Exmo. Sr. Presidente da Comissão de Assuntos Constitucionais, Direitos, Liberdades e Garantias,

Assunto: Envio de Documentação usada na audiência de 10 de Julho de 2003

A Associação Ensino Livre vem por este meio enviar, em anexo, os dois documentos referidos na audiência.

O primeiro documento, em anexo, é um estudo de Paul J. Heald da *University of Illinois College of Law; Bournemouth University - Centre for Intellectual Property Policy & Management*, e gostaríamos de chamar a atenção para o gráfico da página 15 que indica que o potencial económico das obras em domínio público é muito elevado. O autor do estudo observou que no Outono de 2012, existiam três vezes mais novas edições de obras da década de 1850, do que novas edições da década de 1950.

Este estudo demonstra que devemos proteger o domínio público. Vários outros autores têm estudado a importância do domínio público, entre os quais destacamos James Boyle (Duke Law School - http://www.thepublicdomain.org/) e Rufus Pollock (Centre for Intellectual Property and Information Law at the University of Cambridge - http://rufuspollock.org/economics/).

O segundo documento, em anexo, foi enviado ao Sr. Secretário de Estado da Cultura em Fevereiro de 2013, juntamente com um pedido de audiência por parte da AEL. A resposta dada pelo gabinete do Sr. Secretário de Estado da Cultura aos Srs. Deputados do CDS-PP, Michael Seufert, Inês Teotónio Pereira e José Ribeiro e Castro, sobre a questão das medidas tecnológicas de protecção, deixou-nos particularmente apreensivos, pelas informações e conclusões inexactas. Neste documento que agora enviamos fazemos uma apreciação dessas informações, justificando com exemplos reais.

Pedimos apenas que os Srs. Deputados considerem que o contexto deste documento, que enviamos em anexo, é o da cópia privada. A posição da AEL sobre a taxa da cópia privada é de não concordância por dois motivos:

1. A partir de 2004, a lei deixou de garantir na prática a cópia privada, através do DRM;

2. Nunca ninguém provou que a cópia privada representa um prejuízo suficientemente grande para existir uma compensação. E há mesmo casos em que a cópia privada serve para aumentar as vendas das obras (exemplo: Amazon AutoRip).

Por último, reiteramos que os dois projetos de lei agora em discussão não alteram direitos (não aumentam as utilizações livres, não colocam as obras em domínio público, nem colocam as obras financiadas com dinheiro público em acesso aberto), apenas garantem que as utilizações livres, as utilizações permitidas pelo domínio público e pelo acesso aberto possam ser praticadas. No fundo, garantem que o DRM não continue a ser utilizado para contornar a lei.

Os nossos cordiais cumprimentos,

Paula Simões

Direção

Associação Ensino Livre

http://ensinolivre.pt

# Anexo ao Pedido de Audiência

**1. Não é verdade que "desde 2004, até hoje, foi formulado um pedido por beneficiários para usufruir de tal meio".**

Entre 22/09/2008 e 21/10/2008, Paula Simões contactou a IGAC, por email e por telefone, pedindo acesso a estes meios, sem qualquer sucesso.

Entre 29/07/2007 e 29/11/2008, Marcos Torres pediu acesso a estes meios à IGAC, por vários meios até chegar à comunicação directa com a Inspectora-Geral Paula Andrade.

A Associação Ensino Livre está em condições de apresentar, quer os emails recebidos da IGAC por Paula Simões, quer a carta recebida da IGAC, com o identificador "Of. nº5010/DSJC/2008", por Marcos Torres, encontrando-se assim em condições de provar que houve pelo menos dois pedidos por beneficiários para usufruir de tal meio e não um, como lhe foi transmitido.

Acrescenta-se que no dia 13 de Maio de 2011, a AEL reuniu com o Sr. inspector-Geral da IGAC, onde demonstrámos que as obras com DRM impediam as utilizações livres, incluindo até a visualização das obras, e onde nos foi dito que a IGAC não tinha nenhum depósito dos meios referidos concordando que este problema dos cidadãos estarem impedidos de realizar as utilizações livres por causa do DRM tinha de ser resolvido.

Ficaram de nos dar uma resposta, o que nunca veio a acontecer.

**2. No ponto 4, do documento é avançada, como explicação do número residual de depósitos e pedidos, a seguinte:**

**"Poderá significar (o que nos parece mais plausível) que a utilização de medidas eficazes de carácter tecnológico por parte dos titulares de direitos é, predominantemente, por forma a não impedir o acesso a utilizações livre previstas na lei."**

A explicação mais plausível para o número residual de depósitos e pedidos é o facto das pessoas neutralizarem as medidas tecnológicas de protecção, não se importando com o facto de estarem a violar a lei, para poderem fazer as utilizações livres.

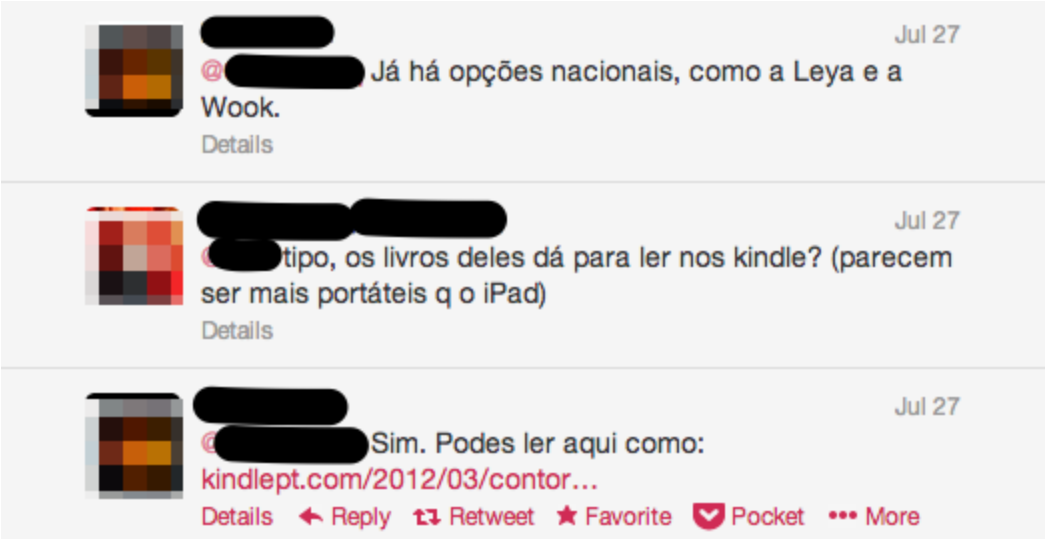
Na verdade, sempre que sai um novo sistema de medidas tecnológicas de protecção, ele é neutralizado

numa questão de horas, no máximo dias. Depois, são disponibilizados na Internet software e instruções simples de como replicar essa neutralização. Na grande maioria das vezes, as obras cujas medidas foram neutralizadas são também disponibilizadas na Internet. O cidadão sem competências tecnológicas só precisa de fazer uma pesquisa na Internet e um download.

"*DRM systems are usually broken in minutes, sometimes days. Rarely, months. It's not because the people who think them up are stupid. It's not because the people who break them are smart. It's not because there's a flaw in the algorithms. At the end of the day, all DRM systems share a common vulnerability: they provide their attackers with ciphertext, the cipher and the key. At this point, the secret isn't a secret anymore.*"[1]

Vejamos alguns exemplos reais:

a) No Twitter, duas pessoas discutiam qual a melhor opção para comprar: um iPad ou um Kindle. Uma das preocupações de uma das pessoas era se as livrarias portuguesas vendiam livros que se pudessem ler no Kindle:




[1] Doctorow, Cory. "Content". Página 7 do livro, em papel, também disponível com uma licença Creative Commons em http://craphound.com/content/download/ . Para compreender porque é que o DRM não funciona, aconselhamos a leitura do primeiro capítulo do livro sugerido, com o título "Microsoft Research DRM Talk".

A resposta da outra pessoa foi positiva dando um link onde é descrito como fazer com que os livros comprados nas livrarias portuguesas possam ser lidos no Kindle.

Se consultarmos o link dado, verificamos que é descrito, passo a passo, o processo de neutralizar as medidas tecnológicas de protecção dos livros comprados nas livrarias portuguesas. A certa altura das indicações pode mesmo ler-se: "*Este programa vai ser aquele que (primeiro) remove os DRM nos ebooks e que (depois) os converte para um formato compatível com o Kindle. Faz isso tudo automaticamente.*"

Ora, esta acção de neutralizar as medidas tecnológicas é ilegal, segundo a lei portuguesa.

b) Uma pesquisa na Internet sobre como copiar um disco Blu-Ray, aponta logo nos dois primeiros resultados, instruções passo a passo para o fazer. No primeiro resultado, é garantido que o método neutraliza todas as medidas tecnológicas de protecção e no segundo, é referido ainda um software usado para neutralizar estas protecções também em DVD (ver imagem abaixo).

Há muitos mais exemplos que poderíamos apontar, para os encontrar basta fazer uma pesquisa na Internet.

Demonstrámos assim que o número reduzido de pedidos à IGAC se deve ao facto das pessoas neutralizarem, elas próprias, as medidas tecnológicas de protecção, ao arrepio da lei, e isto é tão comum que até revistas de renome internacional, como a Wired[2], têm "How Tos" de como neutralizar as medidas tecnológicas de protecção.

Ora, estas cópias são ilegais e portanto não podem ser consideradas cópias privadas. E enquanto estas acções forem ilegais, não podem ser objecto de taxa.

**3. No mesmo ponto 4, o argumento utilizado contra a observação de que os detentores de direitos podem proibir a cópia privada é:**

**"*A ser assim, a generalidade das obras teria essas medidas tecnológicas de protecção.*"**

O argumento de que a generalidade das obras não tem medidas tecnológicas de protecção é falso. Na verdade, o único tipo de obras onde a utilização, pelos detentores de direitos, de medidas de protecção diminuiu, foi na música (e apenas em CD e MP3, já que nos serviços de streaming como o Spotify, as referidas medidas estão presentes), tendo a utilização dessas medidas de protecção aumentado em todos os outros tipos de obras. Vejamos:

a) DVD

Em rigor, os únicos DVD que poderão não ter DRM são os DVD sem região, que são raros. Existem DVD com DRM de região que permitem a cópia privada, mas observamos que são DVD muito antigos e que já não estão no circuito comercial. Observamos ainda que alguns DVD vendidos com jornais não têm DRM.

Mas nem uns, nem outros, nem a sua soma constituem a maior parte dos DVD.

b) Blu-Ray

A especificação obrigatória do formato do Blu-Ray inclui DRM. Isto significa que todos os discos Blu-Ray têm DRM que impede a cópia privada (bem como as outras utilizações livres no mundo digital). Alguns discos Blu-Ray trazem uma cópia digital, mas essa cópia inclui DRM que impede o visionamento em vários dispositivos.

c) Áudio-Livros

[2] Confirmar em http://howto.wired.com/wiki/Read_E-Books_On_Multiple_Devices

As duas maiores lojas de áudio-livros (iTunes Store e Audible) vendem este tipo de obras com DRM, mesmo que o autor e a editora peçam para não o fazerem. Veja-se o caso do autor Cory Doctorow descrito pelo próprio na sua coluna na Publishers Weekly com o título "With a Little Help: Can You Hear Me Now?" e que pode ser consultado em http://www.publishersweekly.com/pw/by-topic/columns-and-blogs/cory-doctorow/article/41143-with-a-little-help-can-you-hear-me-now.html

d) Livros Digitais

A grande maioria dos livros digitais (eBooks) têm DRM. Vejam-se os seguintes casos:

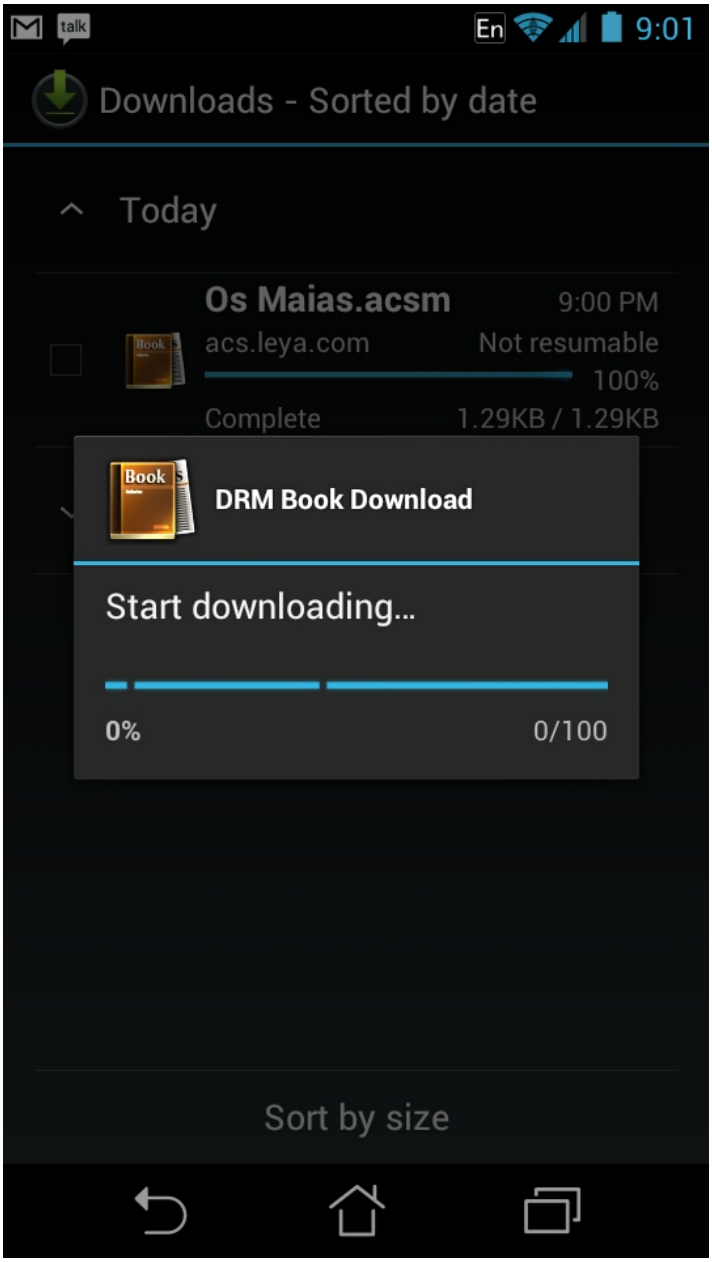
i) iTunes Store Portugal

Se o cidadão comprar um ebook na iTunes Store só poderá lê-lo no iBooks da Apple e apenas nos dispositivos móveis. Se quiser usar outro leitor de ebooks, no iPhone, iPod ou iPad que tenha mais funcionalidades do que o iBooks, tal não lhe é permitido.

