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COMMENTS OF THE CONSUMER FEDERATION OF AMERICA

COPYRIGHT POLICY, CREATIVITY AND INNOVATION IN THE DIGITAL ECONOMY

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THE CONSUMER FEDERATION OF AMERICA

The Consumer Federation of America (CFA) is an association of non-profit consumer organizations that was established in 1968 to advance the consumer interest through research, advocacy, and education. Today, nearly 300 of these groups participate in the federation and govern it through their representatives on the organization's Board of Directors.

CFA was one of the first consumer groups to examine the impact of the Internet on consumers, concluding in a January 1990 paper that it would be a very consumer-friendly and citizen friendly space.[1] Since then, CFA has participated in virtually every major federal regulatory, legislative and judicial proceeding in the U.S. that would impact the ability of the Internet and the digital revolution to promote the consumer Interest, including, of most direct relevance to this undertaking, *amicus* briefs in the *Groskter* and *Aereo* cases, and Tunney comments in the Microsoft and Apple cases. It has also expressed its view in numerous academic publications.[2]

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[1] *Expanding the Information Age for the 1990s: A Pragmatic Consumer Analysis*, January 11, 1990.

[2]"From the Public Switched Telephone Network to the Public Digital Communications Network: Interconnection, Interoperability, Universal Service & Innovation at the Edge," Interconnection Policy for the Internet Age, The Digital Broadband Migration: The Future of Internet-Enabled Innovation, Silicon Flatirons, February 10-11, 2013; "Why Growing Up is Hard to Do: Institutional Challenges for Internet Governance in the "Quarter Life Crisis of the of the Digital Revolution," Journal on Telecommunications and High Technology Law, 2013. 11(1); Cooper, Mark N., 2011, "Structured Viral Communications: The Political Economy and Social Organization of Digital Disintermediation," *Journal on High Telecommunications and High Technology Law,* 9:1, 2011; "The Central Role of Wireless in the 21st Century Communications Ecology: Adapting Spectrum and Universal Service Policy to the New Reality," *Telecommunications Policy Research Conference,* September 2011; "Round #1 in the Digital Intellectual Property Wars: Economic Fundamentals, Not Piracy, Explain How Consumers and Artists Won in the Music Sector," *Telecommunications Policy Research Conference*, September 2008.; "Governing the Spectrum Commons," September 2006. *Telecommunications Policy Research Conference,* October 2006; "Accessing the Knowledge Commons in the Digital Information Age," *Consumer Policy Review,* May/June 2006; "From Wifi to Wikis and Open Source: The Political Economy of Collaborative Production in the Digital Information Age," *Journal on Telecommunications and High Technology Law,* 5:1, 2006; "The Economics of Collaborative Production in the Spectrum Commons," *IEEE Symposium on New Frontiers in Dynamic Spectrum Access Networks,* November 2005; "Independent Noncommercial Television: Technological, Economic and Social Bases of A New Model of Video Production," *Telecommunications Policy Research Conference,* October 2005; "Hope And Hype Vs. Reality: The Role Of The Commercial Internet In Democratic Discourse And Prospects For Institutional Change," *Telecommunication Policy Research Conference,* September 21, 2003; "Inequality In The Digital Society: Why The Digital Divide Deserves All The Attention It Gets," Cardozo *Arts and Entertainment Law Journal,* 2002, "Open Access To The Broadband Internet: Technical And Economic Discrimination In Closed, Proprietary Networks," *University of Colorado Law Review,* Vol. 69, Fall 2000; "Antitrust As Consumer Protection In The New Economy: Lessons From The Microsoft Case, Hastings *Law Journal,* 52:

CFA applauds the Department of Commerce for undertaking a review of copyright policy and providing this opportunity to comment on the fruits of its labor. In response, CFA has prepared a detailed analysis of the performance of the emerging digital music ecology. The study, entitled *Digital Disintermediation and Copyright in the 21st Century: Lessons from the Transformation of the Music Sector,* is attached to these comments. Digital disintermediation affected the music sector first and most profoundly of all the areas of the creation of cultural content. The reasons for its leading role and the lessons that must be learned from it are explored in depth in the attached paper. In these comments, we briefly outline the policy conclusions we reach.

THE FRAMEWORK FOR ANALYZING COPYRIGHT POLICY

In order to offer sound advice for policy, it is vitally important to recognize the framework of copyright policy in the United States as well as the performance of the sector. Two recent major analyses provide exactly the right context.

The of the Board on Science, Technology, and Economic Policy for the National Research Council (STEP) recently released a report entitled *Copyright In the Digital Era: Building Evidence For Policy* that provides the two key pillars on which policies to adjust copyright to the digital age must rest.[3]

First, it is vitally important to recognize that the private incentive that copyright is intended to afford to creators and artists must be balanced by three broad public interest benefits:

- Creativity – particularly fair use, to reflect the principle that copyrighted materials should be available not only for personal use, but as the building blocks on which creativity rests.
- Efficiency – optimal economics, network effects, transaction costs, innovation, technological change.
- Control of market power – consumer surplus, artist income, supra-competitive profits.

The Department of Commerce Green paper, [4] expresses a similar sentiment.

Second, in the decades of the flowering of the commercial Internet and the digital revolution, the knowledge base for policymaking in the copyright area is "poorly informed by objective data and empirical research." (STEP, 2013, p. ix) The STEP identified a long list of questions where "research might help inform decisions about key aspects of copyright policy," expressing the hope that "(e)ventually, research will help inform decisions about key aspects of copyright policy." (STEP, 2013, p.3?) As suggested by Exhibit 1, the list of unknowns might lead one to conclude that just about every aspect of copyright is in need of a great deal of research.

4, April 2001; "Evolving Concepts of Universal Service," *The Federalist Society,* October 18, 1996; "Delivering the Information Age Now," *Telecom Infrastructure: Telecommunications Reports*, 1993.

[3] Committee on the Impact of Copyright Policy on Innovation in the Digital Era, Board on Science, Technology, and Economic Policy, Policy and Global Affairs (STEP), 2013, *Copyright In The Digital Era Building Evidence For Policy,* Stephen A. Merrill And William J. Raduchel, (EDSs.), National Academy Press, 2013.

[4] Department of Commerce Internet Policy Task Force, Copyright Policy, Creativity and Innovation in the Digital Economy, July 2013.

By choosing to recommend further examination of many issues by the executive and legislative branches of government, the Department of Commerce Green Paper reflects this sentiment.

EXHIBIT 1: NATIONAL RESEARCH COUNCIL AREAS OF NEED FOR RESEARCH ON COPYRIGHT

Key aspects of copyright

- appropriate scope of copyright protection;
- optimal duration of the copyright term;
- best arrangements for correcting market imperfections that inhibit voluntary licensing;
- appropriate safe harbors and fair use exceptions to copyright;
- effective enforcement remedies for infringing use and the best arrangements for correcting deficiencies in enforcement mechanisms;
- advisability of reintroducing a formal registration requirement; and
- advantages and disadvantages of reshaping

Incentives for creators, distributors, and users, research could help determine

- how the expenses involved in creative expression and distribution differ across sectors and the role of copyright in generating revenues to offset those expenses;
- under what circumstances sources of monetary and/or non-monetary motivation outside of that provided by copyright are effective in motivating creative activity;
- the motivations of various types of users and potential users of creative works, including both infringers and lawful users;
- the effects of enhanced enforcement remedies on promoting creativity, technological innovation, and freedom of expression; and
- how the costs of distributing creative content are affected by social media and other new technologies.

Enablers of and impediments to voluntary licensing transactions in copyrighted works

- the significance of transaction costs as barriers to utilization of copyrighted works;
- the extent of problems involving orphan works (whose owners cannot be identified), user-generated content, and collaborative and iterative works;
- what are successful arrangements for managing transaction costs; the roles of public and private institutions in facilitating licensing;
- the relationship of transaction costs to legal rules such as compulsory licenses; and
- changes in transaction costs.

Enforcement challenges

- how much is spent by governments and private parties on copyright enforcement;
- against whom enforcement efforts are targeted and what remedies are sought and granted;
- the results of enforcement efforts in terms of compensation, prevention, education, and deterrence;
- how the effectiveness of enforcement efforts is changing with the expansion of digital networks;
- the costs and benefits of current enforcement methods vis-à-vis those associated with proposed new enforcement methods;
- the relative vulnerability of different business models to infringement;
- the costs and benefits of fair use exceptions and the Digital Millennium Copyright Act (DMCA) safe harbors.

Assessing the *balance* between copyright protection and the statutory exceptions and limitations to copyright

- costs and benefits of copyright exceptions and limitations in terms of the economic outputs and welfare effects of those individuals, businesses, educational institutions, and other entities that rely on them;
- how copyright and the various categories of limits and exceptions interact with innovative and/or disruptive technologies and platforms;
- what adverse effects, if any, exceptions and limitations have on copyright holders and their potential to generate economic outputs and welfare effects.

Source: STEP, 2013, pp. 2-4.

FINDINGS AND RECOMMENDATIONS

The analysis in the attached paper provides a detailed evaluation of the performance of the music sector in the pre-digital and digital era that answers the most important questions raised by the STEP and Commerce papers. It shows that the efforts to expand copyrights and enforcement mechanisms, based on claims of rampant piracy, which has been the dominant orientation of copyright policy for the past two decades, are not supported by empirical evidence. On the contrary, digital disintermediation has created a much more efficient, consumer-friendly music sector that has eliminated anti-consumer and anti-competitive practices, wrung out excess profits created by the abuse of market power of a highly concentrated music sector, and replaced it with a more efficient, consumer and artist friendly ecology that is coming into economic equilibrium.

Given the abysmal performance and long history of abuse of market and monopoly power of the pre-digital music sector, and the hostility to new technologies that embody exactly the progress that copyright policy is intended to foster, strengthening the monopoly and market power of the record labels, the dominant incumbent copyright holders in the music sector, threatens to stifle the dynamic development of the digital music ecosystem.

The continuing stridency of the debate over copyright that the STEP laments reflects the fact that Congress has made a mess of copyright for digital media, particularly webcasting, by looking for compromise between entrenched incumbent interests, rather than worrying about the needs of new entrants or the emerging technology-driven market structure. The resulting rights and rates reflect the political muscle of the existing interests, rather than a coherent policy framework to "promote the Progress of Sciences and useful Arts", as the Constitution intends.

From a broad perspective, the challenge for policy makers is to ensure that the extremely consumer and artist-friendly development of the music sector is secured and allowed to flouirsh by reforming mass market licensing in a manner that supports the digital music ecology in two ways.

The paper shows that the record labels have the willingness (through an entitlement/"make whole" world view), the interest (through rent seeking and a strong desire to control the flow of music) and the ability (through concentrated contractual and monopoly copyright control of marquee content) to slow, distort and undermine the emerging digital ecology. Recognizing the abysmal performance of the pre-digital, CD-based music market and the dramatic improvement in performance of the emerging digital music ecology, leads to the clear conclusion that proposals to strengthen copyright are unjustified and unnecessary.

If there is any tinkering to be done with respect to copyright, it should be in the one place where Congress fumbled badly and acted prematurely in response to the piracy panic of the record labels. Overreacting to the cries of the labels, Congress expanded the copyrights of the record labels who immediately abused the new found monopoly power to put Internet distribution of content at risk.

Moreover, the efforts of the labels to remove digital content from the oversight of collective licensing that has been in place through consent decrees with the Department of Justice should be rejected. Over the course of three-quarters of a century the Department of Justice has repeatedly found it necessary to strengthen the consent decrees to improve user access to content when confronted with record label efforts to squelch technology drive progress. Each modification and

expansion of the consent decrees was made necessary by the introduction of a new technology that the labels tried to stifle by collective opposition.

At a more specific level, the recommendation by the Department of Commerce that a performance right be created without specifying why that right is needed in the digital age and how the market power it conveys to the copyright holders will be constrained should be rejected. This recommendation exhibits an unnecessarily narrow focus on private incentives. Weak-kneed caveats, that the implementation of the right should be balanced without careful analysis and recommendation for how that balancing will be accomplished are embarrassingly inadequate. Given the historic pattern of abuse of market power in the music sector, granting rights first and worrying about abuse later will almost certainly be counterproductive. The Department of Commerce should withdraw its recommendation.

The authorities responsible for rate setting took the very imperfect framework built by Congress and made the worst of it by making three critical errors in setting royalty rates based on erroneous assumptions about the nature of Internet radio. They:

- failed to recognize the promotional and informational value of webcasting,
- continued to make piracy a central concern, in an area where it was technologically and economically irrelevant, and
- adopted an industrial policy for webcasting that reflected the scarcity based business model of the pre-digital oligopoly music market, rather than the abundance-based, opportunity-driven digital market.

These three errors are correctable within the context of the administrative process. Correcting these three fundamental errors would move webcasting rates much closer to the rate for terrestrial radio (zero), or satellite radio (a small percentage of revenue). Congress can, and should, fix the underlying scheme by adopting a technology-neutral policy that promotes expanding access to digital distribution and restrains the potential for abuse of the monopoly privilege, but the rate setting authorities do not have to wait for Congress to act; they have adequate authority to fix the problem based on a careful empirical evaluation of the development of the digital music ecology.

DIGITAL DISINTERMEDIATION AND COPYRIGHT IN THE 21ST CENTURY:
LESSONS FROM THE TRANSFORMATION OF THE MUSIC SECTOR

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INTRODUCTION

A. PURPOSE

This paper address two of the most hotly debated aspects of digital copyright policy (judging from the amount of activity in Congress[5] – unauthorized file sharing and compulsory licenses – through the lens of the development of the digital music sector. The music sector has been at the epicenter of what can fairly be described as an economic and political earthquake triggered by digital technologies.[6] The music sector was one of the first industries to be specifically addressed by copyright legislation after the commercialization of the Internet and Congress has enacted four laws that addressed copyright in the music space in the past two decades. The record labels have litigated against nearly all of the players involved in the digitization of music from device manufacturers, to applications developers, to Internet service providers, to tens of thousands of consumers. Digital technologies and music copyright issues have been to the Supreme Court twice in the past decade.

In spite of all this activity, this paper argues that the most essential questions involved in copyright policy have been largely ignored in much of the policy analysis – an evaluation of the economic performance and viability of the music sector and the public benefits of the emerging digital music ecosystem. The dearth of attention to these broader issues reflects a natural, but regrettable, outcome of the desire of music copyright holders to focus the policy debate on a single issue, the private incentives to create music. While private incentives are an important goal of copyright policy, U.S. copyright policy demands that a balance be struck between private incentives and public benefits.[7] Recent analyses by the National Research Council (2013) and the U.S. Department of Commerce (2013) identified the extent of public benefits as a crucial question in copyright analysis, but did not provide direct answers.

This paper shows that the effort to expand copyright holders' rights and enforcement mechanisms, based on claims of rampant piracy, are not supported by empirical evidence. On the contrary, digital disintermediation has created a much more efficient, consumer-friendly music sector that has eliminated anti-consumer and anti-competitive practices, wrung out excess profits created by the abuse of market power of a highly concentrated music sector, and replaced it with a more efficient, consumer and artist friendly ecology. Not only are consumers paying for music in new ways at much lower cost, but the economics of the music sector are approaching a new, sustainable economic equilibrium.

Important challenges remain, however, because dominant copyright holders (i.e. the record labels) still possess market power in important aspects of the music sector. The market for recorded

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[5] Needless to say the accounts are numerous. Several that provide descriptions and are cited later in this paper include: Fisher, 2004; Tschmuck, 2006; Perrit, 2007; Welsh, 2009; Deutsch, 2010; Stockment, 2010; Postigo, 2012;

[6] The adjectives used to describe the process are testimony to the monumental nature of the shift. Hunter (2012() uses the term seismic. Other terms used include: Disintegration (Wahcs, 2012), Disruptive (Handke 2006, STEP, 2013), Dramatic (Bockstedt, 2005; Waldfogel, 2011), Drastic (Vaccaro, 2004,); Epochal (Spots, 2010); Revolution (Cook, 2003, Wagmna, 2006, Andersen and Frenz, 2007), Wars (Frost, 2007).

[7] "The limited scope of the copyright holder's statutory monopoly, like the limited copyright duration required by the Constitution, reflects a balance of competing claims upon the public interest: creative work is to be encouraged and rewarded, but private motivation must ultimately serve the cause of promoting broad public availability of literature, music, and the other arts. The immediate effect of our copyright law is to secure a fair return for an 'author's' creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity for the general public good." Sony Corp. v. Universal City Studios, 464 U.S. 417, 429 (1984).

music is dominated by the so-called 'major' labels Sony, Warner and Universal.[8] The market for musical works is similarly dominated by three mega-publishers: Sony/ATV, which also administers EMI, Warner Chappell, and Universal. The application of federal copyright protection to music has been extremely haphazard; e.g., federal copyright protection has applied to musical works since 1838 but was first applied to sound recordings in 1972—and then only providing the exclusive right to reproduce and distribute. It was not until 1995 that sound recordings enjoyed a copyright in public performance—and then only with respect to public performance by means of a digital audio transmissions.

A music user's ability to use copyrighted music is subject to a dizzying array of complex licenses. For example, an Internet radio broadcaster can secure the right to publicly perform the sound recordings owned by the major labels through statutory licenses established by Congress in the Copyright Act (see, e.g., 17 U.S.C. §§ 112 and 114). On the other hand, the same Internet radio broadcaster would have to secure the right to perform the underlying musical works either from the performing rights organizations ("PROs") ASCAP, BMI and SESAC (sometimes referred to as "collective" licensing) or—as recently enacted changed to PRO membership have attempted to establish—directly from the music publishers. Terrestrial radio broadcasters pay nothing to the record labels for the songs performed on over-the-air radio and secure all of the rights in the music works directly from the PROs. New rates for new rights had a devastating effect on the ranks of Internet radio enterprises,

B. OUTLINE

This paper is organized as follows.

Chapter I establishes the analytic framework in two ways. It begins by examining the key goals of copyright policy in the U.S. and therefore the policy issues that arise in the debate over copyright reform in the face of the spread of digital technology. The chapter relies on recent documents from the National Research Council and the Department of Commerce to identify the goals and policy issues. Because the goal of progress is measured and affected by key economic factors the chapter then briefly introduces the economic approach that will be used – the structure conduct performance paradigm. The key policy issues, unauthorized file sharing and mass market licenses, are briefly described.

Part I of the paper consists of three chapters that describe the digital transformation of the music sector.

Chapter II begins with a qualitative description of the changes in the music sector brought about by digital technologies. It then provides quantitative evidence of the dramatic change in the economic characteristics of the music sector.

Chapter III provides the baseline for assessing performance of the digital music sector by assessing the performance of the pre-digital sector focusing on the two decades in which the compact Disc (CD) came to be the dominant medium for music distribution.

[8] Universal recently acquired most of the catalog of EMI (Capitol) Records, previously the fourth largest record label.

Chapter IV describes the benefits of digital disintermediation in broad terms, as well as the specific terms of formal economic welfare economic. Examining revenues **and** costs, it shows that the sector is moving toward an economic equilibrium in which output is sustainable in a much more consumer and artist friendly market structure.

Part II of the paper provides an empirical discussion of the two policy issues that have dominated the copy right debate since the beginning of the digital transformation.

Chapter V shows that the focus on piracy as the driving force of policy since the mid-1990 is misplaced. It examines the evidence on piracy and concludes that the extent of piracy was vastly overestimated by the industry. Even studies from the early period of digital distribution based on evidence from the period before business models for the legal distribution of digital music had transformed the sector, failed to make a convincing case that piracy was a critical problem. The evidence based on data from the period in which digital distribution dominates the music sector shows that the role of piracy in the digital music market is currently small and inconsequential.

Chapter VI discusses the central role and functions that mass market licenses (compulsory and collective licenses) served in the pre-digital must sector. It reviews how the past behavior of copyright holders created the need for constraints on the exercise of the market power created by the monopoly copyright. It examines the contemporary market structure and behavior of copyright holders, showing that the historical pattern of abuse is being repeated, which underscore the need for control of the continuing market power of the record. It recounts the development of oversight of mass market licensing that was, and still is required to control abusive behavior of copyright holders both through regulation (compulsory licenses) and antitrust enforcement of consent decrees on collective licensing agencies.

Combining the empirical analysis in Parts I and II shows that the factual and evidentiary basis on which much recent copyright policy and debate in the music sector rests has been flawed, which has led to a focus on the wrong issues. The purpose of this paper is to force the debate over copyright policy in the digital age to launch from the recognition that the digital transformation has dramatically improved the functioning of the music sector, which is the central concern and goal of copyright policy. While the recent analyses for the NRC and the DOC pay lip service to the need for a broader analysis, they fail to empirically answer the questions they have raised. It is the premise of this paper that if the policy debate does launches from a flawed base, it cannot reach the correct outcome.

I. THE POLICY CONTEXT FOR STUDYING COPYRIGHT IN THE DIGITAL AGE

A. GOALS OF COPYRIGHT POLICY

Given the immense amount of legal and legislative activity surrounding music copyright issues, one might think that the evidence for greater protection of copyright in the music sector is quite strong. In fact, the opposite is the case, as suggested by a recent report from the National Research Council entitled *Copyright In the Digital Era: Building Evidence For Policy*. The Committee on the Impact of Copyright Policy on Innovation in the Digital Era of the Board on Science, Technology, and Economic Policy for the National Research Council (STEP) concluded that the knowledge base for policymaking in the copyright area is "poorly informed by objective data and empirical research." (STEP, 2013, p. ix)

Moreover, the preface to the STEP report points out that this "is not the first Academy committee to recognize the need for empirical research on the effects of copyright." (STEP, 2013, p. ix) It notes that a similar conclusion was reached over a decade earlier by another part of the National Research Council.

> In its 2000 report, *The Digital Dilemma: Intellectual Property in the Information Age*, the Computer Science and Telecommunications Board recommended that: Research should be conducted to characterize the **economic impacts** of copyright. Such research might consider, among other things, the impact of **network effects** in information industries and how digital networks are changing **transaction costs**.
>
> And further, Research should be initiated to better assess the social and economic impacts of **illegal commercial copying** and how they interact with private **noncommercial copying for personal use**. Despite this call, in the intervening 13 years, only very modest progress has been made. (STEP, 20-13, p. ix, emphasis added)

In the face of the lack of "objective data and empirical research," the STEP report noted that the stridency of the debate over copyright had not abated.

> Congress recently considered legislation, supported by producers of movies, music, software, publishers, and some groups of artists, to **curb online piracy** of copyright-protected materials by offshore websites located in territories lacking robust copyright enforcement mechanisms. As it neared action on the floor of the House of Representatives, The Stop Online Piracy Act (SOPA) provoked a wave of protest from technology companies, public interest groups, and consumers who asserted that the anti-piracy measures would stifle **domestic creativity, freedom of expression, entrepreneurial activity, and innovation.** They also raised concerns about online **privacy** and **security.** (STEP, 2013, p. 3, emphasis added))

The STEP identified a long list of questions where "research might help inform decisions about key aspects of copyright policy," expressing the hope that "(e)ventually, research will help inform decisions about key aspects of copyright policy." (STEP, 2013, p.3?) As suggested by Exhibit I-1, the list of unknowns might lead one to conclude that just about every aspect of copyright is in need of a great deal of research.

EXHIBIT I-1: NATIONAL RESEARCH COUNCIL AREAS WHERE RESEARCH ON COPYRIGHT IS NEEDED

Key aspects of copyright

- appropriate scope of copyright protection;
- optimal duration of the copyright term;
- best arrangements for correcting market imperfections that inhibit voluntary licensing;
- appropriate safe harbors and fair use exceptions to copyright;
- effective enforcement remedies for infringing use and the best arrangements for correcting deficiencies in enforcement mechanisms;
- advisability of reintroducing a formal registration requirement; and
- advantages and disadvantages of reshaping

Incentives for creators, distributors, and users, research could help determine

- how the expenses involved in creative expression and distribution differ across sectors and the role of copyright in generating revenues to offset those expenses;
- under what circumstances sources of monetary and/or non-monetary motivation outside of that provided by copyright are effective in motivating creative activity;
- the motivations of various types of users and potential users of creative works, including both infringers and lawful users;
- the effects of enhanced enforcement remedies on promoting creativity, technological innovation, and freedom of expression; and
- how the costs of distributing creative content are affected by social media and other new technologies.

Enablers of and impediments to voluntary licensing transactions in copyrighted works

- the significance of transaction costs as barriers to utilization of copyrighted works;
- the extent of problems involving orphan works (whose owners cannot be identified), user-generated content, and collaborative and iterative works;
- what are successful arrangements for managing transaction costs; the roles of public and private institutions in facilitating licensing;
- the relationship of transaction costs to legal rules such as compulsory licenses; and
- changes in transaction costs.

Enforcement challenges

- how much is spent by governments and private parties on copyright enforcement;
- against whom enforcement efforts are targeted and what remedies are sought and granted;
- the results of enforcement efforts in terms of compensation, prevention, education, and deterrence;
- how the effectiveness of enforcement efforts is changing with the expansion of digital networks;
- the costs and benefits of current enforcement methods vis-à-vis those associated with proposed new enforcement methods;
- the relative vulnerability of different business models to infringement;
- the costs and benefits of fair use exceptions and the Digital Millennium Copyright Act (DMCA) safe harbors.

Assessing the *balance* between copyright protection and the statutory exceptions and limitations to copyright

- costs and benefits of copyright exceptions and limitations in terms of the economic outputs and welfare effects of those individuals, businesses, educational institutions, and other entities that rely on them;
- how copyright and the various categories of limits and exceptions interact with innovative and/or disruptive technologies and platforms;
- what adverse effects, if any, exceptions and limitations have on copyright holders and their potential to generate economic outputs and welfare effects.

Source: STEP, 2013, pp. 2-4.

Beyond these detailed questions about how new digital technologies affect copyright, the report cites the ruling in the *Grokster* case, the second Supreme Court ruling on digital music distribution in the first five years of the 21st century to highlight the difficult, fundamental challenges that U.S. copyright policy confronts:

> [T]he more artistic protection is favored, the more **technological innovation** may be discouraged; the administration of copyright law is an exercise in managing the trade-off.
>
> [T]he leading justification for copyright in the United States has always been to **motivate and disseminate creative expression for the public benefit by providing creators and/or their agents with a degree of market power they would not otherwise enjoy.** Although this market power can translate into **supra-competitive prices for consumers** of copyrighted works and into constraints on those who use them as the **basis for subsequent creativity**, copyright strives to **limit these costs to those necessary to generate and disseminate the works** upon which subsequent creativity depends. (STEP, 2013, p. 36, emphasis added)

With this broad framing of copyright policy and long list of questions, the report concludes that the most fundamental questions about the principles of copyright in the digital music sector have not been answered:

> We also do not know how the baseline for determining the optimal supply of new music has been changed by the digital age. It could be the case that **artists' incomes and consumer welfare** could rise under a better functioning music copyright system, particularly one more **accommodating of innovation** enabled by technological change. On the other hand, it could be that better enforcement could result in lower **consumer surplus and artist income**, **with more profit reaped by intermediaries.** (STEP, p. 25, emphasis added)

Thus, highlighted in the above citations, the STEP discussion of the challenge of copyright policy emphasizes that copyright requires establishing a balance between private interests (incentives) and three broad types of public benefits:

- Creativity – particularly fair use, to reflect the principle that copyrighted materials should be available not only for personal use, but as the building blocks on which creativity rests.
- Efficiency – optimal economics, network effects, transaction costs, innovation, technological change.
- Control of market power – consumer surplus, artist income, supra-competitive profits.

The recent green paper from the Department of Commerce (DoC) recognizes the important role of balance in copyright policy:

> It is time to assess whether the current balance of rights, exception and responsibilities – crafted, for the most part, before the rapid advances in computing and networking of the past two decades – is still working for creators, rights holders, service providers and consumers. The Internet must continue to support a legitimate market for copyrighted works as well as provide a platform for innovation and the market introduction of new and dynamic services that drive digital commerce. (Department of Commerce, 2013, p. iii)

The Commerce Green Paper argues that assessing the balance requires that the economic state of the overall sector is healthy:

> It must be recognized, however, that these positive results represent only part of the picture; the question is whether all combined sources of revenue provide sufficient incentives for the production of creative works, despite the decline in physical sales in many sectors. A healthy transition to the online marketplace will be complete when overall sales, regardless of business model, can support a thriving creative industry. (Department of Commerce, 213, p. 80)

The DoC Paper also identifies the compulsory license for broadcasting as an area in need of reform in several aspects, although it included these under a category in which it made no specific recommendation:

> Additional issues on which the Task Force supports Congressional or regulatory attention, without specifying particular solutions."
>
> - Assessing the appropriateness of different rate-setting standards for the public performance of sound recordings by different types of digital music services.
> - Any reconsideration should focus broadly on the interests of all involved parties, taking into account the impact on creators and right holders as well as on different types of services.
>
> Reforming music licensing, with particular focus on the mechanical license for musical compositions.
>
> - The Task Force believes that collective licensing, implemented in a manner that respects competition, can spur rather than impede the development of new business models for the enjoyment of music online. The time may be ripe to revisit whether legislative adjustments can help modernize the existing mechanical license for the digital age, for example by converting it into a blanket license, permitting a single license for a complete repertoire. Congress has recently indicated that it will be exploring music licensing issues during the upcoming term, including questions of mechanical license reform. The Task Force looks forward to the Administration providing its views to Congress at the appropriate time. (Department of Commerce, 2013, pp. 100-101)

The Commerce Green Paper makes another recommendation that could dramatically affect access to music in the digital music sector. It noted that that "for over thirty years, the Administration and Copyright Office have made repeated calls to create a public performance right for the broadcasting of sound recordings." The Commerce Green Paper repeats that call based on the claim that more compensation and reciprocal protection is needed.

> Apart from the inability to obtain compensation in the United States, this omission has had a real impact on the balance of payments from abroad. While broad public performance rights are enjoyed by owners of sound recordings in most other countries, U.S. sound recording owners and performers have been unable to collect remuneration from the broadcasting of their works in those countries due to the lack of reciprocal protection here. (Department of Commerce, 2013, Id., p. 100)

The fact that some have advocated a full performance right for a long time under different economic circumstances does not answer any of the empirical questions tabled by the STEP and the Commerce papers. The analysis in this paper provides evidence that supports the need for change,

but it also provides clear evidence that the proper direction is the antithesis of creating a new performance right. Reforming "compulsory licensing for listening," must preserve and expand the scope of access. Any change in rates or rate-setting procedures must serve the purpose of supporting more entry and competition, not to expand the market power of the dominant record labels.

B. AN ECONOMIC FRAMEWORK FOR EVALUATING THE PERFORMANCE OF COPYRIGHT POLICY: STRUCTURE, CONDUCT PERFORMANCE

Much of the discussion of copyright policy deals with economics. While qualitative and cultural considerations are important and deserve more attention, the underlying purpose and the contemporary debate are about economic incentives and market structures that promote progress. An economic framework is needed to evaluate the performance of the economic structure that a specific copyright policy has fostered in the past and could provide in the future.

This paper uses the Structure, Conduct Performance framework described in Exhibit I-2. The SCP paradigm is not only a widely used approach in the industrial organization and economic literature, it is also ideally suited to the task at hand. The analysis of the music sector, before and after digitization, will provide details on just about every major element that the SCP paradigm identifies as important in evaluating the economic performance of an industrial sector.

Basic conditions on the supply and demand sides of the market, particularly technology and legal frameworks, are identified as key factors that influence the structure of the sector. Needless to say, digitization represents a technological revolution that would be expected to have a profound effect on the music sector. As a consequence, the legal framework has been put under great stress. The public policy question is whether the legal framework should be strengthened to defend the business model based on the pre-digital technology, or be transformed to support the new business models grounded in the new technology.

Basic conditions influence, but do not dictate market structures. Economic conditions, private actions and public policies have at least as much influence over the way the market develops. The industrial structure of the music sector in the 20th century developed in unique ways and went through several transformations that indicate alternative market structures are possible.

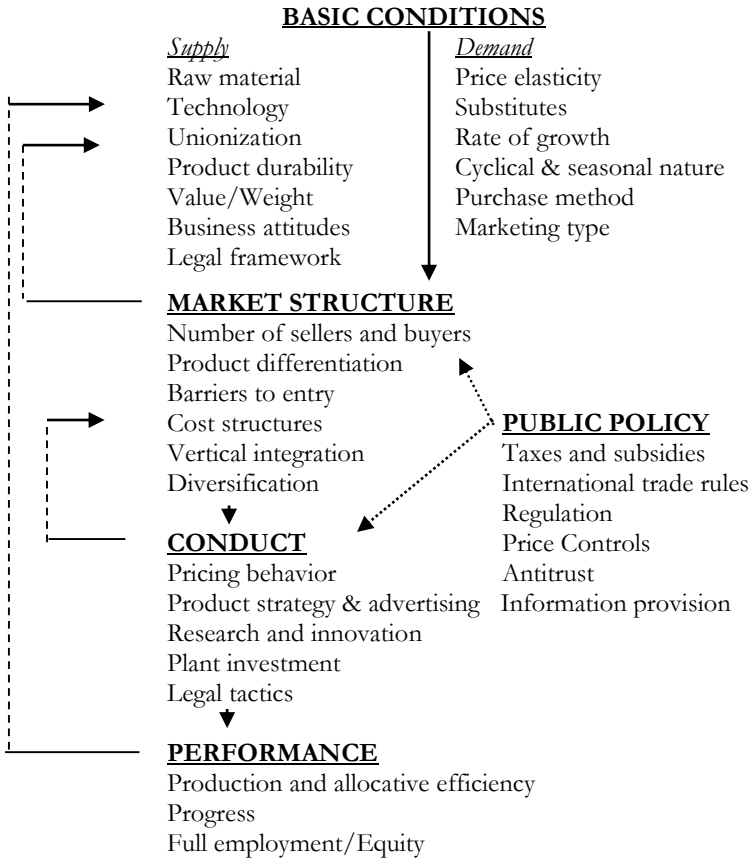
Conduct reflects both market structure and public policy. The SCP paradigm's emphasis on the supply side is most evident here with the focus on key decisions about pricing, product development, advertising investment, and legal tactics.

The performance measures by which the functioning of the industrial organization is evaluated are exactly the measures that copyright demands, price and quantity of output, rate of profit, technological innovation, distribution of surplus.

