of-factly. So what we need to do is, in the madness of this situation, you start asking, what should I have done? It's overwhelming. And in this case -- listen to this line of dialogue. Party, Auschwitz in one sentence. That's juxtaposition, and that's horrifying. What could one person do? And so what Spielberg does -- what he's foreshadowed is he shows a little girl with a red coat, and she's now dead. We had seen her once before alive. She is Schindler's conscience, and at this moment he wakes up. In this scene, we go from madness to enlightenment. And that's what cinema does best.

It should be noted that reading these concepts herein is nowhere near as demonstrative, enlightening, and entertaining as the actual experience of seeing the clips along with my lecture. My lecture visually demonstrates what an e-book could provide for the learning experience of potentially thousands of e-readers as opposed to around 200 people live per year.

Sincerely,



Bobette Buster

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Appendix C

Statement of Mark Berger

FEBRUARY 5, 2015

I am an Adjunct Professor of Film Studies at UC Berkeley, and a supervising rerecording sound mixer and sound editor. I have won four Academy Awards for uses of sound in film (*Apocalypse Now*, *The Right Stuff*, *Amadeus*, and *The English Patient*). I have 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. My craft is about subtlety, not the sheer power of loud soundtracks.

I have been an Adjunct Professor of Film Studies at UC Berkeley for the past 15 years, teaching a very popular course giving students the vocabulary, history, concepts, and experience necessary for understanding a film soundtrack in real time, and a course in short narrative film production. I have also taught courses about film sound in Ireland, Chile, Argentina, Brazil, Canada, Israel, Spain, The Republic of Georgia, and Iceland.

I am developing an E-book series *Listening to Movies* will explore in detail the many uses of sound and how it relates to the film's moving images. Moviegoers are very sophisticated visually, expecting ever more elaborate and stunning visual effects and rapid cutting techniques. However, there is an almost equal naiveté about the workings of film sound. The E-book series *Listening to Movies* is intended to reveal a new dimension to understanding movies, by exploring in detail the many uses of sound and how they relate to the images. I will present the concepts and vocabulary necessary to analyze the inner workings of a film soundtrack. The first book will concern production and post-production: script, camera, set design, directing, lighting, sound, editing, and mixing. The second will focus on understanding sound: history, analysis of image and sound, genres, and directors.

My analytical approach is based on how film soundtracks are constructed in the industry. A soundtrack is divided into Dialogue, Music, and Effects. Many film clips are used to illustrate vocabulary and concepts in each area. For example, I want to demonstrate how the use of background dialogue can subtly influence the emotional development of a scene. This is perfectly illustrated by a short clip from *Citizen Kane*, where the sonic environment of a scene in a newsroom is established from the beginning as busy and bustling, where all the reporters in the background are typing and talking on the telephone. As an argument between Kane and a supporter heats up, the reporters stop their activity and start to listen to the heated discussion. This is all conveyed by a change in the background dialogue, without any shots showing the pause in activity. The tension of the argument is thus increased solely by the use of background dialogue.

As descriptive as these words are, they cannot approach the usefulness of actually seeing and hearing the scene as it was intended to be heard. The importance of "show me, don't tell me" cannot be overemphasized. It is said that "A picture is worth a thousand words", but I would maintain that no quantity of words can be worth the actual experience of standing in front of the Mona Lisa, or listening to a Beethoven symphony. Sounds and images affect us differently when experienced through hearing or seeing, as opposed to imagined while reading. A verbal

description of sounds relating to images has minimal value when compared to experiencing the real thing.

There is an appropriate quote, variously attributed to Clara Schumann, Frank Zappa, Elvis Costello, Thelonius Monk, and Miles Davis, among others: “Writing about music is like dancing about architecture.” Which is to say that each art form has to be experienced through its own sense modality. Music has to be heard, and you have to be in a building to experience it, and film has to be seen and heard to be best understood.

Film editors and sound designers always start with the highest resolution and fidelity format and then use that as a basis for creating content for release in other formats. For example, in sound, they may start in 5.1 format, then remix to 35mm Dolby stereo, and then to mono.