Da mesma maneira, se o cidadão tiver dispositivos móveis com um sistema diferente, como o Android ou o Kindle, ou se quiser ler o livro no netbook ou laptop, também não pode, pois a única forma de fazer isto é neutralizando as medidas de protecção tecnológicas, que é ilegal. No entanto, neutralizar estas medidas é um processo simples.

ii) LeYa

A LeYa, uma das maiores editoras em Portugal, utiliza DRM nos livros digitais que vende. Para se ter uma ideia da enorme extensão da utilização do DRM (medidas tecnológicas de protecção) veja-se que a LeYa até nas obras que estão em domínio público coloca DRM, ao arrepio do Código de Direito de Autor e Direitos Conexos que exige uma autorização expressa do criador intelectual, como se pode confirmar na imagem:




Se o cidadão comprar um livro digital na LeYa online, só o poderá ler nos equipamentos e aplicações que tiverem um acordo com a Adobe Systems e são obrigados a dar os seus dados a esta empresa.

Se o cidadão quiser ler esse livro num dispositivo da Apple (iPod, iPhone ou iPad) tem de o comprar novamente, mas na aplicação da LeYa para esse sistema, não podendo ler esse livro noutros equipamentos:

*"Se comprar um eBook utilizando a aplicação Leyaonline para iPhone, posso lê-lo no meu PC, no meu Mac*

*ou em qualquer outro dispositivo electrónico?*

*Não é possível a transferência para equipamentos que não sejam iPhone, iPad ou iPod Touch."*[3]

O cidadão não pode ler os livros da LeYa no Kindle, um dos leitores de ebooks mais apetecidos.

*"Poderei ler os eBooks no Kindle da Amazon®?*

*Não. O Kindle da Amazon suporta apenas eBooks no formato propriedade da Kindle."*[4]

Na verdade, é possível converter um livro digital para o formato do Kindle, mas esta acção só é legal se o livro não tiver medidas tecnológicas de protecção, o que não acontece no caso da LeYa.

As medidas tecnológicas de protecção são tão restritivas que proíbem até o cidadão de imprimir o livro:

*"Posso imprimir eBooks?*

*Os eBooks, enquanto conteúdo digital, são destinados a ser lidos em suportes electrónicos e não podem por regra ser impressos."*[5]

iii) Wook (Porto Editora)

Apesar da Wook ter feito uma enorme campanha sobre a nova forma de aceder aos livros digitais comprados na sua loja online, anunciando a possibilidade do utilizador poder ler os livros em qualquer dispositivo, tal não corresponde inteiramente à verdade, como se pode confirmar no próprio site da Wook, de onde foi retirada a imagem abaixo[6]:

[3] Retirado das "Perguntas Frequentes" no site da LeYa em http://www.leyaonline.com/faq/?faq=22

[4] Retirado das "Perguntas Frequentes" no site da LeYa em http://www.leyaonline.com/faq/?faq=24

[5] Retirado das "Perguntas Frequentes" no site da LeYa em http://www.leyaonline.com/faq/?faq=21

[6] Confirmar no site da Wook em http://www.wook.pt/help/infoebooks/act/02

Antes de comprar certifique-se que o seu dispositivo é compatível com os formatos e DRM dos nossos eBooks:

| Dispositivo | ePub eWook | PDF Adobe | ePub Adobe |
|---|---|---|---|
| Windows PC | Sim | Sim | Sim |
| Sistema Apple MAC iOS | Sim | Sim | Sim |
| iPhone, iPad, iPod Touch | Sim | Sim | Sim |
| Dispositivos com sistema Android | Sim | Sim | Sim |
| Sistema Linux | Sim | Não | Não |
| Windows Phone | Não | Não | Não |
| Kindle 1, 2, DX, 3 da Amazon | Não | Não | Não |
| Nook da Barnes & Noble | Não | Não | Não |

Verificamos, que a Wook também utiliza medidas tecnológicas de protecção em obras que estão em domínio público, ao arrepio da lei portuguesa.

iv) Bertrand

Também na Bertrand, o cidadão pode comprar livros digitais, mas mais uma vez a utilização da obra é condicionada pelos detentores de direitos. O cidadão só pode ler o livro nos equipamentos e aplicações definidas pelos detentores de direitos, como se pode ver na imagem seguinte retirada do site da Bertrand[7].

Acrescente-se que também a Bertrand coloca medidas tecnológicas de protecção em obras que estão em domínio público, ao arrepio da lei portuguesa.

[7] Imagem retirada do site da Bertrand em http://www.bertrand.pt/ajuda/showHelpInfo?help=ebooks

**2 – O seu dispositivo é compatível com o formato do eBook?**

Os formatos que temos disponíveis para venda são o pdf e o ePub com o DRM da Adobe. Antes de comprar certifique-se que o seu dispositivo é compatível com os formatos e DRM dos nossos eBooks:

| Dispositivo | Formato PDF com DRM da Adobe | Formato ePub com DRM da Adobe |
|---|---|---|
| Windows PC | Sim | Sim |
| Sistema Apple MAC iOS | Sim | Sim |
| iPhone, iPad, iPod Touch | Sim* | Sim* |
| Dispositivos com sistema Android | Sim* | Sim* |
| Sony Reader | Sim | Sim |
| COOL-ER Classic | Sim | Sim |
| Kobo eReader | Sim | Sim |
| Nook da Barnes & Noble | Não | Não |
| Kindle 1, 2, DX, 3 da Amazon | Não | Não |
| Sistema Linux | Não | Não |

e) Serviços de streaming de música

Recentemente, surgiu em Portugal, com grande sucesso, o Spotify, um serviço de streaming de música. O cidadão que subscrever o serviço premium poderá aceder à música em modo offline se previamente o tiver decidido. Mas este acesso tem de ser sempre feito através da aplicação do serviço, impossibilitando o cidadão de escolher outro software para ouvir música.

**Conclusão**:

Do exposto, conclui-se que a utilização das obras digitais pelos cidadãos é sempre condicionada pelos detentores de direitos. O cidadão só pode ler, ouvir ou visualizar a obra nos equipamentos e nas aplicações de software escolhidas pelos detentores de direitos. Nos casos da música em CD e em mp3, os detentores de direitos decidiram abandonar a utilização de medidas tecnológicas de protecção, mas não só o fizeram pela sua vontade, como poderão a qualquer altura voltar a fazer tal utilização.

Enquanto o cidadão não puder neutralizar, ele próprio, de forma legal, as medidas tecnológicas de protecção, o direito exclusivo do autor sobre a utilização da obra, incluíndo o direito à cópia, mantêm-se inalterado. Assim sendo, não pode haver lugar a nenhuma compensação.

Em resumo, a Lei deve passar a garantir aos cidadãos o seu direito às Utilizações Livres, incluíndo a cópia privada, permitindo aos cidadãos a neutralização das medidas de carácter tecnológico com a finalidade de usufruir das Utilizações Livres. Só assim se poderá começar a discutir sobre o prejuízo causado ao autor pela cópia privada, e a sua forma de compensação.

# HOW COPYRIGHT MAKES BOOKS AND MUSIC DISAPPEAR (AND HOW SECONDARY LIABILITY RULES HELP RESURRECT OLD SONGS)

Paul J. Heald*

*A random sample of new books for sale on Amazon.com shows three times more books initially published in the 1850's are for sale than new books from the 1950's. Why? This paper presents new data on how copyright seems to make works disappear. First, a random sample of 2300 new books for sale on Amazon.com is analyzed along with a random sample of 2000 songs available on new DVD's. Copyright status correlates highly with absence from the Amazon shelf. Together with publishing business models, copyright law seems to stifle distribution and access. On page 15, a newly updated version of a now well-known chart tells this story most vividly. Second, the availability on YouTube of songs that reached number one on the U.S., French, and Brazilian pop charts from 1930-60 is analyzed in terms of the identity of the uploader, type of upload, number of views, date of upload, and monetization status. An analysis of the data demonstrates that the DMCA safe harbor system as applied to YouTube helps maintain some level of access to old songs by allowing those possessing copies (primarily infringers) to communicate relatively costlessly with copyright owners to satisfy the market of potential listeners.*

One justification for granting authors a property right in their creations is the assumption that copyright stimulates the production of new works.[1] An alternative justification of growing importance claims that after a work is created, it needs to be protected for a significant period of

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[1] *See* Sony Corp. of America v. Universal Studios, Inc., 464 U.S. 417, 450 (1984) ("The purpose of copyright is to create incentives for creative effort."); Mazer v. Stein, 347 U.S. 201, 219 (1954) ("The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors in 'Science and useful Arts.'")

time to assure its continued availability and distribution.[2] In the words of one commentator, a work may need "proper husbandry" in order to assure its continued exploitation.[3] Powerful copyright lobbyists presently circle the globe advocating ever longer terms of copyright protection based on this under-exploitation hypothesis--that bad things happen when a copyright expires, the work loses its owner, and it falls into the public domain.[4] By analyzing present distribution patterns of books and music, this article tests the assumption that works will be under-exploited unless they are owned and therefore questions the validity of arguments in favor of copyright term extension.

So far, several studies have tested the assumption that works need owners to be adequately exploited.[5] Those studies relied on lists of bestselling books and songs from 1913-32 and charted patterns of use and availability both before and after those works fell into the public domain.[6] The research, summarized in Part I, casts doubt on the wisdom of extending copyright terms in existing works. The new data presented in this article addresses the same question but from a very different perspective. Rather than starting with a pre-established list of older famous

[2] *See* Eldred v. Ashcroft, 537 U.S. 186, 207 (2003) (concluding that Congress "rationally credited projections that longer terms would encourage copyright holders to invest in the restoration and public distribution of their works."); Mills Music, Inc. v. Snyder, 469 U.S. 153, 187 (1985) ("[The] fundamental objective of the copyright laws requires providing incentives both to the creation of works of art and to their dissemination."); H.R. REP. NO. 105-452, at 4 (1998) ("the 1998 extension would "provide copyright owners generally with the incentive to restore older works and further disseminate them to the public."); William M. Landes & Richard A. Posner, *Indefinitely Renewable Copyright*, 70 U. CHI. L. REV. 471, 475 (2003) ("an absence of copyright protection for intangible works may lead to inefficiencies because of impaired incentives to invest in maintaining and exploiting these works."); Miriam Bitton, *Modernizing Copyright Law*, 20 TEX. INTELL. PROP. LJ. 65, 77 (2011) ("If [works enter] the public domain, they [become] obscure and thus no one [will] invest in them due to the problem of free riding. Items which retain enough value for future use should be given indefinite copyrights to maintain their value.").

[3] *See* Dennis S. Karjala, *Harry Potter, Tanya Grotter, and the Copyright Derivative Work*, 38 ARIZ. ST. L.J. 17, 37 (2006). It should be noted that Karjala is an opponent of copyright term extension.

[4] For a summary of extensive international lobbying efforts, *see* Christopher Buccafusco & Paul J. Heald, *Do Bad Things Happen When Works Enter the Public Domain?: Empirical Tests of Copyright Term Extension*, 27 BERK. J. OF LAW & TECH ___, at Part II.B (2013).

[5] *See infra* notes ___-___ and accompanying text.