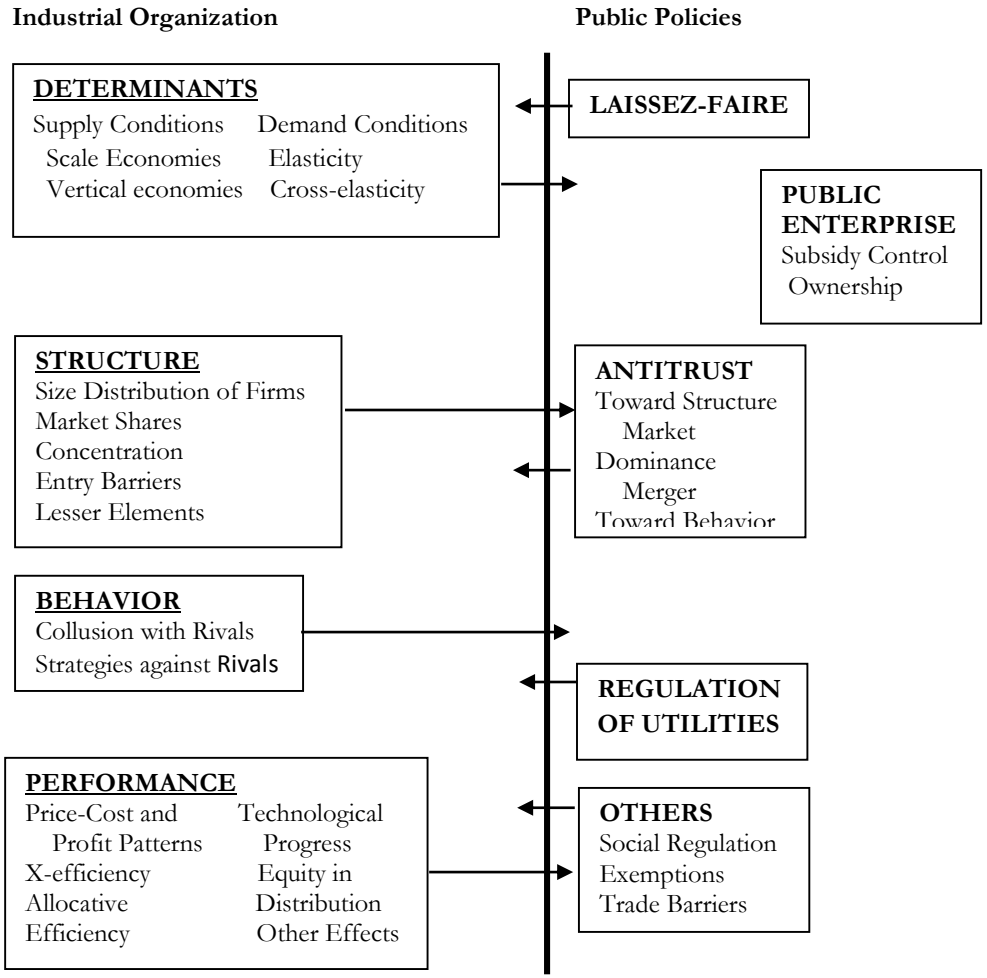
The SCP paradigm has another important characteristic to recommend it beyond the fact that it is a comprehensive approach that covers the key issues in the copyright policy debate well. Although the paradigm launches from the assumption that competitive markets produce the outcomes that public policy prefers, it does not assume that those outcomes are inevitable; in fact, specific market structures and patterns of behavior can fall short of the desired outcome. The actual performance and policies to improve it, where it is inferior, are the purpose of the analysis.

EXHIBIT I-2: THE STRUCTURE, CONDUCT, PERFORMANCE PARADIGM

F. M Scherer and David Ross, *Industrial Market Structure and Economic Performance* (Houghton Miflin: Boston, 1990), p. 5.



William G. Shepherd, *The Economics of Industrial Organization* (Englewood Cliffs: Prentice Hall, 1985) p. 5.



Given that the SCP paradigm "problematizes" performance, one of its advantages is that it has a well-defined set of criteria to measure performance that are based on the proposition that workably competitive markets produce the types of performance that public policy (including copyright policy) desires, as shown in Exhibit I-3. In fact, much of the policy activity and debate in the music copyright space over the course of the past century has been about how to deal with the problem of market power, both in the original grant of a monopoly privilege and in the conduct and performance of the market structure ever since.

EXHIBIT I-3: CRITERIA OF WORKABLE COMPETITION

Structure

The number of traders should be at least as large as scale economics permit. The power over price possessed by a monopolist or oligopolist depends upon the firm's size *relative to* the market in which it is operating. (18)

There should be no artificial inhibitions on mobility and entry.

There should be moderate and price-sensitive differentials in the product offered.

Our analysis reveals that under plausible circumstances, vertical integration downstream by an input monopolist *can* lead to enhanced monopoly power and price increases (525)

Diversification was a very important contributor to the observed growth of aggregate concentration (94)

Conduct

Some uncertainty should exist in the minds of rivals as to whether price initiative will be followed.

Firms should strive to attain their goals independently, without collusion.

There should be no unfair, exclusionary, predatory or coercive tactics.

Inefficient suppliers and customers should not be shielded permanently.

Sales promotion should be informative, or at least not be misleading.

There should be no persistent, harmful price discrimination.

Performance

Firm's production and distribution operations should be efficient and not wasteful of resources.

Decisions as to what, how much, and how to produce should be efficient in two respects: Scarce resources should not be wasted, and production decisions should be responsive qualitatively and quantitatively to In fact, much of the policy activity and debate in the music copyright space over the course of the past century has been about how to deal with the problem of market power, both in the original grant of a monopoly privilege and in the conduct and performance of the market structure that evolved. (4).

Output levels and product quality (that is, variety, durability, safety, reliability, and so forth) should be responsive to consumer demands.

Profits should be at levels just sufficient to reward investment, efficiency, and innovation.

Prices should encourage rational choice, guide markets toward equilibrium, and not intensify cyclical instability.

Opportunities for introducing technically superior new products and process should be exploited.

Promotional expenses should not be excessive. The operation of producers should be progressive, taking advantage of opportunities opened up by science and technology to increase output per unit of input and to provide consumers with superior new products (4)

Success should accrue to sellers who best serve consumer wants.

Equity/Employment: The distribution of income should be equitable, producers do not secure rewards in excess of what is needed to call forth the amount of services supplied. The operation of producers should facilitate stable full employment of the resources, especially human resources (p. 4)

Source:. Scherer and Ross, 1990, To include all key criteria the table combines Figure 1.1 and workable competition discussion on p. 53. All citations are from p. 53 unless noted otherwise.

C. PIRACY V. EFFICIENCY AND ABUSE OF MARKET POWER

In spite of the strong words of caution about a lack of knowledge on key aspects of the impact of digital technologies on copyright and the difficulty of finding the balance between private incentives and the public interest, the description of the music sector, which is the first sector the

STEP report examined, did not fully escape from the early rhetoric that came to be associated with the copyright discussion in the digital music sector. It highlighted the role of piracy:

> The relatively recent onset of the digital piracy threat can be attributed to the sheer informational magnitude of music and film and the inability, until about two decades ago, to bring to market affordable, high resolution means for listening to and viewing digital content…. The proliferation of file-sharing technologies and unauthorized streaming services such as cyberlockers, in conjunction with advances in data compression and broadband penetration during the past 15 years, have dramatically shifted the market for many copyrighted works.[9]

The Commerce Green Paper also launches from the assumption that "the threat of rampant infringement over the Internet has not abated," Department of Commerce, 2013, p.8) although it cites an underlying study that "noted that estimating the economic impact of IP infringement is extremely difficult." (Department of Commerce, 2013, p. 8)

This paper addresses many of the questions posed by the STEP report and the Commerce Green Paper, showing that it is incorrect to focus copyright policy attention on the unauthorized sharing of music files. It shows that the mountain of data available on the dramatic development of the digital music sector that took place in the years between the two NRC reports demonstrates that the evolution of the music space in the digital age is overwhelmingly positive in terms of the most important goals of copyright policy identified by the STEP report. Looking at the available data, one must conclude that the music sector underwent a thorough transformation that improved its performance in precisely the manner that copyright intends:

- From the macro point of view, the sector has accommodated innovation to become much more efficient, squeezing out supra-competitive profits and dramatically increasing consumer surplus, while increasing the diversity and quantity of output and improving the income of the vast majority of artists.
- From the micro level of the analysis of unauthorized file sharing, the empirical evidence does not support framing the analysis in terms of piracy. Quantitatively, the size of the harmful effects of unauthorized file sharing even in the period before the spread of **legal** digital business models was much smaller than the record labels claimed. With the growth of legal digital business models, more recent estimates show even smaller effects.
- Because the transformation was driven by economic efficiency and unauthorized file sharing was not quantitatively important, the music sector is moving toward a new economic equilibrium that is sustainable, thereby achieving the proper balance between private incentives and public benefits. The new equilibrium

[9] STEP , 2013, p. 21. The STEP report reflects the opinion of one of its consultants, Cameron and Bazelon, who summarized the developments in the music sector as follows (p. 7): "Digitization has revolutionized the traditional music industry distribution network in at least three important ways. First, the ability to distribute digital music files over the internet has significantly reduced the costs associated with manufacturing and distributing physical CDs. Second, the wide availability of illegal "free" music on the internet has forced music sellers to develop a model that makes it more attractive for at least some consumers to listen to legally copyrighted music recordings rather than to pirated substitutes. Such a model may involve using low cost (or even free) music to drive sales of other, higher margin goods. Third, the ability to download individual songs has greatly diminished the importance of the traditional, lucrative industry product, the full-length album.

based on digital technology is based on much lower cost products and much lower barriers to entry, making a new market structure possible, one that does not require a highly concentrated and tight oligopoly to be economically viable.

The music sector exhibited another characteristic in the period leading up to the onset of digital disintermediation that has broad significance for copyright policy. In the decade before digital technology became prevalent, the abuse of market power in a highly concentrated market was palpable to consumers and artists. Artist income as a percentage of retail revenues in the pre-digital music sector were at most 15%.[10] Consumers were forced to pay high prices as a result of price fixing schemes for bundles of songs (albums) that they would not have purchased if singles were available, but the record labels refused to market singles.

The monopoly privilege granted by copyright law was being blatantly and severely abused. In some ways, the anti-consumer and anticompetitive practices in the music sector are nothing more than examples of what copyright policy must be careful not to allow – the abuse of the legally granted monopoly. The abuses highlight the underlying challenge in copyright policy in the STEP report, representing precisely the type of behaviors that "copyright should strive to limit." Thus, the abuse of market power in the supply chain, before and after digital disintermediation, requires careful scrutiny and constant vigilance to prevent the private monopoly from overwhelming the public interest. The concern expressed by the STEP analysis about "consumer surplus and artist income, with more profit reaped by intermediaries" is highlighted by the pre-digital music industry structure. The abuse of market power is a broad concern, not only in its connection to the legal monopoly granted by copyright, but also in a broader policy context. New digital technologies provided the means to respond to these abusive practices. Market power deserves at least as much attention in the policy debate as unauthorized file sharing, and economic efficiency deserves even more.

The early days of the piracy/litigation driven copyright debate focused on the tension in copyright between piracy and fair use – infringing v. non-infringing uses of the new technology. As the STEP report points out, the courts refused to ban technologies that had non-infringing uses (*Sony* affirmed in *Diamond Rio* and *Napster*) and agreed to affix liability for infringement to service providers only when there was willful encouragement of infringing behavior (*Grokster*). Nevertheless, though much recent policy has leaned in favor of increasing private incentives, the empirical evidence in the music sector suggests that the public interest deserves much greater deference. Focusing on the question of piracy has been a natural, political ploy of the dominant incumbent copyholders to concentrate all attention on the private incentives aspect of copyright and downplay the public benefits issues of consumer and social welfare.

Putting the role of piracy in its proper place and recognizing the positive impact of digital disintermediation has important implications for copyright policy:

- One can certainly argue that the STEP call for more research to build a firmer basis of knowledge in light of the need to balance private and public interests argues against taking radical steps to strengthen copyright, like the Stop Online Piracy Act (SOPA) and the Protect Intellectual Property Act (PIPA). But that

[10] Hull, 2012, Fisher 2004, give estimates in this range, but adjustments may yield a significantly lower rate.

conclusion is minor compared to the broader implication of the remarkably successful transformation of the music sector.

- Since the positive results in the music sector were driven by technologies that loosened the grip of copyright holders on the creation, production and distribution of music products, the experience in the music sector suggests that, if anything, copyright policy should move in the opposite direction, seeking to secure and promote even more efficient and beneficial circulation of content.

Once it is recognized that piracy is not the problem the copyright holders claim it is, it is easy to see that at a minimum, the record labels' current efforts to control digital music are not aimed at piracy but at innovation that is not under their control. Labels want to control the flow of content to maximize their power and the rents they collect. This is precisely what copyright should not allow, especially in a sector in which the creators were very poorly treated in the past.

However, simply rejecting the policy thrust that seeks to control innovation under the guise of controlling piracy does not exhaust the challenges in the policy space. It is the goal of copyright policy to build an environment that "promotes the arts and sciences" and private incentives are not the only tool. In fact, although digital disintermediation in the music sector has advanced the furthest, important policy debates are far from finished in the music sector. Indeed, one can argue that key policy challenges lie ahead.

D. Compulsory and Collective Licenses to Create a Mass Market in Music

One of the most important elements of the music sector from the beginning of recorded music over a century ago has been the development of compulsory and collective licenses for music listening. These licenses recognize the difficulty and expense of negotiating for individual uses in a mass market society. These are licenses for distribution in which the public can hear the music in a way that it "feels like free." The public does not pay directly for the ability to listen to music, although the costs may be recovered indirectly. So important was "feels like free" that record labels in particular engaged in massive efforts to bribe radio stations to air their products, even though they received no direct compensation for the use of their copyrighted material. The practice is as old in the U.S. as copyright is in the music sector. Indeed, the first compulsory license in U.S. copyright law was included in the 1909 Copyright Act to cover the mechanical reproduction of musical works.

These models have played a central role in the music sector because making music available to the public on a mass market basis promotes sales and creates a shared common culture. The mechanical reproduction of music with piano rolls put in place to prevent copyright holders from charging supra-competitive prices was resolved with a compulsory licensing approach in which recording on piano rolls could be made by anyone who paid the fee. The experience with radio reaffirmed the important role of "feels like free" in creating a mass market in the music space.[11] When secret "payola" payments were explicitly outlawed, the labels exploited loopholes to continue the practice.

The compulsory license for the reproduction of musical works mandated by statute was quickly followed by a second, voluntary collective license created by copyright holders to license the public performance of musical works. Music copyright holders quickly realized that they would

[11] It "feels like free" to the consumer, but listening to the advertising is a significant cost.

have difficulty enforcing their ownership right for public performances of their works in a mass market society. They instituted a private, voluntary collective licensing system to enforce those rights. A Professional Rights Organization ("PRO", i.e. American Society of Composers, Authors and Publishers (ASCAP)) was formed in 1914 to offer and enforce blanket licenses for works.

William Fisher, Director of Intellectual Property at Harvard Law School and considered one of the leading legal scholars on music copyright and intellectual property, considers compulsory licenses an essential part of an efficient music sector:

> Three motivations, mixed in varying proportions, explain why Congress in many contexts has rejected the analogy between copyrights and rights in land – and instead subjected songwriters like me to compulsory –licensing system. First, law makers fear that it would be prohibitively time-consuming and costly for us to negotiate individual bargains… Compulsory licenses are often intended at least in part to overcome those transaction costs and allow mutually advantageous uses of copyrighted works to occur…
>
> Second, in some contexts, law makers fear that, left to our own devices, we would charge improperly high fees for access to our works – "improper" either because they are more than is necessary to provide the necessary stimulus for creativity or because they reflect our effort to drive competitors out of business….
>
> Third and finally, compulsory licenses are occasionally employed to reduce the prices that organizations engaged in especially socially valuable activities (like public broadcasting) will be obliged to pay for access to copyrighted material. (Fisher, 2004, pp. 42-43.)

Reducing transaction costs, rent control and promoting important social goals are central challenges of copyright to which compulsory licenses are a well-recognized response. Fisher elaborates on the third point substantially:

> The revenue that the owner of any kind of resource (whether a parcel of land or a song) can earn by granting someone a license to use his or her possession in a particular way is often substantially less than the total social benefits of the activity in question. This is especially likely when the activity would generate significant positive "externalities" – in other words when it would benefit third partied in ways that the putative licensee cannot account for. For example, a parody of a copyrighted song is likely to provide the public benefits (in the form of amusement and topics of conversation) that substantially exceed the profit that the parodist could make and thus the maximum license fee that the parodist could pay the copyright owner… Under such circumstances, an owner who has the right to forbid the activity in question will demand a prohibitively high fee, and a socially valuable activity (that is one whose aggregate benefits exceed it aggregate costs) will be blocked. .. Many of the compulsory licensing systems… that course through entertainment law have arisen to deal with situations of just this type. By eliminating those compulsory licenses – or by enabling copyright owners to evade them through encryption – we would surely increase the frequency with which socially optimal licenses were not granted. (Fisher, 2004, p. 163)

Fisher's discussion suggests the importance and distinctive nature of the decision to establish a compulsory license, noting the tenacity of the commitment to this approach over the course of the 20th century. It also highlights the fundamental difference between statutory compulsive licenses and voluntary collective licenses. The collective license addresses the transaction cost problem, it does not address the market power problem or the public goods problem. Indeed, the collective licensing process administered by ASCAP quickly attracted the attention of the antitrust authorities concerned about their potential anticompetitive effects. As a result of their abuse of market power,

the collective licensing practices of the music sector are subject to one of the longest running consent decrees in U.S. antitrust history. The effort of the record labels to escape from the consent decree for digital projects is the subject on ongoing litigation (Pandora v. ASCAP, 2012).

In fact, the timing and thrust of the compulsory licenses included in the 1909 Copyright Act and the immediate creation of collective licenses in the private sector are part and parcel of the broader restructuring of the American economy that took place around the turn of the 19th century. From the middle of the Progressive Era, with Copyright Acts passed in 1897 and 1909 through the New Deal, with a consent decree signed in 1941, the complex legal structure of the music sector was put in place with an equally complex mix of regulation, market activity and active antitrust oversight.

I have argued that the institutional structures of this period were cornerstones of the response to the quarterlife crisis of the 2nd Industrial Revolution (Cooper, 2013a). There is a strong parallel with the communications sector with a 1909 AT&T-DOJ consent decree that restricted AT&T's abusive practices, the 1910 Mann-Elkins Act that put interstate telephone service under the Interstate Commerce Act, the Radio Acts of 1912 and 1927, and the Communications Act of 1934, Cooper, 2013).

In this period, society developed a mix of market, regulation and antitrust in an effort to build a dynamic, progressive, capitalist mass market society. These policies reflected the recognition that the complex economy that the 2nd industrial revolution was building required a shift in the right of access to the means of communications and commerce from an *ex poste* private right of complaint to an *ex ante* public guarantee of access (Cooper, 2013b). The mass license provisions of the 1909 Copyright Act have exactly the same logic and intent to ensure mass access to musical production.

From this historical perspective the current debates over digital technologies can be seen as part of the "quarterlife crisis" of the 3rd Industrial Revolution (the digital revolution) that involves the central theme of expanding access, which is manifest across a number of sectors. By decentralizing and interconnecting intelligence at the periphery of the network, the digital revolution has created the opportunity for innovation at the edge to become the driving for of economic growth. (Cooper, 2006, 2014) Incumbent communications firms resist the loss of economic power and control that this shift of economic activity entails, just as record labels resist the growth of digital distribution of music. From this perspective, the preservation, extension and updating of the concept of mass licensing of music to support the decentralized nature of the digital music ecology becomes a central challenge and goal for copyright policy in the digital age.

The challenges that the policymakers faced in the early years of the 20th Century as the 2nd industrial revolution created the potential for a new mass market in music are the same challenges that policymakers face at the start of the 21st century, as digital technology opens new possibilities for a vastly larger and more consumer and artist friendly music ecology. Progress requires policy makers to ensure new technologies can overcome the resistance of entrenched interests to technological progress and restrain the tendency for dominant incumbents to abuse the market power conferred upon them by the monopoly privilege of copyright.

The design of a reasonable and effective compulsory license policy to support a model of "feels like free" that is consistent with and supports the digital music ecology continues to elude policymakers. The continued vigilance of antitrust authorizes to prevent the misuse of the

monopoly privilege granted by copyright is essential to the ability of the music ecology to achieve the goals of copyright.

E. Broader Implication of Digital Disintermediation in The Music Sector

1. Naming v. Name Calling

The early days of the debate over copyright policy in the music sector has resulting in the use of pejorative terms that detract from productive debate. Throughout this analysis I endeavor to correct that mistake (see Exhibit I-4).

I use the term "feels like free" to distinguish it from the pejorative concepts of free-riding and free-loading. "Feels like free" distribution has a long and positive history in the music sector.

I refer to "feels like free" as a compulsory license for listening, to distinguish it from two other concepts that receive a lot of attention in the copyright arena. One concept is a compulsory licenses for creation (currently referred to as remix), wherein an artist uses a part of a copyrighted music composition to produce a new product (Lessig, 2007; Crum, 2008, Vrana, 2011). The potential for confusion is particularly great here because the practice of remixing can be described as sampling parts of an existing composition. The older idea of sampling involved listening to a composition to experience it and decide whether to purchase it. Sampling as listening is the concept I am addressing. Moreover, the compulsory license for listening is different from a compulsory license of sales of a product. (Lessig, 2004, Patry, 2007, Mckay, 2012)

I introduce other distinctions to avoid the unnecessarily negative or misleading connotations that have developed as part of the long running battle over copyright. I use the term "unauthorized file sharing" to describe the central issue to escape from the imprecise and misleading term "piracy" that has been used by the copyright holders. As shown in Exhibit I-4, piracy is not the only pejorative label that is imprecisely and inappropriately applied by copyright in an effort to define the terrain of the debate and shape its outcome.

The vast majority of musicians are freelancers, not amateurs. Contract musicians are by no means the only "professionals" in the music space. (Scherer, 2006; Rae-Hunter, 2012)

Consumer choice and consumer sovereignty do not have the negative connotation that is attached to "cherry picking." (Elberse, 2010, p. 1; Leurdijk and Bueurenhuis, 2012, p. 59; Hull, 2011, p. 247) On the contrary, they are the cornerstone on which efficient markets rest.

2. Implications for Other Digital Content

Although the music sector was affected first and most profoundly by the digital disintermediation, the unfolding of the process and the policy debates to which it gave rise have broader implications. A number of factors explain why music was one of the first sectors to be dramatically impacted by the process of digital disintermediation in which the role of intermediaries, like labels, is reduced.

EXHIBIT I-4: A NOTE ON NAMING V. NAME CALLING

"Feels like Free," not free-loading or free-riding.

The word free is used and abused throughout the copyright context and frequently used in a pejorative manner as "you cannot compete with free." This obscures many other, positive connotations of "free." It is particularly muddled in the music space because a major promotional activity in the sector has long been the effort to give music away so that people would listen to it in the hope that they would buy it. This included plugging songs for music shows in the days before recorded music became popular, payola in the days when radio was king, and music videos in the TV era. The practice of giving away content was so prevalent that it was routinely written into the contracts between record labels and artists, with the artists charged 15% of total sales to account for "free content." The copies were not free at all, the artist paid for them. In fact, in many of the contexts, content only feels like it is free. The costs are recovered in being exposed to advertising (radio and TV), cover charges (pubs, cafes and music hall) and in the cost of the goods and services purchased as complements to listening to the music.

Unauthorized file sharing not piracy

Piracy is a term of law originally applied to specific acts at sea. While its use has broadened, it applications in the copyright space confuses more than it clarifies. Three different types of activities are conflated by the term, bootlegging (unauthorized recording and sale of live concerts), counterfeiting (illegal copying of content for sale) and unauthorized file sharing. Downloading, copying and sharing are not necessarily infringing nor are the technologies used to do so, particularly peer-to-peer and torrenting applications. The unauthorized sharing of files is the target of the anti-piracy campaign embodied in the court cases brought by music copyright holders.

Consumer Choice and Consumer Sovereignty not Cherry picking

Cherry picking (4) is frequently used to describe bias or unfairness in the selection of items: In fact, it is simply consumers exercising choice in the products they wish to consume. It is generally assumed that consumers will make choices that better meet their need and wants unless there are market imperfections that may prevent them from doing so. (5)

Freelance and Contract Artists, not Amateur v. Professional

The distinction between professional and amateur, (1) with the latter being used in a pejorative manner does not generally fit the copyright space, particularly the music space. Some artists have contracts, but they hardly fit the traditional definition of a professional. (2) Many artists who do not have contracts are certainly not amateurs and they earn considerable sums as musicians. The category of freelance (3) artists is so large in the music space that the first example Wikipedia gives is musicians.

[1] **Amateurism** can be seen in both a negative and positive light. Since amateurs often do not have formal training, some amateur work may be considered sub-par... An amateur who dabbles in a field out of casual interest rather than as a profession or serious interest, or who possesses a general but superficial interest in any art or a branch of knowledge, is often referred to as a dilettante….

[2] A **professional** is a person who is engaged in a certain activity, or occupation, for gain or compensation as means of livelihood; such as a permanent career, not as an amateur or pastime… Due to the personal and confidential nature of many professional services, and thus the necessity to place a great deal of trust in them, most professionals are subject to strict codes of conduct enshrining rigorous ethical and moral obligations.

[3] A **freelancer**, **freelance worker**, or **freelance** is somebody who is self-employed and is not committed to a particular employer long term. These workers are sometimes represented by a company or an agency that resells their labor… Others are completely independent. Fields in which freelancing is common include: music, journalism, publishing…

[4] It refers, for example, to customers who ignore products that are bundled together by a manufacturer (who in the process may disguise cross-subsidies between high-margin and low-margin components of the bundle). Such customers prefer to bundle their products together for themselves, selecting the best value (that is, cherry-picking) from each category of component, July 1, 2008.

5 [I]ndividual utility and social welfare are maximized when individuals make their own consumption choices. This justifies the doctrine of consumer sovereignty that underlies standard lessons of economics Does Consumer Irrationality Trump Consumer Sovereignty? Joel Waldfogel, April 28, 2004

- Content had been digitized in the 1980s, although the digital content was still fixed to a physical medium, the compact disc (CD).
- Music can be entirely digitized – i.e., it does not have to be fixed to a physical medium to be consumed.
- Consumers are very attentive to music content because music is consumed repeatedly and expressively, so they are particularly accepting of models that better meet their needs. (Deutsch, 2010, p. 23)
- Because music is both an "experience" good (one whose value is not known until it is consumed) and a repeated use good, sampling to ascertain value is extremely important. (Caves, 2000, pp. 146-152; Towes, 2010, pp. 151-156)
- In the mid-1990s a communications standard, applications interface and consumer devices were developed that delivered a listening experience (quality of service) that was adequate to please most consumers, without the content having to be fixed to a CD. (Anderson, 2011)
- By the turn of the 21st century, communications applications and network capacity were sufficient to allow widespread distribution of music in digital format.

While this set of factors made music an easy and early target for thorough digital disintermediation, other information and cultural goods, like books and video, also exhibit similar characteristics and they are moving along a similar path.[12] In the case of books, the consumer interface devices (e-Readers) have recently developed to a point where their quality of service is "good enough" and added features making them attractive alternatives to paper. Similarly, with the development of computer tablets the consumer video interface is now "good enough" to view video on a mobile screen, making them an attractive alternative for consumers. Both books and video can be fully digitized, consumed without being fixed to a physical medium. Perhaps the greatest point of commonality between the various types of content is the hostility and resistance of the dominant incumbent copyright holders to the threat of digital disintermediation.

The abusive and anticompetitive practices we observe in the music sector were not unique to it. The publishing and video sectors exhibit similar problems. The recent attempt by publishers to illegally fix e-book prices to mitigate the effects of competition in the e-book market (U.S. Department of Justice, 2013) calls to mind the illegal price-fixing of the record labels in the mid-1990s that squelched competition from the big chain music retailers. (U.S. Federal Trade Commission 2000, State of Florida, 2002) In the video space, the withholding of programming by the cable operators to retard the development of satellite competition was directly addressed by program access rules in the 1992 Cable Consumer Protection Act and satellite grew rapidly once access to content was afforded. More recently, lawsuits brought by cable content producers involving charges of anticompetitive bundling by cable operators (Viacom suing Charter) and lawsuit by cable and content companies against alternative distribution platforms (broadcasters and cable operators suing Areo) not only remind us that technological change does not eliminate concerns about the abuse of market power, but also that dominant incumbents have the ability to undermine business innovation and artistic creativity.

[12] Fisher, Daniel, 2013, "Cablevision's Lawsuit Against Viacom Is All About Shelf Space," *Forbes*, March 7.

PART I.
DIGITAL DISINTERMEDIATION AND EFFICIENCY IN THE MUSIC SECTOR

II. THE DIGITAL TRANSFORMATION OF THE MUSIC SECTOR

A. QUALITATIVE DESCRIPTION OF THE DIGITAL TRANSFORMATION OF THE MUSIC SECTOR

In November 2003, eight months after Apple had introduced iTunes and two months after it had decided to launch a Windows version which greatly expanded the potential market, (Hull, Hutchison and Strasser, 2012, p. 241), Geoff Mayfield, the Director of Charts at *Billboard* took note of the initial success of the newly minted ***legal*** digital business model.

> The consumer's rapid and enthusiastic acceptance of iTunes and other download services gives great meaning to that data. It is obvious that at some point, we will have to factor those transactions into the Billboard Hot 100 and some of our other singles charts, as they will restore the voice of the consumer that has been lost since the labels have practically abandoned the retail-availability single.[13]

This quote offers a succinct, even remarkable distillation of what was wrong with the music sector in the decade prior to digitization and what is right about the digital music ecology today.

The quote clearly suggests that the consumer voice, called consumer sovereignty in the economics literature,[14] was far from dominant in the pre-digital music sector. Record labels had eliminated singles by exercising the market power they had gained by concentrating the music sector into a tight oligopoly monopoly control of content. Moreover, the tight oligopoly was obsessed with the top of the music charts. With tens of thousands of albums released each year, and millions of artists producing music, the industry was focused on selling the top 100 to 200 albums at extremely high album prices. The business model was a scarcity model, thriving on small numbers of high priced products.

In less than a decade, over the determined, but futile opposition of the dominant music firms, digital technologies would impale the business model of the tight oligopoly, and open the way toward a much more efficient, consumer-friendly and artist friendly ecology.[15] Exhibit II-1, presents a static view of the music sector, in the sense that it focuses on CD units shipped as measured by the Recording Industry Association of America (RIAA). This view was used to misdefine the piracy issue.

In the year in which Mayfield offered his observation on the consumer embrace of singles, about 10 million physical singles were sold and a total of about 25 million digital singles were sold. The fact that at this early data digital singles were outselling physical singles by 3-to-1, is testimony to the consumer preference for singles and the abuse of refusing to make them available, but this was just the tip of the iceberg. By 2012, digital singles were being downloaded at the rate of almost 1.4 billion per year in the U.S. alone, a compound annual growth rate of over 150% per year. Digital album sales were more than half of CD sales. The total number of units shipped in the first decade of the digital music sector in the U.S. was about 50% higher than the number of units shipped in the

---

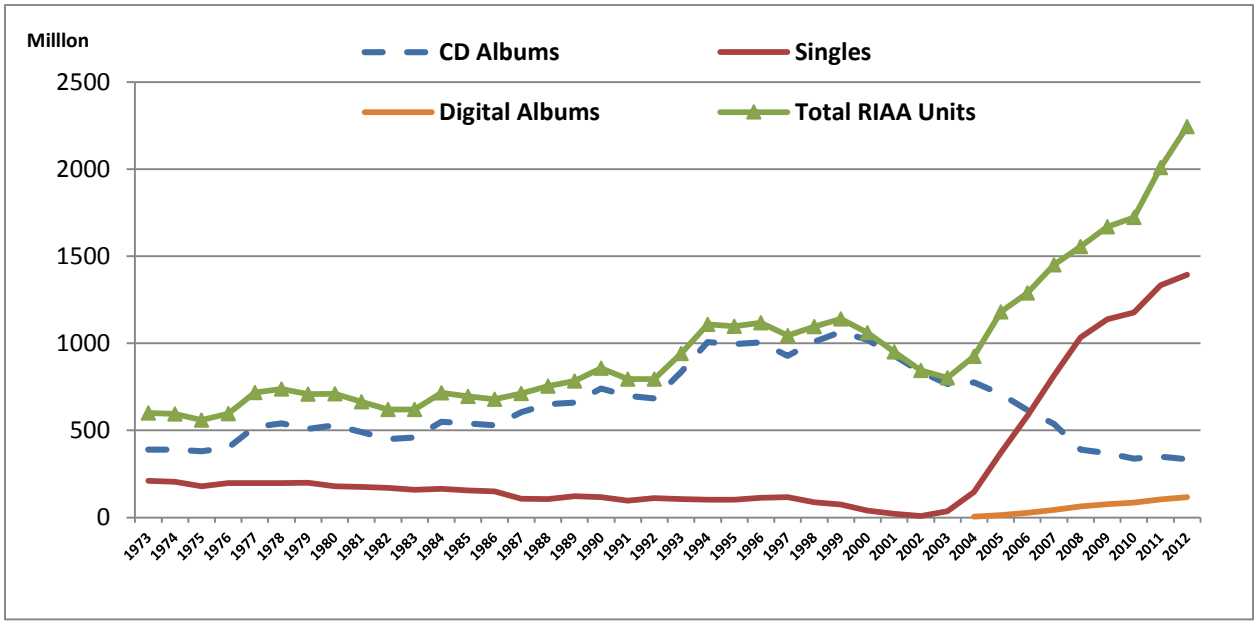
[13] Cited in Hull, Hutchison and Strasser, 2012, p. 247.

[14] http://en.wikipedia.org/wiki/Consumer_sovereignty, In economics, **Consumer sovereignty** is the assertion that consumer preferences determine the production of goods and services.

[15] Tschmuck (2004) argues that the failure of record labels to adopt new technologies is a natural outgrowth of institutional inertia and self-preservation. He argues "resistance" should not be applied to their behavior. However, the record labels did not just fail to adopt new digital technologies, they actively tried to prevent them from being deployed. Opposition is fitting.

last decade of the pre-digital era (before the onset of file sharing). When other forms of distribution are factored in, as discussed below, the number of units shipped in the first decade of the digital era is about twice as high as the last decade of the pre-digital era. The rate of growth is unprecedented in the modern history of the music sector.

EXHIBIT II-1: A STATIC VIEW OF THE TRANSFORMATION OF THE MUSIC BUSINESS MODEL MEASURED BY UNITS SHIPPED



Source: RIAA, *Year-End Shipments*.

1. The Pre-digital Music Sector

To appreciate the scope and swiftness of the transformation brought about by digital technologies we must understand the economic structure of the pre-digital music sector. The challenge in the pre-digital music sector was to get songs onto the radio so consumers could sample (hear) them and into the record store so they could buy them. Four characteristics of the pre-digital music sector define its structure.

- The challenge of bringing product to market involved high fixed costs associated with finding and developing talent, producing a master, reproducing recordings, and distributing product. This is a classic situation of scarcity, high cost and limited opportunities.
- Opportunities to expose the consumer to products for purposes of sampling (radio airplay) were limited.
- Opportunities to display product for consumers to purchase (retail shelf space) were limited.
- A great deal of uncertainty existed about whether any specific product would sell, particularly because music is an experience good, whose value is not known until it is consumed.

The record labels developed a complex and aggressive set of practices to deal with the conditions of scarcity. The record labels spent large promotion budgets to convince the public to purchase the albums they wanted to make hits. This included a great deal of payola, described by Richard Caves, a well-known analyst of the economics of *Creative Industries,* as "a bribe paid in order to influence a gatekeeper's choice among competing creative products." (Caves, 2000, p. 286) These costs raised the need to make the favored albums bigger hits in a value chain that was already focused on ensuring the profitability of a small number of releases.