A major problem with lower-fidelity formats is that they utilize increasing degrees of compression. Compression sacrifices the video and audio quality. In other words, the higher the compression ratio, the more unwanted *artifacts* are introduced into the image and sound. Artifacts can manifest as strange or jerky movement on the screen, non-continuous variation of contrast, like seeing bands of colors in a sunset (instead of a smoothly colored sky), smearing of the image when the camera pans, or distortion, loud snaps, repeating sections, or dropouts in the sound.

For all the above reasons, it is essential that, when developing my e-book, I need to be able to access the highest-quality source material available.

Appendix D

Statement of Alex Podobas

STATEMENT OF ALEX PODOBAS

FEBRUARY 4, 2015

Biography

Alex M. Podobas is a senior information security analyst for the UCLA Information Security Office and Juris Doctor candidate at the University of California, Irvine School of Law. He specializes in analyzing web applications and networks for security vulnerabilities, developing applications to parse “Big Data” sets to analyze anomalous security events, and reviewing web applications, databases, and other cloud-related technologies for compliance with federal and state data privacy statutes.

This statement presents his analysis alone and does not represent in any way the opinions of the University of California, Los Angeles or any other organization or person.

Introduction

The number of software tools and services specifically built to deliver media content online has risen as the Internet has increasingly become a distribution system for video streaming. The combination of technologies that combine high-performance data streaming with security are designed to empower content holders to distribute, but retain control, over their intellectual property. Encryption measures are routinely integrated into online distribution platforms to protect digital video files during storage and transmission.

1. How online distribution systems work

At a basic level, online video streaming involves four discrete steps:

- (1) A user (the “client”) visits a source that hosts video content. This may be a web application like Netflix, a software application like iTunes, or a webpage with embedded video content (such as a YouTube video);
- (2) The source sends a request to itself or, more typically, a media server that requests a specific media file;
- (3) The media server opens a connection directly with the client device or streams the file back through the requesting web server
- (4) The client’s device decodes and plays the file. The client is responsible for managing the playback quality and, if requested, decrypting video content from the server. Examples of the client’s device software include Apple’s QuickTime player or Google’s YouTube mobile application.

The methods by which the video is streamed in step 3 can employ a wide variety of protocols. RTP (real-time transfer protocol), RTSP (real-time streaming protocol), or RTCP (real-time transport control protocol), or HTTP live-streaming protocol are common technical choices used to transfer video content for client playback. Encryption can potentially occur in two places: first, in “transit,” second, in “storage.” The former most typically refers to any network responsible transporting data between an end or intermediate source to the client. The latter pertains to where the data is held after it reaches the client and is occasionally referred to “data in rest.”¹

2. Encryption mechanisms used in online distribution systems vary across platform, device, browser, and provider.

Developers and institutions have vast choice in selecting differing technical protocols to stream online video and in encrypting streamed content. Examples of several popular platforms are illustrated in this section. The diversity of options illustrates that online video distribution systems perform a similar task, but differ widely in technical implementation across operating system platforms and software applications used to facilitate video playback.

2.1: iTunes

Apple’s developer tools make HTTP streaming available for third-party applications on its iOS and iTunes platforms. This technology provides delivery of video content to a customer’s device and features media file encryption in both storage and transmission.

First, each media file (in this case, videos) may be individually encrypted in storage. Playing an encrypted video file on the client-side device (such as a customer’s Apple iPad tablet) is completed by accessing decryption keys. Apple’s API provides three methods for developers to decrypt protected content: 1) a static key; 2) a randomly generated key for the entire file; or 3) a randomly generated key for segments of the video file.

Second, Apple employs industry-standard protections to encrypt content in transmission over HTTPS. Each client-side device connects to the upstream video provider over a connection protected by SSL (secure socket layer) that implements an AES 128-bit encrypted file using 16-octet keys. This prevents streamed content from being intercepted with “Man-In-The-Middle” attacks because the client connects to a server it trusts, with the server identified by a trusted SSL certificate.