[6] *See infra* notes ___-___ and accompanying text.

works, the present research collects data from a random selection of new books for sale on *www.amazon.com* ("Amazon") and music found on new movie DVD's for sale on Amazon.[7] By examining what is for sale "on the shelf," the analysis of this data reveals a striking finding that directly contradicts the under-exploitation theory of copyright: Copyright correlates significantly with the disappearance of works rather than with their availability. Shortly after works are created and proprietized, they tend to disappear from public view only to reappear in significantly increased numbers when they fall into the public domain and lose their owners.[8] For example, more than three times as many new books originally published in the 1850's are for sale by Amazon than books from the 1950's, despite the fact that many fewer books were published in the 1850's.[9]

Part I briefly summarizes the hypothesis to be tested--that copyright is necessary to assure the adequate exploitation of creative works--and reviews the existing empirical literature. Part II sets forth the methodology of new studies that examine the mix of public domain and copyrighted books and music presently available on Amazon. Part III presents the data and reveals the eye-poppingly disproportionate number of new Amazon books initially published before the public domain cut-off date of 1923 and new Amazon books initially published after 1923 ("book study"). The study of songs available on new DVD's sold by Amazon ("song study") shows less dramatic but still significant, differences in the availability of music initially published before and after 1923. In short, copyright seems to make both books and songs disappear. After establishing copyright's strong correlation with the diminished availability of books and music, Part IV surveys popular U.S., French, and Brazilian songs from 1930-60 uploaded on YouTube and suggests that secondary liability rules facilitating notice and takedown

[7] *See infra* notes ___-___ and accompanying text.
[8] *See infra* notes ___-___ and accompanying text.
[9] *See infra* notes ___-___ and accompanying text.

regimes ameliorate the effect of inadequate shepherding by music copyright owners.[10] An intermediary platform like YouTube radically reduces the transaction costs that make trading in some music markets excessively costly.[11] Indeed, on YouTube, the very phrase, "notice and takedown" is misleading. The YouTube study establishes that one routine transaction is for owners to "notice, leave up and monetize."[12] Secondary liability rules allow non-owners of copyrighted music to partially resolve the access problems that correlate with copyright ownership.

The article concludes that present efforts by copyright owners to both extend the term of protection for copyright and to undermine current rules on secondary liability are unsupported by the empirical evidence and contrary to the public interest.

## I. THE STORY THUS FAR

Copyright owners are in the business of collecting royalties on existing works, so they advocate extending copyright terms in order to perpetuate revenue streams.[13] Once a work has been published, however, lobbyists lose the ability to make pro-extension arguments based on incentive-to-create rationales because the work already exists.[14] Instead, they argue--without empirical support--that bad things happen to the work when it falls into the public domain.[15] The public interest, so the story goes, requires term extension to prevent a public domain calamity. I

[10] *See infra* notes ___-___ and accompanying text.
[11] *See infra* notes ___-___ and accompanying text.
[12] *See infra* notes ___-___ and accompanying text.
[13] Lobbying efforts by copyright owners are detailed in Buccafusco & Heald, *supra* note ___ at 6-12.
[14] *Id*. at 3-4.
[15] *See, for example*, *Copyright Term, Film Labeling, and Film Preservation Legislation: Hearing on H.R. 989,H.R. 1248, and H.R. 1734 Before the Subcomm. on Courts and Intellectual Property of the H. Comm. On the Judiciary*, 104th Cong. 217–18 (1995) (statement of Bruce Lehman, Assistant Secretary of Commerce and Commisioner of Patents and Trademarks). ("One reason quality copies of public domain works are not widely available may be because publishers will not publish a work that is in the public domain for fear that they will not be able to recoup their investment or earn enough profit."). *See also infra* note 36. For a summary of arguments, *see* Buccafusco & Heald, *supra* note ___ at 13-17.

have chronicled the history and effectiveness of this argument at length elsewhere,[16] but one persistent assertion bears repeating: Creative works need owners who will assure their availability and adequate distribution.[17] Although Congress in 1998 relied on this argument in extending the term of protection in the U.S. by 20 years,[18] empirical studies have thus far failed to support this key assertion made by copyright lobbyists.

In fact, Heald (2008) studied bestselling novels from 1913-32 and found that public domain status significantly increased the chance that a book would be in print and increased the number of publishers of it.[19] In the sub-market for audiobooks created from the same set of 1913-32 bestsellers, Buccafusco & Heald (2013) showed that a significantly higher number of the public domain books had audio versions for sale on *www.audible.com*.[20] Although music data is harder to gather, Brooks (2006) showed that non-owners of popular songs from 1890-1965 had converted a significantly higher percentage of them into digital formats than had their owners.[21] Finally, Heald (2009) studied a set of popular songs from 1913-32 and showed that the public domain songs were no less likely to be in a movie than the copyrighted songs.[22]

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[16] *See* Buccafusco & Heald, *supra* note ___.
[17] *See supra* note 15.
[18] *See* H.R. REP. NO. 105-452, at 4 (1998) (finding the 1998 extension would "provide copyright owners generally with the incentive to restore older works and further disseminate them to the public.").
[19] *See* Paul J. Heald, *Property Rights and the Efficient Exploitation of Copyrighted Works: An Empirical Analysis of Copyrighted and Public Domain Fiction Bestsellers*, 92 MINN. L. REV. 1031 (2008) (studying 334 books and finding that after 2001 significantly more of the public domain books were in print and by significantly more publishers).
[20] *See* Buccafusco & Heald, *supra* note ___ at ___ (studying 334 bestsellers from 1913-32 and identifying available professionally recorded audio versions of each book).
[21] *See* TIM BROOKS, NAT'L RECORDING PRES. BD., LIBRARY OF CONG., SURVEY OF REISSUES OF U.S. RECORDINGS 7–8 & 7 tbl. 4 (2005) (demonstrating that copyright owners had made only an average of 14% of popular recordings from 1890 to 1964 available on CD's, while non-owners had made 22% of them available to the public on CD's).
[22] *See* Paul J. Heald, *Bestselling Musical Compositions (1913-32) and their Use in Cinema (1968-2008)*, 6 REV. OF ECON. RES. ON COPYRIGHT ISSUES 31 (2009) (studying 1294 popular songs from 1913-32 as they appeared in films released from 1968-2008).

The dates 1913-32 are important to the studies summarized above because the sub-set published from 1913-22 fell into the public domain from 1988-98 (they had a 75-year copyright term), while properly renewed works from 1923-32 are still protected by copyrighted (they have a 95-year term).[23] Studying books and music within a decade of the 1923 divide enables researchers to study what happened to works from 1913-22 after they fell into the public domain and then compare their behavior with copyrighted works from approximately the same era. As useful as such comparisons are, they do not tell policymakers what mix of public domain books and movies are currently "on the shelf." Published studies look only at a specific set of older works and track them through time. Critically, availability can also be measured by looking at the age and legal status of works presently for sale to the public. If public domain works are underrepresented in the world's largest on-line marketplace, Amazon, then copyright owners may have a valid point about under-exploitation.

The two studies discussed below offer a completely new take on availability by observing books and music presently available to consumers when they shop.

## II. METHODOLOGY: SAMPLING THE METAPHORICAL STORE SHELF

[23] Calculating the copyright term is tedious, and explanation of changes in term length will only offered when necessary to the analysis of the studies. The first copyright statute (1790) Act provided authors with a fourteen-year term of protection that could be renewed for an additional fourteen years. In 1831, Congress extended the initial term of protection to twenty-eight years with a fourteen-year renewal term, and the1909 Copyright Act extended the renewal term to twenty-eight years. The last major revision of the copyright statute, the 1976 Act, further lengthened the period of copyright protection. For existing works that had not yet entered the public domain, the Act added forty-seven years of protection to the twenty-eight-year term resulting in a total of seventy-five years of protection. The Act, which went into effect in 1978, did not retroactively revive copyright protection for works that had already entered the public domain; consequentially, all works published prior to 1923 remain in the public domain. The 1998 Sonny Bono Copyright Term Extension Act ("CTEA") added an additional twenty years of protection to the copyright term for all existing works. Works created between 1923 and 1978 now receive ninety-five years of protection, while works created since 1978 would be protected for the duration of the lives of their authors plus seventy years, with anonymous works, pseudonymous works, and works made for hire receiving a defined ninety-five-year term of protection.

Given that Amazon currently offers over 8 million new hardback and 21 million paperback books for sale in a number of different fiction and non-fiction categories,[24] the book study used a randomly sampling technique designed to collect information on representative new fiction books. In order to sample fiction randomly, my research assistant wrote a computer program to generate random ISBN numbers which were then submitted as search requests to Amazon using its publicly available application programming interface (API).[25] We initially considering submitting requests using Amazon's "Literature and Fiction" browse node,[26] but learned that it included "Essays and Correspondence" and "History and Criticism" as sub-categories. In an attempt to collect only fiction titles, we submitted to a number of what appeared to be purely fiction sub-categories within "Literature and Fiction," and excluded essays, correspondence, history, and criticism.[27] Only data on new books for sale by Amazon (no used books; no books for sale by Amazon "affiliates") were collected.

In the group of categories searched, only about one percent of the random ISBN numbers actually corresponded to a new book for sale by Amazon. Since Amazon allows no more than 2000 requests per hour, it took several weeks of continuous searching to generate a random list of 7000 new books for sale. Surprisingly, many of the 7000 titles retrieved were not works of fiction. About one-third were works of literary criticism and biography, history, and theology,

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[24] *See* http://www.amazon.com/books-used-books-textbooks/b/ref=sa_menu_bo?ie=UTF8&node=283155 (last visited June 24, 2013).

[25] *See* http://en.wikipedia.org/wiki/Application_programming_interface ("Generally speaking, an application programming interface (API) specifies how some software components should interact with each other. In practice in most of the cases an API is a library that usually includes specification for routines, data structures, object classes, and variables.")

[26] Search categories within Amazon are called "browse nodes." For a list of all possible search categories, *see* http://www.findbrowsenodes.com/us/Books/17.

[27] The browse nodes chosen were: 10016 – British; 4465 - Comic Literature; 10129 - Contemporary Literature; 2159 – Drama; 16260301 - Foreign Language Fiction; 23 – Romance; 10132 - Literary Books; 10248 – Poetry; 9822 - United States; 542654 - Women's Fiction; 10311 - World Literature; 18 - Mystery & Thrillers; 16190 – Fantasy; 16272 - Science Fiction.

exactly the sort of works sought be excluded by our choice of browse nodes.[28] Another third were works of fiction, and a third were works with foreign language titles in a variety of different categories. The number of foreign language titles was especially notable because that sub-set seemed to be biased toward older titles.[29]

The next step was to identify the initial publication date of as many of the 7000 books as possible. Copyright Office records before 1978 are not digitized,[30] and using hard copy registration data at the Copyright Office to determine initial publication date was not feasible.[31] In fact, registration data itself would be a proxy for date of initial publication because the works can be initially published before or after registration.[32] Instead, my research assistant wrote a program to search U.S. Library of Congress (LOC) records for the earliest edition of each book held in its collection. The earliest edition in the LOC is a decent proxy for initial publication date as U.S. copyright law provided and still provides incentives to deposit a copy of the first published edition with the library.[33] Deposit is still a routine business practice with major publishers.

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[28] It may be that Amazon does not do particularly good job or categorizing its own works, or it may include some non-fiction in the category "10132 – Literary Books." *See id*.

[29] About one-half of the works retrieved were accompanied by a date in parentheses as part of the title of the work. All dates were 1922 or earlier, suggesting that Amazon tracks books it believes to be in the public domain. The foreign language had a disproportionate number titles with the pre-1922 parenthetical dates.

[30] *See* http://www.copyright.gov/records/ and http://www.copyright.gov/circs/circ23.pdf'

[31] Pre-1978 Copyright Office records are organized by year, not by author or title, so finding a year of registration with only title and author information requires a painstaking search of every year on file. One professional search service, Thomson, charges $750 per work for searching through physical copyright registration records in order to determine the initial registration date and renewal of a single work. *See* http://trademarks.thomsonreuters.com /searching/title-copyright-entertainment-searches?id=node/230 (the phone number must be called to confirm the price).

[32] For example, the registration date on my first novel is 1998, yet it will not be published until 2014. *See* http://cocatalog.loc.gov/cgi-in/Pwebrecon.cgi?Search_Arg=Heald+Paul&Search_Code=NALL&PID =wxFkZq0vibbxBnyceD7fQ37fckR&SEQ= 20130624090254&CNT=25&HIST=1.

[33] *See* 17 U.S.C. §§ 411-412 (requiring registration and deposit as a condition of bringing suit, collecting attorneys fees, or collecting statutory damages); Committee, *The Library of Congress Advisory Committee on Copyright Registration and Deposit*, 17 COL.-VA J. OF LAW & ARTS 271, 288 (1993).

Nonetheless, not every publisher deposits a book with the LOC, and not every book there is represented by a first edition. A book initially published in 1920, for example, may only be represented in the LOC by a later edition from 1935. For this reason, it is likely that the dates we take from LOC editions are biased upward. A copy deposited in the LOC may often be an edition published after the initial publication date; it should seldom be a copy deposited years before it was published.[34] Some of the upward dating bias may be ameliorated by changes weakening the deposit requirements in the 1976 Copyright Act,[35] but even under its predecessor Acts of 1831 and 1909, a failure to make an initial deposit did not result in the forfeiture of copyright, but rather the possibility of sanction if an author ignored an LOC request for a copy.[36] Penalties for failure to deposit were more serious under prior acts,[37] which may help to partially correct any dating bias for works initially published prior to 1909. There is little doubt, however, that an upward dating bias remains in the sample, which makes the results of the study discussed below even more significant and striking.