With high fixed costs and uncertain markets, contractual relations between artists and record labels embodied accounting practices that delivered a very small percentage of the retail price to artists and shifted a great deal of the risk onto the backs of artists. The pre-digital music sector was notoriously hard on the artists, as one of the most often cited analysts of *The Music Business and Recording Industry* put it:

> The large record labels are fond of saying that fewer that 20 percent of the recordings they release ever recoup their costs. But is everything really as bad as the labels would say?... recording costs and some marketing costs are generally **recouped** (recovered) out of artist royalties…So, for a lot of artists who never seen any royalties on the sale of their albums the record companies *are* making money… In effect, artists are subsidizing the labels because recoupment of advances at the artist royalty rate is a lot slower than actual recovery of total fixed costs at the label's gross margin per CD rate. (Hull, 2011, pp. 184… 186… 187)

These large intermediary costs can be seen as a source of inefficiency in two ways. First, the record companies that control distribution have an incentive to maximize profits at the expense of the artists and the public.

> Music is owned by the artists, but in control of the sellers. There are traditional agency problems in this context. Those who have control of music distribution have incentives to sell the music that can bring them the most revenues, and distort the market by extensive and disproportional promotions in favor of a small number of works. Music listeners may not value the music produced by the big labels as much if they have a chance to know about smaller labels and new musicians; this is a severe distortion and source of social inefficiency. The overwhelming advertising campaign may further skew the consumers' preferences and lead to distorted demand. (Zhang, 2002, p. 14)

This inefficiency was compounded by a significant information problem.

> In essence, music consumers do not have accurate information on the quality of the music, because it is an experience good. Music publishers, because of the delay in obtaining market information for all of their music, may over-invest in certain music genres and under-invest in others. A typical strategy to overcome the inefficiencies and uncertainties in the market is to focus on superstars. (Gopal, Bhattacharjee and Sanders, 2004, p. 8)

2. The Digital Transformation

In a remarkably prescient article in 1994, Peter Alexander considered the prospects for change in industry structure that could flow from the introduction of digital technology.[16] After studying repeated historical examples of technological change leading to transitory outbreaks of

[16]Similar contemporary description are provided by Leurdijk and Bueurenhuis, 2012, Vickery, 2005, p. 1,

competition in the recording industry, Alexander provided the first reference to the potential impact of digital file distribution in the academic literature. He offered an analysis of the potential cost savings and the "exponential" increase in product creativity afforded by new digital technologies that were just a decade away. The key process in his view would loosen the control that a small number of powerful intermediaries exercised over the production and distribution process. The vision is so prescient, it deserves recognition.

> The network for distribution in the music recording industry is highly concentrated, and many fringe firms and new entrants are unable to obtain national distribution. This trend limits the extent of competition in the industry, and possibly reduces the diversity and variety of product offerings (in part, because small new firms tend to be product innovators). If non-exclusive distribution networks existed, fringe firms and new entrants might provide robust competition for market share…. A digital delivery highway for the products of the music recording industry might take the following form. A distributor, or group of distributors, would transmit digital product samples to consumers via cable or telephone lines. The consumers could review the product samples… and then inform the distributor… which products they wish to purchase. These products would then be uploaded to the consumers, and a charge made to the consumers' account. A distribution network of this type may potentially attenuate the effects of the significant barriers to entry in the music business. First, it could give firms (particularly fringe firms and new entrants) the opportunity to have their products distributed in a less costly and non-exclusionary fashion. By providing product samples to consumers, the new distribution network would also transmit information relating to product specifications. This would lessen the need for more traditional and less efficient techniques, such as radio airplay and other costly promotional activities, to inform consumers of the existence of new products. Given the modest marginal costs of adding a new product line to a digital delivery system, it is conceivable that the number of product offerings could increase exponentially. The costs of distribution should decline dramatically, as physical distribution at national or international levels has significant scale features. A competitive digital delivery system would reduce substantially the minimum efficient scale of distribution, and likely stimulate a highly competitive producer market…. New scale-reducing technologies can erode existing market structures by facilitating new entry… [N]ew technology has fostered two periods of significant structural turbulence in the music recording industry in which new firms, producing innovative products, displaced the existing firms. Reconcentration resulted from horizontal mergers among other factors. New digital distribution networks may promote greater competition in the industry, if they are non-exclusionary. This should promote greater levels of product diversity and variety in the offerings of the music recording industry. (Alexander, 2004, pp.121, 122)

As Alexander's analysis foresaw and Exhibit II-2 summarizes, every one of the "functions" that the record labels had provided in the pre-digital music value chain would be dramatically altered by digital technologies. Whether we view the value chain as production, distribution, promotion and consumption or simply supply and demand it is clear that digitization affected it dramatically from start to finish. The intermediaries – primarily record labels and retailers – are squeezed from both the supply side and the demand side.

Many analysts hypothesized that by dramatically reducing the importance of key functions of the dominant intermediaries along the value chain digital disintermediation would shift the bargaining power between labels and artists and greatly enhance the artists' ability to extract a better

deal from the labels. (Alexander, 1994, 2002; Clemons, Gu and Lang, 2002, Drapper, 2008, Kot, 2009) In fact, three other changes have had a much larger effect.

EXHIBIT II-2: IMPACT OF DIGITIZATION ON MUSIC PRODUCTION, DISTRIBUTION AND CONSUMPTION

Locus & Cause of Change	Market Participants & Nature of Impact		
	Artists	Intermediaries	Consumers
Production			
Supply-Side			
Ease of production	Low cost Greater control	Low cost, Ease of entry	Low price
Ease of reproduction	Low Mfct. Cost	Lower break even	Low price
Equivalent quality	Greater Control	Ease of entry	Inexpensive high quality product
Distribution			
Ease of transfer	Low Dist. Cost		Low price
Effective electronic format	Lower inventory costs Lower menu cost Eliminates waste of unsold product	Lower inventory costs Lower menu cost	Wider selection Lower cost
Promotion			
Ease of discovery	Lower cost	Lower cost	Easy pre-purchase sampling
Ease of promotion	Direct relation to fans	Lower cost	Contact w/artist, fans & Community
Consumption			
Separability	Versioning, Windowing, Bundling, Channeling		More options
Demand-Side			
Digital format			
Convenience			High portability
Choice			Single song as preferred product More product options
Customization			High compatibility Added product features Consumer as DJ
Communications			Contact w/fans & community
Control			Power over price, Impulse purchase,

Sources: Basic framework: Delibero, 2005; Vaccaro and Cohn, 2004, Ease of production and promotion from Leurdijk Nieuwenhuis, 2012, Elimination of waste and creation of community, Deutsch, 2010.

- The relationship between consumers and record labels has changed dramatically, with a sharp increase in consumer sovereignty. (Delibero, 2005, Aris, and Bughin, 2009, Stockment, 2009),
- New entrants and processes from outside the industry have grown to provide the intermediary functions that remain important in the digital value chain. (Alexander, 2002, Breen, 2004, Azenha, 2006)

- Freelance artists have gained a new capacity to sell product and generate income, not by extracting better (or any) terms from record labels, but by gaining direct access to consumers. (Hull, 2011, p. 282, Rae-Hunter, 2012)

While the piracy panic of the major labels defined the early policymaking efforts, the development of digital business models that disintermediated the major labels has shifted the focus to the broader impact, which is the proper focus of copyright policy.

> Before Napster rewrote the rules for the entire industry, the major labels and publishers could count on widespread commercial radio airplay to generate strong CD sales in traditional outlets and big box stores. While this arrangement worked for some, it also foreclosed most musicians from having any real shot at reaching potential audiences. Independent and niche musicians faced tremendous barriers to entry to the marketplace, particularly the widespread consolidation of radio station ownership facilitated by the 1996 Telecommunications Act.
>
> For more than a decade, rights holders have been coping with this shift in a variety of ways. On one front, they have utilized U.S. Copyright law to battle unauthorized file sharing, shutting down infringing peer-to-peer networks and suing individual for uploading. Meanwhile, emerging technology companies have established a variety of services for the lawful distribution and discovery of music. These new digital business models are a product of open Internet structures, which allow unprecedented innovation in promotion, distribution and access of music and other media.
>
> The technological developments over the past ten years have made it possible for an increasing number of savvy and talented musicians to flourish outside of the major label system. There is, of course, understandable skepticism that legitimate digital distribution structures can be monetized at a level that would replicate revenue streams generate by physical media. Although modernization schemes for traditional industry stakeholders are certainly worthy of discussion, it is equally important to consider the independent and niche music artists for whom access to the marketplace has historically been restricted. For these musicians, composers, and songwriters, the Internet and related technologies have proven enormously beneficial in terms of exposure and the ability to sell a range of goods – including but not limited to music – directly to fans. (Hunter, 2012, pp. 38-39)

While this observation correctly shifts the focus of analytic and policy attention to the benefits of digital disintermediation for "most musicians" it misses the most important point with respect to the major labels – digital disintermediation makes it unnecessary to "replicate revenue streams generated by physical distribution," because costs are falling dramatically and new, non-physical revenue streams have been created.

3. Declining Cost

Exhibit II-3 presents broad estimates of the impact of digitization on the cost of producing albums. It identifies the percent reduction in each of the functions performed by the record labels in the first column. The second column is derived by multiplying the percent reduction by the percent of album costs in the pre-digital era. This shows the overall reduction in the cost of delivering music. The cost of music is reduced by about three-fifths.

Removing the physical product cuts the heart out of the key functions that the record labels managed in the value chain. It is no longer necessary to manufacture and distribute huge quantities

of physical products to physical locations that have limitations on shelf space and reach small geographic areas to attract traffic. By most accounts, the manufacture and distribution of CDs accounted for well over half the cost of delivering music in the pre-digital era. Over 90% of those costs are eliminated by digital technology. (Hull, 1998, 2004, 2011)

EXHIBIT II-3: COST CHANGES TRIGGERED BY DIGITAL DISINTERMEDIATION

Cost Category	Percentage Reduction due to Digitization	Digital Cost as a % of Pre-digital Cost
Retail	70	11.7
Distribution	70	2.4
Reproduction	90	4.0
A &R	50	2.5
Production	50	0.8
Marketing	50	0.4
Royalties	15	10.2
Overhead & Profit	50	7.0
Excess margin	33	0.7
Total		39.7

Sources: Hull , 1998, 2004, 2011, Fisher, 2004, Aris and Bughin 2009, Vickery, 2005;

Manufacture and distribution were not the only costs to be lowered by digital technologies. (Perrit, 2007, Hearn, N.D.; Keyshon, 2007; Burgess, 2008) The cost of equipment to create music – the production studio – was also cut in half. The ability to produce music with the new digital equipment was also greatly improved so that artists could undertake tasks that had been provided by highly specialized technicians. This results in both a dramatic reduction in the cost of the production of music and the potential for the artist to gain much greater control.

The other major functions provided by the labels have also been affected, although it is more difficult to quantify the impact because they involve social processes. Finding and developing talent and marketing it to the public involve information processes that can be greatly facilitated by digital communications. (Leurdijk and Bueurenhuis, 2012, p. 57) Social media can be used to discover talent and spread the word about it. (Seargant, 2009) The process of digital disintermediation can have a particularly powerful impact on the promotion function as the relative scarcity of radio air time and inflexibility of play lists are replaced by the abundance of Internet access. (Hull, 2011, pp. 270-275)

When the cost of production and transaction are sharply reduced, the number of units that must be sold to cover the costs is reduced. Economically, the minimum efficient scale is reduced at two levels, the number of individual items that must be sold and the size of the firms required to produce a continuous stream of products.[17] The need to produce blockbuster hits to cover the fixed

[17]http://en.wikipedia.org/wiki/Minimum_efficient_scale, Minimum efficient scale (MES) or efficient scale of production is a term used in industrial organization to denote the smallest output that a plant (or firm) can produce such that its long run average costs are minimized.

costs of the firm and offset the many failures, to the extent that it was valid in the pre-digital era, is dramatically reduced, if not eliminated.

4. Increasing Demand

The demand side transformation of the music sector was equally dramatic. (Volz, 2006) The key functions that affect listening are recording, storage and playback. Each of these had been progressing steadily throughout the late 19th and 20th centuries. Digital technologies and Internet communications quickly brought about a quantum advances in all three. (Anderson, , pp. 163-164)

Recording	>	Flexibility of no fixed medium
Storage	>	Huge capacity
Playback	>	Multiple & mobile devices

The empirical evidence indicates that consumers prefer singles because they only want one or two of the songs that had been bundled on albums. (Elberse, 2010) While there was a debate over the purpose and profitability of singles in the pre-digital era, with the costs of production, manufacturing and distribution reduced dramatically, the sale of digital singles becomes economically viable, so the ability to meet demand is enhanced.

The intensification of consumer participation in communications activities alters the terrain of discovery and promotion. Artists can reach out directly to consumers and consumers can communicate with each other. The voice of the consumer was not only released, it was engaged. (Aris and Bughin, 2009, p. 10)

B. Quantitative Assessment of the Transformation

The qualitative discussions and theoretical expectations about the impact of digital technology are supported by a quantitative examination of the development in the sector.

1. Output

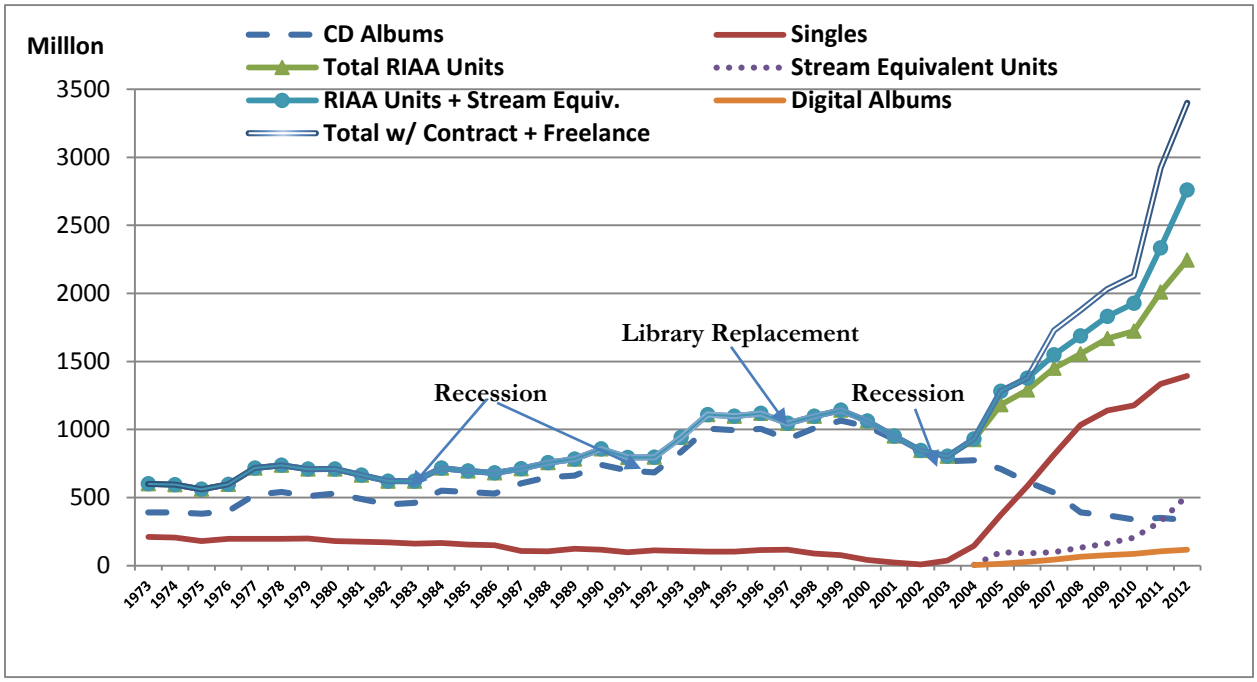
Exhibit II-4 provides a dynamic view the output of the music sector in terms of units shipped, still based primarily on the statistics published by the Recording Industry Association of America (RIAA). The fact that the industry treats albums and singles both as the unit of output is an important historical fact. Although there are many tracks on an album, the product sold is a single or a bundle of songs. (Hull, 2011, p. 244; Aris and Bughin, 2009, p. 165) Unbundling is a remarkably consumer friendly approach that the record labels had neglected. [18]

As shown in Exhibit II-4, both digital singles and digital album sales grew at an unprecedented rate – over 150% per year compounded for the better part of a decade. By 2012, digital products accounted for over 80% of the total units shipped in the music sector. The number of units shipped, according to the RIAA, had more than doubled, not including streaming listening. Digital streaming also grew dramatically. By 2012, the value of revenue streams not associated with

[18] Stockment, 2009, Koh, Murthi and Raghunathan, 2010, p. 1, Our results show that the availability of iTunes like legal channels for digital music has blunted the effect of online music piracy on physical album sales, and in the presence of those legal channels for digital music, digital music, not online music piracy, substitutes for physical album sales.

sales of copies of music (like streaming, ringtones, etc.) was almost equal to the value of the sale of digital singles or digital albums. Exhibit II-4 includes streaming distribution with units set in proportion to its value relative to singles. Converting streaming into units shipped in proportion to its share of total digital revenue, the number of units shipped pushes the digital total to close to 90%. Units shipped had more than tripled between 2003 and 2012.

EXHIBIT II-4: DYNAMIC VIEW OF THE DIGITAL MUSIC ECOLOGY, UNITS SHIPPED & EQUIVALENTS



Source: RIAA, *Year-End Shipments*. Streaming shipments are estimated based on revenue: Stream Units = (Stream Rev./(Digital Album + Digital Singles Unit Rev.)) * (Digital Albums + singles)

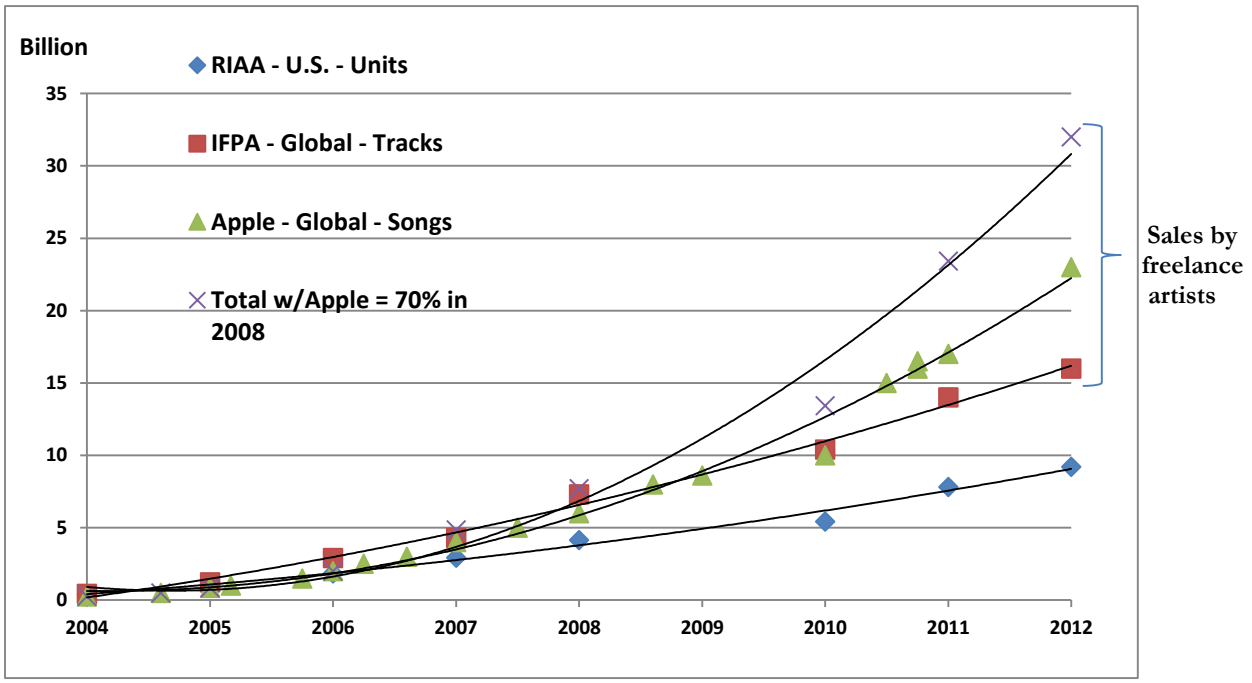
In anticipation of the analysis in Section V on unauthorized file sharing, the total RIAA units shipped shows three dips that were coincident with the recessions of 1981-1982, 1991-1992, and 2001-2002. In addition, note that the number of units shipped topped out in the late 1990s. Both of these factors have played a part in the debate over the extent of unauthorized file sharing. The record labels attribute more lost sales to piracy because they fail to recognize that the end of the library replacement cycle and the recession suppressed demand.

It is also important to note that the official industry statistics cover the production of artists signed to contracts from fairly large labels. Digital distribution allows freelance artists and small labels to sell more music directly to the public. As shown in Exhibit II-5, comparing the estimate of digital sales from the distribution firms (primarily Apple) to the estimates of unit shipped by the record labels (RIAA and International Federation of the Phonographic Industry (IFPI)), it appears that artists who are not signed to major labels may account for at least one-third of digital sales. Adding in this new segment of the music market made possible by digital technology, a plausible estimate is that in 2012 consumers purchased almost four times as many units as in 2003.

The official statistics may also miss a significant number of CD sales for two reasons. Smaller independent labels, whose sales are less likely to be counted, have benefited from digital

disintermediation (Leeds, 2005). Given the advance of technology, millions of freelance artists have the ability to sell CDs they manufacture online or at public performances (Long Tail Blog, 2007). For example, two million artists selling 25 CDs each per year through these alternative channels would increase the estimate of CDs sold by 25%.

EXHIBIT II-5: DIGITAL DISTRIBUTION CREATES A MARKET FOR FREELANCE ARTISTS



Source: RIAA, *Year-End Shipments*, IFPI, *Digital Sales,* Apple sales from Wikipedia,

2. Availability and Diversity of Supply

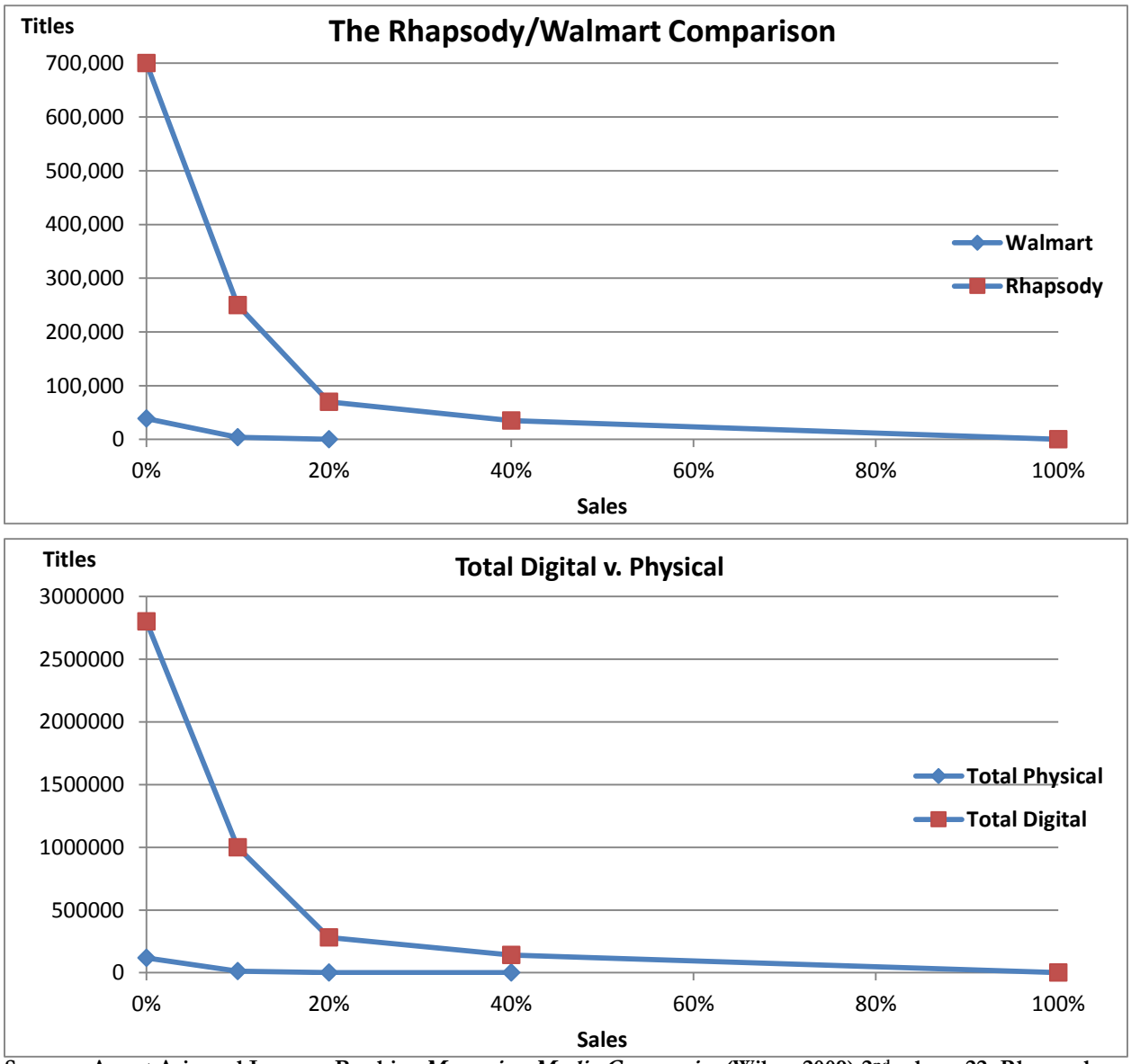
The key to the transformation of the music market is the infinite juke box. Large numbers of products that have very low (near zero) costs are available because availability is no longer limited by shelf space, and at low prices because the cost of the physical medium has been eliminated. (Cassiman and Salvador, 2006, pp.14-16, Elberse, 2010, pp. 25-26) As a result, the music sector provides an example of the much maligned and misunderstood long tail at its best (see Exhibit II-6). In most markets sales are highly concentrated, following a power curve in which the top 20% of sellers account for 80% of sales (the 80/20 rule). The pre-digital music market is generally assumed to have been even more concentrated in sales, exhibiting a 90/10 pattern. (Aris and Bughin, 2009, p. 84) Moreover, in contrast to many markets, much of the tail of the distribution in the pre-digital music sector is not profitable because fixed costs are so high and shelf space is so limited.

The focus on blockbusters in a limited shelf-space market results in a narrow range of supply and success (see Exhibit II-6). The top graph shows a comparison from the literature between Rhapsody and Walmart. The bottom graph shows an estimate of the total number of titles available on line and in physical distribution outlets.

A market where there are 50,000 items readily available to the public and 10% of the units account for 90% of the sales at the top, means 5,000 items dominate the output. About 45,000 have

a small number of sales and are not deemed to be profitable by the industry. The market with an infinite jukebox produces an entirely different result, not because sales are less skewed, although they probably are closer to the 80/20 power curve, but because the number of items available is so much larger. A market with two million titles available, where 20% percent are the big sellers means that 400,000 items dominate, and 3,600,000 have a small number of sales. Moreover, in the digital space, sales in the long tail can be profitable or make a significant contribution to fixed costs because variable costs are so low and shelf space is unlimited. As a result, in physical space the tail is relatively short.

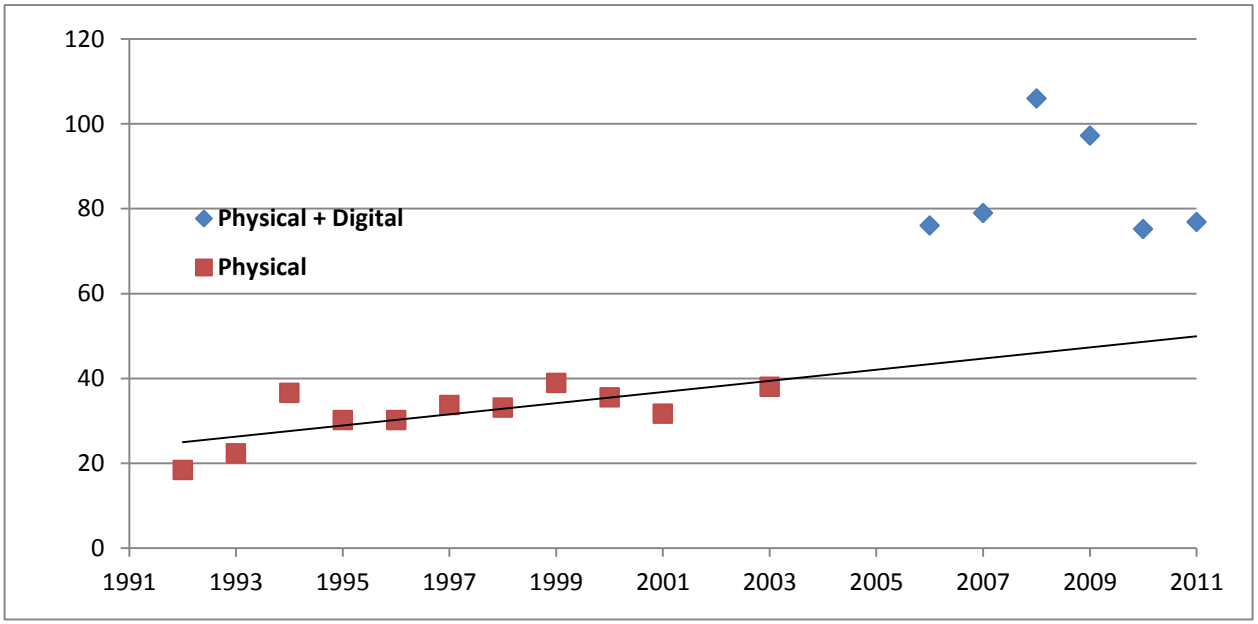
EXHIBIT II-6: DIGITAL DISTRIBUTION: THE LONG TAIL AT ITS BEST EXPANDS THE AVAILABLE PRODUCT ON THE MARKET



Source: Annet Aris and Jacques Bughin, *Managing Media Companies* (Wiley, 2009) 2nd ed., p. 22, Rhapsody long tail added. Physical Space long tail is 90/10, digital space long tail is less severe, 80/20.

While the availability of huge quantities of product is an important measure of the performance of the new industrial organization of the music sector, the long tail includes a lot of old content. The production of new output is the focal point of copyright policy. With declining costs and brighter prospects for new output, we would expect there to be an increase in the number of new products produced. Here, too, there appears to have been dramatic improvement, even when measured with albums as the unit of analysis (see Exhibit II-7). With singles as the unit of output, the increase in new content achieved is certain to be larger, since not every single is released as part of a full length album.

EXHIBIT II-7: NEW ALBUM TITLES RELEASED (000)



Sources: Statistical Abstract of the United States, Nielsen/Soundscan, various issues

Diversification was also evident at the top of the charts. The implication is that as sampling becomes less expensive, the superstar effect is eroded overall, and more users purchase music items based on their actual, not advertising driven valuations. [19]

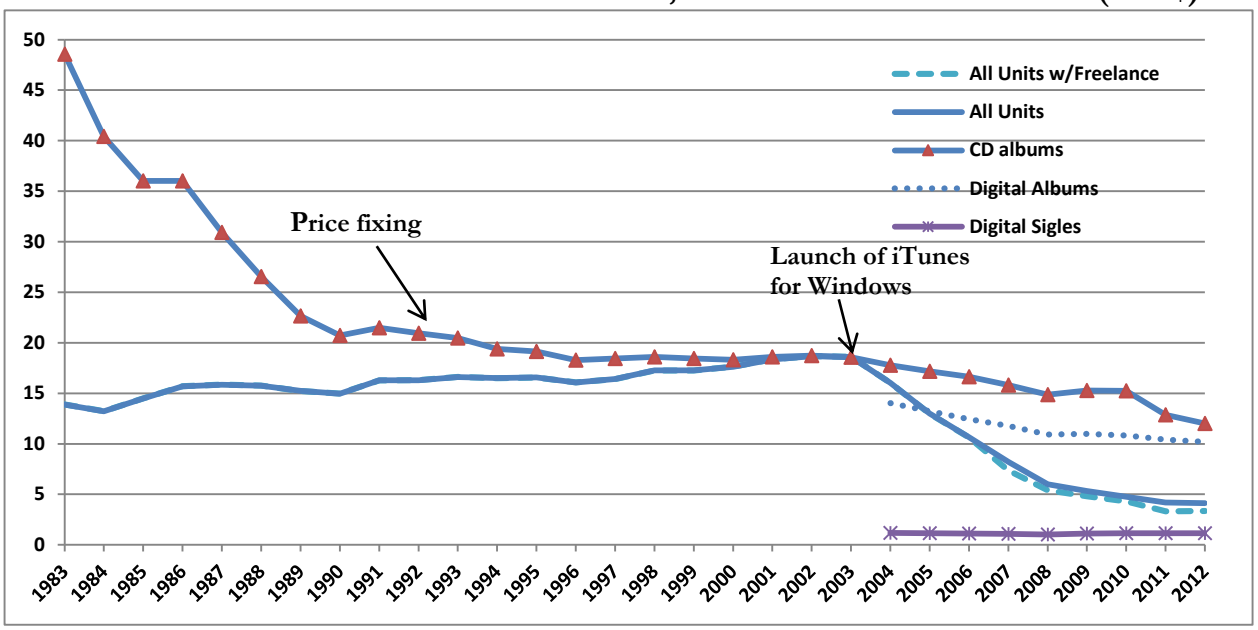
3. Price

In order to drive this immense increase in and shift of consumption one would expect that prices had to drop dramatically. (Hull, 1998, 2004, 2011, pp. 253-259; Fisher, 2004, appendix) As shown in Exhibit II-8, the prices paid per unit did decline sharply during the digital period. Album prices declined somewhat, but the decline in the average price was driven primarily by the increase in the sale of singles, the product the labels had banished from the market a decade earlier. Consumers no longer had to purchase a large number of songs they did not want in order to get the few they

[19] Gopal, Bhattacharjee and Sanders, 2004, pp. 33-37) As one set of authors put it: we find strong evidence that over the last decade, the number of unique artists and albums that have appeared on the Billboard Top 200 album charts is statistically related to the number of Internet users. The implication is that with lowering of information sampling costs, consumers become aware of more new albums they like, leading to more artists and albums being ranked on the charts.

did. Billions of singles and streaming spins replace hundreds of millions of albums, resulting in billions of dollars of cost savings for music that can be enjoyed in a variety of new ways.