2.2: HTML5 video and MediaSource Extensions

The HTML Working Group (a collaboration of major technology companies seeking to define standards for web-based technologies) supports HTML5 as the standard for online

¹ https://www.owasp.org/index.php/Cryptographic_Storage_Cheat_Sheet

video playback. HTML5 is a standard for embedding video onto web pages or client applications using the <video> tag. It finds support in Internet Explorer 9.0+, Firefox 3.5+, Safari 3.0+, Chrome 3.0+, Opera 10.5+, iPhone 1.0+, and Android 2.0+. HTML5 does have encryption capabilities, but the standard is still being developed by the World Wide Web Consortium (W3C).²

2.3: Netflix and HTML5 Video

In 2013, Netflix announced that the company's technical mechanism to securely stream video content, Microsoft Silverlight, would be replaced by a newer solution in light of Microsoft's decision to end-of-life the Silverlight software in 2015. In the future, Netflix will employ HTML5 streaming video for playback to replace Silverlight for all use cases. As of January 31st, 2015, Netflix still offers video streaming with either Silverlight or HTML 5 video.

In conjunction with its migration to HTML5, Netflix announced a new encryption technology named "Message Secure Layer" (hereafter "MSL") in October, 2014. Netflix makes the MSL source code freely available on GitHub under an Apache 2.0 license. As of January 31, 2015, the MSL project and source code are both hosted at: <https://github.com/Netflix/msl>. MSL seeks to protect streaming content from fundamental security issues associated with the SSL/TLS protocols discovered within the past 5 years as well as to provide faster performance and content delivery.

MSL is a security architecture developed by Netflix and used by the company to encrypt its digitally delivered videos to customers. It is not a distinct software application. Instead, different software applications (including Netflix) utilize MSL to permit different client devices (e.g. – Netflix on the Google Chrome web browser) to integrate with different authentication services (e.g. – a Netflix user account or DRM license) to encrypt the contents of delivered data (e.g. - Netflix streaming video). Therefore, MSL is best regarded as a messaging protocol that provides encryption protections that can be used to transport data between two or more communicating entities

MSL was developed and is deployed by Netflix to implement the following, broad security objectives:³

- **Integrity protection.** Messages in transit are protected from tampering.
- **Encryption.** Message data is protected from inspection
- **Authentication:** Messages can be trusted to come from a specific device and user
- **Non-replayable.** Messages containing non-idempotent data can be non-replayable.

Communications secured by MSL (such as Netflix streaming video) utilize the JavaScript API named "Web Crypto" to for performing basic cryptographic operations in web applications, such as hashing, signature generation and verification, and encryption and

² <http://arstechnica.com/business/2013/05/drm-in-html5-is-a-victory-for-the-open-web-not-a-defeat/>

³ <http://techblog.netflix.com/2014/10/message-security-layer-modern-take-on.html>

decryption.

A typical MSL message consists of a header and one or more application payload chunks. Each chunk is individually protected which allows the sender and recipient to process application data as it is transmitted. A message stream may remain open indefinitely, allowing large time gaps between chunks if desired. Each MSL message is associated with an entity (One of the participants in a MSL communication). Cryptographic keys associated with the entity are used to authenticate the entity and integrity protect the message. Data, whether confidential or not, is typically encrypted during transport using cryptographic keys associated with the entity, but non-confidential data may also be transmitted without encryption. Messages are optionally associated with a user by including data that can be used to authenticate the user. Messages are optionally protected against replay through the use of a non-replayable ID synchronized between the communicating entities.”⁴

3. Encryption mechanisms in online distribution systems are constantly changing.

In recent years, online video distributors have been implementing a categorical shift from Adobe’s Flash Player to HTML5-based video. Driven in part by widespread support for common web standards between different software platforms, cloud-based architectures, web browsers, and other client applications, the shift to support and prefer HTML5 video illustrates how fundamental shifts can be rapidly achieved for consumers. Furthermore, some technology companies have developed their own, in-house solutions for more discrete control over security and performance in digital content distribution. Netflix was built upon online video streaming, and elected to create the MSL architecture and cryptographic library for its own purposes. YouTube abruptly announced on January 27th, 2015 that HTML5 video and support for MediaSource Extensions will be its default video choice.⁵ These innovations exemplify a continuous uncertainty as to which technical protocols will be used or even available from year to year.

Online distribution systems for video are varied in the choice of technology related to streaming and content protection protocols. However, the examples above illustrate common implementations that individually represent the same goal of online video delivery.