Of the 7000 randomly selected new fiction works for sale on Amazon, the software program located 2317 of the titles in the LOC catalog. At least three factors prevented the discovery of all 7000 titles. First, some authors, of course, never deposit a copy of their work.[38] Second, the data scraped from Amazon is derived from a book it is selling, which is not

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2-7 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT §7.16(B)(6)(a) (2010) (explaining changes in the deposit requirement over time).

[34] *But see supra* note 27.

[35] *See supra* note 33.

[36] *Id*. *See* David Rabinowitz, *Everything You Wanted to Know About Pre-1909 Copyright But Were Too Lazy to Look Up*, 49 J. OF COPYR. SOC'Y OF USA 649,655 (2001) (chart noting that as of 1865 no deposit needed to be made until a request by the LOC with penalties assessed for failure to comply with the request).

[37] *See* 35 STAT. 1078 (1909); Case Note, *Copyright—Failure to Deposit Copies Promptly Held Not to Bar Suit For Infringement Prior to Deposit*, 52 HARV. L. REV. 837 (1939).

[38] For example, the copyright in my second novel, *No Regrets*, published in 2002 by St. James Music Press has never been registered.

necessarily the same edition as the deposit copy. Therefore, discrepancies between the form of an author's name (for example, the choice to include middle initials) in Amazon records and LOC records are likely. The LOC copy of a first edition of *The Lion, the Witch, and the Wardrobe* might list the author as "Clive Staples Lewis," whereas an edition published decades later and sold by Amazon might list the author as "C.S. Lewis." And even when Amazon is selling the same edition as the one found in the LOC, the Amazon digital record might diverge slightly from what is listed in the title page of the hard cover edition it is selling. Furthermore, LOC records tend to rely on the author's name as listed in the copyright registration document, and publishers may use a variant of that name. For example, the author of *The Hunt for Red October* might be "Tom Clancy" in one place and "Thomas M. Clancy" in another.

Finally, most of the Amazon titles (over 2000) not found in the LOC were foreign language titles. Although one-third of the 7000 works initially collected from Amazon were foreign language titles, only 6% of the 2317 titles identified in the LOC were foreign language works. The data analysis in Part III only addresses the 2317 works for which we have publication dates, so any bias within the foreign language sample should have a negligible effect on the findings.[39] For the rest of the 2317 titles, approximately 51% were works of fiction (mostly novels, but some drama and poetry) and 43% were works of non-fiction (primarily literary history and biography, theology, essays, history, and correspondence).

Collecting a valid random sample of music proved to be more challenging. Initially, *I Tunes* seemed to be a logical choice for collecting data, but Apple only sells digital versions of

[39] There may be several reasons for this. Foreign authors may have a lower rate of deposit because most foreign jurisdictions do not require deposit The Berne Convention, which the US only joined in 1989, requires it members to drop all formalities as a prerequisite to the grant of copyright protection, including the deposit requirement. Most countries around the world are longtime members of Berne and did away with deposit requirements long ago. Also, discrepancies in spelling between Amazon editions and LOC editions may proliferate when accent marks and long foreign words may not match perfectly as required by the software.

songs, and the Brooks (2006) study discussed above reveals that copyright owners had only made 14% of well-known songs from 1890-1965 available in digital form.[40] The lack of digital versions of older music would likely bias any sample of *I Tunes* heavily toward new music. The same would be true of a sample of CD's for sale on Amazon, while any attempt at sampling the market for vinyl recordings would clearly bias the sample toward older music. YouTube was also considered, but pulling a random sample from YouTube is difficult because its search algorithm is not randomized, but rather based on the queries presented in prior searches.[41]

The Brooks study, however, did not track the use and digitization of songs as they appeared in film soundtracks. Despite copyright owners' failures to convert old vinyl recordings to digital mp3's formats, movie directors are unlikely to be deterred by the absence of a digital version of a musical composition. Almost any kind of music selected for a movie must be adapted in form in order to be included in the soundtrack, so it seems likely that a sample of music in film would be less age-biased. Whether a director is working from a piece of sheet music from 1905 or a vinyl recording from 1945 or an mp3 file from 2005, the musical format must be adapted before it can be heard in theaters.

Choosing to sample music in movies has further advantages. Each song in a movie is approved by the director who has determined that it will enhance the value of the film. Since the core debate over term extension revolves primarily around works that hold their value over time,[42] approval by film directors provides an independent indication of the ongoing value of the music chosen. Also, musical compositions as they appear in movies are derivative works. The director must pay a band or orchestra to record the piece or obtain a license to use an existing

[40] See Brooks, supra note ___ at 7-8.
[41] *See* http://searchenginewatch.com/article/2218696/YouTube-Algorithm-Change-Time-Watched-Key-to-Higher-Video-Search-Rankings (detailing changes to the YouTube algorithm to account for the amount of time a prior video was watched).
[42] *See* Landes & Posner, *supra* note ___ at ___.

recording. Advocates for term extension make a special point of arguing that public domain works will not attract investors interested in making derivative works because they cannot exclude competitors.[43] Tracking music in movies permits evaluation of the claim that derivative works will be under-produced.

Two samples of music were collected. First, 134 movies were sampled randomly from the *www.boxofficemojo* (BoxOfficeMojo) website.[44] Movies from this sample that were not for sale on Amazon were eliminated and replaced randomly with movies that were available in a new DVD version. The music in the 134 movies was identified using the soundtrack search function on *www.imdb.com*[45] (IMDB) and 1078 songs were identified. Next, the top 100 highest grossing movies of all time (adjusted box office figures) were identified from a list on BoxOfficeMojo.[46] A number of those films either contained no songs or lacked soundtrack information, so a soundtrack search on IMDB generated a shorter list of 836 songs.

Determining the initial publication dates of almost 2000 songs was challenging and required several research assistants to consult several sources, including Google, Wikipedia, a

[43] Professor Arthur Miller worries that new works deriving from and based on materials in the public domain will be under-produced. Copyright law gives owners the exclusive right to make or license derivative works like adaptations, sequels, and translations that are based on the original work. Miller argues that derivative works recordings of musical compositions, adaptations, sequels, and translations will not be made without copyright term extensions. *See* Symposium, *The Constitutionality of Copyright Term Extension: How Long is Too Long?*, 18 CARDOZO ARTS & ENT. L.J. 651, 693 (2000) (panel comments of Arthur Miller) (Miller reasons that "you have to provide incentives for [producers] to produce the derivatives, the motion picture, the TV series, the documentary, whatever it may be—perhaps even a musical! . . . We must incentivize the dissemination industries, the preservation industries, and the derivative work industries.").

[44] *See* http://www.boxofficemojo.com/movies/. The web site is organized by movie title from A-Z and within each letter group also divided alphabetically. For example, the letter A is sub-divided A-Ac, Ad-Af, Ag-Al, etc. The fifth movie listed in each of the 134 alphabetical sub-divisions was selected. If a movie was eliminated as not available for sale on Amazon, then the sixth movie was chosen and so forth.

[45] *See* http://www.imdb.com/search/ (drop down menu under "title search" lists "soundtrack" option).

[46] *See* http://boxofficemojo.com/alltime/adjusted.htm (listing top 100 movies in terms of box office gross during the first release of the film adjusted by ticket price inflation).

list of 3700 most popular songs from 1880-1965,[47] and scanned volumes of the Catalog of Copyright Entries.[48] Although in some circumstances, images of original sheet music or other authoritative sources could be examined, the publication date used for a song was often the year of its popularity, e.g. when it was a hit on the Billboard charts. Radio chart data or dates when sheet music sales peaked were often used as a proxy for date of publication. Since songs are not technically published when they are played on the radio, but rather when the underlying sheet music is sold, Billboard chart appearance is not an unfailing measure of publication date. However, since songs are published both before and after their sound recordings are popularized,[49] a systematic bias upward or downward may not be present. Most importantly, popular songs are usually published within several years of the release of the sound recording when the market for sheet music is hottest, another factor reducing bias. To further reduce any dating distortion, the data will be presented by decade rather than year-by-year.

## III. THE CASE OF THE DISAPPEARING WORKS

The academic literature tells two stories about what happens to works when they fall into the public domain. First, some economists like Landes and Posner suggest that "[a]n absence of copyright protection for intangible works may lead to inefficiencies because . . . of impaired

[47] Compiled from JULES MATTFIELD, VARIETY MUSIC CAVALCADE (1965) (compiling the most popular songs in American history by year).

[48] Although copyright registration records before 1978 are not available on-line at the copyright office web site, The Internet Archive has OCR scanned copies of many volumes available. *See* http://archive.org/details/copyrightrecords. Unfortunately, Boolean searching of .pdf copies is not possible, so identifying registration records within them is extremely unwieldy, and the quality of the OCR scanning renders them less than completely reliable. The records were therefore not the initial source consulted by my research assistants.

[49] Unlike books, which are published once copies are sold, a song can be exploited in a recording and technically remained unpublished. This creates the likelihood, not present with books, that a song will be popular in one year, but not technically published until a later year. For example, *White Christmas* was a hit in 1941, but the copyright was not registered until five years later.

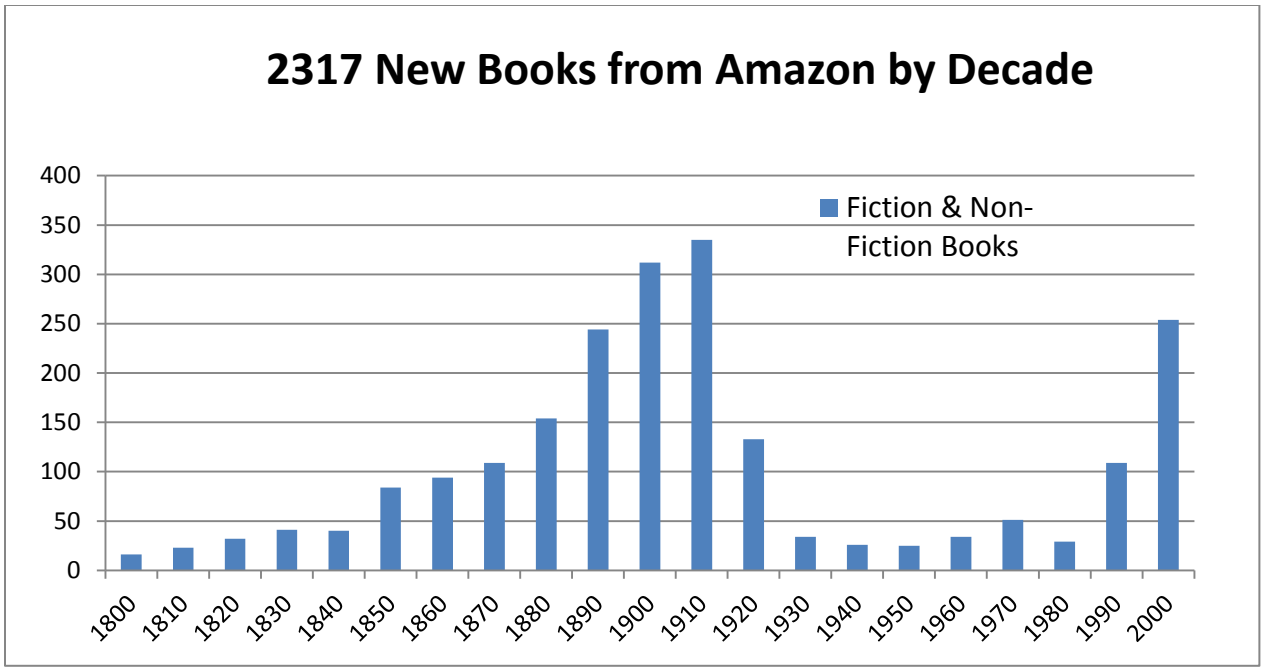
incentives to invest in maintaining and exploiting these works."[50] This is the under-exploitation hypothesis in a nutshell. Why sell a work that others can also exploit for free and erode your market? Others have argued instead that when works fall into the public domain, they become attractive targets for exploitation because no license fee need be paid to the former owner of the work.[51] Despite potential competition, exploitation will occur, just as it does in other markets where no one has a monopoly over the object of exploitation, e.g. the markets for string, milk, and pencils. The data collected from Amazon demonstrates the power of the second hypothesis, that books and music become more attractive targets for exploitation after they fall into the public domain.

A. The Market for New Books on Amazon

The 2317 random titles of new books available on Amazon during the fall of 2012 are charted in Figure 1 below by the decade of their original publication date. Both fiction and non-fiction titles are included. Titles now in the public domain (those published prior to 1923) constitute 72% of the total (1665/2317), while titles still under copyright constitute 28% (652/2317).

*Figure 1*

[50] William M. Landes & Richard A. Posner, *Indefinitely Renewable Copyright*, 70 U. CHI. L. REV. 471, 475 (2003).
[51] *See* Buccafusco & Heald, *supra* note ___ at ___.




In a world without copyright, one would expect a fairly smoothly downward sloping curve from the decade 2000-2010 to the decade of 1800-1810 based on the assumption that works generally become less popular as they age (and therefore are less desirable to market). If age were the only factor, one would expect to see fewer books available from each successively older decade. Instead, the curve declines sharply and quickly, and then rebounds spectacularly for books currently in the public domain initially published before 1923. Since age should be a factor that depresses availability, the most plausible conclusion from the data is that the expiration of copyright makes older works reappear. A corollary hypothesis is also supported by the data: Copyright makes books disappear.