EXHIBIT II-8: REAL REVENUE PER UNIT SHIPPED, IN THE CD AND DIGITAL ERAS (2012 $)



Source RIAA, Year-End Statistics; GDP deflator

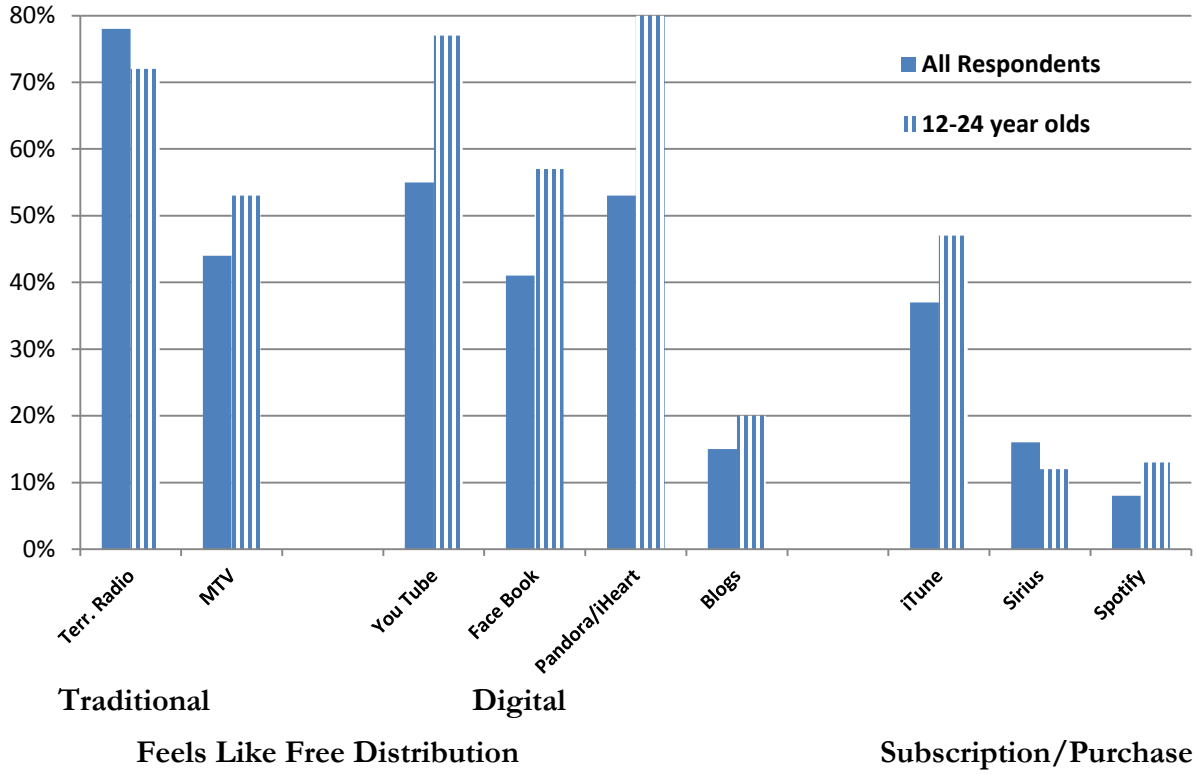
In anticipation of the analysis in Section III, we should note the two sharp breaks in the pricing of CDs in Exhibit II-8. The dramatic decline in CD prices stopped abruptly in the early 1990s. This was associated with the period of abuse of market power by the labels. Second, beginning in 2004, the price of CDs began to decline. This was associated with the introduction of **legal** digital models.

C. "FEELS LIKE FREE" SAMPLING

Availability and price are key factors in driving the transformation of the music sector, but exposure to music also plays a transformative role. With each major change in technology, the consumer's ability to listen to samples of music has played a key role in expanding the sector. The digital transformation is no different. Digital technologies have a large impact on the sampling function. (Hull, 2011, p. 269; Tschmuck, 2006) Terrestrial radio, the primary sampling vehicle for physical CDs, has limited geographic coverage, restricted formats and scarce broadcast space. In fact, the homogenization of play lists after the dramatic concentration of radio ownership is a frequent complaint in the music sector. (Hull, 2004, p.243; Burkhart and McCourt, 2006, 129; Tschmuck, 2006) Entry into terrestrial radio is difficult.

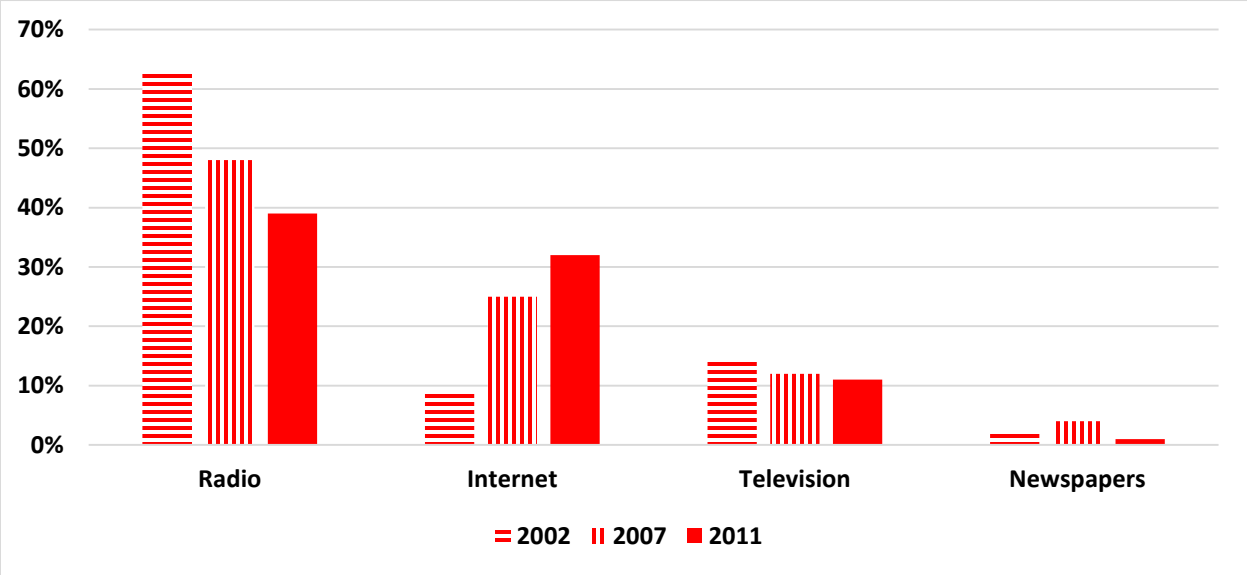
As shown in Exhibit II-9, the "feels like free" opportunities to experience music are the way consumers keep up with music. The digital iterations of the "feels like free" opportunities to experience music have come to equal or exceed the traditional "feels like free" opportunities. The Internet radio model constitutes a major expansion of the opportunity to sample, discover and enjoy. Exhibit II-10 showing the evolution of sources for information about new music across time and highlights the dramatic growth of the Internet as a source.

EXHIBIT II-9: WHERE DO PEOPLE LEARN ABOUT AND KEEP UP-TO-DATE WITH NEW MUSIC (% OF RESPONDENTS)



Source: Edison, 2013, The Infinite Dial, pp. 59-60.

EXHIBIT II-10: RESPONDENTS RELYING ON MEDIA FOR INFORMATION ABOUT NEW MUSIC



Source: Dertzous, 2004, Edison, 2011

While the "feels like free" sampling platforms of the Internet have grown to rival terrestrial radio in their audience reach, they have several characteristics that set them apart, underscoring the unique nature of the digital distribution ecosystem. (Deutsch, 2010, Stockment 2009)

- In dramatic contrast to terrestrial radio, which had been shrinking the number of titles aired and slicing them into a growing list of formats, Internet radio opens the door to an infinite variety of listening and discovery experiences.
- Internet radio expands the possibilities for sampling in much the same way digital technologies expand the possibilities for distribution. Consumers can be exposed to a much wider range of content, selecting new ways to sample, many of which reduce the role of the broadcaster as gatekeeper.
- Digital "feels like free" sampling also affords artists greater opportunities. Pandora, the leading Internet radio distributor by far, states "of the 60,000 artists whose music is in the Genome, 70% are not affiliated with a major record label, and more than 50% are independent musicians." (Deutsch, 2010, p. 39)
- Moreover, the number of songs in rotation on Internet radio is vastly larger than terrestrial radio, with one author estimating almost 20 times as many songs in rotation. (Deutsch, 2010, p. 42)

Internet radio has all of the characteristics of digital technology that improve the performance of the sector. Internet radio provides the flexibility of mobility and multiple devices. Tailored playlists enhance the discovery process and meet consumer needs more effectively, as well as providing the opportunity for better targeting of advertising. Social networking of playlists can magnify the expansion of audiences for freelance artists through potentially viral communications.

Terrestrial radio was the focal point of the pre-digital music ecology because of its vital role in fulfilling the need for sampling and discovery which are triggers for the purchase of music. Internet radio plays the same role in the digital music ecosystem. Terrestrial radio, or tightly controlled exposure to music, simply cannot provide the platform for the vast and diverse array of content that is made possible by digital disintermediation. As discussed below, in Section VI, the sampling and discovery "feels like free" aspect of the digital disintermediation is just as threatening to the record labels as the more widely recognized digital production and distribution aspects.

D. CONCLUSION

The empirical evidence supports the conclusion that in spite of declining per unit revenues, the supply-side of the music industry is doing quite well. In addition to the fact that total units shipped have increased, the number of artists, (Mortimer, Nosko and Sorensen, 2010), titles (Handke, 2012) and companies (Handke, 2006) has increased, with much lower barriers to entry (Cassiman and Salvador, 2006, McCubin, 2012). Quality is as good as or better than it was prior to digital disintermediation (Waldfogel, 2011a) and the turnover at the top of the charts has increased. (Klein and Slonaker, xx) Independent labels have increased their share of the most popular products (Waldfogel, 2011b) and smaller bands have benefited more than larger bands. (Mortimer, Nosko and Sorenson, 2010, Handke, 2006). The result is greater diversity of artists and content available across the entire range of the popularity of offerings. (Handke, 2010) Complementary good output is up as well, including concerts and equipment. (Mortimer, Nosko and Sorenson, 2010, Bjerkoe and Sorbo, 2010)

From the point of view of output and consumer welfare, there is little doubt that the digital model represents a marked improvement. Before we can estimate the magnitude of the gains and declare the transformation successful, we must also examine the cost of production. Is the industry covering its costs and is output sustainable at these low market prices? Are incentives adequate to ensure production?

The precipitous nature of the decline in prices shown in Exhibit II-7 might lead one to fear that the price is too low. However, the decline in prices alone is misleading as an indicator of the economic viability of the sector for two reasons:

1) The prices charged in pre-digital era were propped up by market power to yield excess profits, as discussed in Section III, below.

2) A dramatic decline in costs means lower price can yield adequate profits as discussed in Section IV, below.

III. MARKET POWER: PRICE FIXING, BUNDLING AND BRIBERY

A. PERVASIVE MARKET FAILURE IN THE PRE-DIGITAL MUSIC SECTOR

In theory, in a competitive music sector, firms would be forced to adopt the best technologies available to become more efficient or they would be unable to compete with the more efficient firms. (Scherer and Ross, 2000) A substantial part of the resource savings would be passed through to consumers because firms that tried to earn excess profits by holding onto too much of the surplus that had been created by increasing efficiency would lose their customers to competitors. This competitive model never typified the music industry as a general proposition.

From the economic point of view, the structure, conduct and performance of the music sector in the 1990s exhibited numerous severe market failures. The temporary monopoly granted by copyright had been severely abused resulting in a sector that was the antithesis of the goal of copyright policy.

Scherer and Ross, in their seminal text on *Industrial Market Structure and Economic Performance*, identify over a dozen characteristics of "workable competition," as noted in Section I. The music sector in the 1990s failed to exhibit the vast majority of the key characteristics at each of the three levels – structure, conduct and performance, as shown in Exhibit III-1. In fact, there were only a few of the criteria on which the music sector of the 1990s did not perform poorly.

The structure of the music sector was inefficient and wasteful and the conduct of the tight oligopoly of record labels that dominated the sector was anticompetitive, anti-consumer and mistreated artists. The performance of sector was miserable, not only in terms of prices and products, but also in its reaction to the opportunity to exploit new technologies.

The specific market structural factors underlying this outcome included substantial positive externalities, a wasteful cost structure, a significant information problem, a severe agency problem, barriers to entry, high concentration, and extreme highly transaction costs.

The conduct that resulted from this deeply flawed market structure included price fixing, product withholding, distortion of demand through advertising, including payola, and lack of diversity in product selection.

The indicators of poor performance include excessive profits, waste, suppression of demand, transfer of surplus from consumers to labels, suppression of artist income, and the failure to exploit technological opportunities.

Given the basic conditions and technology of the industry, some of the problems that afflicted the sector were endemic and long standing, the result of the underlying cost structure and scarcity of resources (shelf space and air time), but that was all the more reason to transition quickly to a superior technology. Others problems were institutional and recent, the result of consolidation and business model choices. The new technology had to overcome the institutional obstacles including the market and political power of the incumbents. The industry not only failed to exploit new technologies, but it threw all of its resources into seeking to block or restrict new technologies, in order to avoid the impact they could have on the incumbent business model. Ironically, but

EXHIBIT III-1: PERVASIVE MUSIC SECTOR MARKET FAILURE IN THE 1990S:

Performance Criteria	Pre-digital Music Sector
<u>Structural Criteria</u> The number of traders should be at least as large as scale economics permit. The power over price possessed by a monopolist or oligopolist depends upon the firm's size *relative to* the market in which it is operating. (18) There should be no artificial inhibitions on mobility and entry. There should be moderate and price-sensitive differentials in the product offered. Our analysis reveals that under plausible circumstances, vertical integration downstream by an input monopolist *can* lead to enhanced monopoly power and price increases (525) Diversification was a very important contributor to the observed growth of aggregate concentration (94)	Highly concentrated, Economies of scale High transaction costs Substantial barriers to entry Little price-sensitivity Vertical integrated, centralized production Conglomerates in entertainment
<u>Conduct Criteria</u> Some uncertainty should exist in the minds of rivals as to whether price initiative will be followed. Firms should strive to attain their goals independently, without collusion. There should be no unfair, exclusionary, predatory or coercive tactics. Inefficient suppliers and customers should not be shielded permanently. Sales promotion should be informative, or at least not be misleading. There should be no persistent, harmful price discrimination.	Little Price uncertainty Collusive Price Fixing, and policy Payola is an unfair, exclusionary tactic Significant coercive legal tactics Inefficient suppliers persist Distortive sales promotion is payola and advertising Common harmful price discrimination (e.g. CD v. Cassette), little discounting Legal tactics include suing the entire alternative supply chain & refusing to settle or negotiate in good faith
<u>Performance Criteria</u> Firm's production and distribution operations should be efficient and not wasteful of resources. Decisions as to what, how much, and how to produce should be efficient in two respects: Scarce resources should not be wasted, and production decisions should be responsive qualitatively and quantitatively to consumer demands (4). Output levels and product quality (that is, variety, durability, safety, reliability, and so forth) should be responsive to consumer demands. Profits should be at levels just sufficient to reward investment, efficiency, and innovation. Prices should encourage rational choice, guide markets toward equilibrium, and not intensify cyclical instability. Opportunities for introducing technically superior new products and process should be exploited. Promotional expenses should not be excessive. The operation of producers should be progressive, taking advantage of opportunities opened up by science and technology to increase output per unit of input and to provide consumers with superior new products (4) Success should accrue to sellers who best serve consumer wants. Equity/Employment: The distribution of income should be equitable, producers do not secure rewards in excess of what is needed to call forth the amount of services supplied. The operation of producers should facilitate stable full employment of the resources, especially human resources (p. 4)	High transaction costs, 15% returns Unresponsive (elimination of singles), Declining quality Excessive profits Blockbuster focus, Anti-consumer bundling One-hit wonders Hostility to innovative technology Extremely high promotional expenses Incumbents persist by undermining consumer friendly business models Mistreatment and underemployment of artists

Source: Scherer and Ross, 1990. To include all key criteria the table combines Figure 1.1 and workable competition discussion on p. 53. All citations are from p. 53 unless noted otherwise.

predictably from the point of view of political economy, the two initial pieces of legislation that did the most to protect the dominant incumbent record labels from the effect of digital technology were passed at the height of their abuse of market power.

Digital technologies had the potential to correct many of the market structural problems, including changing the production cost structure, improving information availability and flow, reducing or eliminating the perverse incentives associated with agency, lowering transaction costs, eliminating the distortion of advertising.

Although payola, which is the institutional feature most closely associated with the "feels like free" function in the pre-digital music market has been defended as a mechanism for efficiently allocating a scarce resource, airplay, it can also be seen as a manifestation of market failure (see Exhibit III-2). A close look at the argument suggests the dense that it is ignores the fact that payola incorporates a number of market imperfections.

EXHIBIT III-2: PAYOLA AS MARKET FAILURE FLOWING FROM PERSISTENT IMPERFECTIONS IN THE PRE-DIGITAL MUSIC MARKET

	Public ⟷	Radio ⟷	DJ ⟷	Pluggers ⟷	Label ⟷	Public
Asymmetric Information	X				X	X
Agency		X			X	
Entry Barriers		X		X	X	
Enforcement/ Coordination		X			X	

The practitioners of payola object vigorously to the obligation to reveal the payment, fearing that it will undermine public confidence. This strongly suggests that it suffers from an information asymmetry. It can be argued that the solution actually compounds the problem. Radio airplay is scarce and radio stations are risk averse and do not possess the information necessary to predict which songs will succeed. Labels do not know what will succeed and have a strong incentive to target demand. The weaknesses are reinforcing. Self-policing has repeatedly proved to be a failure.

B. CONCENTRATION AND MARKET POWER

Tschmuck described the reaction of the dominant firms to technological change as follows.

> However, the … industry's majors rejected the use of [the new technology] since they feared promotion of a potential substitute for the record. They were mainly concerned that consumers would switch to the much cheaper [new technology] and record music directly… In order to prevent the dissemination of the technology, the majors' own recording studios refused to use the technology for recording purposes.
>
> In contrast, smaller record companies seized the opportunity provided by the new medium… The new technology has the additional advantage of reducing the up-front cost needed to build a recording studio. From this point on, it was possible to install a recording studio in a garage. (Tschmuck, pp. 93-94)

This description was offered for the reaction of the major labels to magnetic tape in the late 1940s. The reaction of the industry to the new digital technology fifty years later was much the same.

> But label chiefs were so bogged down in the courts in the file-sharing battleground that they refused to act on the digital future of the business. Many figured they would simply win in the courts and the CD-selling business would go back to normal. As a result, they wasted almost three critical years before agreeing to a functional legal song-downloading service…
>
> Several Internet savvy underlings at major labels saw exactly what was about to happen… But the majority of executives preferred to cling to the old, suddenly inefficient models of making CDs and distributing them to record stores….
>
> Executives also felt they couldn't plunge into a deal with Napster because of their contracts with thousands of artists, song publishers and retail stores. (Knopper, 2010, p.141)

The primary goal of early label efforts to deal with digital distribution was intended to impede the technology in a manner that would preserve their control and support their business model. Their forays were doomed because the labels continued to mistake what the consumer wanted – an easy to use service with a broad available catalog. What they got was label-specific services with no interoperability. The inevitable result was that innovation came from outside the industry.

> "They were trying to do something technologically that technology wasn't about to do. And, as a result they lost control"… By 2000, Apple's engineers has studied Sony's Music Clip and other ridiculously hard-to-use players on the market and decided they could do a far better job. (Knopper, 2010, p. 156, citing Rob Glaser of Real Networks)

Moreover, the industry structure in the late 1940s and the 1990s, when new technologies were resisted rather than embraced, was similar, a tight oligopoly in which a small number of majors controlled the production and distribution of music (see Exhibit III-3). The concentrated industry structure gave the labels the incentive and power to resist and delay change, hoping to control it and mitigate its impact on the business model. (Hull, 2011, p. 170; Tschmuck, 2006; Black, Fox and Kochanowski, 2008; Aris and Bughin, 2009) In the 1940s and 1950s, Congress did not make legislative changes to alter the rules of the game to protect the dominant incumbents from technological change. Ironically, in the 1990s they did make changes, even though the industry structure was particularly unlikely to move to a competitive outcome. It had become a tight oligopoly of global conglomerates through a consolidation wave, with a significant level of vertical integration. (Tschmuck, 2004, Hull, 2011)

The initial reaction of the labels to digital technologies was to attack the technology, since it threatened their control and excessive margins. To the extent the labels envisioned using the new technologies to lower costs, they intended to do so in a manner that would increase their share of the surplus. For example, labels continued to deduct breakage allotments from recording artists, even though CDs didn't break at nearly the rate of vinyl. They also charged audio file deductions and packaging deductions long after those costs continued to outstrip vinyl production. The majors also insisted on subscription models—requiring people to continue to pay for access to music.

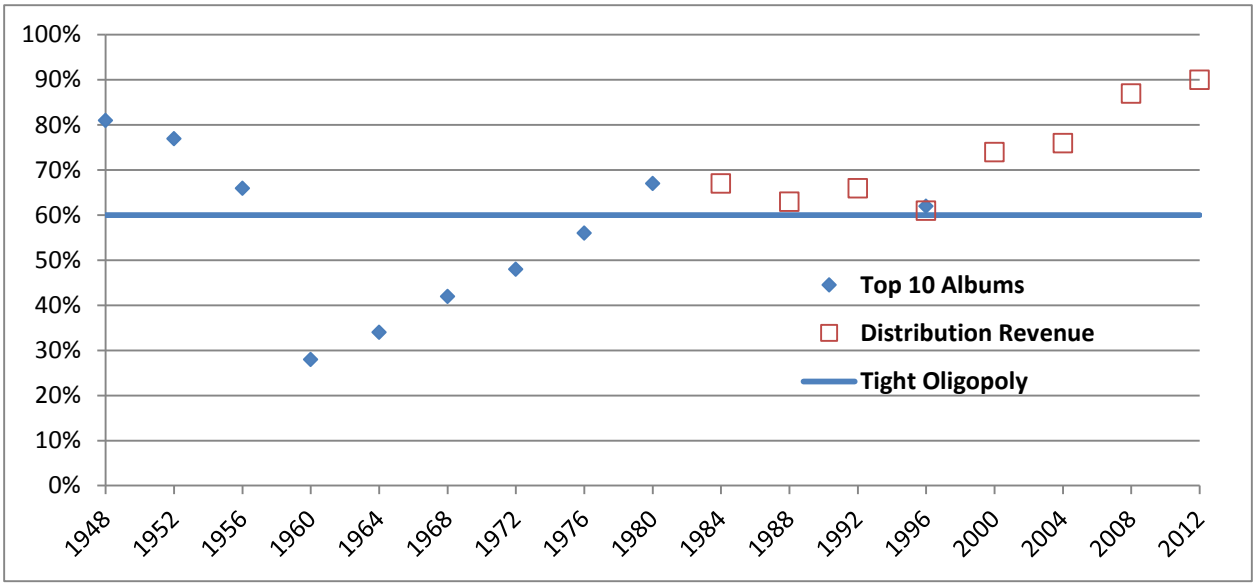
Thus, the third aspect of the public benefits challenge of copyright, controlling the abuse of the legal monopoly, is an important element of the analysis of the response to the technology by

consumers and the record labels. The explanation for the huge and swift impact of digital disintermediation must take account the industry structure and practices that typified the industry in the 1990s. The extent of the upheaval was magnified by a reaction to the abuse.

The major record labels engaged in two practices that imposed severe harm on consumers and competition setting the stage for a powerful reaction to the new technology.

- They adopted a price fixing scheme to keep album prices high, even though the new compact disc (CD) format dramatically lowered their costs and discounters had lowered prices.
- They eliminated singles, even though the CD was well-suited for the sale of singles.

EXHIBIT III-3: FOUR FIRM CONCENTRATION RATIO IN THE U.S. MUSIC SECTOR



Source: Tschmuck, 2004, describes early markets in the terms of the ownership of the top ten dongs, but offers a 1996 estimate of concentration based on revenues. Noam, 2011, uses local distribution revenues for 1984 – 2008. 2012 is based on Nielsen/Soundscan.

In short, the labels abused their market power restricting output and raising prices, forcing consumers to unnecessarily purchase hundreds of millions of overpriced CDs to get the music that they wanted. Some analysts count the resistance and hostile reaction to new digital technologies as a further example of the abuse of market power. (Nestor, 2012; Knopper, 2010, Tschmuck, 2009; Handke, 2006) The labels thought they could continue exercising their market power, but an antitrust consent decree ended price fixing (FTC: 2000) and digital distribution made the sale of singles a compelling alternative. (Nestor, 2012)

C. PRICING PATTERNS

Complaints about the pricing of CDs started about a decade before iTunes launched the legal business model for digital disintermediation. A 1992 article in the *Seattle Times* captured the early complaints about CD pricing, which flowed from the pricing pattern discussed above. (Philips,

1992) The article quoted industry sources to the effect that record labels were "thumbing their nose at consumers"[20] and "exploiting artists"[21] by keeping the price of CDs high, in spite of falling costs,[22]which indicates they were dramatically increasing their margins.[23]

- In other words, for at least a decade, the labels had been "thumbing their nose" at "the consumer voice" that the *Billboard* executive noticed coming back into the market in 2003 with the introduction of iTunes.

The high prices charged for CDs put pressure on the supply chain as CDs became the dominant medium. As pressures continued to mount, the labels resorted to price fixing, as described in a complaint by state Attorneys General. "In a series of announcements to their retail customers in 1995 and 1996 the defendant distributors transformed their MAP programs into blunt and effective instruments for putting an end to price competition." (State of Florida at para 49) With the labels imposing discipline on the industry, "retail and wholesale price increases occurred despite the fact that, as the records of one of the music companies revealed, per-CD unit costs had decreased sharply during the 1990s." (State of Florida at para 72) Once pricing discipline and prices began to rise, sales increases stopped. The benefits of economies of scale and falling costs that

---

[20] Phillips, 1992, Most of the nation's biggest retailers agree that CDs cost too much - an average $15.98 for a superstar release vs. $10.98 for the same album on cassette. Prices for most top-of-the-line classical CDs are comparable…. Many retailers, including Russ Solomon, president of the 54-outlet Tower Records, say the cost of CDs is one of the critical issues facing the record business in the '90s…. "Music sales have slowed down for a reason," he maintains. "And it's not just because kids can't afford to buy CDs. Adults can't either." Throughout the '80s, record-store owners and consumers were so enthusiastic about CDs that they didn't seem to mind the hefty price. The assumption was that - as with almost every other home-electronic innovation - the price would drop as demand increased and manufacturing costs fell….But by the beginning of the '90s, there had been no noticeable price reduction. When consumers started grumbling, retailers began pressuring record companies to drop prices. But they found a deaf ear. "It's almost as if the record companies are thumbing their noses at consumers," says Pete Howard, editor of ICE, the International CD Exchange, the nation's largest CD-audiophile newsletter.

[21] Phillips, 1992, Consumers and retailers aren't the only ones complaining. Artists and their representatives say record executives exploited the uncertainty of the CD's future to secure "new technology" and "packaging" deductions on CDs from pop acts. Those deductions, still in force, allow manufacturers to pay artists about 15 percent less for royalties on CDs than on albums or cassettes…Most pop stars earn a royalty rate of about $1.85, or 18 percent of the retail value of each CD - minus packaging and return deductions. Songwriters receive about 6 cents a song but not usually more than 60 cents for each CD… "The record companies are taking advantage of performers," says Los Angeles entertainment attorney Don Engel.

[22] Phillips, 1992, When CDs first came out, retailers were led to believe that as costs dropped, prices would come down," says Arnie Bernstein, executive vice president of the 1,000-outlet Musicland, the largest record retail chain in the nation. "The companies asked us to hang in there until it happened. We're still waiting…." "Because nobody knew whether it would catch on or not, the companies had a legitimate reason to charge as much as they did. But in the past five years, demand has increased and manufacturing costs have dropped considerably. I think just about everybody believes it's time for the record industry to pass some of those savings on to the consumer…." Initially, record companies blamed the cost of the CD on the lack of sufficient manufacturing capacity in the U.S. Until 1986, only one major CD pressing plant existed, the Sony-owned Digital Audio Disc facility in Terre Haute, Ind…. Back then, the average cost to produce a disc was $3. But with additional plants costs have plummeted.

[23] Phillips, 1992, Retailers point out that record companies now charge them $3.75 more for the same music on CD than on cassette, even though the unit manufacturing and distribution cost for CDs is only about $1.25 more than for cassettes…. Expenses vary, but most CD releases cost companies about $6 to make and distribute, sources say. Record labels charge retailers about $10.25. By contrast, record companies sell cassettes, which cost about $4.75 to make and distribute, to retailers for about $6.50… That may sound like an outrageous gap - and some record officials acknowledge privately that it is. Still, there is no indication that companies intend to lower the price anytime soon.

would have been passed through to consumers in a competitive market were redirected to the labels bottom line as excess profits through price fixing.

The history of the anticompetitive behavior makes fascinating reading in light of subsequent developments. CDs entered the market in the mid-1980s, constituted a quarter of total sales by 1990, and three-quarters by 1995. Competition arrived in the early 1990s along with the expansion of CDs, a new technology of distribution that was lower cost and easier to store and handle. Competition drove prices down, "from $15 to $10 in a short period of time."[24] As a result, "discount retailers' sales grew dramatically." (State of Florida at para 38) The early 1990s was the most rapid increase in units shipped to-date. "CD sales during this period have the largest increase of any 5 year period in our data." (Liebowitz, 2006, p. 22) This expansion of sales was the result of the price competition that had broken out and a shift in technology, which stimulated library replacement. Price elasticity matters. "All major labels report that moving albums to mid- or budget-pricing increases sales significantly." (Hull, 2004, p. 179)

The pricing pattern of the 1990s shows that price fixing by the industry was intended to "manage" the dramatic decline in prices that a combination of new technology and vigorous competition had imposed on the industry. (FTC, 2000; Elahi, 2001, Knopper, 2010, 108-112) When the anti-competitive behavior of the industry sought to control discounting, it had an immediate and substantial effect on prices.

> By June 1996 Billboard reported, "Thanks to the majors' new-found resolve on MAP prices of hit CDs at discount chains rose by $2 to $11.99 over the last month. In the meantime, NARM reported that the average price paid by their SoundData Consumer panel during the period of December 1995 through February 1996 was $13.64, up from $12.71 in the previous survey. (Hull, 2004, p. 183)

Two lawsuits, one by state Attorneys General and an earlier one by the Federal Trade Commission were settled in 2002 and 2000 respectively.[25] While these anticompetitive practices were enjoined in 2000 by the Federal Trade Commission and in 2002 by the state Attorneys General, the industry remained a tight oligopoly with suspect business practices. (State of Florida, 2002, paras 3-7) There continued to be battles over high prices of CDs. The anecdotal example frequently cited is the fact that "(t)he soundtrack to the film High Fidelity has a list price of $18.98. You could get the whole movie [on DVD] for $19.99."[26]

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[24] State of Florida at para 37, these are stated in nominal dollars.

[25] As the complaint filed by 41 state Attorneys General put it: The purpose of the illegal agreements was to raise prices and reduce retail price competition which threatened the high and stable profit margins for CDs enjoyed by both the defendant labels and distributors and many music retailers. This competitive threat arose with the entry into music retailing of several discount retailers (for example, Best Buy, Circuit City and Target), which could profitably undercut the prevailing retail prices charged for CDs by traditional retailers. Consumers flocked to the discount retailers which rapidly gained market share at the expense of traditional retailers. The traditional retailers reacted by pressuring defendant distributors to impose minimum advertised pricing ("MAP") policies which established the retail price levels at which CDs were sold, thereby effectively reducing and/or eliminating retail price competition for CDs. The effect of these anticompetitive agreements has been twofold. First, retail CD prices, which had been dropping, were stabilized and then raised industry-wide. Second, the oligopoly of defendant distributors was able to maintain high wholesale prices and margins for CDs. As a result of both effects, consumers have paid higher prices for CDs than they would have absent the illegal agreements. (State of Florida, p..)

[26] Lessig, 2004, p. 70, citing Jane Black, "Big Music's Broken Record," *BusinessWeek Online,* February 13, 2003.

D. PRODUCT OFFERINGS: THE ELIMINATION OF SINGLES

The manipulation of CD prices was combined with a second strategy to further exploit consumers. In the 1980s, sales of singles had been in the hundreds of millions and with declining CD production costs, could have remained high but the industry sought to increase profits by restricting the availability of singles. Over the course of the 1990s, even though production costs were falling, the recording industry all but eliminated the sale of singles. In other words, consumers were being forced to pay too much for CDs that contained a lot of content they did not want to purchase.

Prior to the 1990s, singles had the effect of allowing consumers to cost effectively meet their needs, while stimulating sales with the purchase of individual songs which consumers could use to 'try out' an artist. During the 1990s, however, the industry not only eliminated sales of singles, it provided no alternative. Only after unauthorized file sharing became possible did the industry reluctantly offer sales of singles online.

> At one time, singles made up a hefty part of the record industry's income… But things have changed. Record companies want consumers to buy full length CDs when they fall in love with a song. So they have shut off the spigot when it comes to releasing less expensive commercial singles to retail…
>
> The debate rages. Labels insist they simply cannot make a big enough return if fans are buying $3 singles instead of $16 albums. Retailers, though, fume that they are suffering without singles, which have historically increased foot traffic in stores, especially among younger shoppers.
>
> Labels like the single when it suits their purposes; during parts of the overheated 1990s, labels released them in floods at deeply discounted prices to help promote blockbuster albums and claim fanciful new sales records…
>
> But that was then, this is now, and the music fans are the losers. (Boelhert, 2004, p. xx)

The irony is that the youth market that was most abused in the 1990s would be the market where the record labels would be most challenged in the digital era. [27]

The battle against Internet distribution parallels the opposition of the music copyright holders to the previous revolutions in the potential to distribute music**.** Knopper sees a repeat of the hostility to low cost or free singles replicated in the response to digital distribution, but he ties it to the elimination and reintroduction of the single.

> Sales of iTunes singles surged… While CD sales continue to make up the bulk of major labels' profits, iTunes shifted the balance dramatically and quickly. Although this shift is great for consumers, it's a negative for record companies…
>
> The sad fact was employees at major record labels largely downplayed the internet as a marketing tool – even a decade after Napster and a half-decade after iTunes. In part his was due to corporate policy... [N]ew-media marketers and certain artists and managers had pushed for years to give away unprotected MP3s, for free or very cheap, to generate hype and publicity online and regain credibility with young, tech-savvy music fans… Even after iTunes went online in 2003, using peer-to-peer services as marketing tools was strictly

[27] Patry, 2009.

> forbidden, and God help a label marketer who proposed releasing a free MP3 as a promotional device. ((Knopper: 198-199)

Knopper's observation suggests that the antitrust authorities, who acted against the price fixing in the mid-1990s, might have missed an opportunity to also act against the other anti-consumer aspect of the pre-digital business model: forced bundling. Referring to key Supreme Court decisions on bundling (*Paramount* and *Lowes)* Wachs (2012) offers the following conclusion about the importance of digital disintermediation by forcing unbundling:

> [T]hese decisions nevertheless reflect the Court's general belief that consumer desires are generally better served by an a la carte option of copyright consumptions. The current digital marketplace, where single-song sales far outsell albums, validates this belief. Today's market reveals that customers, if given the option of picking songs one at a time or buying them in contrived bundles, prefer the former. Thus, the electrical jukebox – as implemented by the iTunes store, the Amazon MP# store, and other vendors – has effectively corrected the market imbalance created by the recording industry's insistence on making the long-playing album "the thing" for the five decades following its baby boom advent….
>
> Finally, it could be argued that the bundling of cable channels is block booking in disguise: to the extent that the purpose of channels is to deliver copyrighted content, compelling customer acceptance of a bundle of potentially unwanted channels is only a step removed from cable providers' conditioning the license of certain copyrighted works upon acceptance of other, potentially unwanted works…
>
> When the democratization of the media landscape (thanks to the Internet) meets the democratization of music production (thanks to Protools or Apple's Garage Band), it seems that competition for the ears of listeners may be more robust than ever before. But for the corporate interests that defined the recording industry in the second half of the twentieth century when album sales let to record profits, the challenge seems to be no longer for market dominance, but rather for relevance in the post digital age. (Wachs, 2012, pp. 1076-1077).