⁴ <https://github.com/Netflix/msl/wiki>

⁵ http://youtube-eng.blogspot.jp/2015/01/youtube-now-defaults-to-html5_27.html

Appendix E

Exclusive Blu-ray and Extra Content

A. Exclusive Blu-Ray and Extra Content

Below is a list of films only available on Blu-ray and descriptions of extra contents exclusive to Blu-ray (e.g., director's commentary, interviews, blogs, deleted scenes, and behind-the-scenes footage). The list is not exhaustive, but illustrative of the amount of extra content available on Blu-ray compared to DVD.

Title	Year	Exclusive Content Description (if available)
Beat the Devil	2008	Only available on Blu-ray (http://www.blu-ray.com/movies/movies.php?studioid=64)
Eye on Extreme Monster Trucks		Only available on Blu-ray (http://www.blu-ray.com/movies/movies.php?studioid=64)
Eye on Extreme Professional Bull Riding	2008	Only available on Blu-ray (http://www.blu-ray.com/movies/movies.php?studioid=64)
Jack & The Beanstalk	2008	Only available on Blu-ray (http://www.blu-ray.com/movies/movies.php?studioid=64)
Marvel'S Guardians Of The Galaxy	2014	Audio commentary, visual effects, deleted and extended scenes, exclusive trailer, gag reel, and documentary. (http://www.blu-ray.com/movies/Guardians-of-the-Galaxy-3D-Blu-ray/79118/)
Terminator Anthology	2013	Visual effects and music, audio commentary, deleted scenes, trailers, downloadable content through BD-Live (Blu-ray online feature). (http://www.blu-ray.com/movies/The-Terminator-Anthology-Blu-ray/51917/)
The Resident Evil Collection	2012	Alternate ending, behind the scenes footage, deleted scenes, filmmaker and cast commentaries, music video, outtakes, and zombie special effects make-up. (http://www.bestbuy.com/site/resident-evil-blu-ray-disc-5-disc-boxed-set/7025116.p?id=2625859&skuId=7025116)
Harry Potter Hogwarts Collection	2014	Deleted scenes, making of Harry Potter documentary, extended scenes, and interviews. (http://www.blu-ray.com/movies/Harry-Potter-Hogwarts-Collection-Blu-ray/92712/)
Bond 50: The Complete 23 Film Collection with Skyfall	2013	The World of Bond montage; Being Bond, analysis of actors who played James Bond, Videoblogs (http://www.blu-ray.com/movies/Bond-50-Blu-ray/81677/)

Fight Club 10th Anniversary Edition	2009	Audio commentaries, interactive search function, scene audio remix, footage of Mel Gibson, behind the scenes, deleted and alternate scenes, publicity material, and art gallery. (http://www.blu-ray.com/movies/Fight-Club-Blu-ray/5587/)
Gone with the Wind 70th Anniversary Collector's Edition	2009	Audio commentary, documentaries, featurettes, vintage footage, a book, and soundtrack CD. (http://www.blu-ray.com/movies/Gone-with-the-Wind-Blu-ray/758/)
Zodiac Director's Cut	2014	Director and actor commentaries, documentary on the history of the production, visual effects, computer-generated three scenes, and trailers. (http://www.blu-ray.com/movies/Zodiac-Blu-ray/458/)
Blade Runner 5-Disc Complete Collector's Edition	2007	Audio commentaries, documentaries, deleted scenes, alternate scenes, vintage featurettes, theatrical trailers, and screen tests. (http://www.blu-ray.com/movies/Blade-Runner-Blu-ray/545/)
Sleeping Beauty 50th Anniversary Platinum Edition	2014	Audio commentary, song selection, interviews, music video, games and activities, alternate opening, deleted songs, art galleries, cut material, and promotional goodies. (http://www.blu-ray.com/movies/Sleeping-Beauty-Blu-ray/555/)
Frozen, Collector's Edition	2014	Documentary of the film's history and eventual production, behind the scenes, deleted scenes, music videos, animated short, and original teaser trailer. (http://www.blu-ray.com/movies/Frozen-Blu-ray/56784/)
The Wizard of Oz 70th Anniversary Collector's Edition	2009	Audio commentary, documentaries, deleted scenes, original song recordings, still galleries, actor biographies, storybook, 4K digital restoration sample, various music tracks in different formats, radio show, radio promo, and trailers. (http://www.blu-ray.com/movies/The-Wizard-of-Oz-Blu-ray/6366/)
*Any Pixar Title	Varies	Documentaries, featurettes, short films, and interactive content. (http://www.soundandvision.com/content/100-best-blu-ray-discs-best-extras)
Sin City	2014	Behind the scenes, interviews with actors and director, 15-minute film school education, and hyper-screen version of the movie in green.