Age seems to be very relevant within both the sub-set of post-1923 books still under copyright and the sub-set of pre-1923 books in the public domain. Note, however, the steeper decline in the number of copyrighted books over time: 2000-2010 (254 titles) to the 1990's (109 titles) to the 1980's (29 titles), etc. This is not a gently sloping downward curve! Publishers seem unwilling to sell their books on Amazon for more than a few years after their initial

publication. The data suggest that publishing business models make books disappear fairly shortly after their publication and long before they are scheduled to fall into the public domain. Copyright law then deters their reappearance as long as they are owned. On the left side of the graph, the decline from 1910's (338 titles) to the 1900's (319 titles) to the 1890's (248) and the 1880's (156) and so forth presents a more gentle time-sensitive downward sloping curve. The difference in the rate of decline between the public domain sub-set and the copyrighted sub-set is very likely due to publishers' preference for marketing books that are less than twenty years old.

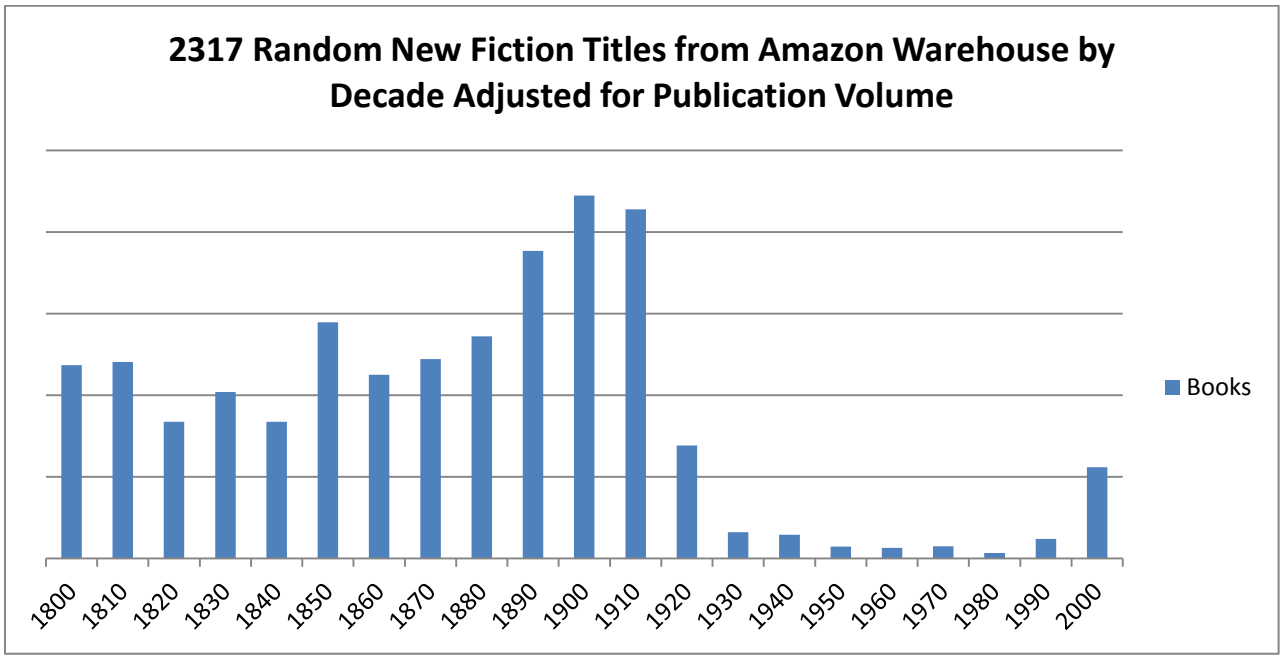
The chart, of course, is somewhat misleading because it fails to account for the difference in the number of book titles published each year. Although the number of books published each year for the last 200 years is not known, fewer books were undoubtedly published in the 1800's when type was set by hand as compared with more efficient methods developed during the mechanical typesetting and computer eras.[52] Of course, the population of the United States also increased over the same time, generating more readers, and, as education became more universal in the late 18th and early twentieth century, a higher percentage of literate citizens. As a proxy for the actual number of books published each year, a search was conducted of the WorldCat library catalog which includes the entire collections of 72,000 libraries around the world.[53] The search identified titles in the entire WorldCat collection from each publication year between 1800 and 2010, counting those titles published in English but not originating in English speaking countries outside the United States.[54] Surely, more titles were actually published each year than were returned by the WorldCat search, but as long as the percentage of missing titles does not vary significantly from year to year, then the ratio of books found in the search and ratio of

[52] *See* ROBERT BRINGHURST & WARREN CHAPPELL, A SHORT HISTORY OF THE PRINTED WORD (2000).
[53] http://www.worldcat.org/ & http://en.wikipedia.org/wiki/WorldCat (stating that two billion items are searchable in its global consortium of 72,000 cooperating libraries).
[54] The search string used in the WorldCat search was "la= "eng" not pl: scotland not pl: ireland not pl: britain not pl: wales not pl: britain not pl: australia not pl: canada and yr: 1800."

books actually published should be approximately the same. As one would predict with a direct measure of publication rates, the number of books counted each decade increased steadily until the year 2000 when a well-documented decline in the number of physical books published began.[55]

Figure 2 below accounts for the difference in the number of books published each year, normalizing to the decade of the 1990's when the highest number of books was published. The negative effect of copyright seen in Figure 1 becomes even more exaggerated:

*Figure 2*

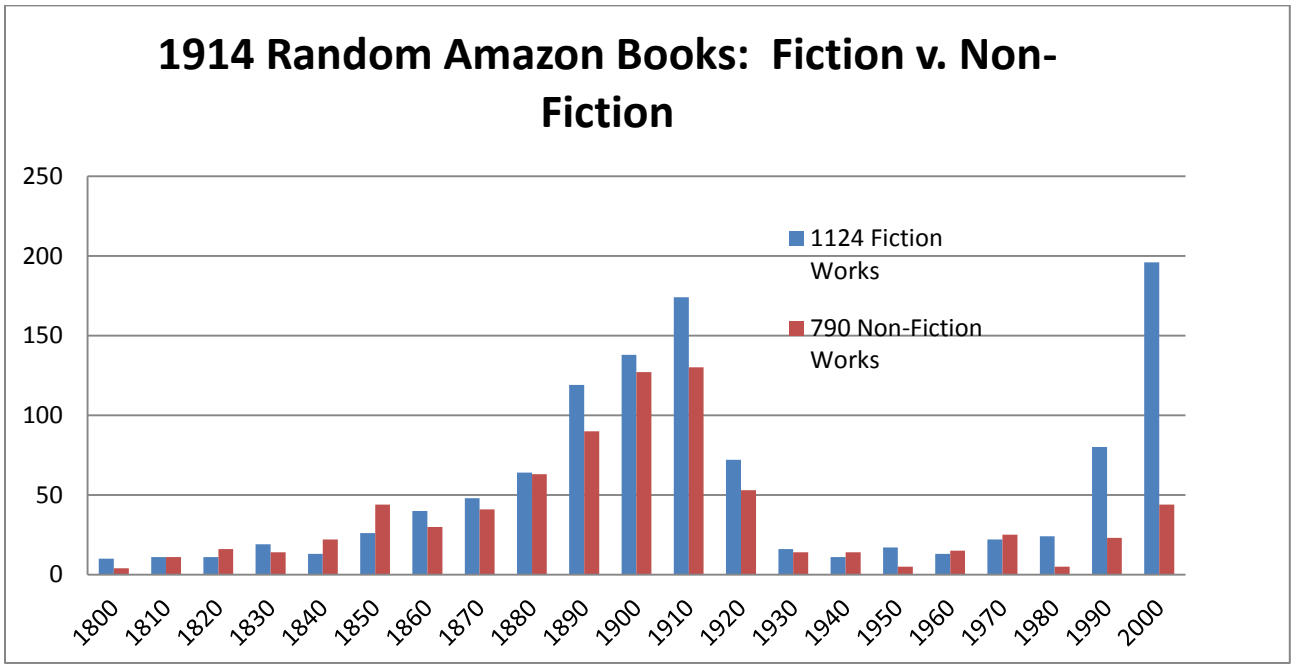



Consider the comparison of 1950 to 1850 as an illustration. Of the 2317 fiction titles, only 25 were published in the 1950's whereas 84 were published in the 1850's. Our WorldCat search, not surprisingly, suggests that six times as many books were published in the 1950's than in the 1850's. Figure 2 above accounts for the difference in the number of books published and provides a more accurate sense of the distortion (approximately 18x) in availability.

[55] *See* UNESCO, STATISTICAL YEARBOOK (1990-2010).

Figures 1 and 2 above include all 2317 books retrieved in the LOC search, including a large number of non-fiction titles (43%). Figure 2 below divides the initial publication data into fiction and non-fiction columns.

*Figure 3*




The figure excludes 403 of the total 2317 titles which could not be easily categorized, e.g. the 134 foreign language titles. The general pattern of disappearance and reappearance is approximately the same for both the fiction and non-fiction titles, although the ratio of public domain to copyrighted works in the overall totals varies. Among the fiction works, the public domain/copyright mix is 63% to 37%, while the ration of public domain to copyrighted works within the non-fiction category is 80% to 20%. Given that the non-fiction category in this study is quite narrow, dominated by literary criticism, literary biography, essays, and theology, it may be that publishers in the 19th Century were more willing to publish these sorts of works than publishers in the 20th Century.

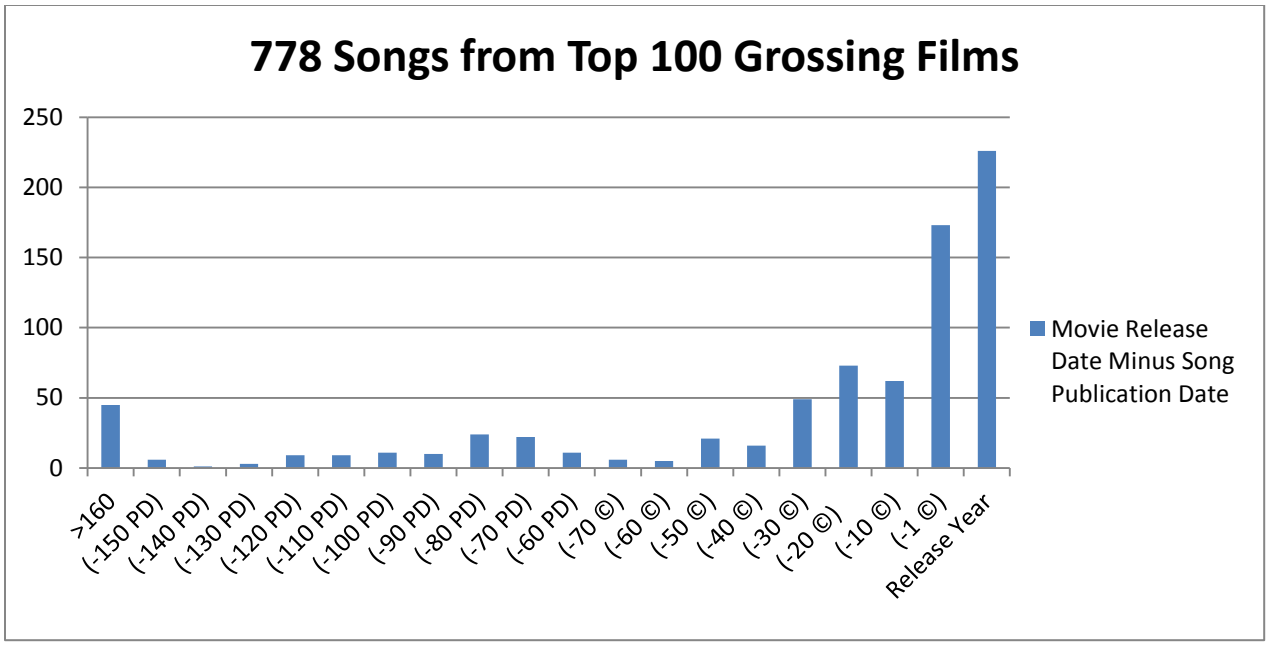
B. <u>The Market for Music on Amazon</u>

The effect of copyright law on the availability of music as it appears on new DVD's sold by Amazon is also negative, but not quite so dramatic. Figure 3 below displays the distribution of songs found in the top 100 highest grossing movies of all time. Rather than organize the data by the song publication year or movie release date, the chart illustrates the difference between the two. In other words, it measures how far backward movie directors were looking for music. Because the study attempts to measure the effect of legal status on the decision to use a song, it was necessary to compare the date of the movie release with the date of the song's publication to learn whether the use of the song correlates with its copyright status at the time the movie was released.