Price fixing and withholding of singles with falling costs produced huge margins. "The record companies minted money," one major-label exec told me. "We made huge margins off CDs. We'll never have those margins again." (Mnookin, 2007) Hull recounts the pricing of CDs, underscoring the cost trends that were creating the consumer and artist discontent.

> When CDs were first introduced in the early 1980s, suggested retail list prices ran about $19.00 and wholesale prices about $11.75. As volume of production, sales, and demand increased, the labels began to drop their SRLPs and wholesale prices. By mid-1994 SRLPs had fallen to $15.98 and wholesale prices to around $10.00. As more CD manufacturing capacity came on line and the volume and sales continued to increase, the cost to manufacture the CDs dropped from nearly $4 dollar per disc when CDs were first introduced to less than $1 per disc by 1995. Wholesale prices crept back up to about $10.65 as the typical SLRP $16.98 by 1995, then to about $11.75 for the typical $18.98 SRLP by 2003. (Hull, 2004, p. 180.)

If we accept the pre-price fixing prices as reflecting normal profits and Hull's estimate of the decline in cost, then the post-price fixing price includes excess profits of $5 per CD, which is consistent with the insider recognition that the labels had "huge margins and literally "minted money." With the industry selling close to a billion CDs, the excess profits were five billion dollars.

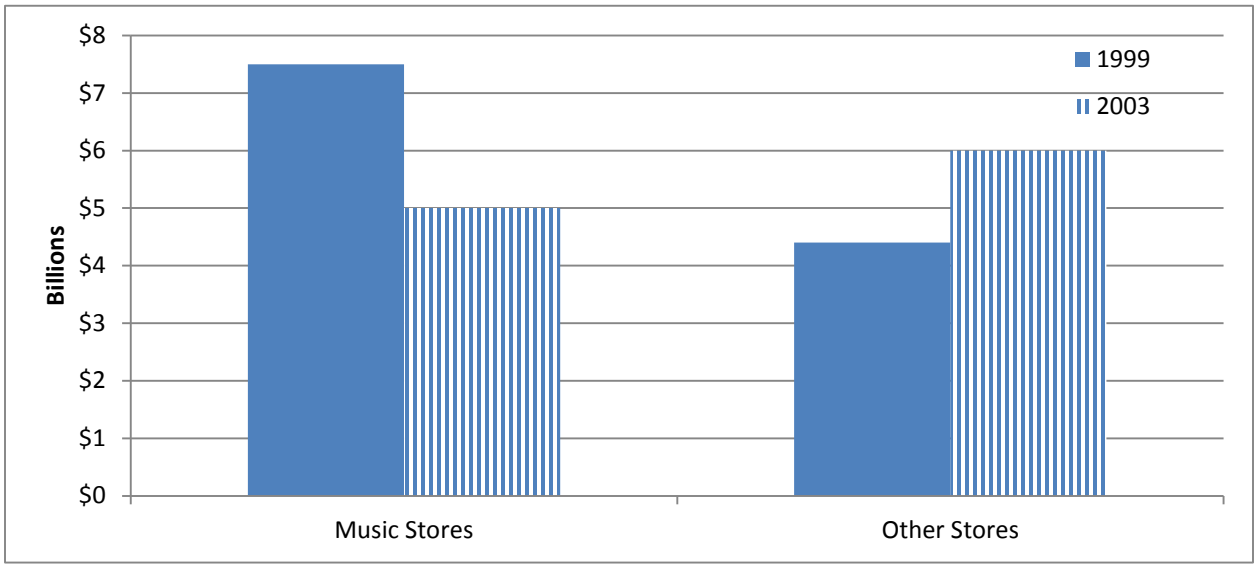
Knopper (2010) provides a direct link between the market power and anticompetitive, anti-consumer behavior of the tight music oligopoly. When the labels eliminated singles, they dramatically altered the supply side of the industry. Knopper argues they needed to use the Big Box stores as the vehicle to expand demand for high priced albums. By eliminating singles they needed to drive traffic to the discounting outlets where music was more affordable. This set off the tension between two distribution channels – the traditional specialty music stores and the Big Box retailers. Price fixing was their effort to resolve the tension. It lasted for about half a decade, but came crashing down under the simultaneous weight of the antitrust laws and technological change.

> McManus [a veteran Canadian producer and songwriter] began noticing he couldn't find a single anymore. "Here is where the North American music industry made its greatest mistake of the twentieth century… When it stopped making vinyl singles and offered nothing to replace them, the industry stopped a whole generation from picking up the record buying habit… If you think about water that's trying to reach the surface… As soon as Napster opened up, the single came roaring back up. I call Napster "the revenge of the single..."
>
> For years major labels used singles as cheap or free promotional tools. "The industry was looking for excuses to get rid of it. You had these arguments that singles were cannibalizing album sales. So they killed the single.
>
> By the late 1990s, the record business had boiled down much of the business to a simple formula: 2 good songs + 10 or 12 mediocre songs = 1 $15 CD…
>
> In the short term, dozens of artists and labels made mountains of cash off the formula… These were one hit wonders, but the acts were lucky enough to make records in an era when fans had no other choice but to buy the album to get the single. "If you only sold lotion in five gallon bottles, pretty soon people would be tired or it…" Albhy Galuten, a well-known producer who later became Universal Music Group's senior vice president for advanced technology – "You can't go around forcing people to buy something that they do not want."
>
> Yet that was precisely the direction the record industry wanted to go. How could the record companies make them huge? The answer was to sell more CDs, at bigger record stores… Best Buy could afford to drop the prices on CDs, even the hot new titles, when Tower and Hegewisch were stuck selling them for the usual price in order to make a profit. When the big boxes got in, they just used the same strategy that they used with everybody else… So the major labels came up with a policy: "Minimum Advertised Price"… The government cracked down hard… (Knopper, 2010:105-111)

Interestingly, the initial impact of the shift in demand was felt most at the weakest link in the pre-digital value chain, the specialized music stores (see Exhibit III-4). Blackburn provides estimates of the total reduction in album purchases and the decline of sales in the specialized music stores. The sale of high priced music on which the specialty music stores depended was no longer viable and became the first part of the pre-digital distribution structure to fail. Virtually the entire reduction in album sales took place in the specialty store sales channel.

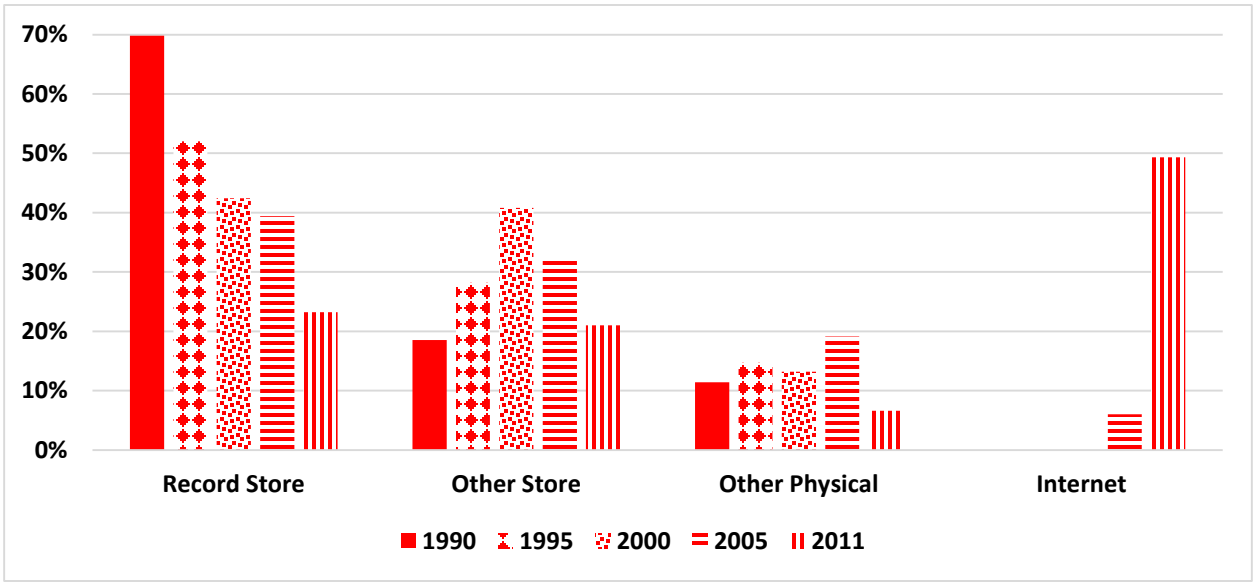
A longer term view of sales channels captures earlier tension between record stores and general outlets and the later shift to Internet distribution (see Exhibit III-5). The record stores were hit first by the big box discounters, then both of those channels were slammed by the Internet

EXHIBIT III-4: ANNUAL SALES OF ALBUMS THROUGH DISTRIBUTION CHANNELS



Source: Channel percentage from Blackburn, Album sales from RIAA Year-end Shipment Statistics.

EXHIBIT III-5: LONG TERM TRENDS IN DISTRIBUTION CHANNELS



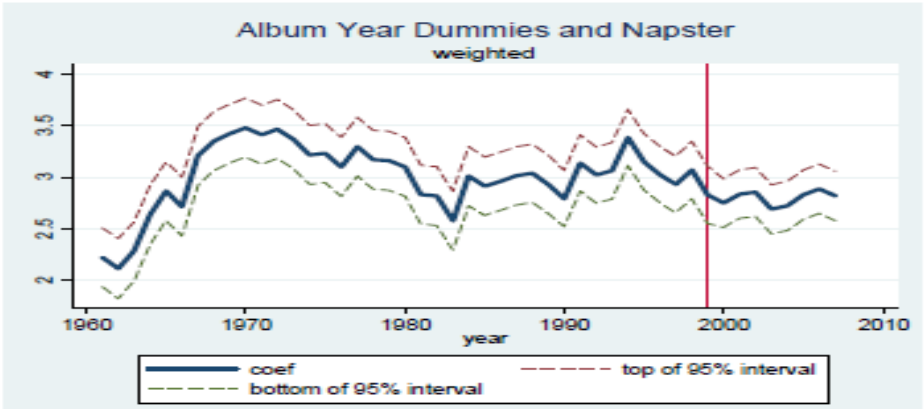
Source: Dertzous, 2008, for 1990-2005, Edison, 2011

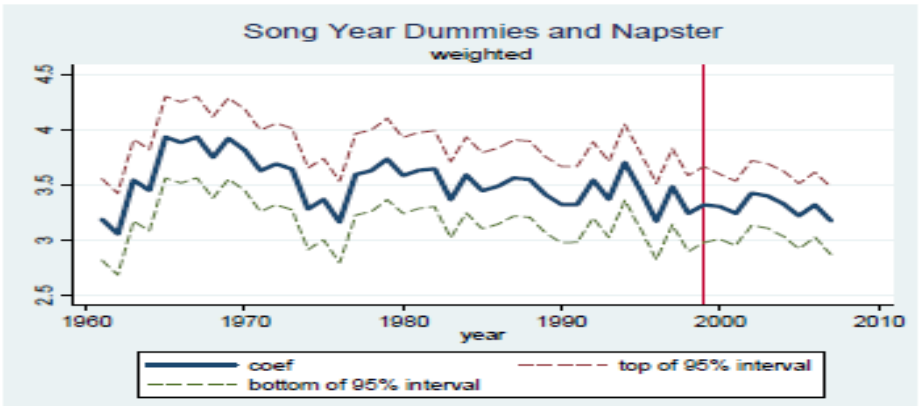
E. QUALITY

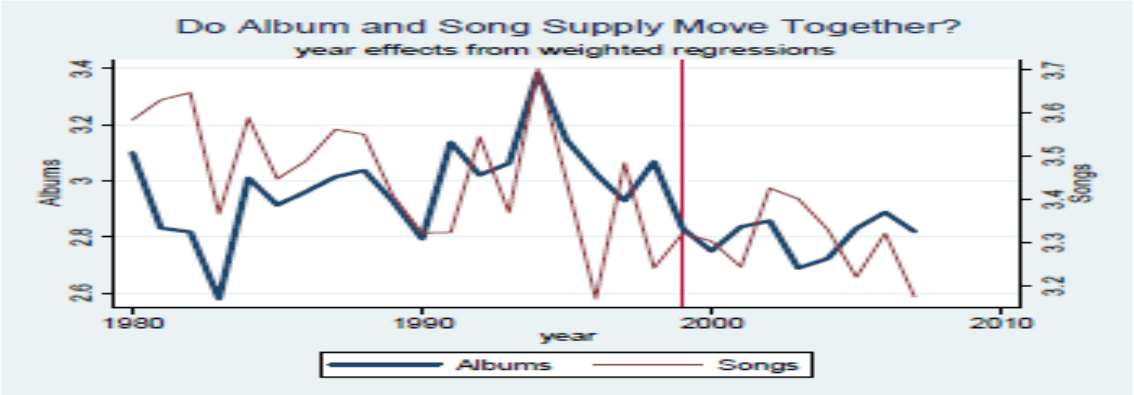
Price increases and restriction of consumer choice leading to high profit margins are two of the classic indicators of the abuse of market power. Another frequent indicator is a decline of quality. Knopper's (2010) description of the typical album as 85% mediocre is a good indicator of

the dismal state of music quality in the late 1990s. Waldfogel's recent analysis offers systematic support for Knopper's observation about the poor quality in the late 1990s (see Exhibit III-6) This is an additional potential cause for the drop off in sales at the turn of the century. A sharp decline in quality that began in the mid-1990s as the peak of album sales was approached. At the very moment that the price had stopped declining, quality went south and singles were no longer available. Demand was suppressed. The bottom in quality was at about the time that Napster entered the scene. The same thing is true with turnover at the top of the charts. (Klein and Slonaker, xx)

EXHIBIT III-6: MEASURES OF THE QUALITY OF NEW RELEASES



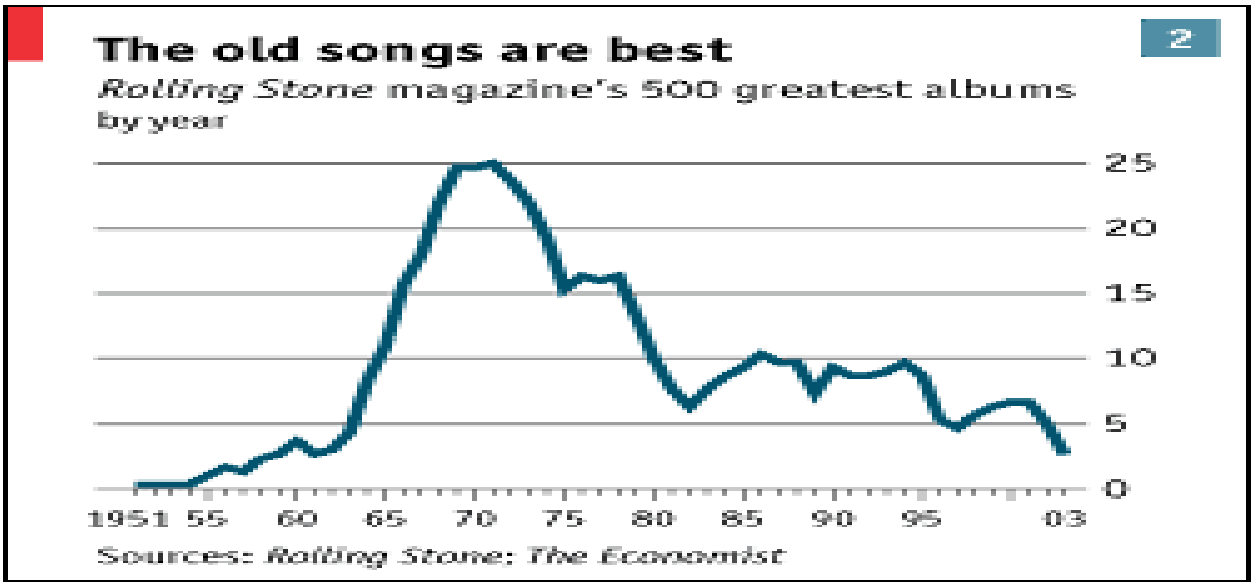




Source: Waldfogel, 2011a.

The Economist offered a simpler analysis of the question of quality based on a rolling stone survey of the best 500 albums of all time, see Exhibit III-7.

EXHIBIT III-7: DECLINING QUALITY OF MUSIC CONTENT



Source: Economist, 2004

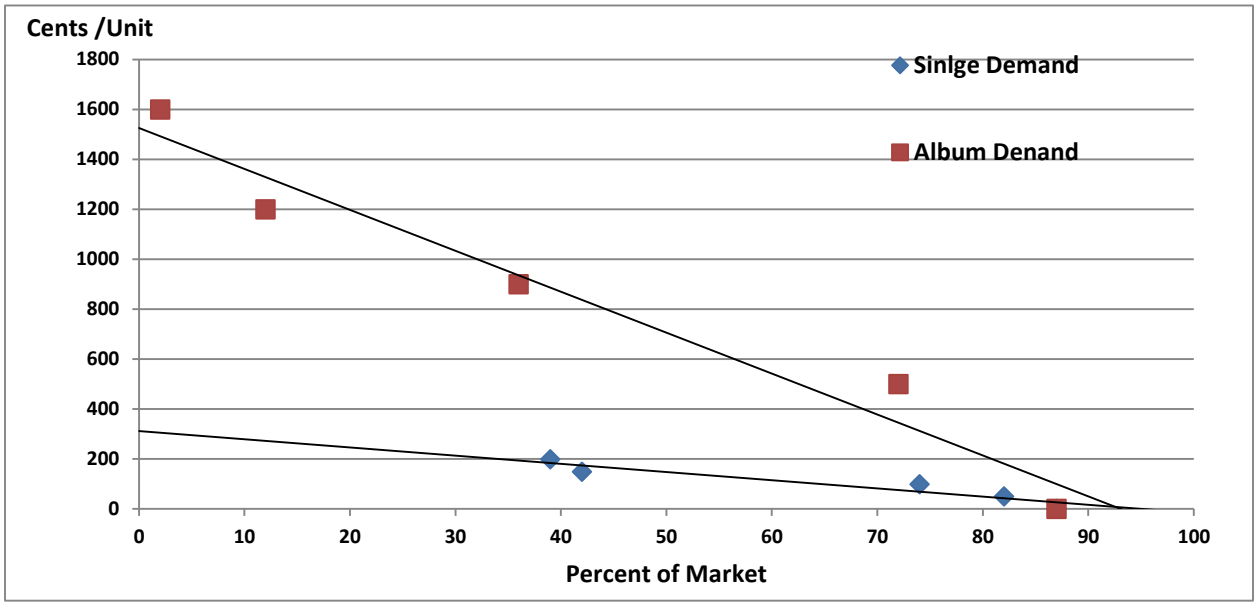
E. CONSUMER AND ARTIST DISSATISFACTION

A survey of consumers at the time of the first price fixing consent decree in 2000 revealed significant consumer dissatisfaction with recording industry pricing. (Wilson-Morris, 2000) Three-quarters of respondents felt that pricing levels were unreasonable and almost as many felt they were excessive compared to other forms of entertainment. They said they would increase their purchases of music if prices fell substantially, and almost all the respondents said they would not be willing to buy digital downloads at the same prices as CDs. The public was clearly not satisfied.

A 2002 analysis by Jupiter/IPSOS of willingness to pay for music is consistent with this description of the music market (see Exhibit III-8). At $12 for albums the Jupiter/Ipsos willingness to pay study estimates that album demand will equal 12 percent of the market. That is exactly the market share for CDs in 2012, with an average price per unit revenue of just over $12. Digital albums at about $10 captured about 6% of the market. Singles are projected to dominate the market. At $0.99 three-quarters of the respondents said they were willing to purchase singles. Several other studies reached similar conclusions (Lin and Ordanini, 2005; Molteni, 2003). This Jupiter/IPSOS willingness to pay analysis is a remarkably accurate prediction of the structure of sales a decade later after the stranglehold of the labels on prices and product had been broken

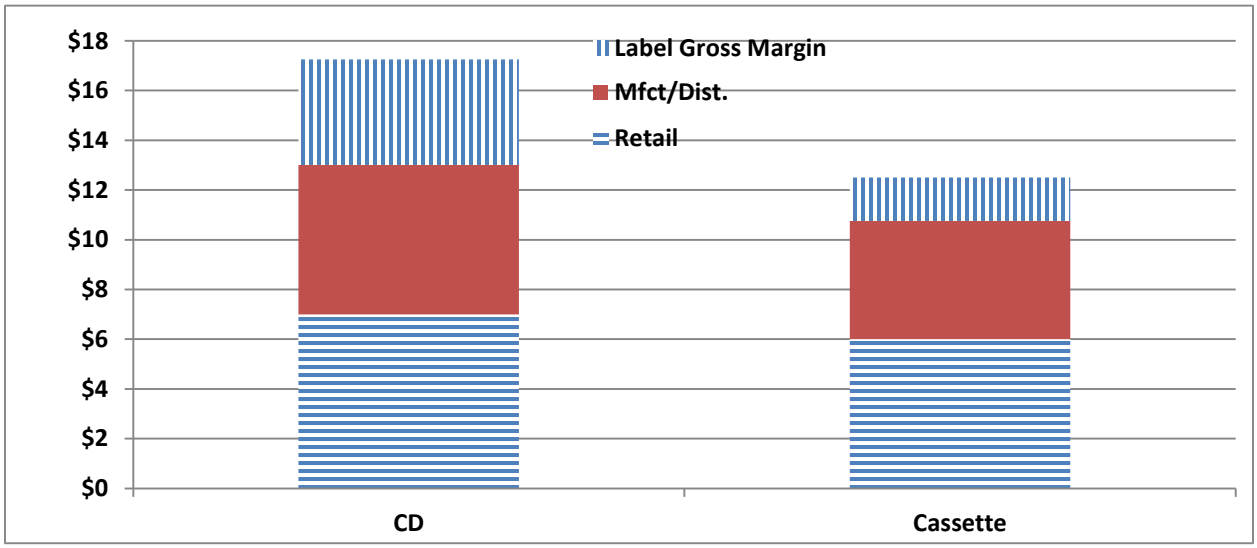
Exhibit III-9 highlights the complaint from retailers and artists that the labels were increasing their margins by holding prices high, even though costs were falling. The higher margin on CDs ($2.50 based on the comparison between CDs and cassettes) was unjustified in the mind of retailers, especially with declining CD costs. The artist exploitation was recognized in economic analysis of the industry practices. (Towse, 2006, 575; McCubin, 2012)

EXHIBIT III-8: WILLINGNESS TO PAY ON THE EVE OF DIGITAL DISINTERMEDIATION



Source: Jupiter/Ipsos, cited in Lin, 2005.

EXHIBIT III-9: COST BREAKDOWN FOR CDS AND CASSETTES



Source: Philips, 1992, Hull, 1998.

> However, labels typically deduct a packaging charge, 25 percent for CDs, even from digital files where there is no packaging. Labels also typically pay a rate for singles that is lower than the album base rate, often 75 to 80 percent of the album rate. Labels also pay a lower rate on "new technologies"; also often 75 to 80 percent of the base album rate. If all of these deductions were taken, the artist's and producer's combined royalty would shrink to about 4.2 cents per download. Some major artists objected to this small portion of this small pie. (Hull, pp. 259-260)

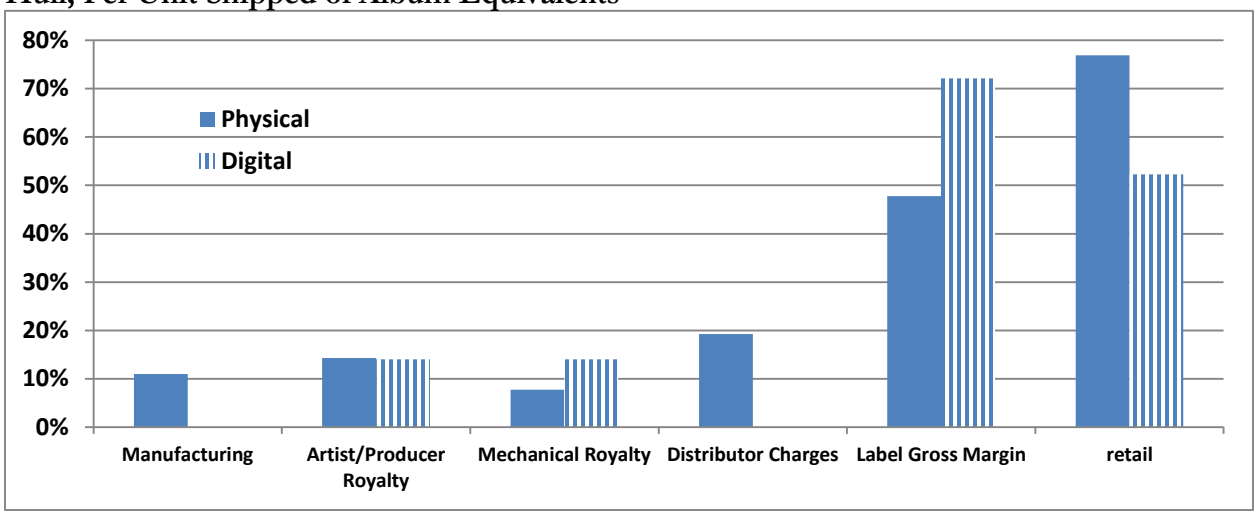
With singles unavailable in the market and SLRPs at $19.00, for a product with a raw material cost of $1, the music space in 2003 was not a very consumer and artist friendly

environment. Confronted with iTunes and the beginning of the onslaught of singles, Universal Music Group, one of the majors, urged concessions to lower CD prices by offering incentives. The effort was too little too late, primarily because the product consumers had long preferred was singles and the digital singles afforded a great deal more flexibility and convenience. The effect was shown in Exhibit II-1 above.

The effort to increase label margins during the change of technology noted above with respect to the shift from cassettes to CDs was repeated a decade later in the transition from the CD to digital products. (Welsh, 2009) Exhibit III-10 shows estimates of the shares of the artists, labels

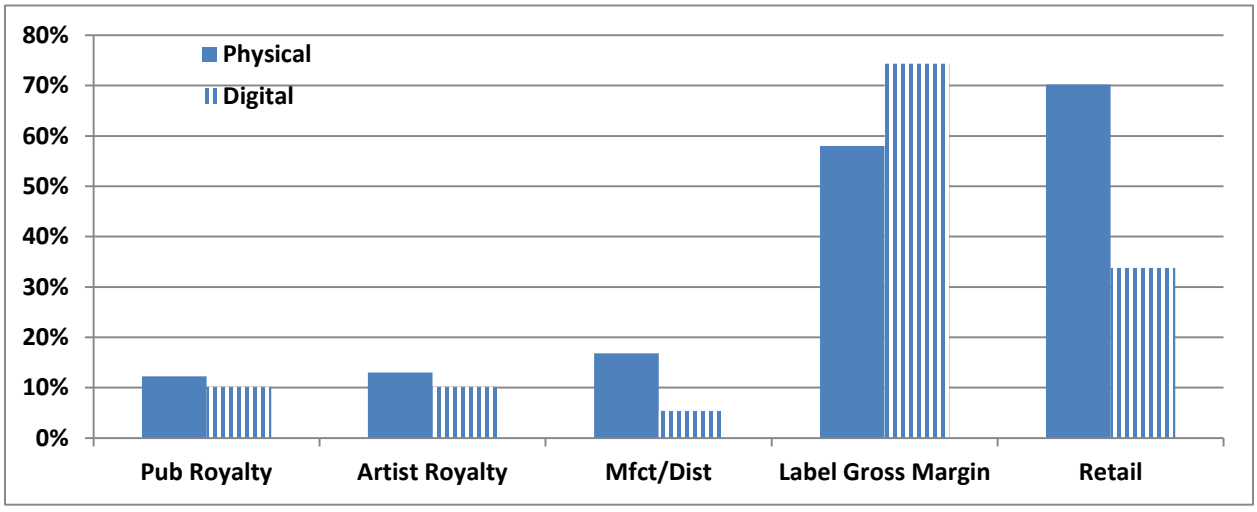
EXHIBIT III-10: DIVISION OF REVENUE FROM CDS AND DIGITAL PRODUCTS: PERCENT OF WHOLESALE COST

Hull, Per Unit Shipped of Album Equivalents



Source: Hull, 2011, p. 187. The cost of retail is set at the difference between wholesale in p. 255. Similar to Vickery, 2005, Fisher, 2004.

Aris and Bughin, Per Track



Source: Aris and Bughlin, 2009, p. 165.

and retailers in the CD and digital products. While they differ somewhat in the details, they agree that the dramatic reduction in the share of manufacturing and retail costs translates into an increase in the share of label margins at a moment when the functions that they provided in the value chain were dramatically reduced in size and importance. These figures affirm the widespread perception that the artists simply cannot win when labels control the copyright.

G. PAYOLA AND THE NEVER ENDING EFFORT TO MANIPULATE THE "FEELS LIKE FREE" FUNCTION

The exercise of market power by the music copyright holders in the 1990s to fix prices, restrict supply and neglect quality was an abusive practice affecting the distribution function in the music sector. Another key function that was affected by a different form of abuse was the promotion function – payola. (Fisher, 2004, pp. 58-89; Stockment, 2009, Caves, 2000)

With terrestrial radio the primary channel for "feels like free" sampling of music, securing air time with "pay-for-play" schemes (payola) was a central activity of the industry. "The bible of the music industry,"[28] entitled *This Business of Music*, *described* payola as follows:

> **The Incentive to Engage in Payola**
>
> The obvious incentive for engaging in payola is to increase the sales of records and the performances and other uses of a song by creating the public illusion of their spontaneous and genuine promotion. Payola is a crutch on which a promotion person with a second-rate product or insufficient contacts or ability may be tempted to lean. And when a record company representative or musician doesn't ante up the expected payment of a disc jockey or other station employee used to getting payola, they may bottle up and keep a record from the public ear, no matter how good it is.
>
> Contacts and promotion are recognized as essential and legitimate factors in the success of a recording in the popular music industry. An excellent song or record is worthless without public exposure. One witness in the first congressional hearings on payola said, "until the public actually hears your product, you can't tell whether you have a hit or not…"(Krasilovsky and Shemel, 2009, pp. 366-367)

The practice of payola has been pervasive throughout the industry and generally resistant to imposition of legal bans and penalties. *This Business of Music* walks through the history of the practice that has persisted over the course of a century.[29]

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[28] Google books, http://books.google.com/books/about/This_Business_of_Music.html?id=E89YJoeBGxcC, The book is now in its 10th edition and published by Billboard books.

[29] Krasilovsky and Shemel, 2009, pp. 380-385, Payola in the sense of pay-for-play, or "plugging," has been with the music industry for many years. In 1916, the Music Publishers Protective Association noted that publishers were paying as much as $400,000 a year to artists to plug their songs. The 1959 report of the congressional subcommittee investigating payola states:Testimony appears to indicate that the selection of much of the music heard on the air may have been influenced by payments of money, gifts, etc. to programming personnel. In some instances, these payments were rationalized as licensing fees and consultation fees….Despite the widespread publicity that the federal payola law of 1960 received, payola has continued. In 1986, then Senator Al Gore launched a Senate investigation of the record business, stating that the practice of giving gifts in exchange for air time "has again reared its ugly head" and noting that a great deal of money, as well as drugs and prostitution, was involved. It was indicated that indirect payola had become a common occurrence because of the record companies having hired some 200 "independent promoters" who were to use their own devices when promoting records, without direct instructions or control by

The tenacity of the practice of payola is testimony to the importance of the sampling function and the dim prospect that voluntary self-regulation can control the practice, as long as air time is scarce.

> The publishers agreed to levy a fine of $5,000 on any member who continued the practices. However, the agreement was unenforced and ineffective. In the late 1930s, a group of publishers retained the late Joseph V. McKee, attorney and one-time mayor of New York City, to work with the Federal Trade Commission in obtaining a code outlawing payola. This move also failed. (Krasilovsky and Shemel, 2009, pp. 381)

I started the analysis of the digital transformation of the music sector in Part I with a quote about the lack of consumer voice in the pre-digital music sector. Here we find that the public cannot use its voice to express its opinion about a song (i.e. buy it), until the "public ear" has been exercised (sampled the song). In the pre-digital age, however, hearing was largely control by terrestrial radio that determined airplay, which was deeply affected by the corrupt practice of payola. The public was abused twice by this structure, once because record labels worked hard to prevent them from sampling music in an objective fashion, and once in restricting output to high priced albums. A substantial part of the revenue of the industry – over a third – represented the ill-gotten gains of these abusive practices. The sampling function remains vitally important in the digital music sector and the ensuring access for songs to the infinite jukebox undercuts the opportunity to corrupt the public access to samples by reducing the problem of the scarcity of air time.

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the record companies that hired them. According to the *Wall Street Journal,* some $80 million a year was being spent for this function….Today, four radio stations control access to 63 percent of the 41 million listeners of the Contemporary Hit Radio/Top 40 format. The *Wall Street Journal* quotes record labels saying they pay independent contractors (promoters) between $200 and $300,000 per song and sometimes up to $1 million. This breaks down to $500 to $2,000 each time a station adds a song to its playlist of the week. In 2005, a landmark lawsuit was brought by then-New York State Attorney General Eliot Spitzer against Sony BMG, in which it was charged that the company had been complicit in various activities that in fact constituted a form of payola: bribes to programmers in the form of vacation packages and expensive gifts, payments to radio stations to cover "operational costs"; use of independent promoters to make illegal payments to stations; and the financial of "spin program," ostensibly for general advertising purposes but in reality for promotion of particular recordings. Our investigation shows that, contrary to listener expectation that songs are selected for air play based on artistic merit and popularity, air time is often determined by undisclosed payoffs to radio stations and their employees.

IV. THE BENEFITS OF DIGITAL DISINTERMEDIATION

The STEP report has focused attention on consumer welfare and artist income as two important issues for copyright policy analysis. Waldfogel, one of the first analysts to challenge the music industry's overstated claims of piracy, whose paper was incorporating in the record of the STEP report, has recently argued that "it may be time to devote more attention to other aspects of the technological revolution we are now experiencing. (Waldfogel, 2012) He outlines a number of issues, including:

> effects on demand, marginal cost, and on fixed costs… the level of copyright needed to assure a steady flow of new creative work… measurement of sales displacement caused by unpaid consumption… new pricing and distribution models possible with zero marginal cost, effects on the development of new products given that costs have declined, and… effects on consumer discovery of new products, given the possible proliferation of new products. (Waldfogel 2012: 1-2)

A number of scholars made this shift early on (e.g. Handke, Tschmuck), some drawing a distinction between "Plain Destruction and Creative Destruction." (Handke 2006) In fact, Handke was the second consultant commissioned to write a paper about the music sector, although the STEP chose to base its summary description of the music sector on the Bazelon report. The underpinning of the shift of attention from piracy to welfare analysis must rest on an appreciation of the full welfare economics (i.e. supply and demand-sides) of radical technological change, a task we undertook in 2008.[30] We need a general account of the three key factors at the center of this analysis, declining costs, eroding market power both in the pricing and products offered to the public, and the shift in demand for a new, more consumer friendly product.