		(http://www.soundandvision.com/content/100-best-blu-ray-discs-best-extras)
Star Trek: The Compendium	2014	Gag reels, behind the scenes, the cast and crew interviews, trailers, prank scenes, audio commentaries, and documentaries. (http://www.blu-ray.com/movies/Star-Trek-The-Compendium-Blu-ray/107044/)

* This list is not exhaustive. Major retailers like Target, Best Buy, Walmart, and Amazon each have some exclusive distribution rights for new Blu-ray releases.

B. Exclusive Digitally Transmitted Videos

Below is a list of original network programs currently only available on digital cable and satellite television as of February 6, 2015. The list is not exhaustive but illustrative of diverse shows produced by major networks. Some shows that will be subsequently released on DVD and Blu-ray are generally released four to six months after the season finale.¹

Title	Genre	Network	Year Released	Content Source
Game of Thrones	Drama	HBO	2011	http://www.hbo.com/#/game-of-thrones
True Detective	Drama	HBO	2014	http://www.hbo.com/true-detective#/
The Leftovers	Drama	HBO	2014	http://www.hbo.com/the-leftovers#/
The Comeback	Comedy	HBO	2014	http://www.hbo.com/the-comeback#/
Girls	Comedy	HBO	2012	http://www.hbo.com/girls#/
Veep	Comedy	HBO	2013	http://www.hbo.com/veep#/
Getting On	Comedy	HBO	2013	http://www.hbo.com/getting-on#/
Looking	Comedy	HBO	2014	http://www.hbo.com/looking#/
Silicon Valley	Comedy	HBO	2014	http://www.hbo.com/silicon-valley#/
Togetherness	Comedy	HBO	2015	http://www.hbo.com/togetherness#/
Hard Knocks	Sports Documentary	HBO	2001	http://www.hbo.com/hard-knocks#/
Real Time With Bill Maher	Unscripted	HBO	2003	http://www.hbo.com/real-time-with-bill-maher#/
Last Week Tonight with John Oliver	Unscripted	HBO	2014	http://www.hbo.com/last-week-tonight-with-john-oliver#/
Vice	Unscripted	HBO	2013	http://www.hbo.com/vice#/
HBO World Championship Boxing	Unscripted	HBO	1973	http://www.hbo.com/boxing#/
Real Sports with Bryant Gumbel	Unscripted	HBO	1995	http://www.hbo.com/real-sports-with-bryant-gumbel#/
Boxing After Dark	Unscripted	HBO	1996	http://www.hbo.com/boxing#/
24/7	Unscripted	HBO	2007	http://www.hbo.com/sports#/
Masterclass	Unscripted	HBO	2010	http://www.hbo.com/documentaries/master-class#/
The Fight Game with Jim Lampley	Unscripted	HBO	2012	http://www.hbo.com/the-fight-game-with-jim-lampley#/
Homeland	Drama	Showtime	2011	http://www.sho.com/sho/homeland/home

¹ E.g., Jen Chaney, *An Ever-Shorter Leap From Theater to DVD*, The Washington Post, (February 3, 2015), <http://www.washingtonpost.com/wp-dyn/articles/A26877-2005Mar11.html>; e.g., <http://www.bluray.com/movies/releasedates.php>.