Because of changes in copyright term duration, Figure 3 sub-divides songs published 60-80 years before movie release into two categories—songs that were in the public domain at the time of the movie release and those that were not. In all other categories, copyright status is self-evident (80-plus-year-old songs are always in the public domain while 60-minus-year-old songs are always copyrighted).[56] The 60-80 year sub-divisions are made necessary by changes made in the 1976 Copyright Act (and during some years immediately prior thereto[57]) extending the term of protection from 56 to 75 years for many existing works.[58] For example, a song that was published sixty years before it appeared in a 1950 film was in the public domain when the director chose to include it. A 60-year-old song appearing in a 1985 movie was not in the public domain at the time of the movie release. Comparing the legal status of songs in the 60-80 year prior-to-release categories illustrates in a nutshell the effect of legal status on use:

*Figure 4*

[56] In theory, songs that were 56-59 years old at the time of the movie release could also be in the public domain, but the study reveals only a handful of outliers in that category.
[57] From 1962-1976, Congress on a yearly basis extending the term of copyright for existing works by one year. *See* supra note ___.
[58] *See supra* note ___ for details on copyright term calculation and historical changes to term length.




Although the shape of the curve in Figure 4 roughly tracks the curve for books seen in Figure 1, the reappearance of older songs is much less pronounced. Even so, the upward slope starting with songs in the public domain 60+ years is statistically significant.[59] Three times as many 60-80 year-old public domain songs (33 titles) were used in movies than 60-80 year-old songs still protected by copyright (11 titles). Twenty-four 80-90 year-old songs in the public domain were included in soundtracks, while only sixteen 40-50 year-old songs were used. Not surprisingly, the sample is dominated by songs published the same year as the movie's release date because many songs were written especially for the movie in which they appeared (29%). A high percentage of songs (22%) were 1-10 years old at the time of movie release, perhaps reflecting the frequent choice to set a movie plot in the near-present day.

The difference in the magnitude of the effect of legal status on books and music-in-movies is probably explained by the comparative economics of the book and film trades. A book publisher wishing to sell a public domain title need only find the title in the public library and

[59] [INSERT DETAILED STATS FOOTNOTE]

scan it (or find it on Google Books), choose the typeface and graphics with any widely available publishing software program, and send the manuscript off to be printed.[60] The former copyright owner need not be contacted and no license fee need be paid. These tasks can be performed in less than a day,[61] if necessary, and the savings over locating a copyright owner, negotiating and paying a licensing fee are substantial.

A movie director likely saves marginally less by choosing a public domain musical composition. Sheet music, standing alone, cannot be employed in a film; it must be played and recorded first. Therefore, a director must hire a singer, band, or orchestra to make a new recording appropriate for inclusion in the film or pay a fee to the copyright owner of an existing sound recording for permission to adapt that recording for the film. A director choosing a recording of the Sex Pistols singing "God Save the Queen" must pay a fee to the owner of the sound recording even though the musical composition is in the public domain.[62] Although no fee need be paid to the composer, the savings are marginal and are perhaps often dwarfed by cost of making a new recording or obtaining permission to use an existing recording. If the marginal savings of choosing a public domain composition for a film are smaller than the marginal savings of choosing to publish a public domain book, then one would expect to see the more modest increase in the upward curve of older public domain songs depicted in Figure 4.

The sample of songs from the top 100 grossing movies of all time has particular interest because the songs have been encountered by large numbers of the public. By definition, the list contains no obscure art films that barely reached the silver screen, containing a sound track that was heard by virtually no one. Nonetheless, a completely random sample of all films listed on

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[60] *See* ANDRA MIKOS, THE PUBLIC DOMAIN PUBLISHING BIBLE (2009); ADAM PEARSON, HOW TO CREATE, FORMAT, PUBLISH, PROMOTE, AND PROFIT FROM THE EBOOK OPPORTUNITY (2012).
[61] *See id*.
[62] The Wikipedia entry for *God Save the Queen* includes an image of sheet music dating from 1745. *See* http://en.wikipedia.org/wiki/God_save_the_queen.

BoxOfficeMojo was also conducted and the data from the songs told an interesting story. The sample of random movies contained many fewer public domain songs than the sample of top grossing movies. At the time of movie release, only 8% (69/887) of songs from the randomly selected movies were in the public domain, whereas 25% (140/647) of the songs appearing in the top grossing movies were in the public domain at the time of release.

This difference presented a puzzle: Why would the top grossing films have three times as many public domain compositions as the randomly selected films? Top grossing films presumably have bigger budgets than randomly selected films, so it seemed unlikely that directors of top grossing films were more price sensitive and therefore chose to include marginally cheaper public domain compositions. The top grossing films might have contained more historical plots and settings than the random films, requiring a further reach back into the musical past, but this turns out not to be true. Fortunately, in prior research, I had uncovered a bias in the BoxOfficeMojo database caused by its decision to only list movies with known box office returns. Not surprisingly, movies where box office data is available tend to be newer movies. The box office gross for a 1953 film by a defunct studio may not be available, but almost all newer films report their box office receipts. For this reason, the median age of the 100 randomly sampled movies from BoxOfficeMojo was 2002. The median age of the top 100 grossing movies of all time was 1977, a striking difference.

This difference modified the puzzle: Why would directors of movies with a median release date of 1977 more frequently choose songs that were 60, 70, 80 or more years old at the time of production than did directors of movies with a median release date of 2002? Consistent with the evidence that both legal status and age are relevant to the availability of a work, a testable hypothesis emerged. Because of changes in the duration of copyright, directors of

movies released before 1977 did not have to look backward so far to access free public domain material. Since the analysis of both books and music above suggested that the age of a song is also relevant to the movie inclusion decision (51% of songs are published within 10 years of movie release date), one would expect that movie directors who only had to look backward 56 years to access the public domain (e.g. directors of movies from the 1930's to 1960's) would have been more likely to choose a public domain song than the director of a movie, say, in 2010 or 2011, who had to look backward 87 years or 88 years respectively to find a public domain song.

This hypothesis was testable by a further examination of the song sample from the top 100 grossing movies (examining the random song sample was fruitless because the earliest song was from 1981). The top grossing movies contained equal numbers of films from before and after 1977, a convenient date, given the timing of 1976 term extension. With an equal amount of movies (and an almost equal amount of songs in them[63]) from either side of 1977, the sample provided sufficient data to test whether age and therefore accessibility to free public domain material had influenced the availability of older songs in blockbuster movies.

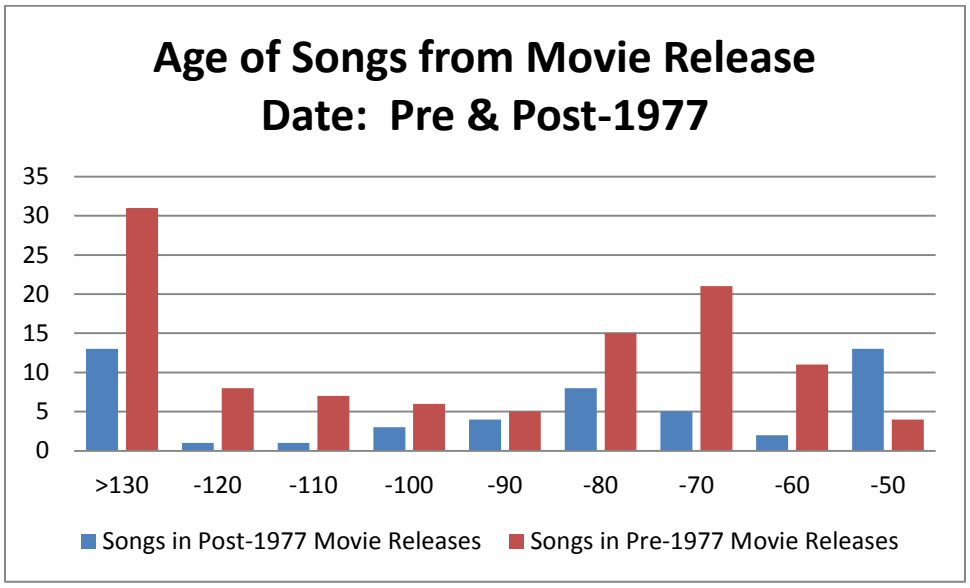
An initial analysis of the distribution of public domain songs in movies on both side of the 1977 median date supported the hypothesis that a combination of age and legal status mattered. Of the 129 public domain songs in the entire sample, 76% (98/129) were found in movies released prior to 1977. Only 24% (31/129) were found in movies release after 1977.

A more sophisticated analysis appears below in Figure 5 which compares the difference in years between the publication dates of the songs and the release dates of the movies in which they appeared in both the pre- and post-1977 sets of movies. The chart begins on the right side

[63] 384 songs from the pre-1977 movies and 341 from the post-1977 movies.

with songs, all protected by copyright, that are between 50-60 years old and then shows the difference between the two sets as the public domain songs are considered:

*Figure 5*




One notices immediately that the songs from the pre-1977 movies dominate every age category except 50-60 years before the movie release date, where almost all the songs still protected by copyright. Statistical analysis confirms the significance of the difference observed.[64]

The analysis, illustrated graphically in Figure 5, supports the earlier suggestion that copyright status has a significant effect on the availability of songs in movies. It also suggests why the sample of 100 randomly selected movies with a 2002 median release date contained so

[64] We [Peibei Shi of University of Illinois Statistical Consulting Office] use a paired t-test to test the significance of the difference in 60+ old songs between pre- and post- 1977. The p-value is 0.02105. So the rate of use of 60+ old songs in the pre- 1977 is significantly higher than the post- 1977. Null hypothesis: rates of use are the same. Alternative hypothesis: higher rate of use in pre- 1977 than post-1977.

| | N | Mean | Std |
|---|---|---|---|
| Songs in post- 1977 Movie releases | 9 | 5.556 | 4.746 |
| Songs in pre- 1977 Movie releases | 9 | 12 | 8.958 |

Paired t-test: t = -2.4161, df = 8, p-value = 0.02105.

many fewer public domain songs. The directors of the randomly selected movies had to look decades further back to mine the public domain than did the directors of the blockbuster movies which had a media release date of 1977.[65] If songs get progressively less desirable to place in movies as they age, then copyright seems to work hand-in-hand with Father Time to help make musical works disappear.

## IV. HOW SECONDARY LIABILITY RULES REANIMATE COPYRIGHTED SONGS ON YOUTUBE

Figures 1 & 3 above demonstrate the correlation of age and copyright status to availability. Of 2317 new fiction works for sale on Amazon, 254 were initially published after 2000, 109 were published in the 1990's, and only 29 were published in the 1980's, an alarmingly steep drop off.[66] As publishers take editions off the metaphorical bookshelf, copyright law stands as an obstacle to others in the market wanting to exploit the missing titles and fill the chasm. Evidence from the music-in-movies market tells a similar story. Over 51% of all music appearing in movies was published within 10 years of the movie release date.[67] Given that copyright law is meant to facilitate the advancement of learning and the distribution of information for the public benefit,[68] the impediment it presents in the recovery of once available works is disturbing.

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[65] Because of legislative changes in copyright length, directors of movies released during the talkie era from 1929-1964 only had to look backward 56 years to find a song with a public domain date of initial publication. Directors of movies released from 1964-97 had to look back between 56-75 years, depending on the year of release. Directors of movies in 1998-2013 had to look back 75-90 years, depending on the year of release. *See supra* note ___.

[66] *See supra* notes ___-___ and accompanying text.

[67] *See supra* notes ___-___ and accompanying text.

[68] *See* U.S. CONST., ART I, SEC. 8, CL. 8 ("Congress shall have the power to . . . promote the progress of science and useful arts by granting to authors and inventors the exclusive rights to their writings and creations."); Orrin D. Hatch & Thomas R. Lee, "*To Promote the Progress of Science": The Copyright Clause and Congress' Power to Extend Copyrights*, 16 HARV. J. L. & TECH. 1, 7-11 (2002) (discussing historical understandings of the word "science") L. RAY PATTERSON, COPYRIGHT IN HISTORICAL PERSPECTIVE (1968).

In at least one market, however, safe harbors established by secondary liability rules have the potential to ameliorate the accessibility dilemma. For the time being and despite copyright owners' ongoing efforts to modify the current law,[69] anyone with a computer and an internet connection can upload infringing music on YouTube without rendering the web site liable.[70] Under either the Digital Millenium Copyright Act safe harbor provisions[71] or analogous common

[69] The most visible attempt by copyright owners is seen the proposed Stop On-Line Piracy Act. *See* Mike Belleville, *IP Wars: SOPA, PIPA, And The Fight Over Online Piracy*, 26 TEMP. INT'L & COMP. L.J. 303, 318 (2012) ("Through a lobbying effort totaling over $91 million, the content industry, including the RIAA and MPAA, indicated to Congress that they were unsatisfied with the current state of copyright enforcement in the United States . . . presumably in response to lobbying efforts, two bills, PIPA and SOPA, were introduced in the House and Senate."); *See also The Guardian*, http://www.guardian.co.uk/technology/2011/dec/15/sopa-bill-congress-online-piracy ("According to figures compiled by the Center For Responsive Politics, the film, music and TV industries have spent more than $91m so far this year lobbying for the approval of the bill."); Michael A. Carrier, *SOPA, PIPA, ACTA, TPP: An Alphabet Soup Of Innovation-Stifling Copyright Legislation And Agreements*, 11 NW. J. TECH. & INTELL. PROP. 21 (2013).