The previous sections have shown that output in the sector was expanding dramatically in response to restored consumer sovereignty, while the abuse of market power was squeezed out of a sector that had behaved poorly. As described in the next section, unauthorized file sharing was qualitatively important in that it signaled the severe market failure of the pre-digital market structure, quantitatively played a much smaller role that the labels claimed and today plays a very small role in the economics of the sector. In addressing the question of whether the market is moving to a new sustainable equilibrium, we must examine the relationship between the costs of the output and the revenue. From the point of view of copyright policy, the question is whether the current balance between private incentives and public benefits is capable of sustaining creativity.

A. COST SAVINGS AND REVENUE SUFFICIENCY

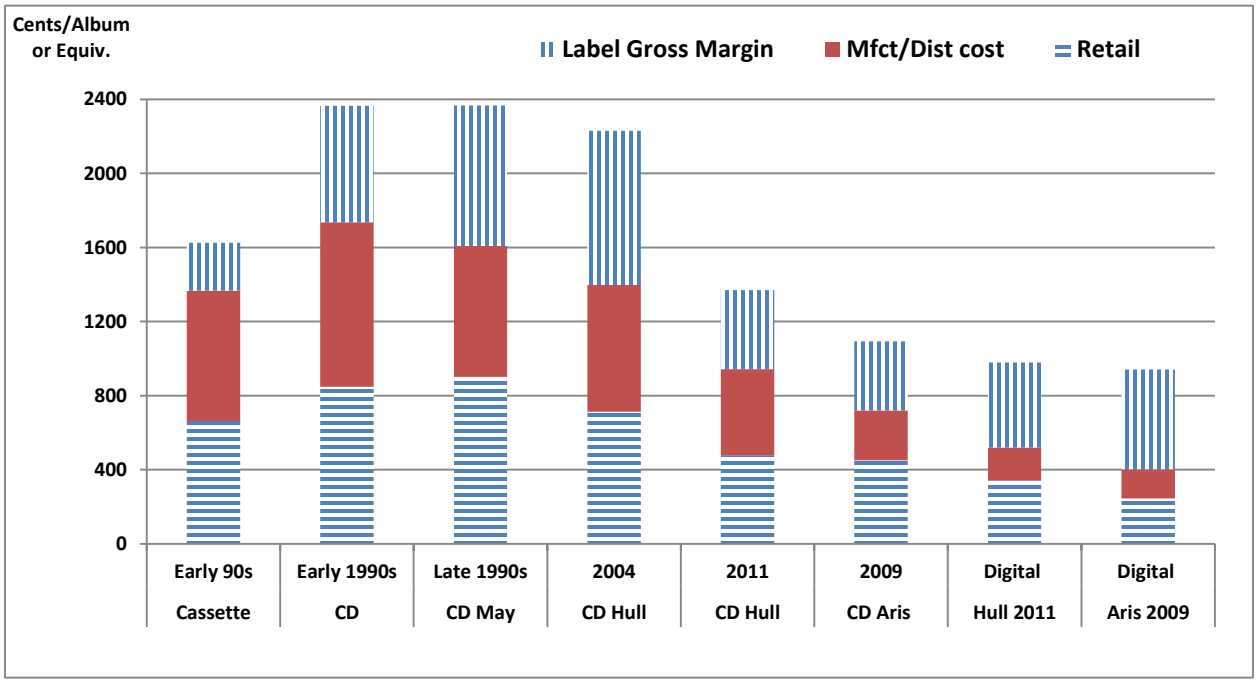
The evidence that the performance of the digital music sector is vastly superior to the pre-digital music sector from the point of view of both competition and copyright is quite strong. The primary question is have costs declined sufficiently to sustain the price reductions and provide artists sufficient incentive to continue to produce music. The data on cost and revenue supports the conclusion that the market has moved to a new equilibrium (Snyder, 2009, Mason, 2013) Exhibit II-3, above, provided general estimates of the reduction in cost of the individual activities in the supply chain identified above. The costs of reproduction and distribution are lowered most with the elimination of physical media. The retail costs have been cut in half by the contractual agreements.

[30] Cooper 2008, present the elements, but the formal welfare economic discussion was not included at the time.

Cost savings in the other functions are less precise. Applying these reductions to the 1999 costs, we would expect a reduction in the cost of a digital album compared to a CD of about 60%, when the elimination of the excess profit is taken into account.

For CDs, the primary source of the decline in cost is the reduction in label margins. This would be consistent with the argument that digital disintermediation undermined the market power of the labels, resulting in a reduction in the label margin and a pass through of the production cost savings. There are also more modest reductions in manufacturing and retailer costs. Direct estimates of the cost of selling music are consistent with this view of the impact of digitization on costs in the sector, as shown in Exhibit IV-1. The Exhibit includes the early 1990s estimates from the *Seattle Times* description of complaints of retailers, consumers and artists to indicate that the estimation of CD costs is consistent with others. The costs are stated in real, 2012 dollars using the GDP deflator to be consistent with the earlier analysis. In the Exhibit IV-1 CD costs are set at Fisher's (2004) composite, which is close to Hull (2011). Manufacturing and distribution for digital go to zero, per Hull (2011). Returns for CDs are set at 15% (per Hull, et al.) and go to zero for digital. All other costs are assumed to scale per track.

EXHIBIT IV-1: REVENUE/COST PER ALBUM (OR EQUIVALENT) REAL 2012 DOLLARS



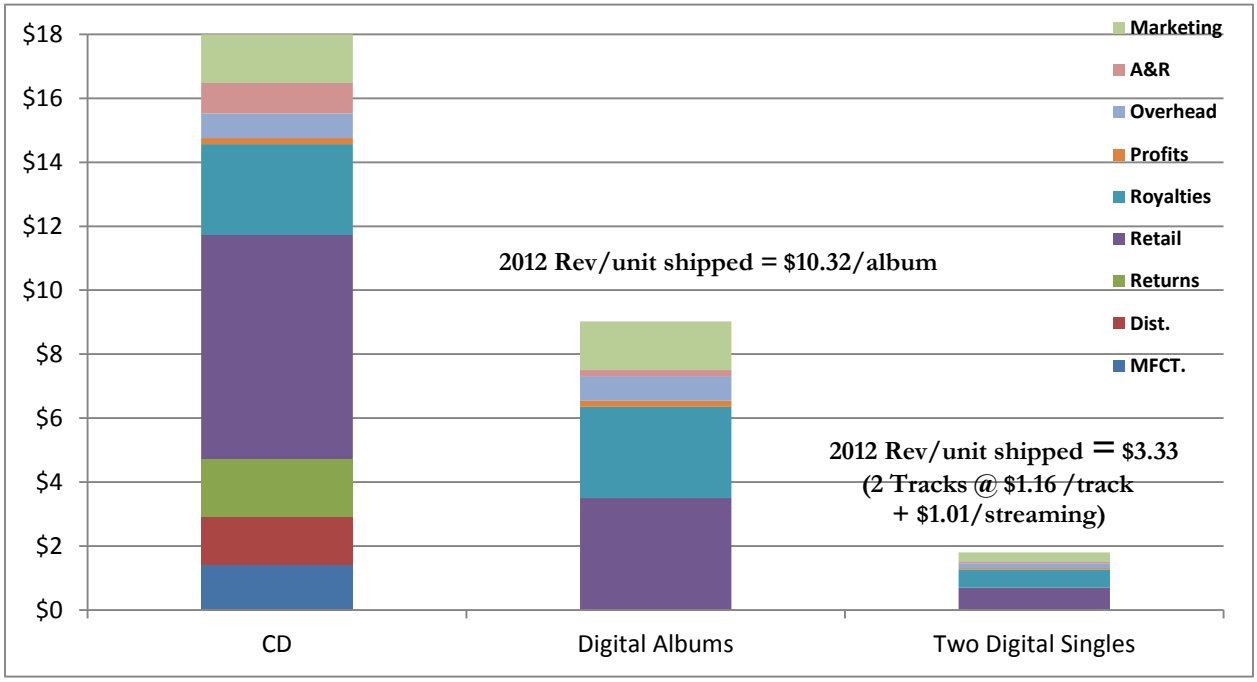
Sources: Early 1990s: Seattle times Late 1990s: Average of … as reported in Fisher, 2004
2004: 2011 Hull; 2009 Aris and Bughin, 2009.

Digital albums reflect the decline in the label margin, but also much larger reductions in manufacturing, distribution retail costs. The estimation of digital album costs rests on the assumption that ten tracks are equivalent to an album. This is a common assumption among analysts (Hull 2011, Aris and Bughin, 2009), as well as industry monitoring organizations, like Nielsen. However, this raises some uncertainty about the claim that revenue covers the cost, since more than half the digital tracks sold are sold as singles, not albums. Do the costs of a single really scale downward? Is the cost of delivering ten singles one-tenth the cost of delivering an album?

Manufacturing, distribution and retail costs probably do scale, but there can be some question about whether the development and promotion costs scale. This is certainly the case for royalties and profits. Overhead could decrease even more because digitization cuts the cost of production equipment in half and much of the production costs have been shifted onto artists. Similarly, the costs for A&R and marketing have been reduced and the expenditure on these function have been slashed. Digital albums are assumed to have 10 tracks (which is the industry standard assumption). Two single tracks are used, as it is generally assumed that consumers buy between one and two tracks per album, when they are given the choice.

While a failure to scale might mean a bundle of 10 singles costs more than an album with ten tracks, there is another factor not accounted for in this analysis that points in the opposite direction. Complete digitization of music generates a large stream of income associated with the consumption of music that is not fixed on a physical medium. Streaming, mobile applications and other similar applications account for one-third of digital revenue. Since this music is generally consumed in single plays, not albums, it can be attributed to digital singles. It should definitely be taken into account when we examine whether digital music covers it cost (see Exhibit IV-2).

EXHIBIT IV-2: THE IMPACT OF DIGITIZATION ON THE COST OF RECORDED MUSIC



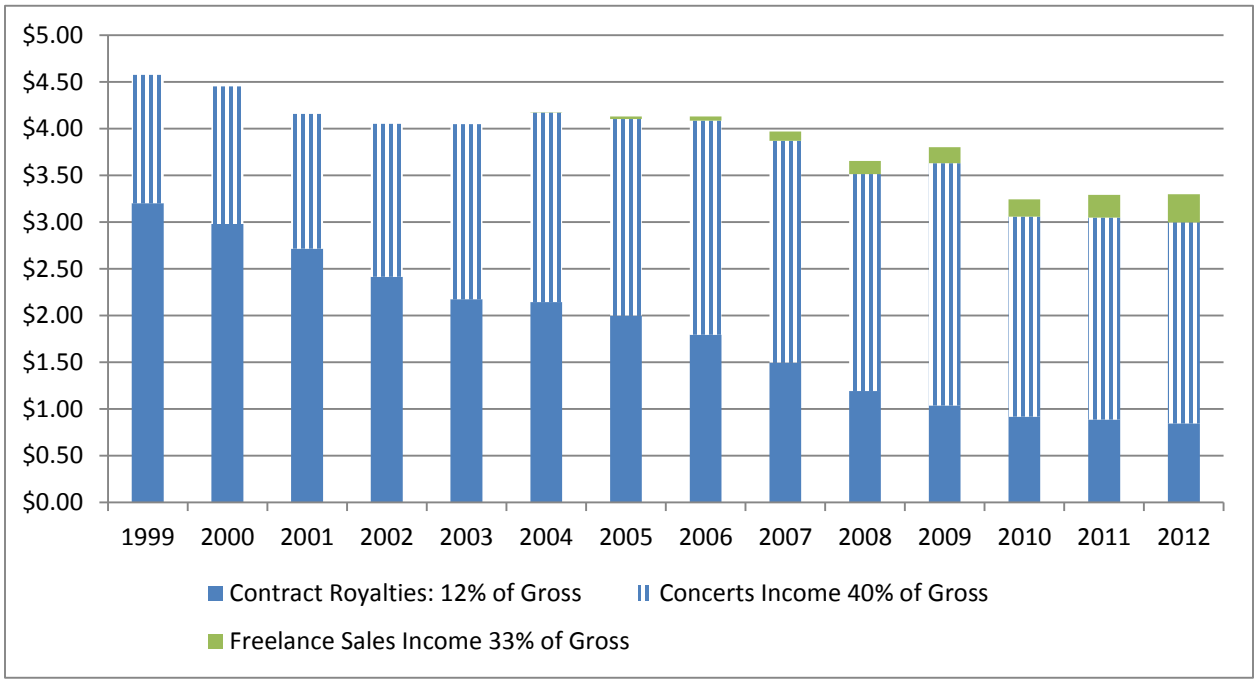
Sources: RIAA, *Year-end shipments.* Concert revenues from Hull, 2011, p. 144.

Assuming that the manufacturing, distribution and retail costs do scale, if the costs of the development, marketing and overhead of selling a single are just one half the cost of selling an album (rather than one-tenth), digital revenues would cover digital costs. Since consumers buy between one and two songs per album and there are likely to be some scaling effects even for overhead, it seems highly likely that digital sales cover their costs.

C. ARTIST INCOME

Artists make more money from performance and selling merchandise than they do from selling recorded music. Contract artists, whose income from sales of music is tied to gross receipts net of a boatload of deductions, are at risk as a result of the dramatically falling costs and revenues for recorded music. Because the contracts were so unfriendly to artists, even those who were signed always had alternative sources of income, particularly concerts and merchandise sales. (Hull 2011, Black 2008; Curien and Morreau, 2009) These were ramped up with the spread of digital disintermediation (see Exhibit IV-3).

EXHIBIT IV-3: SHIFTING SOURCES OF ARTIST INCOME: BILLIONS OF 2012 DOLLARS



Sources: RIAA, *Year-end shipments.* Concert revenues from Geoffrey P. Hull, Thomas Hutchison and Richard Strasser, Source: Hull, *The Music Business and Recording Industry* (Routledge, 2011) 3rd Ed., pp. 144. Pollstar, *Year End Issues, Economist.* Unsigned artists estimated based on Exhibit xx. Unsigned share grows from 0 to 45%. U.S. equals half of total (equal to U.S. share of label digital sales).
Net cost savings equals - (.5 * reduced Album Revenues) +(.33 * Digital revenues) + (.35 * Increase in Concert Revenues). Album and digital cost savings based on Hull (2011). Concert cost based on Passman and Vogel.

The mechanism through which the vast majority of artists became beneficiaries of the new market structure is easily explained by the reduction of transaction costs.

> More interestingly, artists and publishers may benefit differently from the network effects generated by the number of those who buy legal copies and those who obtain illegal recordings… If the demand for, say, live performances is enhanced by the "popularity" of the artists generated from the number of distributed recordings (legal and illegal copies combined), then we obtain the conditions under which publishers of recorded media may lose for piracy, whereas artists may gain from piracy. (Gayer and Shy, 2005, p. 2.)

> Album sales are not the primary way artists earn their living. Not surprisingly, as the excess profits were squeezed out of albums, the labels sought to recapture some of that income by

> demanding "360°" deals in which they claim a share of these complementary revenues. (Leurdijk and Bueurenhuis, 2012, p. 59)

In contrast, freelance artists, who have not had access to the market or been priced out of it, gain an important opportunity. Concert revenues do not include revenue from the thousands of smaller venues, like pubs, clubs and cafes, at which freelance musicians perform, should be counted as part of the music sector. (Hughes and Lang, 2003) These observations combine to paint a different picture of artist income. Rock stars may endure a decline in income as a result of digital disintermediation, but other sources expand, most notably the royalty income of freelance artists.

Peter Dicola (2013) conducted a large scale survey of musicians (5,000 respondents) that corroborates this picture. A small percentage of musicians had very large incomes while the majority had fairly small income (see Exhibit IV-4). The high income earners had high earnings from royalties. For lower income earners other sources predominated. Interestingly, there was a strong correlation between income and positive attitudes toward the Internet, with higher income earners expressing much more negative views (see Exhibit IV-5). The specific changes in careers were also consistent with the analysis in this paper. Musicians agreed most with statement that they can communicate with fans directly, manage their own careers and collaborate with other creators. They disagreed with statements unauthorized file sharing has made it more difficult for me to earn income and I have less control over my work.

D. Formal Welfare Economics of Digital Disintermediation

Formal welfare analysis involves the estimation of the value of a product as measured by the demand curve and the cost of producing it as measured by the supply curve. Social surplus is the difference between the cost and value. The amount of value that consumers enjoy, in excess of the price they pay, is consumer surplus. The amount of revenue that suppliers receive in excess of cost is considered producer surplus. Consumer surplus and producer surplus sum to total social surplus.

1. The Market Without Unauthorized File-Sharing

The division of surplus between consumers and producers is determined by price. In a competitive market price is set at the marginal cost of production, which includes a normal rate of profit for the supplier (see Exhibit IV-6). When sellers have market power, they set prices above costs to earn excess profits. They maximize their profits and transform consumer surplus into producer surplus, while imposing deadweight loss on society.

Of utmost importance in understanding the welfare impact of the consumer savings is the fact that the transformation reflected fundamental economics, not illegal behavior; an explosion of digital singles was inevitable. Two primary economic changes are essential. First, the elimination of deadweight loss highlighted in Exhibit IV-6 is essential (Deutsch, 2010, p. 41).

EXHIBIT IV-4: DISTRIBUTION AND SOURCES OF MUSICIAN INCOME

Figure 1: Distribution of Estimated Annual Music-Related Income

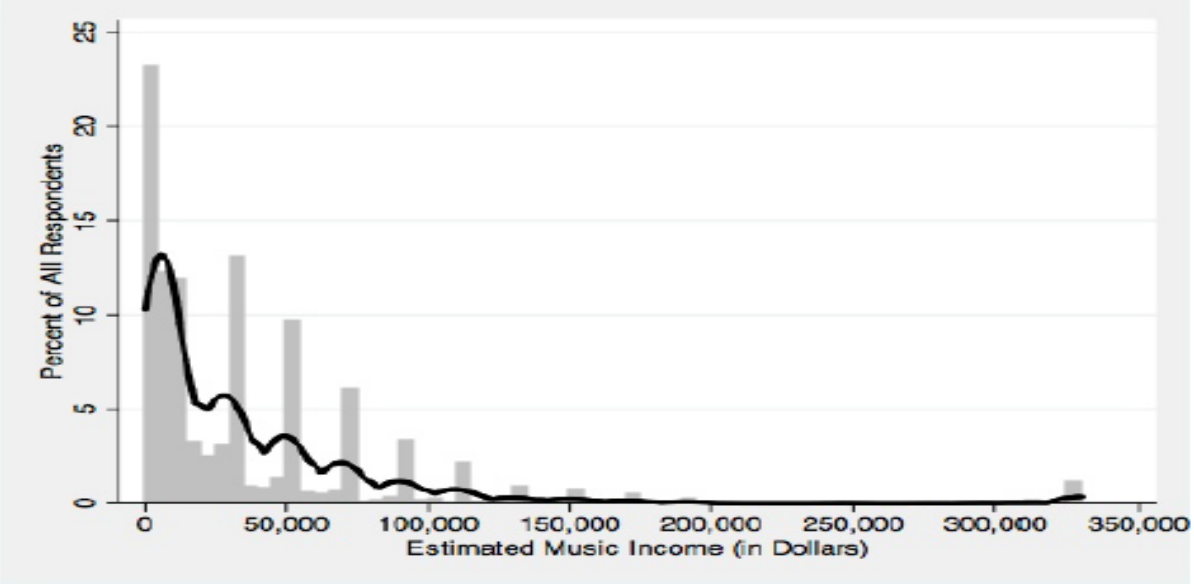
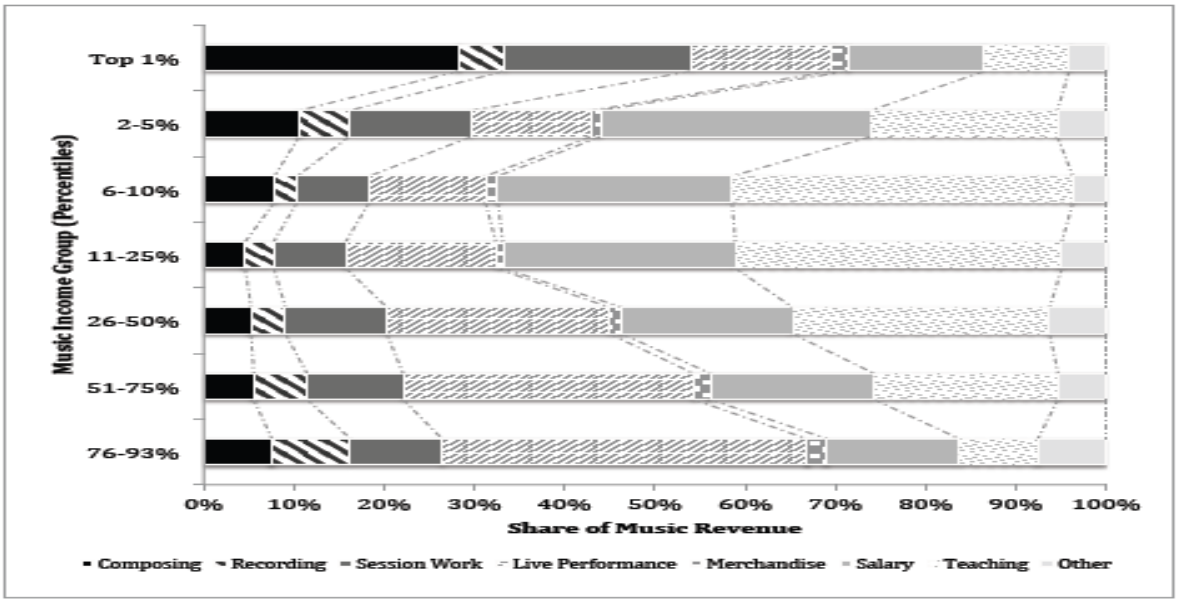
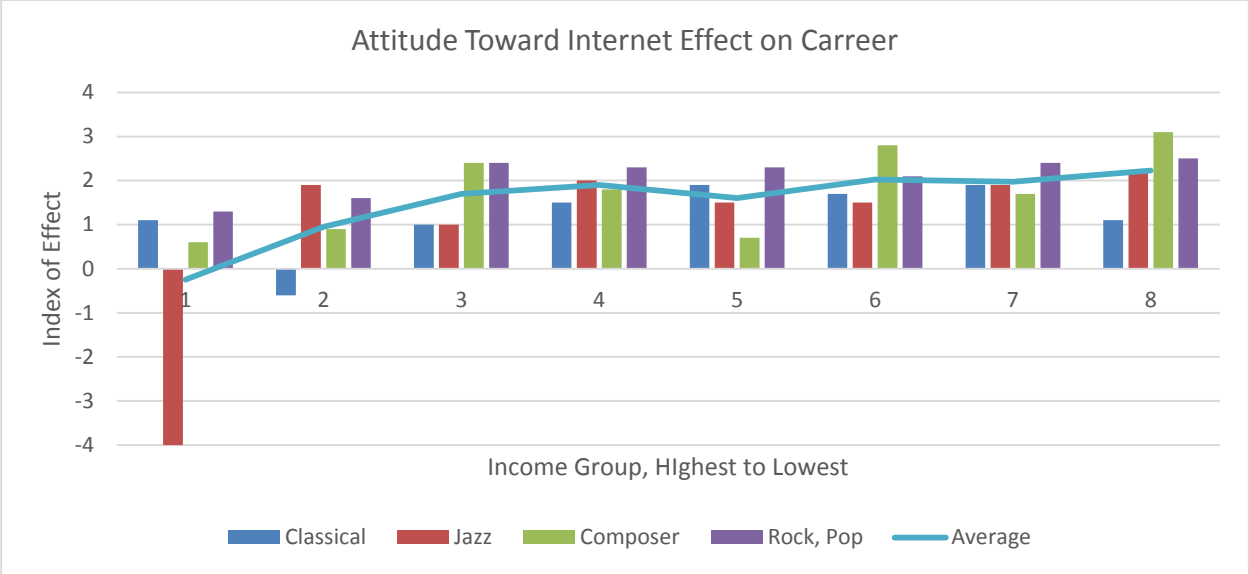


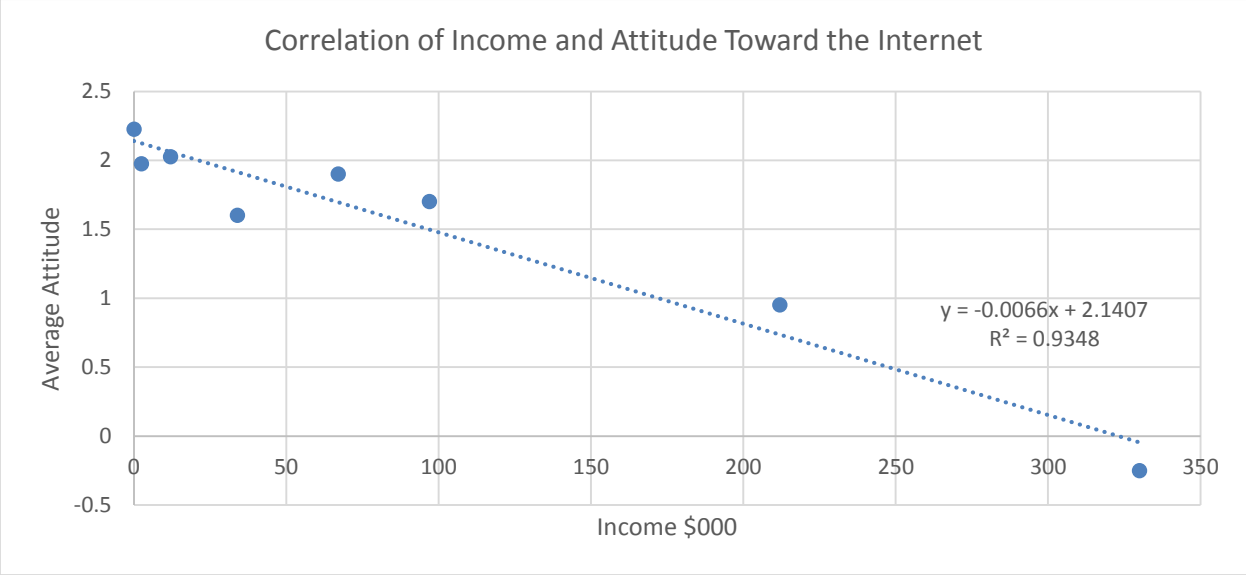
Figure 4: Average Share of Music Income from Major Revenue Streams By Income Group



Dicola (2013)

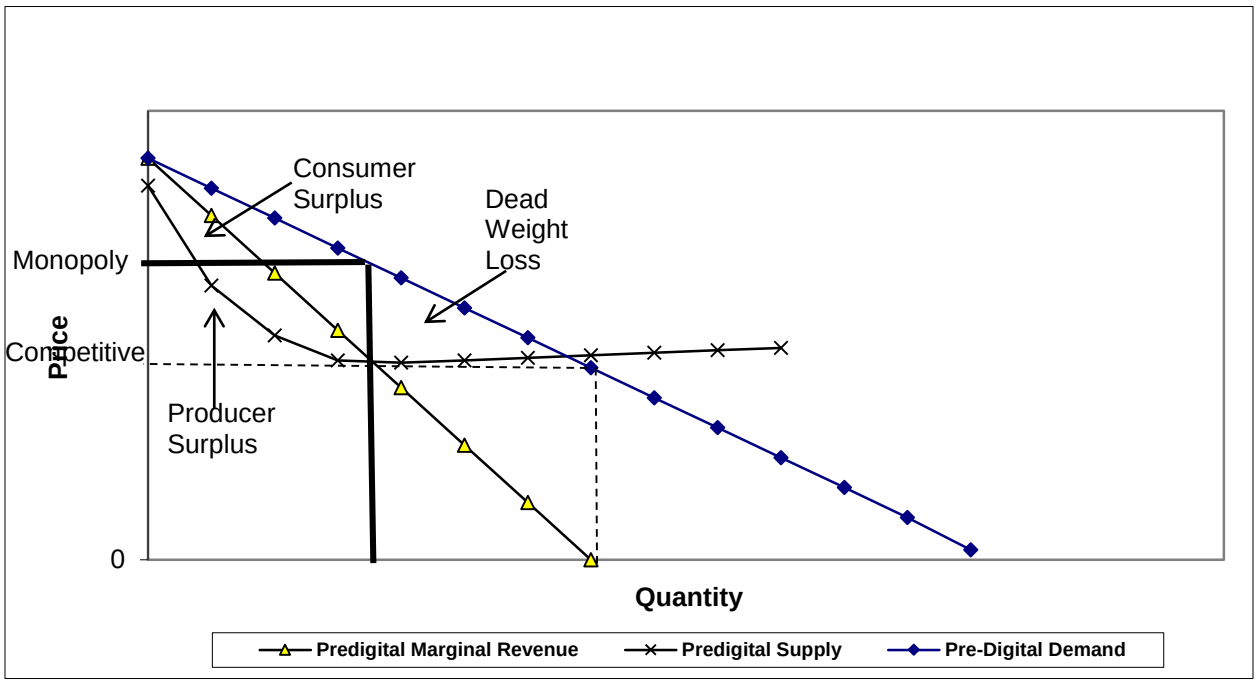
EXHIBIT IV-5: ATTITUDES TOWARD THE IMPACT OF THE INTERNET ON CAREERS





Dicola (2013)

EXHIBIT IV-6: PRICE FIXING, TIGHT MUSIC OLIGOPOLY IN THE LATE 1990S



Second, as highlighted in Exhibit IV-7, is the gain in efficiency – the lowering of cost. In a world of physical distribution, with high fixed costs and near-zero marginal cost, it is good business to put as many songs as one can on each CD. The need for brick and mortar distribution infrastructure for physical products reinforced this logic. However, recall that singles had thrived in that environment and retailers liked them because they attracted traffic to stores. With the advent of digital distribution, fixed costs of distribution all but disappear, physical infrastructure is no longer necessary, and transaction costs are slashed.

The goal of the record labels was to continue pricing in the old fashion, holding onto as large a portion of the cost savings as possible. Given their ability to increase margins dramatically by keeping CD prices high as costs fell, the much larger reduction in costs that resulted from digital technologies could have represented a much larger source of rents to be collected by the labels. The effort by record companies to keep singles out of the market and to keep CD prices high was a bald effort to continue exercising market power to increase producer surplus by capturing the bulk of the cost savings and preventing consumers from enjoying the benefits of more efficient distribution that would flow to them in a competitive market.

The big benefit for consumers flows from the reduction in abuse of market power as pricing shifts from the marginal revenue curve to the marginal cost curve (Exhibit IV-8). The leading edge of the shift was driven by unbundling of albums and the sale of singles. Consumers were no longer forced to buy songs they did not want in order to get the ones they desired.

EXHIBIT IV-7: DIGITAL TECHNOLOGY LOWERS COST; LABELS TRY TO POCKET THE INCREASE AVAILABLE SURPLUS

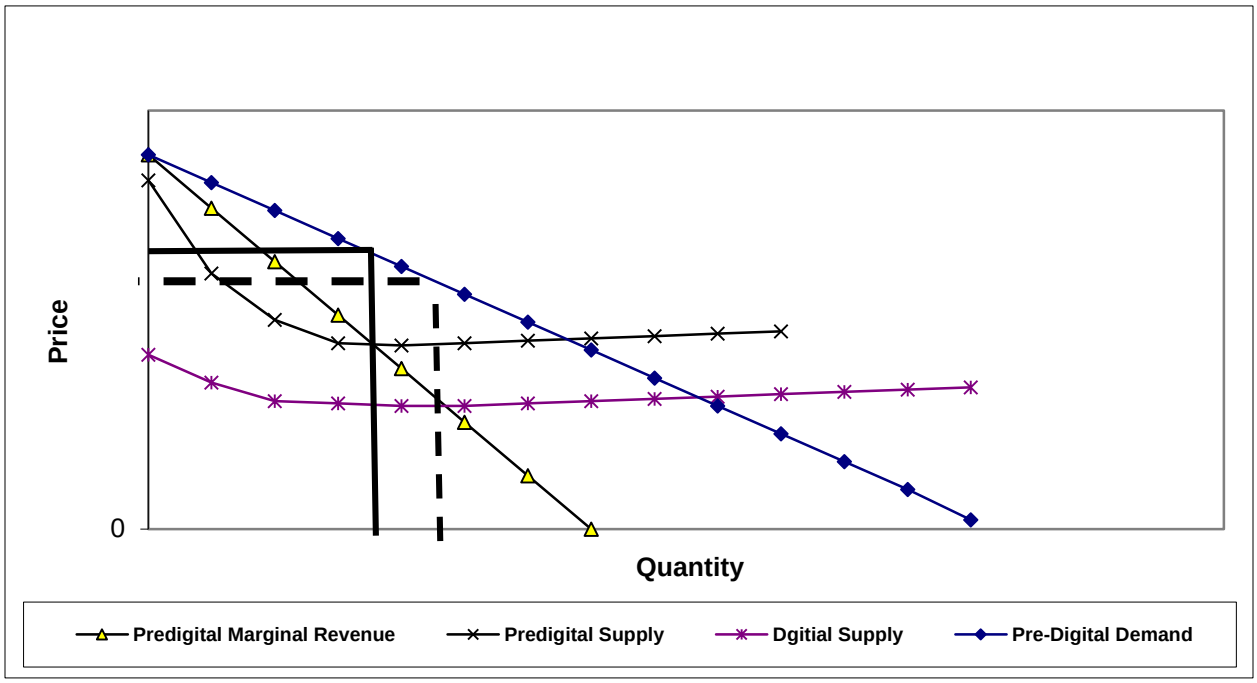
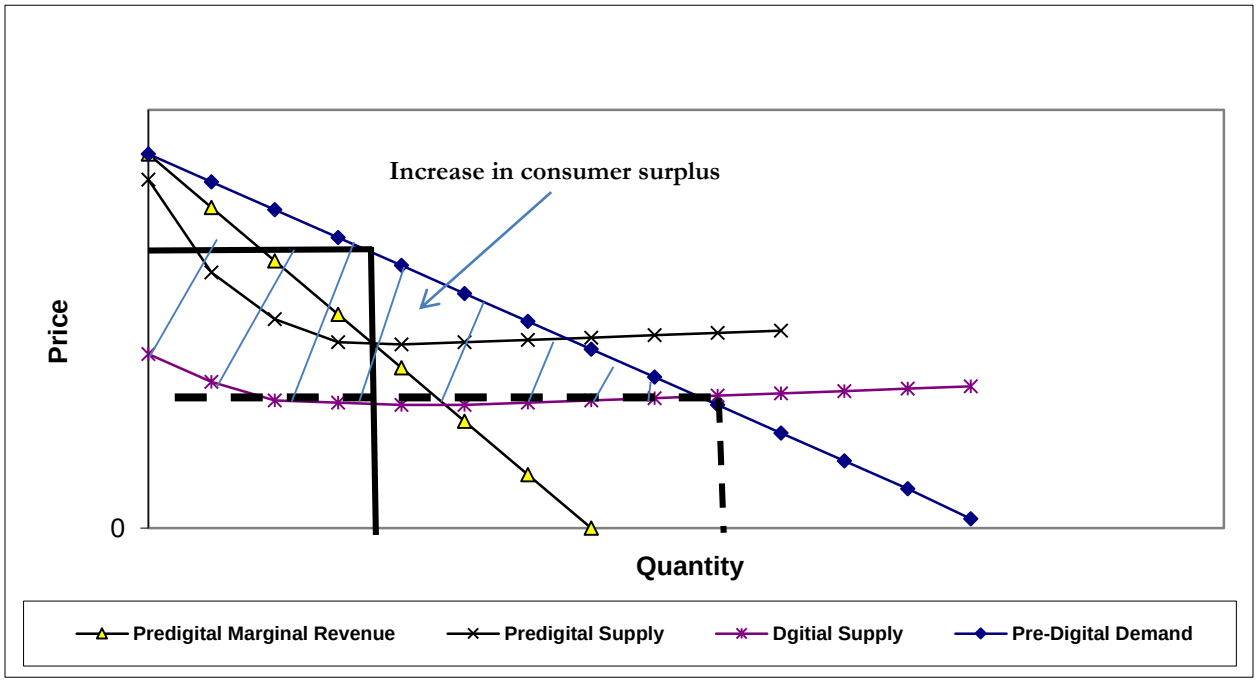


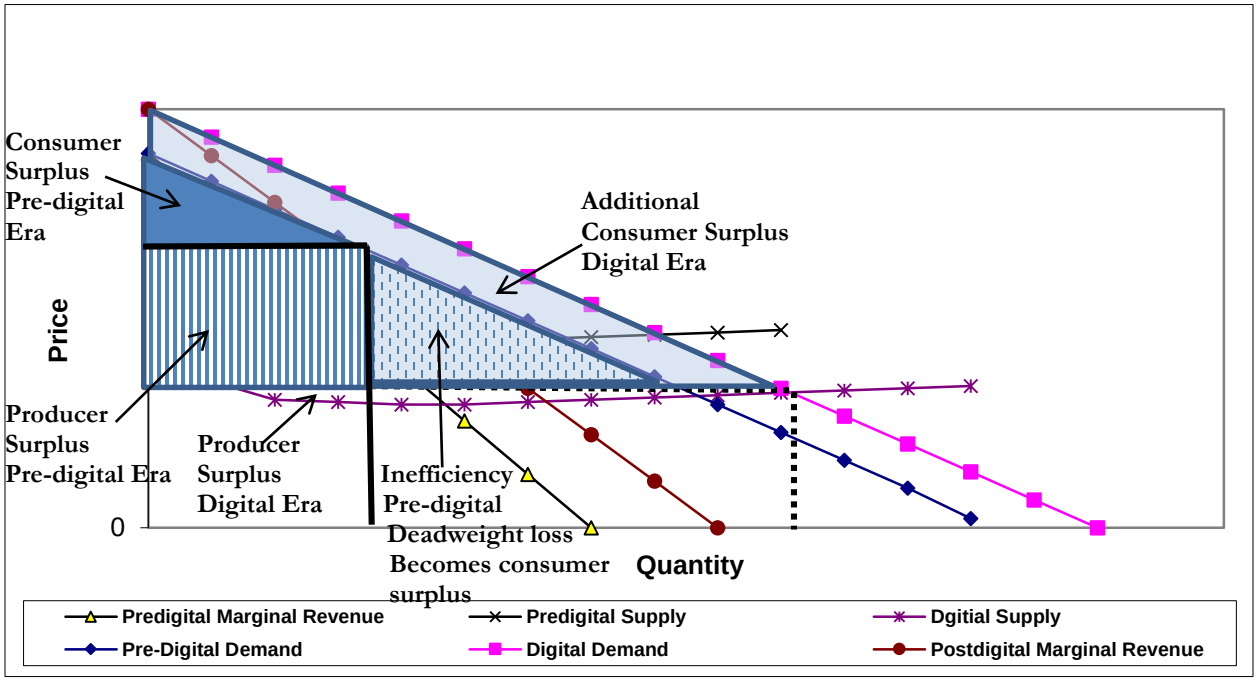
EXHIBIT IV-8: DIGITAL TECHNOLOGY UNDERMINES MARKET POWER OF THE OLIGOPOLY



It seems clear that the output expanding effects of the digital transformation go beyond the impact of cost reduction and the elimination of the exercise of market power. (see Exhibit IV-9) Demand shifts as well, as a result of both production and transaction changes. New flexible, consumer friendly formats expand demand. Total social surplus expands due to the elimination of

the deadweight loss of abusive pre-digital pricing and product practices, as well as the expansion of demand. Of the $7 billion decline in spending on music, half is attributable to the elimination of abusive practices, half is attributed to the efficiency driven reduction in cost of delivering music. Because producers cover their cost, including a reasonable profit, the new supply-demand equilibrium is not only preferable, but it is also sustainable. The costs include normal profits. What has been squeezed out is the transfer of wealth from consumers to labels and the waste of resources in deadweight inefficiency (evidence).