Ray Donovan	Drama	Showtime	2013	http://www.sho.com/sho/ray-donovan/home
Masters of Sex	Drama	Showtime	2013	http://www.sho.com/sho/masters-of-sex/home
Penny Dreadful	Drama	Showtime	2014	http://www.sho.com/sho/penny-dreadful/home
The Affair	Drama	Showtime	2014	http://www.sho.com/sho/the-affair/home
Shameless	Comedy	Showtime	2011	http://www.sho.com/sho/shameless/home
Nurse Jackie	Comedy	Showtime	2009	http://www.sho.com/sho/nurse-jackie/home
Episodes	Comedy	Showtime	2011	http://www.sho.com/sho/episodes/home
Web Therapy	Comedy	Showtime	2011	http://www.sho.com/sho/web-therapy/home
House of Lies	Comedy	Showtime	2012	http://www.sho.com/sho/house-of-lies/home
The Green Room with Paul Provenza	Talk Show	Showtime	2010	http://www.sho.com/sho/the-green-room-with-paul-provenza/home
Inside Comedy	Talk Show	Showtime	2012	http://www.sho.com/sho/inside-comedy/home
Showtime Boxing	Sports	Showtime	1986	http://www.sho.com/sho/sports/home
ShoBox: The New Generation	Sports	Showtime	2001	http://www.sho.com/sho/schedules/titles/134845/the-new-generation#/index
The Franchise	Sports	Showtime	2011	http://www.sho.com/sho/the-franchise/home
All Access	Sports	Showtime	2011	http://www.sho.com/sho/all-access/home
Jim Rome on Showtime	Sports	Showtime	2012	http://www.sho.com/sho/jim-rome-on-showtime/home
60 Minutes Sports	Sports	Showtime	2012	http://www.sho.com/sho/60-minutes-sports/home
Polyamory: Married & Dating	Documentary	Showtime	2012	http://www.sho.com/sho/polyamory-married-and-dating/home
Oliver Stone's Untold History of the United States	Documentary	Showtime	2012	http://www.sho.com/sho/oliver-stones-untold-history-of-the-united-states/home
Gigolos	Documentary	Showtime	2011	http://www.sho.com/sho/gigolos/home
Time of Death	Documentary	Showtime	2013	http://www.sho.com/sho/time-of-death/home
Da Vinci's Demons	Drama	Starz	2013	http://www.starz.com/originals/davincisdemons
Black Sails	Drama	Starz	2014	http://www.starz.com/originals/black sails
Power	Drama	Starz	2014	http://www.starz.com/originals/power
Outlander	Drama	Starz	2014	http://www.starz.com/originals/outlander

The Missing	Drama	Starz	2014	http://www.starz.com/originals/the-missing
Survivor's Remorse	Comedy	Starz	2014	http://www.starz.com/originals/survivorsremorse
Starz Inside	Unscripted	Starz	2007	http://www.starz.com/titles/starzinsidecomicsonscreen/1666
The Chair	Unscripted	Starz	2014	http://www.starz.com/originals/the-chair
American Horror Story	Drama	FX	2011	http://www.fxnetworks.com/shows/american-horror-story/about
The Americans	Drama	FX	2013	http://www.fxnetworks.com/shows/the-americans/about
Fargo	Drama	FX	2014	http://www.fxnetworks.com/shows/fargo/about
Tyrant	Drama	FX	2014	http://www.fxnetworks.com/shows/tyrant/about
The Strain	Drama	FX	2014	http://www.fxnetworks.com/shows/the-strain/about
Louie	Sitcom	FX	2010	http://www.fxnetworks.com/shows/louie/about
Married	Sitcom	FX	2014	http://www.fxnetworks.com/shows/married/about
Archer	Animation	FX	2009	http://www.fxnetworks.com/shows/archer/about
Strike Back	Drama	Cinemax	2011	http://www.cinemax.com/strike-back/
Banshee	Drama	Cinemax	2013	http://www.cinemax.com/banshee/
Knick	Drama	Cinemax	2014	http://www.cinemax.com/the-knick/
Mad Men	Drama	AMC	2007	http://www.amctv.com/shows/mad-men
The Walking Dead	Drama	AMC	2010	http://www.amctv.com/shows/the-walking-dead
Hell on Wheels	Drama	AMC	2011	http://www.amctv.com/shows/hell-on-wheels
TURU: Washington's Spies	Drama	AMC	2014	http://www.amctv.com/shows/turn
Halt and Catch Fire	Drama	AMC	2014	http://www.amctv.com/shows/halt-and-catch-fire
Talking Dead	Unscripted	AMC	2011	http://www.amctv.com/shows/talking-dead
Comic Book Men	Unscripted	AMC	2012	http://www.amctv.com/shows/comic-book-men