[70] *See* Viacom Int'l v. YouTube, Inc., No. 07 Civ. 2103 (S.D.N.Y , 4-18-2013) (granting Google summary judgment in lawsuit brought by Viacom claiming YouTube was liable for hosting infringing uploads). Although the Viacom litigation is still on appeal, much academic commentary has concluded that YouTube will prevail in cases where it lacks actual knowledge that uploaded material is infringing. Edward Lee, *Decoding the DMCA Safe Harbors, ___ COL.-VLA __ (2012);* Jordan Sundell, *Tempting The Sword Of Damocles: Reimagining The Copyright/Dmca Framework In A UGC World*, 12 MINN. J.L. SCI. & TECH. 335, 337 (2011); Jennifer M. Urban & Laura Quilter, *Efficient Process or "Chilling Effects"? Takedown Notices Under Section 512 of the Digital Millennium Copyright Act*, 22 SANTA CLARA COMPUTER & HIGH TECH. L.J. 621 (2006); Andrey Spektor, *The Viacom Lawsuit: Time To Turn Youtube Off?*, 91 J. PAT. & TRADEMARK OFF. SOC'Y 286, 290-91 (2009).

[71] *See* 17 U.S.C. § 512(c)(1) (limiting liability to injunctive and equitable relief unless the service provider has actual knowledge, constructive knowledge, a financial benefit, or does not remove infringing material). Most cases applying the DMCA have found internet service providers in positions analogous to YouTube to qualify for the DMCA safe harbor. *See* Perfect 10, Inc. v. CCBill, LLC, 488 F.3d 1102, 1114 (9th Cir. 2007); UMG Recordings, Inc. v. Veoh Networks, Inc. (UMG I), 620 F. Supp. 2d 1081, 1088 (C.D. Cal. 2008); Io Group, Inc. v. Veoh Networks, Inc., 586 F. Supp. 2d 1132, 1148 (N.D. Cal. 2008); Corbis Corp. v. Amazon. com, Inc, 351 F. Supp. 2d 1090, 1110-11 (W.D. Wash. 2004). *See also* Viacom Intern. Inc. v. YouTube, Inc. --- F.Supp.2d ----, 2013 WL 1689071 S.D.N.Y.,2013. April 18, 2013 ("But the governing principle must remain clear: knowledge of the prevalence of infringing activity, and welcoming it, does not itself forfeit the safe harbor. To forfeit that, the provider must influence or participate in the infringement.").

law rules,[72] YouTube appears to be neither directly[73] nor secondarily[74] liable for infringement until it receives notice from a complaining copyright owner.[75] When it obtains actual knowledge[76] of infringement, it is potentially liable and has an obligation to take down the infringing upload.[77] YouTube, however, typically asks a question [paraphrased] of the copyright owner before taking down an infringing upload: "Instead of having the infringing material taken down, would you like us to leave it up and insert an advertisement that would allow you to profit from subsequent views of the upload?"[78] To facilitate this sort of exchange, YouTube has developed its Content Id software[79] that helps it identify infringing music uploads, enabling it to present monetization opportunities to copyright owners.

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[72] For a discussion of the common law approach to liability for on-line platforms, *see* Alfred Yen, *Third-Party Copyright Liability After Grokster*, 91 MINN. L. REV. 184 (2006). *See also* Brett White, *Viacom v. Youtube: a Proving Ground for DMCA Safe Harbors Against Secondary Liability*, 24 ST. JOHN'S J. LEGAL COMMENT. 811, 814-21 (discussing common law safe harbors as applied to YouTube).

[73] *See* Cartoon Network, LP v. CSC Holdings, Inc., 536 F.3d 121 (2d Cir. 2008) (cable company not liable for making system available for customers to copy programs remotely on its servers); Religious Technology Center v. Netcom On-Line Communication Services, Inc., 907 F. Supp 1361 (1995) (on-line platform that provided open storage for uploaded material was not directly liable for infringement unless it committed a voluntary act beyond merely making space available). Andrey Spektor, *The Viacom Lawsuit: Time To Turn Youtube Off?*, 91 J. PAT. & TRADEMARK OFF. SOC'Y 286, 290-91 (2009) (no direct infringement by YouTube).

[74] Since most cases hold that on-line platforms like YouTube qualify for DMCA safe harbor provisions, the law applying other secondary liability doctrines like contributory liability and vicarious liability remains underdeveloped. Commentators have made persuasive arguments that YouTube lacks the requisite mental state and control over the infringer to be held liable under historical principles of secondary liability. *See* Alfred Yen, *Third-Party Copyright Liability After Grokster*, 91 MINN. L. REV. 184 (2006). *See also* Brett White, *Viacom v. Youtube: a Proving Ground for DMCA Safe Harbors Against Secondary Liability*, 24 ST. JOHN'S J. LEGAL COMMENT. 811, 814-21 (discussing common law safe harbors as applied to YouTube).

[75] Since liability requires actual knowledge, it is possible that such knowledge could come from a source other than the copyright owner, e.g. YouTube's own Content ID program.

[76] The Second Circuit has recently held that willful blindness establishes the requisite actual knowledge. *See* Viacom Intern. Inc. v. YouTube, Inc., 676 F.3D 19, 28 (2d Cir. 2012). *See also* Casenote, *Copyright Law—Willful Blindness*, 126 HARV. L. REV. 645 (2012).

[77] *See* 17 U.S.C. 512(c) and cases cited *supra* note ___.

[78] *See* https://support.google.com/youtube/answer/2490020?hl=en-GB (explaining how videos can be monetized by content owners).

[79] *See* https://support.google.com/youtube/answer/2797370?p=cid_what_is&rd=1 (explaining how YouTube software helps identify uploaded music that is subject to a claimed copyright).

YouTube, therefore, has the potential to be a low cost intermediary between three types of parties: 1) those who possess copies of music in various forms (vinyl recordings and CD's; film or television clips; recordings of live performances); 2) those who want to hear that music; and 3) copyright owners who have not made their music available on-line. YouTube can transmit a signal to the market that is observable virtually costlessly by the copyright owner from someone who possesses a work.[80] In cases where YouTube's Content Id service initiates contact with the copyright owner, a business opportunity is presented to the rights holder in such a fashion that an automated response can seal the deal[81] and initiate a stream of profits, circumventing the normally high transactions costs associated with music licensing.[82]

To see how and whether this potential has been realized, lists of number one songs from the U.S., France, and Brazil from 1930-1960 were collected and each song was tracked on YouTube. Since all the musical composition studied were published after 1923, they were all still be protected by copyright in the U.S., as are all sound recordings of the compositions under a 1972 amendment to the Copyright Act.[83] Importantly, the songs come from decades where works are liable to disappear. The title of each song was entered into the YouTube search engine and the first 10 search results retrieving the song were analyzed. Data was collected on the identity of the uploader, the date and type of upload, the number of views, and whether the upload had been monetized. It was assumed, as required by the YouTube terms of agreement,[84]

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[80] Either YouTube initiates contact via its Content Id program or the owner can easily find videos in systemized searches.

[81] http://www.youtube.com/t/contentid (listing the option to have all unauthorized uploads monetized).

[82] *See* Alfred C. Yen, *A Preliminary Economic Analysis Of Napster: Internet Technology, Copyright Liability, And The Possibility Of Coasean Bargaining*, 26 U. DAYTON L. REV. 247 (2001) (describing on-line platforms as reducing transaction costs).

[83] *See* 17 U.S.C. § 301(c) (extending protection to pre-1972 sound recordings to the year 2067).

[84] *See* https://support.google.com/youtube/answer/97527?hl=en (stating that in order to monetize an upload, one must be able "to provide documentation proving you own commercial rights to all audio and video content").

that all monetization was conducted by the copyright owner. The data collected provides a snapshot of uploads as of May 2013. Like the Heraclitean stream,[85] the content and status of uploads on YouTube is constantly changing, so the study catches a moment in time and freezes it.

Perhaps the most striking statistic to emerge from the data is that at least 95% of the videos appear to have been uploaded by non-owners/infringers. Very few uploads seem to originate with the owner of the copyright in the underlying musical composition, sound recording, or film/television clip. Although it's impossible to tell for certain that "wehavejoy," an uploader who posted a video of Bill Haley's *Rock Around the Clock*,[86] is an infringer, a click on other videos posted by "wehavejoy"[87] reveals a clear amateur who also has posted a video of his or her cute Yorkshire Terrier named "Molly."[88] This is absolutely typical. Only a handful of uploaders of hit music published before 1960 seem to be the copyright owners. Those who appear to be owners, like "TheEdSullivanShow"[89] or "BingCrosbyVevo,"[90] not surprisingly, use more identifiable names to clearly associate themselves with the legal owners of the material. Any measure of the percentage of unauthorized uploads can only be an estimate (even legitimate-sounding uploaders might have adopted fake names or maybe Sony Music secretly

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[85] *See* Wikipedia, Heraclitus, http://en.wikipedia.org/wiki/Heraclitus (last visited Aug. 29th 2011). *See also* Jay Tidmarsh, *Procedure, Substance, and Erie*, 64 VANDERBILT L. REV. 877, 893 (2011) ("Reduced to its simplest expression, Heraclitus's view was that "all things flow." Perhaps the most vivid--and certainly the most quoted--statement of his position is that "you cannot go into the same water twice.").

[86] *See* http://www.youtube.com/watch?v=F5fsqYctXgM

[87] *See* http://www.youtube.com/user/wehavejoy?feature=watch (home page of all uploads by "wehavejoy").

[88] *See* http://www.youtube.com/watch?v=KYU8dyAFecQ&feature=c4-overview&list=UUQSU8yVbSz2ERAqnLq1LL1w.

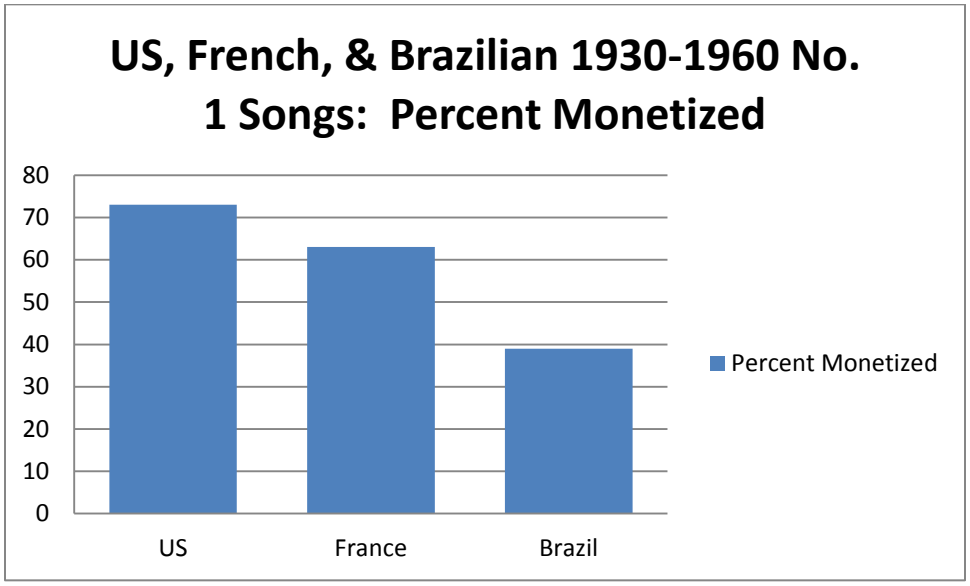
[89] *See* http://www.youtube.com/watch?v=X31GQTS7C1c ("Rock-Around-the-Clock" posted by the "EdSullivanChannel").

[90] *See* http://www.youtube.com/watch?v=aShUFAG_WgMm ("White Christmas" posted by "Bing CrosbyVevo"). According to Wikipedia, "Vevo . . . is a joint venture music video website operated by Sony Music Entertainment, Universal Music Group, and Abu Dhabi Media with EMI licensing its content to the group without taking an ownership stake." *See* http://en.wikipedia.org/wiki/Vevo.

uploads under names like "calism23"[91]), but even a brief sampling of typical uploaders leaves little doubt that the job of uploading old music is primarily performed by non-owners. This is consistent with the Brooks' study discussed above that found non-owners had digitized more historic sound recording than copyright owners.[92]

The uploaded videos in the sample were made available to listeners in two different formats. Monetized uploads confront the listener with an advertisement which generates revenue for the content owner, while non-monetized uploads are available without advertisements. Figure 6 below depicts the percentage of monetized uploads:

*Figure 6*



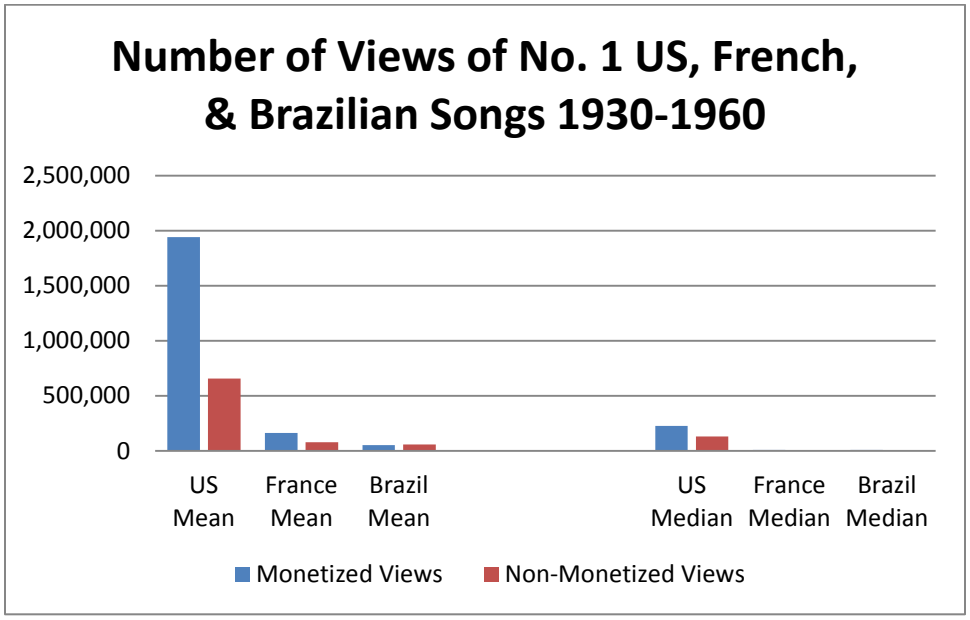

Most infringing U.S. uploads (73%) have been monetized by the copyright owner, but a large percent have not. Twenty-seven percent of apparently infringing uploads of U.S. number one hits from 1930-60 were not monetized and remained available and tolerated by the copyright owner(s). Notably, the non-monetized uploads are not primarily recent posts, as yet undiscovered by the copyright owner. In the spring of 2013, the median upload date of the non-

[91] *See* http://www.youtube.com/user/calism23?feature=watch (home page of all uploads by "calism23").
[92] *See supra* note ___ and accompanying text.

monetized sub-set was March 2009, while the median date for the monetized set was only two months earlier, January 2009. Four years of availability on YouTube is plenty of time for a copyright owner to detect an infringement. The non-monetized uploads appear, therefore, to be consciously tolerated.[93] And in many cases, more than one copyright owner appears to be tolerant. When a non-monetized upload is a television clip, for example, both the owner of the musical composition and the owner of the copyright in the video clip have the independent right to request a take down.