EXHIBIT IV-9: DIGITAL TRANSFORMATION LOWERS COST, UNDERMINES MARKET POWER AND SHIFTS DEMAND



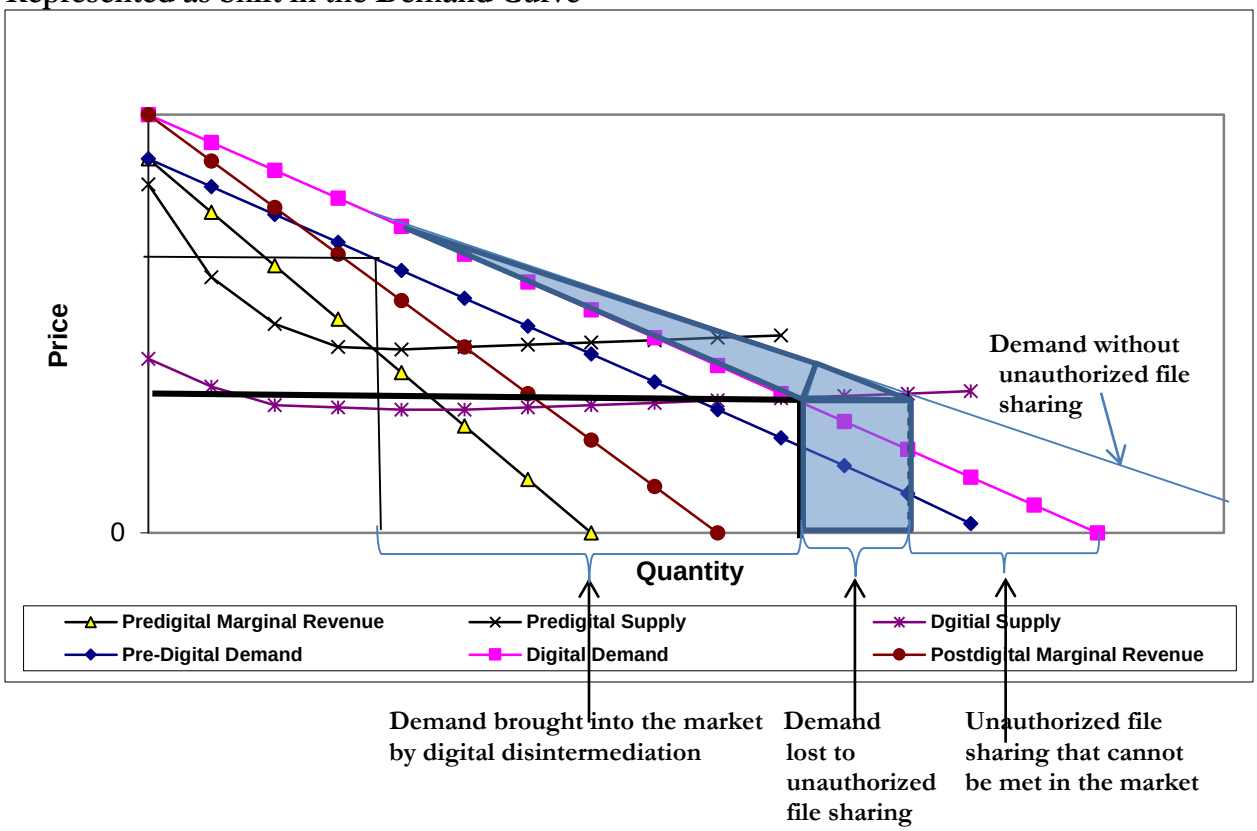
2. The Welfare Economics of Unauthorized File Sharing with Legal Digital Models

Having shown that the music market is moving toward a sustainable equilibrium in which the market performance is vastly superior in terms of output, price, and consumer welfare, it can be argued that if there is unauthorized file sharing, it is irrelevant from the point of view of copyright policy. Unauthorized file sharing has not prevented new technologies from delivering the public benefits, while reducing the excessive exercise of market power and providing adequate incentives for creation and innovation. Nevertheless, understanding what role unauthorized file sharing has played – both what it has and has not done – is an important part of the context for copyright policymaking. .

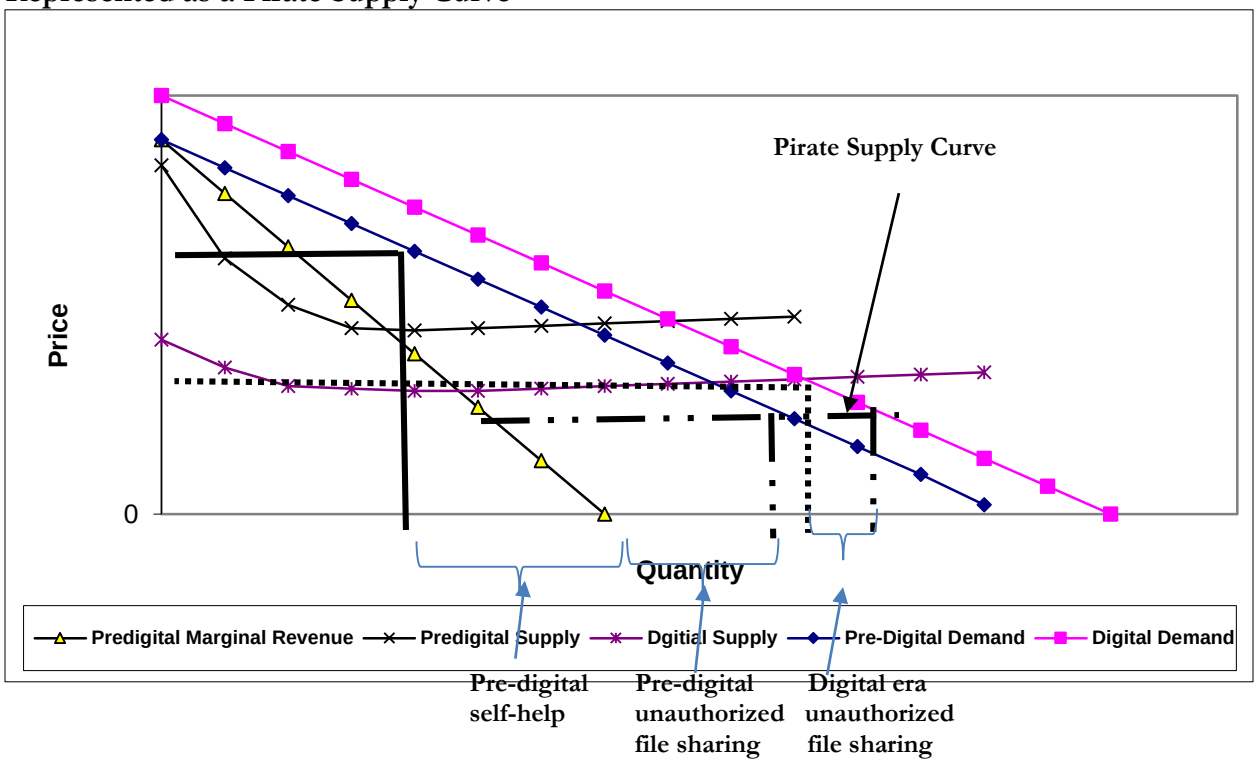
The welfare impact of unauthorized file sharing can be represented in terms of the demand curve (most frequent) or the supply curve. Unauthorized file sharing is frequently represented in the welfare economic literature as a shift in the demand curve, as shown in the top graph of Exhibit V-10. Demand is reduced at any given price. Given the characteristics of those with the greatest propensity to engage in unauthorized file sharing, the types of files they share, and the limited

EXHIBIT V-10: UNAUTHORIZED FILE SHARING HAS LITTLE IMPACT IN THE DIGITAL MARKET

Represented as Shift in the Demand Curve



Represented as a Pirate Supply Curve



impact that unauthorized file sharing has on the digital music market, Exhibit IV-10 shows unauthorized file sharing as impacting the low value products.

The effect of digital disintermediation is shown by the large quantity of demand that had been priced out of the market but is brought back in by the much lower prices and more consumer friendly choices (i.e. singles) available in the digital market. In the demand curve approach, some sales are lost to due to unauthorized file sharing, but these have little impact on producer surplus because the value of the sales is so low. A significant amount of unauthorized file sharing takes place among those who are not in the market and would not be at prevailing, efficient prices.

In the supply curve approach, unauthorized file sharing appears as a pirate source of supply that meets demand at a lower price. In this approach, the impact may appear quite large, but that impression results from the failure to recognize the anti-consumer nature of the pre-digital marketplace. A great deal of the claimed loss of sales reflects people who had been priced out of the market.

A substantial part of the unauthorized file sharing can be considered a demand side analogy to self-help in intellectual property law. Owners are afforded the right to defend their property from infringement on their legal monopoly. Presented with the tools, consumers apparently were willing to defend themselves against the illegal abuse of monopoly power. With the dramatic shift of the legal supply curve cause by the acceptance of digital distribution model, the scope of demand available for pirate supply is dramatically reduced.

The story of digital disintermediation in the music industry is not a story of piracy; it is a story of efficiency. Supply-side costs have declined dramatically while diversity of product has increased. Consumer sovereignty has been restored, with a wider choice and a more efficient fit between consumer needs and available supply. Digital disintermediation demonstrated the deep dissatisfaction with the abusive business model of the 1990s and the potential for new business models that would be much more attuned to consumer needs and wants. With the industry focused overwhelmingly on blocking new technologies that threatened their control and rents rather than responding to the emerging digital efficiencies and strong consumer needs, it fell to new entrants to develop effective, legal business models. Technologically sophisticated entrants identified the seams of the legal straight jacket in which copyright holders sought to confine their products. Some efforts went too far and were rebuffed by the courts, but the record labels had lost control of the innovative process. It was outsiders who put together the business models that were attractive to consumers and the results, as indicated by the quote cited above from a *Billboard* executive responsible for singles charts, was powerful and swift.

PART II:
POLICY CHALLENGES

V. THE IRRELEVANCE OF UNAUTHORIZED FILE SHARING TO COPYRIGHT POLICY IN THE MUSIC SECTOR

A. THE PRE-iTUNES DEBATE OVER UNAUTHORIZED FILE SHARING

In April 2006, the Journal of Law and Economics published a symposium on "Piracy and File Sharing" that included versions of several of the major analyses that had played a role in the intense policy debate on file sharing in response to the Supreme Court deliberations in the Grokster case. Given the academic production cycle, the empirical evidence in the papers was very early in the development of digital distribution of music. In fact, most of it was based on the pre-iTunes period, essentially examining developments from 1998 to 2003. Moreover, because the papers were framed in terms of the piracy issue, they did not delve deeply into the fundamental economics of the music industry or the use and abuse of copyright. They instead were fixated on the question of whether file sharing helped or hurt the incumbent firms – 'were people stealing and if so, how much was it costing the record companies?' They paid little attention to the structure of the music industry just prior to the arrival of file sharing or the likely impact of the new digital technologies on the economics of the industry.

In spite of the narrow focus, with digital technologies arriving to shake up a market structure that was not very consumer or artist friendly, we should not be surprised to find that economic analyses of their impact were all over the map. (See Exhibit IV-1) Theoretical analyses provide no clear basis for the conclusion that piracy imposes significant harm on the sector or total social welfare. (Ahn and Yoon, 2010); Bae and Choi, 2006, Waters, 2013, Chiang and Assane, 2009) Analysis based on data gathered after the availability of legal downloading services provides even less support.[31] The early studies were divided between supporting and contradicting the piracy claim. Studies based on market data after the growth of legal digital models strongly contradict the piracy claim.

Some studies found increases in sales resulting from stimulation in certain population segments (older consumers) that offset losses in others (younger users). (Boorstin, 2004) Other studies found little or no effect. (Peitz and Waelbroeck, 2004a, 2004b; Zentner, 2003) Still others found losses that are not large. (Zentner, 2006; Liebowitz, 2004) Moreover, because of recording industry pricing practices, even where recording industry revenue declined as a result of file sharing, consumer welfare may have increased. (Rob and Joel Waldfogel, 2004) One econometric study of downloading found that the increase in consumer surplus was almost 200 percent larger than the loss of industry revenue.

A number of factors made even the early analysis of file sharing prior to the growth of legal far from decisive. On the one hand, there were factors other than unauthorized file sharing that might provide partial explanations for the decline in recorded music sales, independent of the advent

[31] The proxies that were used to measure piracy in the early days – Internet usage and broadband connections, become completely meaningless as the connectivity become ubiquitous and legal models become dominant. (Handke, 2010, TNO, xxx,), forcing the econometric analyses based recent data to explain away the weaknesses in their findings with ad *Hoc,* explanations (e.g. Ademon, 2010; Blackburn, 2004). At the same time, direct evidence of the alternative explanations mounts with the expansion of legal business models including: the lack of lost sales (TNO, p.3); sampling (Hu, et al., 2010; Stockment, 2009), the effects of recession (Hull 2011, p. 29), overcapacity in the 1990s (Hull, 2011, p. 29), sampling and network effects (Dejean, 2009), relatively low impact of piracy reflecting both the low quantity (Elberse, 2010) and low value (Volz, 2006, Waldfogel, 2009, 2011, 2012) and decline of catalogue sales (Hull, 2011, p. 248).

of file-sharing. These included the recession, substitution of other forms of entertainment, saturation of new music technologies (i.e. the end of the replacement of the music library), and a reduction in the quality and quantity of output from the recording companies. (Peitz and Patrick Waelbroeck, 2003, 2004b, 2005; Hull, 2011)

EXHIBIT V-1: RESULTS OF STUDIES TESTING THE HYPOTHESIS THAT PIRACY HAD AND HAS A DRAMATIC IMPACT ON THE PERFORMANCE OF THE MUSIC SECTOR

Date of data	**Results**			
	Supports	Ambiguous	Contradicts	
	I			**II**
Pre-2004	7	3	1	8
	III			**IV**
Post 2004	3	3	6	8

Characterization of studies relies primarily on reviews that examine a number of studies including Cameron and Bazelon (2013), Handke (2013), Tschmuck (2009), Koh (2010), Pollard (2007, 2012). * indicate ambiguity that leans against the main finding in the document.
I. Pre-2004 Support: Koh = Zentner (2005), Michel (2006), Zentner (2006), Robb & Waldfogel (2006)*, Hong (2007); Tschmuck = Liebowitz (2008), Mortimer and Sorensen (2005)*, Blackburn (2004); Handke= Hui and Ping (2003, half industry estimate at the time)*
II. Pre 2004 Contradicts: Tschmuck = Curien & Moreau (2005), Bayan (2004), Peitz and Waelbroeck (2006); Tanaka (2004), Boorstin (2008), Gopal et al. (2006), Bhattacharjee, et al (2007), Pollock (2007, interpreting Rochfeldt and Guel, 2005).
III. Post-2004 Support: Koh = Tanaka (2004), Oberholzer-Gee and Stumpf (2007); Tschmuck = Leung (2008) Cameron = Elberse (2010),*; Handke = Ademon & Liang (2012)
IV. Post-2004 Contradicts; Koh =Anderson & Frenz (2008), Chi (2008), Koh (2010); Tschmuck = Bounie (2005)*, Lee (2006)*, Huygen (2009)*; Cameron = Waldfogel (2011),; Pollock = TNO (2011); Handke = Handke (2006), (2010)

Others included by cell =
I. Peitz and Waelbroeck (2004-5), Stevens & Session (n.d. price elasticity increases, as can consumer welfare)*;
III. Danaher et al. (2012, an event study that yields results similar to others and suffers from the same problems)*
IV. Cassiman and Salvador (2006)*, Heitanen (2008, infringers purchase attractiveness of legal downloading)* Bjerko and Sorbo (2010 strong growth in artist revenue from other sources)*, Volz (2006, less popular artists benefit)*

On the other hand, there were effects of file sharing that might have increased sales from a theoretical point of view. (Picard, 2004) It has been well-recognized that some technologies that appear to facilitate "piracy" can actually stimulate sales or have effects that offset the presumed loss of sales resultant from increased "piracy." Thus, a series of potentially positive impacts of file sharing has been suggested that includes sampling and networking. (Gopal, Bhattachariee and Sanders, 2006; Zhang, 2002, Peitz and Waelbroeck, 2005); Alexander, 2002) This is especially true, where, as here, the industry has not been vigorously competitive, while the technology has reduced costs dramatically and enhanced the consumer experience of the product. With many consumers priced out of the market by the strategy of making only high priced CD albums available, new

technologies made it possible for those who had been priced out of the market to consume music that they would not have purchased at the prevailing price. These are not lost sales.

In a broader sense, singles and albums are complements to the purchase of audio equipment and other merchandise and services. By stimulating purchases of complementary and related goods and services, downloading may ultimately expand the market for legitimate purchase of content to play on the newly acquired equipment or goods and services related to music. Artists are the primary, direct beneficiaries of the revenues, rather than recording companies. (Gayer and Shy, 2005)

Beyond the simple calculation of sales lost versus sales stimulated, the public policy problem is rendered complex by the fact that the ultimate issue is not whether some revenues have been lost as a result of unauthorized file sharing, but whether the losses have been sufficient to threaten the viability of the industry and whether the new business models and industry structure might better serve the public and the promotion of progress. (Nadel, 2002; Ku, 2002)

B. UNAUTHORIZED FILE SHARING IN CONTEXT

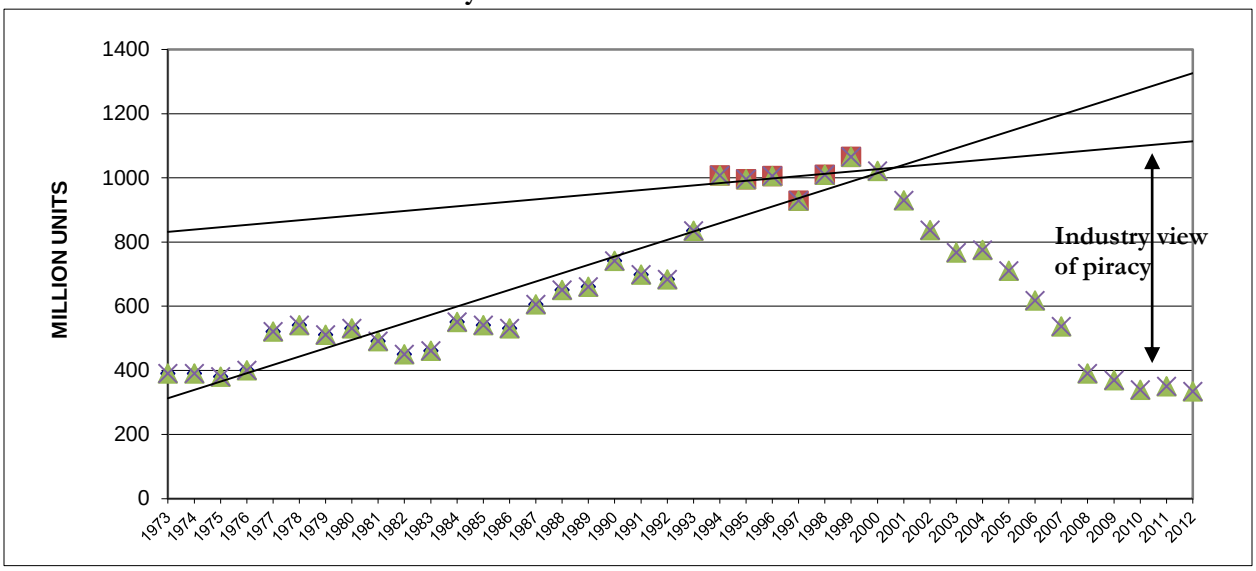
In order to understand the magnitude of the overestimation of the impact of piracy, we must start from the anti-consumer, anticompetitive practices that typified the industry in the 1990s. The failure to take into account the industry practices distorts the picture one paints of the events of the period after peer-to-peer communications networks came into existence. (See the upper graph in Exhibit V-2) The industry might have believed the elimination of singles and price fixing that kept prices up were permanent parts of the industry structure and the sales of library replacements would continue. They certainly acted that way. (Knopper, 2010) The industry could project 1.2 billion album sales. At the prevailing suggested price, hoped for gross revenues would be in the range of $22 billion.

However, it is easy to write the counter story that is overwhelmingly supported by the more recent analysis. In the mid-1990s the industry was extremely, excessively profitable. The elimination of singles had pushed the revenue and margins per unit shipped to record levels. The new CD medium had created a bubble in demand in the form of library replacement. Price fixing had stopped the decline in revenue per unit, even though cost savings continued, expanding margins. The tight oligopoly behaved the way rent collectors do. They failed to maintain quality and slashed the turnover of product. A substantial decline in revenue was inevitable as the process of library turnover was exhausted and demand was destroyed by pricing/product choices and quality decisions.

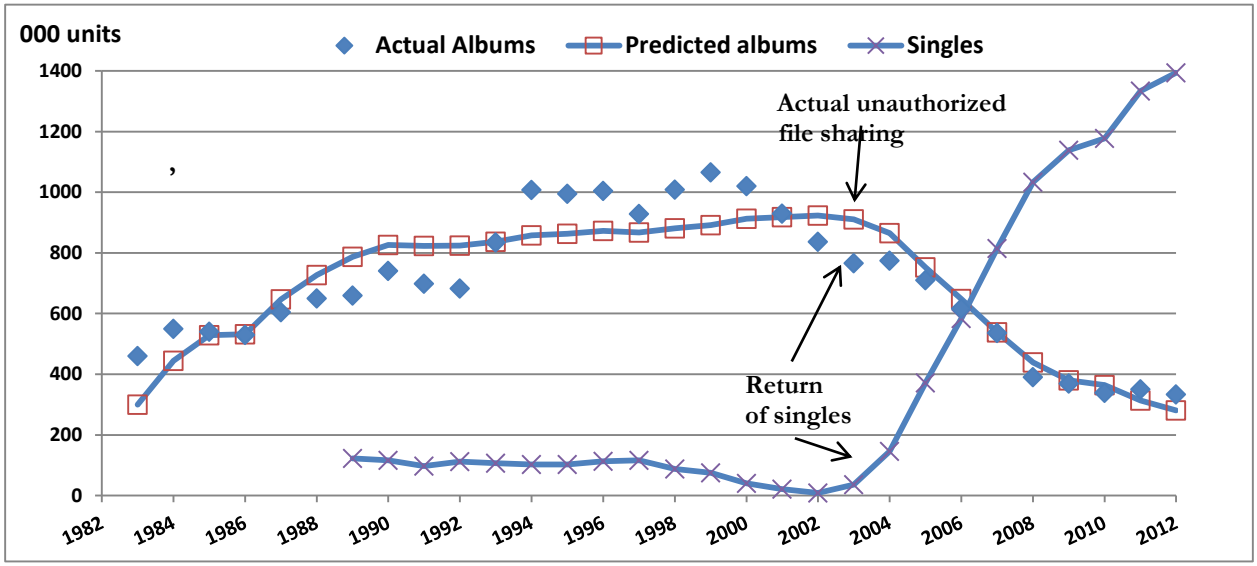
Econometric studies of the impact of piracy in the pre-iTunes period that take the countervailing factors into account put decline in sales due to piracy at about 20 percent of the total reduction in revenue. (Hong, 2011; Peitz and Walbroeck, 2004) With digital distribution models in the marketplace and digital sales booming, there is little basis to argue that piracy is a major factor today and a great deal of econometric evidence that finds it does not cannibalize sales of legal content. (Smith and Telag, 2009, Danaher, et al. 2011). By 2011 units shipped are well above the pre-digital trend, reflecting the attractiveness of singles and the new technology. Economics, law and technology had caught up with the industry.

EXHIBIT V-2: FACTORS (OTHER THAN PIRACY) UNDERLYING SALES MOVEMENT IN THE TRANSITION TO THE DIGITAL ERA

Record Label Inflated View of Piracy



Unauthorized File Sharing based on Album Prices, Single Sales and GDP Growth



The aberration in sales came in the mid-1990s when the companies suppressed sale of singles and used anticompetitive practices to prop up the price and sale of CD albums. To the extent that there was a bubble in units shipped in the mid-1990s, it was likely the result of a massive library replacement as consumers adopted the new, much more convenient CD medium for their existing stock of music. (Knopper, 2010: 61, 213; Oberholzer-Gee and Stumpf, 2007:16; Hong, 2004) Sales were destined to decline as the library replacement ran its course. We have seen that sales have flattened out in the late 1990s.

The lower graph in Exhibit V-2, uses a three variable model to predict sales, which explains 85% of the variance in album units shipped. The three variables are the real price of albums, the sale of singles and the real gross domestic product. The model not only explains a large part of the variance, it yields very precise estimates for the digital era.

This model suggests that the labels' aspiration of keeping CD prices up and singles out of the market to produce sales of 1.2 billion units could have produced revenues of $22 billion. With singles in the market the industry shipped 1.5 billion units (not including streaming), 80% of which were singles. These sales produced one-third of that, just over $6 billion in sales revenue, plus another $1 billion in service revenue. Counting streaming units equal to their share of digital revenue, we can offer a rough estimate of the increase in consumer surplus. The out of pocket saving is $15 billion and a standard consumer welfare analysis would put the increase at half that.[32]

In today's music market, the claim that piracy is still a problem is contradicted by a great deal of evidence on actual consumer behavior. The idea that piracy eliminates or even substantially alters the elasticity of demand is contradicted by industry generated studies and evidence. An econometric study commission by a major label to examine the impact of pricing flexibility in digital single sales, found that the elasticity is small and that raising prices by 30 percent increased revenues. (Danaher, 2011) The implicit price elasticity of demand in that study is -.36, i.e. a 1 percent increase in price results in a .36 percent decrease in demand. Other studies put the price elasticity at -.55. (Klein and Slonaker) This is a relatively low elasticity, when the piracy argument would lead us to expect a very high number. These elasticities are also in a range that makes price increases profitable. If piracy were the strong force that labels claim the study of pricing flexibility would have found that raising prices does not increase revenues.

C. Qualitative Evidence on Unauthorized File Sharing

A Warner Music Group presentation to the Federal Communications Commission on the music consumer made this point in another way. It reported on a classic marketing study that used interviews with consumers to estimate the price points for albums delivered on different media (see Exhibit V-3). The analysis is careful to caution that it is not advocating any specific pricing strategy, but instead showing the range of possibilities.

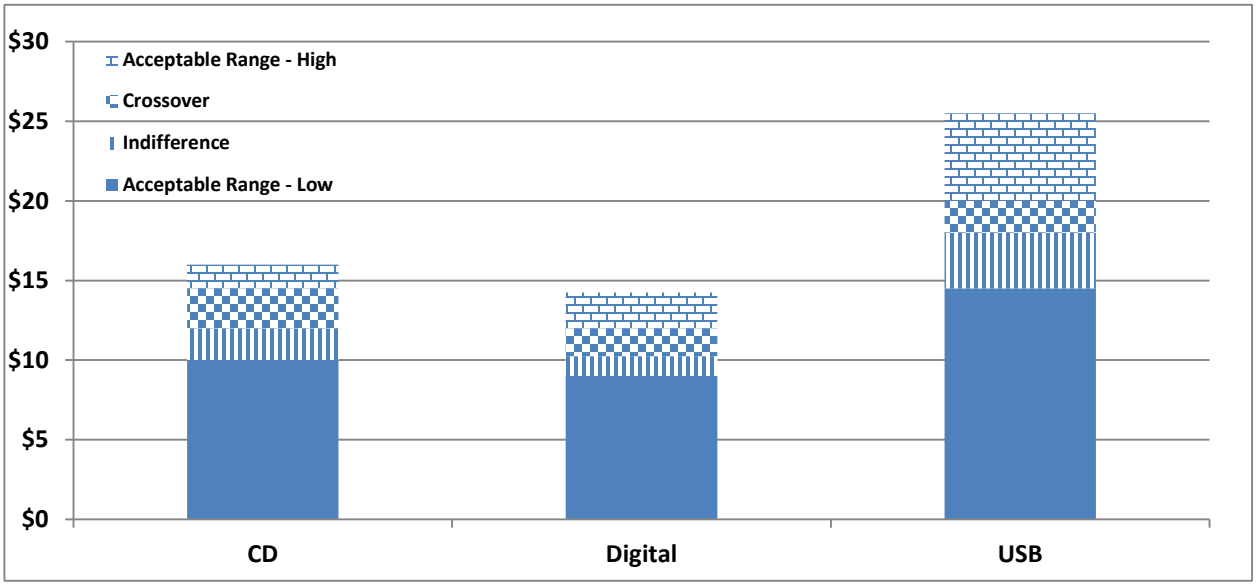
Competition would drive prices to the low end of the range, market power would push it to the higher range and would give the industry the incentive to move demand to the higher cost products (as we have seen in the elimination of singles in the 1990s). Within the individual types of products, the "acceptable" range represents 50 percent or more of the price of the final product. The highest priced product would be about twice as expensive as the lowest cost product. There is plenty of room for the exercise of market power in these pricing scenarios and plenty of cause for concern. Piracy does not eliminate pricing flexibility.

There is also evidence to support the proposition that the best antidote to piracy is to offer products in the form and with the technologies that consumers want at prices that are reasonable. (Danaher, et al., 2010) The effectiveness of offering consumer-friendly products as the best approach to dealing with piracy is reinforced by the clear evidence that digital products can be managed as a distribution channel that does not cannibalize other channels for differentiated

[32] The increase is measured as the area of the right triangle of (quantity * Price)/2. The figure is larger than the excess profits of the record labels on CD sales calculated earlier since efficiency lowers costs and demand increased.

products. (Danaher, 2012; Deleersnyder, et al., 2002; Waldfogel, 2009, Danaher, et al., 2010, Hu and Smith, 2011)

EXHIBIT V-3: PRICE POINTS FOR DIFFERENT ALBUM TECHNOLOGIES



Source: Warner Music Group, 2010.

The majors argue that their efforts to defend their property rights played a role in eliminating piracy. While there is some evidence to support that claim (Klein and Slonaker), the is evidence on the other side. The effectiveness of individual measures to reduce piracy is unclear in the research literature including digital rights management in general, (Vernik, 2008, Desai, et al., 2009) as well as embedding destructive code. (Christin, 2005, Kemerer and Smith, 2011; Knopper, 2010) The overall litigation approach shows mixed results. (Bhattacharjee, 2008 Oberholzer-Gee and Stumpf, 2009, Danaher, et. al. 2010) The claim that graduated responses have been effective has been thoroughly rebutted (Giblin, 2013).

The Warner discussion of music consumers introduced earlier supports the latter view (see Exhibit V-4). Legal threats and enforcement play some role in deterring piracy, but other factors like quality and convenience are much more important. Whatever the causes of the reduction in piracy, the bottom line is that today it is not a primary factor in the sector.