Notable, U.S. copyright owners seem to be more eager to monetize uploads than their French and Brazilian counterparts. This may be because French and Brazilian songs, although they have a strong presence on YouTube, do not attract nearly as many viewers as American hits, as illustrated in Figure 6 below. Many of the French and Brazilian videos may not be worth monetizing, although a simple email request would result in take down.

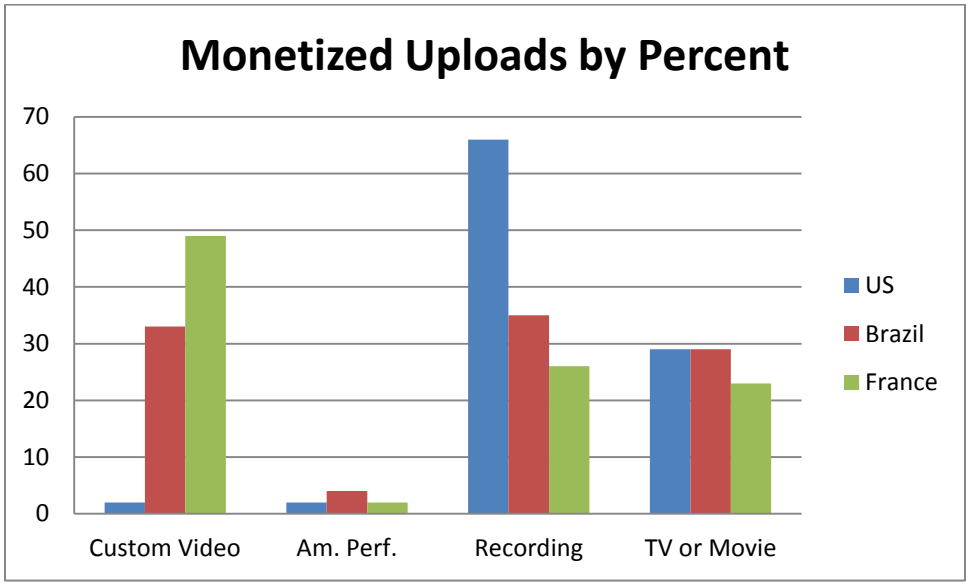
*Figure 7*




[93] Of course, the works could be orphaned, in the sense that their copyright owner does not realize it's the owner, but this seems unlikely with chart topping songs.

Whether an uploaded video has been monetized or not, it remains available to the listener, and further examination of the data shows the rich variety of forms in which the music is encountered by users. Figures 7 and 8 below depict the different sorts of uploads uncovered by the study and reveal different patterns of monetization by upload type and national origin of the hit song:

*Figure 8*

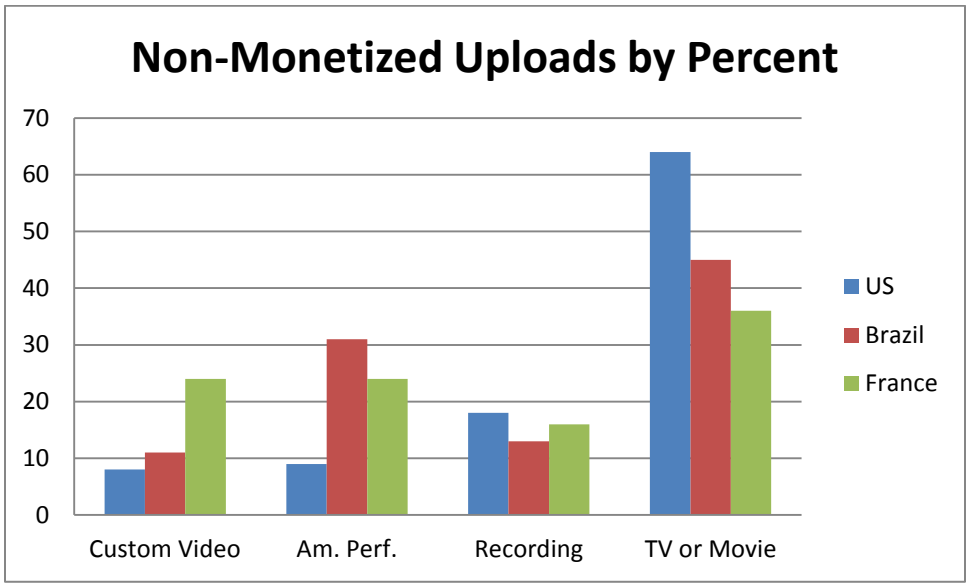



The custom video category contains primarily amateur videos with copyrighted music in the background, including karaoke versions of the song. American copyright owners show little interest in monetizing these uploads or in monetizing amateur performances of their songs. French and Brazilian owners are more likely to monetize a custom video containing their music, although amateur performances are seldom exploited. American copyright owners focus on monetizing uploads of simple sound recordings, usually uploads of songs off vinyl albums or CD's accompanied by a photo of the jacket cover, list of lyrics, or a photo of the artist.

More striking, perhaps, are the types of uploads that are typically *not* monetized, uploads which appear to be entirely tolerated examples of infringement. Figure 9 below reveals that

television and movie clips are the most common sort of non-monetized uploads for U.S., French, and Brazilian songs:

*Figure 9*




Two theories might explain the non-monetization of many television and film clips. First, in order for an upload to be monetized, YouTube requires that the claimant have rights to both the musical and visual aspects of a video.[94] In other word, a television clip from a 1950's variety show cannot be legitimately monetized without the active cooperation of both the owner of the musical composition (probably a music publishing company) and the owner of the copyright in the visual performance (probably the original television station or network or its assigns). Because there are typically two copyrights at issue, the cost of coordination may depress the rate of monetization. Interestingly, either owner has the right to take the clip down by sending notice to YouTube, but each owner independently might see a benefit in leaving the clip up. The owner of the copyright in the composition may welcome increased interest in the song via

[94] https://support.google.com/youtube/answer/2490020?hl=en

YouTube exposure, while the owner of the visual clip may be agnostic if it perceives no threat to its current profits.

In addition, many of the older television clips might be orphan works. For years, television stations did not routinely tape all live programming,[95] and when they did, they did not always archive copies.[96] For this reason, the technical owners of uploaded video programming may no longer have their own copies of the works and may not even know precisely what they own. And most of the uploaded performances on YouTube do not provide an explanation of the source of the work, so copyright owners in video content (as opposed to musical content subject to Content Id) are not so easily put on alert that their works are being exploited.

Whether a particular upload is monetized or not, it is accessible to the public for free, which helps to counter some of the negative affect of copyright on availability. Moreover, the work is often accessible in multiple forms, including uploads of music straight from CD's, digitizations of old vinyl recordings, and clips from television shows and films that are frequently more than 50 years old. Yet, despite YouTube's ability to revive and reanimate old works, it cannot make a work fully available. First of all, the music composition itself is not made available, just recordings of it. Moreover, videos containing music cannot be downloaded from YouTube by users, and potential listeners may have to wait through commercials in order to hear the music they desire. YouTube is not a particularly flexible platform for users, compared to CD's or digital downloads of music, but it ameliorates some of the negative effects

[95] http://en.wikipedia.org/wiki/List_of_lost_television_broadcasts (listing many lost television shows and noting, for example, that "[a]lmost all of NBC's *The Tonight Show* with Jack Paar and the first ten years (1962–1972) hosted by Johnny Carson were taped over by the network and no longer exist.").

[96] *See, e.g.*, Pacific and S. Co. v. Duncan, 572 F. Supp. 1186 (1983), *aff'd in part, rev'd in part*, 744 F.2d 1490 (11th Cir. 1984) (plaintiff television station WXIA-Altanta admitted to taping over or destroying all recordings of its newscasts).

of copyright on availability. This author has not discovered a web site that functions similarly for the thousands of books from the twentieth century that are no longer in print.

YouTube functions as an intermediary that lowers the cost of transacting over valuable cultural goods. Although the providers of the goods are usually not the rights holders, the law permits non-owners to signal their possession of the goods without imposing liability on the marketing platform itself. YouTube signals the potential transaction to the copyright owner and facilitates a "yes" or "no" decision by the owner who can then profit from the deal or nix it at a very low cost. The system lowers transaction costs and keeps some form of access to music available.

Economists are sometimes overly-effusive in their praise of the wisdom of common law rules, but in the case of YouTube, principles of secondary liability (as embodied in the DMCA) facilitate the development and creation of a fairly efficient market. Courts have so far usually held that market-making intermediaries not liable for the maintenance of platforms that welcome infringers until those intermediaries have actual knowledge of the infringement.[97] In this way, the rules that encourage take-down and notice regimes help promote access to cultural works while leaving the ultimate decision in the hands of rights holders. These rules, however, are under attack as advocates push for a strict liability regime that would destroy the market just described.[98]

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[97] *See supra* note ___.

[98] *See supra* note ___. *See also* Philip Mazoki, *Viacom International inc. v. Youtube inc. and the Failings of the Southern District Court of New York*, 30 TEMP. J. SCI. TECH. & ENVTL. L. 275, 309 (2011) (against YouTube); William Henslee, *Copyright Infringement Pushin': Google, Youtube, And Viacom Fight For Supremacy In The Neighborhood That May Be Controlled By The DMCA's Safe Harbor Provision*, 51 IDEA 607 (2011); Amir Hassanabadi, *Viacom v. Youtube--All Eyes Blind: the Limits of the DMCA in a Web 2.0 World*, 26 BERKELEY TECH. L.J. 405, 408 (2011); Lior Katz, *Viacom v. Youtube: an Erroneous Ruling Based on the Outmoded DMCA*, 31 LOY. L.A. ENT. L. REV. 101, 101 (2010-11); Steven Ward Gaches, *Balancing Interests: The DMCA Debacle in Viacom v. Youtube*, 19 U. BALT.

## CONCLUSION

Data show that business models designed to offer a work only for a relatively brief period of time can make that work disappear. In most circumstances, the evidence suggests that copyright law then keeps the work "off the shelf" until the expiration of the copyright term, now a minimum of 95 years and eventually, for post-1976 works, the life of the author plus 70 years. The data presented in this article demonstrate that there is a market for these missing works, illustrated bluntly by the fact that there are three times as many new books from the 1850's for sale on Amazon than books from the 1950's. Ever-longer term extensions exacerbate the availability and distribution crisis by delaying the moment when the market can intervene and restart production. As Senator Orrin Hatch explained in his defense of the 1998 term extension, maintaining the availability and distribution of works is at the heart of the meaning of "progress" in the Copyright Clause of the Constitution.[99] He is correct about the purpose of copyright, but completely wrong about how to solve the problem of missing works. Further attempts to extend the copyright term should be resisted, not encouraged. Copyright was not designed by the framers of the Constitution as a means by which Congress could make works disappear.

Congress should also resist calls to dismantle platforms like YouTube which take advantage of current limits on secondary liability to create a marketplace that radically reduces the high transaction costs of negotiating over rights to music and visual content. The access YouTube provides to valuable cultural products is far from perfect, but it provides a partial solution to the problem of disappearing works, at least in the music context. In any event, no

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INTELL. PROP. L.J. 65 (2010); Adam Shatzkes, *The Destruction Of An Empire: Will Viacom End Youtube's Reign*?, 26 TOURO L. REV. 287, 287(2010).

[99] *See supra* note ___ at 7 ("the founding-era understanding of "progress" clearly extends to the dissemination or distribution of existing artistic works").

new legislative initiative should proceed in the absence of concrete data testing the claim by copyright owners that their proposals make works more, rather than less, available to the public.