D. SAMPLING

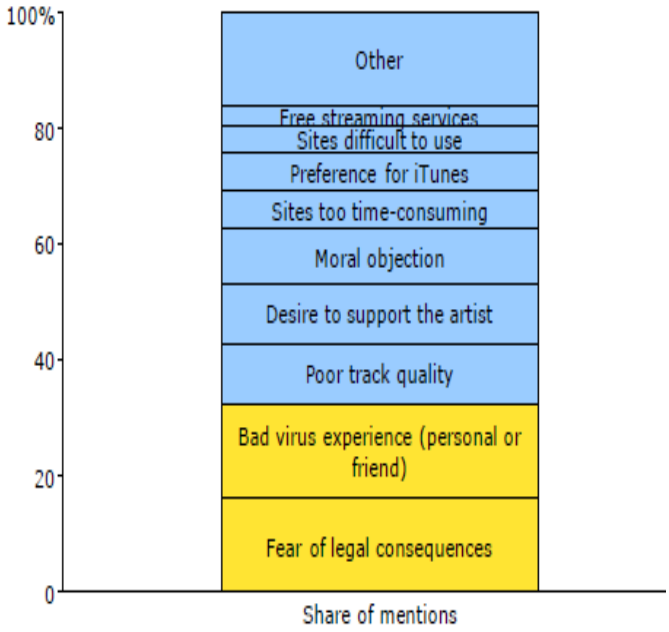
Sampling was a focal point of analysis in the study of unauthorized file sharing because getting potential purchasers to listen to music at no charge had been the central undertaking in the music sector for a century. Whether it was "pluggers" in the pre-radio days pushing for songs to be included in musicals, or agents bribing disc jockeys with payola in the radio era, airing music on American Bandstand, or producing elaborate and expensive music videos, allowing the target audience to sample the product was essential.

Unauthorized file sharing could be seen as a digital age iteration of that process. The difference, of course is that a shared file is possessed by the consumer. The central challenge was to

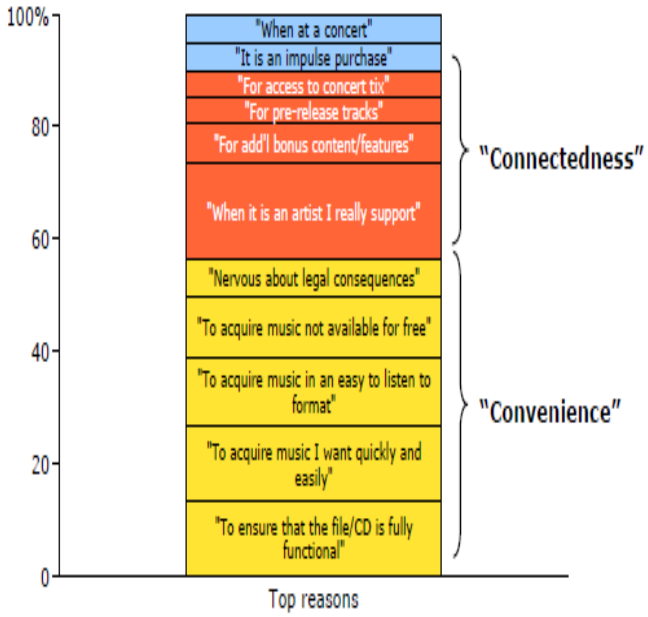
measure not how many files were shared without authorization, but how many sales were displaced. There were two important segments of the file sharing population that did not count as lost sales: those who would not have purchased the item anyway and those who were stimulated to purchase a legitimate version after experiencing an unauthorized version. Waldfogel (2010) showed that displacement was a small fraction of total unauthorized downloading, only about one-fifth and Waldfogel's estimates are based on studies of a population segment (college students) that is about 50% more likely to engage in unauthorized file sharing than the rest of the population.

EXHIBIT V-4: FACTORS THAT AFFECT PIRACY V. PURCHASE

Top Reasons for Discontinuing P2P Use



Why People Pay to Acquire Music



Source: Warner Music Group, 2010.

On the other hand, the sampling of individual songs through downloads may increase sales of CDs, as consumers experience the music and discover its value. The notion that giving music away or putting a very low price tag on samples could increase sales was deeply embedded in the pre-digital industry. Free samples, "feels like free" radio play, and low priced promotions were all commonly used marketing tools to stimulate demand. The claim that unauthorized file sharing would have a positive impact on sales had a great deal of industry history to make it plausible. Moreover, the effects of digital sampling could be magnified by the network effects the flowed from the new form of communications. Digital technologies may involve sampling on steroids.

Pricing policy had been so abusive in the decade before legal digital distribution spread that so many people had been priced out of the market it was clear that every downloaded song need not represent a lost sale. There are many songs that would not be purchased because their cost is bundled into CDs. Given the demonstrated affinity for singles, bundling songs onto high priced CD albums suppressed demand.

There was evidence that lower value songs are more likely to be downloaded than higher value songs. (Rob and Waldfogel, 2007, Oberholzer-Gee and Stumpf, 2007) This is consistent with the notion that some of the downloads would not have been purchased, so no sales are lost. There is evidence that downloaders in high purchase groups purchase some CDs after downloading some songs and that downloading increases purchases in those demographic groups least likely to purchase.[33] This supports the sampling function of downloading. Indeed, the most detailed study of downloading found that only one or two songs were downloaded from the most popular albums and that digital sales are concentrated in singles by more than twenty-to-one, breaking the long-worn chains of anti-consumer bundling and anti-competitive pricing.[34]

In the early days of the debate, it was counterintuitive to argue that someone who had come into possession of a file through unauthorized sharing would purchase a legal version. With the massive success of consumer friendly, legal digital distribution models, the claim that massive piracy is taking place becomes at least as counterintuitive. In 2012 consumers engaged in 1.5 billion digital transactions at a cost of almost $3 billion to buy products that they could have downloaded for free. The econometric evidence that took account of the sampling issue suggests that these transactions are not a drop of legal business in an ocean of piracy. The ocean is clearly legal sales.

In fact, the presentation made by Warner Music to the FCC on music consumers showed that piracy was a very small factor in recorded music spending (see Exhibit V-5). In this analysis, pirates represent a relatively small fraction of the population and total listeners. Their spending is less than their share of the population or time spent listening, but the record labels "lose" more sales to radio listeners than they do to pirates. Compared to the period when the record labels were claiming loses to piracy that equaled more than half of their projected revenues,[35] piracy is a small problem today. In fact, as discussed above, the early debate over the extent of piracy identified a number of reasons that the difference between listening and purchases may not actually represent loss of sales.

The Time Warner estimate of the incidence of pirates in the population is consistent with a study from NPPD, which found 11 percent of the respondents to its annual survey of music consumers said they had shared files. Moreover, the amount of file sharing declined much more than the number of file sharers. The primary reasons given for the decline in file sharing activity in the NPD study was similar to the Time Warner study – the availability of legal streamed music and the poor quality of shared files. A 2013 IPSOS study yields similar results on the attractiveness of legal digital distribution, particularly streaming as a free option.

Moreover, multiplatform and mobile users, all of whom are likely to use the Internet to a substantial extent are disproportionately high purchasers of music. They more than offset the underperformance of the pirate and radio-centric segments.

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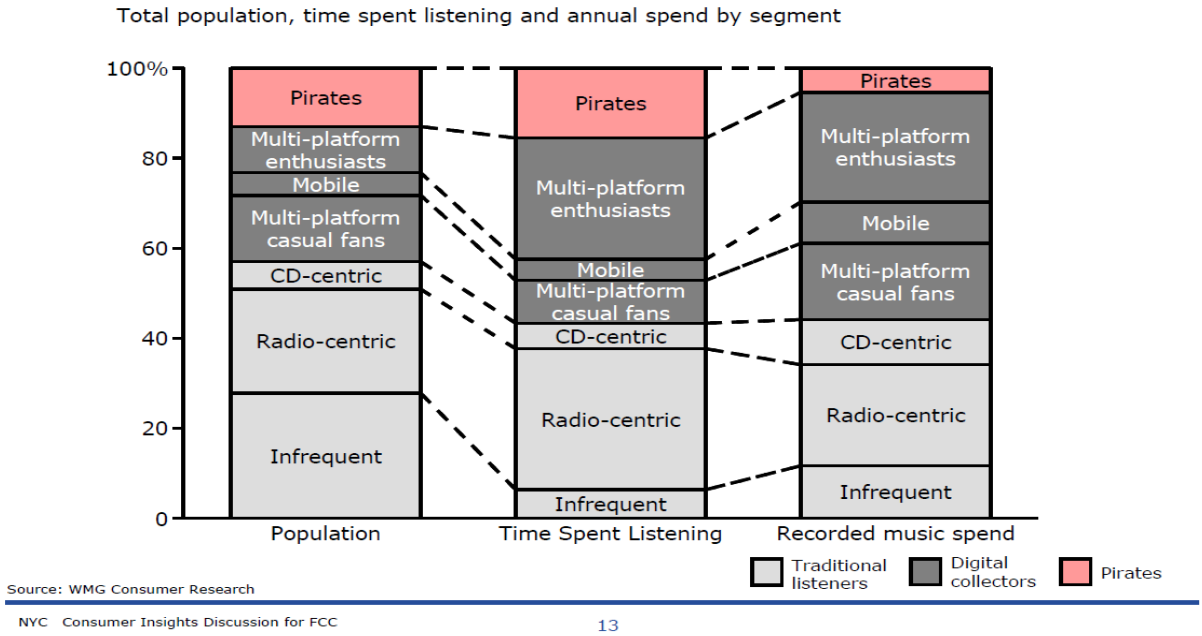
[33] Boorstin, 2004, Liebowitz, 2004, p. 31, reanalysis of Boorstin reduced the size of the effect and in some cases eliminated the statistical significance, but did not demonstrate the effect was absent.

[34] Oberholzer-Gee, Felix and Koleman Stumpf, 2004, p. 6; "US Sees Growth in CD Sales Market, *BBC News,* January 6, 2005.

[35] The RIAA web starts by pointing out a reduction in revenues of $6.5 billion and then states that 4 out of five digital downloads are through illegal sites, leaving almost none of the reduction in revenue to be attributed to the shift to low cost, legal singles and digital albums. In fact, the consumer savings discussed in the previous section suggest that at least six-sevenths of the reduction in revenue are due to the shift to lower cost digital products.

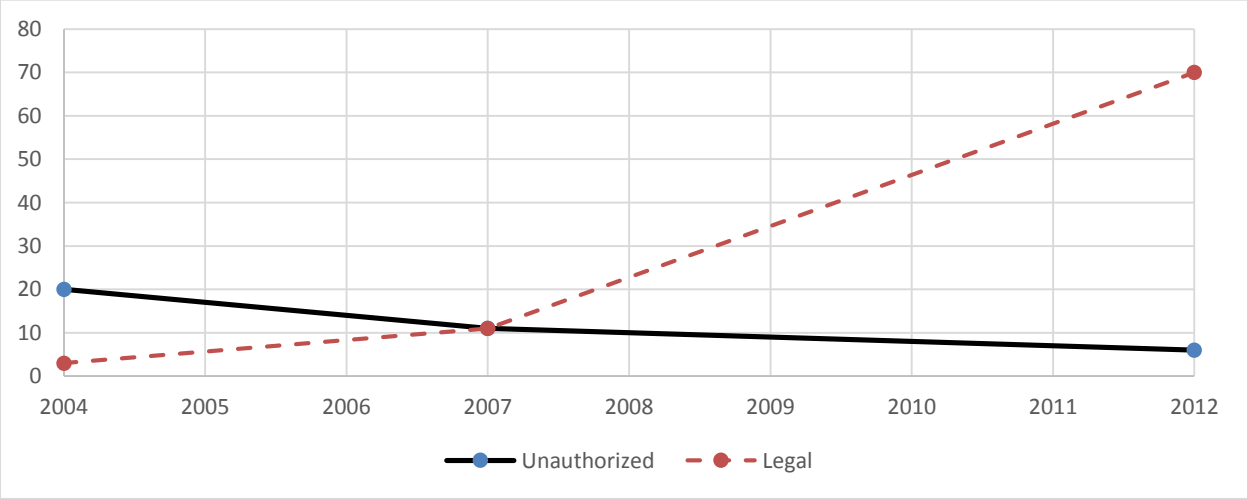
Exhibit V-5: The Small Impact of Piracy on Music Spending: Time Spent Listening v. Music spend



Source: Warner Music Group, 2010.

Warner's view of the digital music market is consistent with other data on the transformation of the music space as discussed above. The rapid expansion of **legal** digital distribution models alters the terrain of digital disintermediation (see Exhibit V-6). Participation in legal transactions has exploded and far outweighs participation in unauthorized file sharing. Thus the early picture of unauthorized file sharing painted in the period before **legal** digital distribution models had proliferated was distorted by the absence of a consumer-friendly business models, the failure to consider the function of sampling, and the impact of other factors on music sales.

EXHIBIT V-6: DIGITAL DOWNLOADING ACTIVITY (% OF INTERNET USERS)



Sources: Elberse, 2010; Cassiman and Salvador, 2006, Warner Music Group, 2010, Kantar Media, 2010, NPD, 2013,

VI. ADAPTING COMPULSORY AND COLLECTIVE LICENSES TO THE DIGITAL AGE

There is widespread agreement that current copyright law and practice are ill-suited to the digital age, although the nature of the problem and the necessary direction for change are hotly disputed. Copyright holders insist that their rights should be strengthened while legal restraints on the exercise of those rights should be relaxed, if not eliminated, arguing that their resources are inadequate to sustain production and their market power will be restrained by competition. Recent entrants with new business models argue that copyright is being used to retard progress and the record labels still possess significant sources of market power, so that strengthening copyright will make matters much worse and slow, distort or undermine the progress that digital technology makes possible.

The earlier analysis has shown the pervasive abuse of market power in the decade before the rise of digital technology in the music sector, the vigorous efforts to block and control digital technology, the dramatic improvement in the performance of the sector since digitization, driven by entrepreneurs and innovators from outside the sector and the irrelevance of piracy to the current performance of the sector. This section argues that the new entrants have a much stronger case from the perspective of the goals of copyright policy and the broader market performance perspective. In essence the section shows that the performance of the digital music sector will deteriorate and fail to achieve its full potential if copyright is strengthened and the policymakers fail to address the market structural tendencies and conduct pattern of the record labels.

Writing at the very beginning of the explosion of digital distribution, Fisher, who thoroughly embraced the concept of a compulsory license for listening, expressed the hope that the compulsory license could be implemented in a voluntary, self-regulatory mode. He based this hope on two assumptions:

- The market power of the labels would be eliminated by the growth of digital distribution
- The labels would recognize that their private interests would be best served by developing a user-friendly, voluntary equivalent of the compulsory license.[36]

Looking back over the experience of the first decade of the digital music sector, one must conclude that neither of these changes has come about:

- The record labels still have a stranglehold on contract content, access to which is essential to the success of any digital distribution model
- The record labels remain intransigent in their opposition to any distribution mechanism that reduces their rents of their control over the flow of content

There is nothing in the historical and contemporary behavior of the record labels to support the hypothesis that their behavior will promote or protect the public interest should their monopoly power be freed from constraints. On the contrary, individually and collectively, they have taken every opportunity to dramatically increase the extraction of rents from and control the development

[36] Fisher, 2004, p. 161, although he does argue that the congress' faith in the conduct of copyright holders was "unduly sanguine." (p. 105)

of new technologies. The failure of the market structure to mitigate the concerns about market power combine with the fact that the functions of mass market licenses continue to be vital to the operation of the music sector to make a strong case for policies to ensure and effective "feels like free" mechanism and broaden the scope of mass market licenses in the digital ecology.

A. THE CONTINUING NEED FOR MASS MARKET LICENSES

Fisher is one among many legal scholars and economic analysts who recognize that the inability to efficiently and effectively negotiate for rights to use music in a mass market is a fundamental and enduring market failure in the music space, regardless of the technology for distribution. High transaction costs and contract failure continue to reflect problems rooted in basic conditions, market structure and market conduct:

> The primary value of having a single organization license the bulk of music performing rights under a blanket scheme is that such an organization can substantially reduce transaction costs. Individually licensing performance rights for millions of musical compositions in separate transactions between thousands of copyright owners and music users would engender enormous transaction costs. These costs would be generated by the difficulties and complexities associated with the identification and location of individual copyright owners, the exchange of information about prices and performance opportunities for each composition, and the negotiation of separate licensing contracts before a composition could be performed. These transaction costs may often in fact be greater in amount than the actual license fees involved in such transactions. Taken collectively, the cost of individual transactions becomes staggering because of the sheer number of transactions that would be necessary. Even in a market where blanket licensing has been barred **by** law, economic necessity will encourage cartelization to approximate the marketing and bargaining advantages of performing rights organizations. (Fujitani, 1984, pp. 107… 112)

The millions of contracts governing transactions that involve diverse uses and different transmission media are extremely difficult to negotiate and enforce on an individual basis:

> [O]ne fundamental factor that cannot be overlooked in this equation is the structural inability to efficiently license vast numbers of musical works for a wide variety of uses, even when parties are generally amenable to that license. (Broussard, 2010, p. 1)

> Performance rights organizations (PROs) provide a key administrative service for music users, who might otherwise need to deal directly with songwriters and composers to obtain the rights to perform music… Blanket licenses economize on transaction costs, insure against infringement, and efficiently price each additional performance units are zero, which is the immediate marginal cost of provision. (Einhorn, 2001, p. 350)

The conflict of interest between copyright holders and users is too great to be bridged in situations where the distribution of information and bargaining power are highly skewed:

> [E]limination of the compulsory license would only serve to strengthen the bargaining position of one of the existing vested industry players, without furthering downstream dissemination. (Loren, 711)

Some analysts argue that the complexity of rights that has developed over a century of piecemeal accommodation of new technologies is an independent problem. The existence of multiple rights creates conflicts between rights holders and creates a severe hold up problem, while

the uncertainty about and overlap between the rights creates a morass that makes clearing rights virtually impossible.[37] Even those who believe the complexity of the current copyright law is an important problem recognize that solving it (e.g. through consolidation of the rights) will not address the sources of market failure. Some form of mass market license will be necessary. The important role of the compulsory license to discipline rent seeking in the current environment is acknowledged:

> While the creators of most sound recordings do not utilize the statutory provisions for the compulsory mechanical license, the availability of such a license does affect the rate paid under a license granted by Harry Fox and the terms of the license. The parties to the licenses administered by Harry Fox are negotiating in the shadow of the compulsory license that both parties know could be used instead. Thus, for example, it is rare that the agreed license rate exceeds the rate set by the Copyright Office…
>
> Removing the compulsory license may cause the Harry Fox Agency to abuse its market power. However, there are mechanisms other than copyright law to regulate such abuse of market power. (Loren 682… 714)

So central is mass market licensing to the functioning of the music sector that the Department of Justice has consistently defended the collective licensing practice, subject to consent decrees, with expanding and increasingly strict limitations on label behavior, even when the most powerful users who thought they could get a better deal challenged parts of the consent decree. Those who would like to get rid of the compulsory license envision a larger and more aggressive role for other antitrust and other legal approaches that would be needed to discipline the increased market power of the copyright holders. (Fisher, 2004, Loren 2003)

Thus, even if the record labels did not possess market power, which can be abused by exploiting the copyright monopoly, there would be a market failure that mass market licensing, would address. Once collective licensing is allowed, regulatory oversight of the mass market licenses, thorough statutory requirements and antitrust restraints are necessary to ensure that the augmentation of market power inherent in the collective action is not abused. In the digital music ecology, the harm of market power goes well beyond the mere collection of supra normal profits. The fundamental structure of the emerging sector is at stake.

B. MARKET STRUCTURE AND THE CONTINUING MARKET POWER OF THE RECORD LABELS

Access to the content of the major record labels remains indispensable to building new distribution models. It is not feasible to succeed on the basis of unsigned artists alone. The task of securing access to the necessary content to launch digital distribution undertakings is formidable. The failure of digital distribution models is routinely attributed to a lack of access of the content controlled by the labels:

> Yet, the growth of a legitimate digital music marketplace to a large degree depends on stable and efficient licensing systems that allow for the building of robust catalogs that will be attractive to paying customers. The fact that such services exist despite an inconvenient

[37] The statute's exceptional detail, subsequent rulemakings before the Copyright Office,98 litigation appealing the rules, rate making arbitrations, and subsequent legislation to provide relief from the rates, have kept music copyright lawyers quite busy. (Loren, 698)

> environment for investment and innovation is encouraging. Still there is likely more that can be done to streamline the licensing process while maximizing opportunities for creator and rights-holder compensation. (Hunter, 2012, p. 50).

There have been some very notable failures to deploy digital distribution models in the past decade, and acquiring content may have played a role in making a difficult task even more difficult.[38] Ironically, the problem of gaining access to a large library is so critical to the development of online distribution models that even the individual majors had trouble launching Internet distribution services without access to the libraries of other labels. This is one of the reasons consistently given for the failure of the label efforts :

> Because each service initially reflected the converged effort and investment of only half the industry, MusicNet and Pressplay were as competitors able to offer consumers only a limited catalog of content. The inconvenience of having to subscribe to both services to attain a full universe of mainstream content led analysts to remark that before the services could compete with free services they would have to offer music from all five big distributors. (Fagin, 465) (Loren, 674)

The concentration of control of albums in the hands of dominant players in a highly concentrated market poses a severe threat to competition and dynamic innovation in this space. If the major labels gain greater leverage over content through an expansion of copyright or a relaxation of the restraints on it use, alternatives and artists lose out. The core of the contract industry, in which the most popular content is controlled by the record labels, remains highly concentrated and confers significant and important market power on the labels (Bishop, 2005, Azena, 2006, Cooper and Griffith, 2012). Indeed, as shown in Exhibit, xx above, it has become more concentrated over the course of the first decade of explosive growth of digital music. As discussed above the four firm concentration ratio for music sales increased from just over 60% in 1996, to about 75% in 2000, and 90% in 2012. However, the four firm concentration ratio for albums does not fully capture the extent of concentration in the music, in part because there are now only three majors.

A better measure of market concentration is the joint Department of Justice/Federal Trade Commission *Merger Guidelines*. The Merger Guidelines rely on a more sophisticated measure of market concentration known as the Hirschman-Herfindahl Index (HHI) because the index has a direct relationship to existence of market power.[39] The index is calculated by taking the market share of each firm (expressed as a percent) squaring it and summing across all firms. The thresholds at which concern is felt about mergers were raised substantially in the recent revision of the *Guidelines*. These are described in Exhibit VI-1.

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[38] For example, Beyond Oblivion, a digital music service founded in 2008 and backed by News Corp. and Allen & Co., aimed to provide users with a nearly unlimited selection of music on devices that held Beyond Oblivion software. The service filed for bankruptcy in late 2011 before it had even launched. Notably, bankruptcy proceedings revealed that Beyond Oblivion owed outstanding debts of $50 million each to Sony Music Entertainment and Warner Music Group—an astonishing figure for a service that was never actually used by a single customer. These kinds of high advance royalties can hinder a digital startup from launching a successful and sustainable product. They also discourage investors, who must shoulder higher levels of risk for any digital music distribution service that requires direct licensing from record labels. The cloud-based music service LaLa originally launched as a CD-trading website in 2006. Eventually LaLa shifted from CD swapping to a cloud-based music service. Registered users could listen to songs once for free and then choose between purchasing a copy of the song or paying to stream the song. The service was subsequently purchased by Apple and shut down in 2010.

[39] Viscusi, Vernon and Harrington, 2001: 147-149, 212-213

EXHIBIT VI-1: DESCRIBING MARKET STRUCTURES

Department of Justice Merger Guidelines	Type of Market	HHI	Equivalents in Terms of Equal Sized Firms	4-Firm Share CR4
Highly Concentrated	Monopoly[a/]	10,000	1	100
	Duopoly[b/]	5,000	2	100
		2,500	4	100
Moderately Concentrated		1800	5.5	72
	Tight Oligopoly			60
	Loose Oligopoly	1,000	10	40
	Monopolistic Competition			
Unconcentrated	Atomistic Competition	200	50	8

Sources and Notes a = Antitrust practice finds monopoly firms with market share in the 65% to 75% range. Thus, HHIs in "monopoly markets can be as low as 4200; b = Duopolies need not be a perfect 50/50 split. Duopolies with a 60/40 split would have a higher HHI. Sources: U.S. Department of Justice, *Horizontal Merger Guidelines*, revised August 2010, for a discussion of the HHI thresholds; William G. Shepherd, *The Economics of Industrial Organization* (Englewood Cliffs, NJ: Prentice Hall, 1985), for a discussion of four firm concentration ratios.

Under the recently revised guidelines, markets with an HHI below 1,800 are considered unconcentrated, while those with an HHI above 2500 are considered highly concentrated. Markets between 1800 and 2500 are considered moderately concentrated. A moderately concentrated market would correspond to a tight oligopoly, which is defined as a market where the top four firms (the four firm concentration ratio, or CR4) have more than 60 percent of the market.[40]

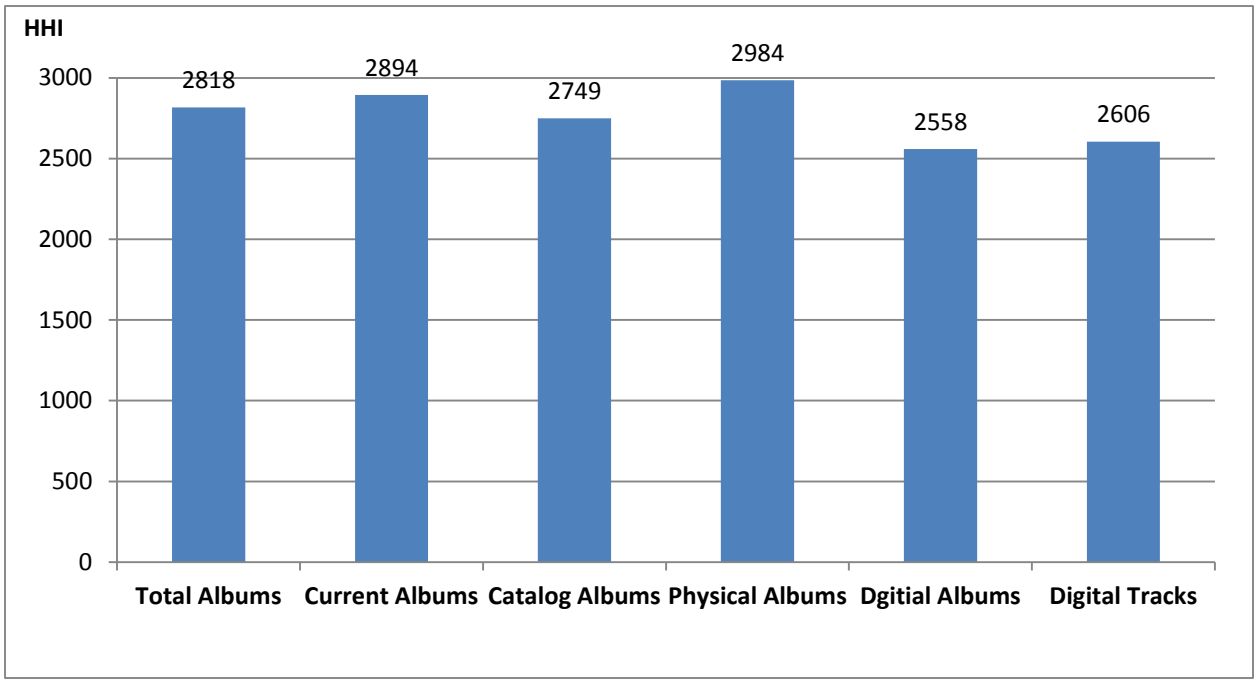
Another market structure that is important in the music space is monopolistic competition, which involves products whose differentiation affords the firms that produce them market power. If that market power is assumed to be short lived because entry will erode that unique form of market power, it need not result in poor market performance. However, the differentiation of content in the music sector makes this market structure relevant, and some argue that the existence of barriers to entry – copyright and economies of scale in physical production and distribution – open the way to long-term market power. (Tschmuck, 2009: 261) In the digital era, control over highly differentiated marquee content creates the ability to determine the success or failure of digital distribution models.

Exhibit VI-2 shows HHI index calculation for various contract music products in the current market. All of the markets are over the highly concentrated level.[41] Given recent merger activity, the concentration level has increased during the digital age. The fact that digital products are above the highly concentrated threshold and only slightly less concentrated than the physical products is notable. However, these concentration ratios are based on industry data, which misses an increasing amount of freelance market activity. Better data would show less concentration.

[40] In the case of 5.5 equal-sized firms, the four firm concentration ratio would be 72%.
[41] This section draws from Cooper and Griffith, 2012.

Nevertheless, the high level of concentration of contracted content conveys market power to the major labels because access to that content has the ability to determine the success or failure of distribution models.

EXHIBIT VI-2: MUSIC MARKET CONCENTRATION: 2012 HHI



Source: Nielsen/Soundscan, 2012

Waldfogel's (2011) analysis of the role of the Indies reinforces this conclusion. The Indie share of the top 100 and 200 albums has grown, but remains at fairly low levels. With 7.5 percent of the top 200 and 12 percent of the top 100 albums in 2010, it is hard to argue that the Indies significantly threaten the market power of the majors. Progress has been made, but not enough to conclude that the transition to the digital medium has eliminated or even significantly reduced the threat of abuse of market power distorting or undermining emerging models of distribution.

Thus, even with the growth of digital distribution, major labels can stifle digital competition by limiting the number of successful digital distribution platforms, which are the very places where independent labels' offerings can compete with those of the major labels on a level playing field. The major record labels may accomplish this by withholding licenses entirely or by demanding high advances, royalties disproportionate to their market share, or an equity stake in the digital service as a condition of a license. Any of these tactics threaten the long-term sustainability of independent labels and digital distribution platforms.

C. CONDUCT: RECORD LABELS RENT SEEKING UNDER AN ENTITLEMENT VIEW OF COPYRIGHT

Since the advent of recorded music, which revolutionized the ability of the public to hear and enjoy it, copyright holders have sought to capture a larger and larger share of the expanding market by increasing royalties and tightly controlling the use of musical output. The result has been

a series of epic disputes with users of music. The trigger of the disputes was always the excessive fees copyright holders demanded from potential users of new technologies. Repeatedly, the copyright holders sought huge increases in their royalties as new technologies grew. The extortion of rents that triggered the disputes were not driven by the economic cost of production of music, which was not increasing dramatically, and in fact had declined in many respects, but by a desire for higher margins.

1. Rent Seeking

Examples of the reaction of the copyright holders for each of the new technologies abound.

Radio: By the 1930s however, relations between ASCAP and the radio industry had soured. The issue was money, and the dispute focused on the amount radio stations had to pay for performance licenses. Since ASCAP controlled the rights to some 80% of the much radio broadcast, the specter of alleged antitrust violations appeared – and has remained to haunt ASCAP ever since…

In retrospect, it is apparent that what had upset radio in 1939 was the size of the licensing fee ASCAP had proposed and not its methods of operation or even its blanket license. (5)

ASCAP proposed a new formula – one which would have increased … license fees 200% to 1500%. Naturally owners protested and organizes.. to represent them in collective bargaining with ASCAP… a new rate was agreed to, one that resulted in fee increases of 25% to 30%.

Though the new rate was "fair and reasonable," ASCAP's initial proposal rekindled a long dormant antitrust suit. (Sobel, 1983, p. 12).

Movie Theaters: In 1942, a group of 164 theater owners brought suit against ASCAP claiming antitrust law violations of Sections 1 and 2 of the Sherman Act. The case was finally tried in 1948 against the backdrop of ASCAP's August 1947 attempt to increase the license fees for theater owners as much as 200% to 1500%.121 This blatant abuse of ASCAP's exclusive price fixing power in the middle of ongoing anti-trust proceedings against it may have been the decisive mistake that is hurting ASCAP and the other PRSs up to this day. The [court] held that almost every part of the ASCAP structure and almost all of ASCAP's activities in licensing motion picture theaters involved per se violations of the provisions of the Sherman Act. (Seyfort, 2005, p. 28).

Television: Ironically, one of the earliest amendments to the consent decrees entered into by the collective licensing agencies was a provision that required them to make music available on an unbundled basis. This provision had the effect of insulating the collective licensing agencies against later antitrust charges of illegal tying. Forced bundling between copyright holders and music users (i.e. radio and TV) has been illegal for sixty years.

The networks' blanket licenses were renewed every several years on substantially the same terms. In 1970, however, network dissatisfaction with ASCAP's blanket license percolated to the surface again. .. NBC studied the music it had broadcast and concluded that it did not need access to ASCAP's entire repertory. Rather, NBC determined that it could make do with a license to broadcast 2,217 specific compositions and certain background music. As a result, it asked ASCAP for a license for this music in particular; and when ASCAP declined, NBC went to court. (Sobel, pp. 15).

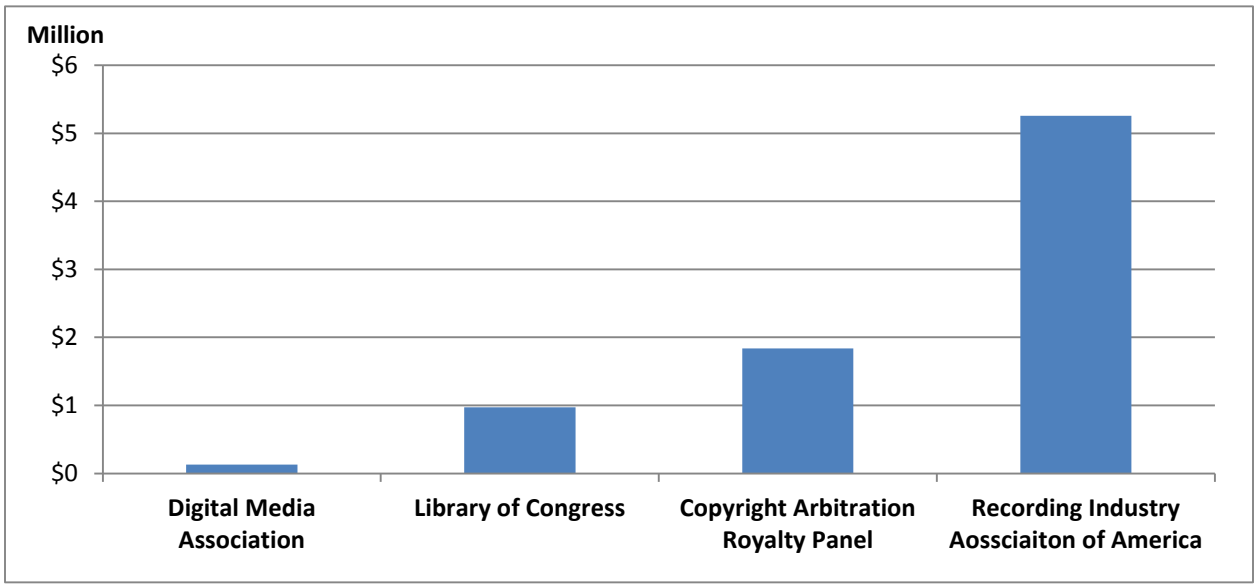
CBS appears to have lived quite happily with the blanket arrangement until 1969… Indeed, in 1969, CBS and ASCAP agreed on new blanket license fees. However, the size of the new ASCAP fees "would have had the effect of sharply widening the historical ratio between

> BMI and ASCAP from CBS," and BMI responded by insisting on "maintaining parity with ASCAP." When BMI and CBS were unable to agree on new fees between them, BMI canceled its blanket license to CBS… Then, and only then, did CBS ask BMI and ASCAP to state the terms on which they would issue licenses which would provide for "payment measured by the actual use of [their] music." (Sobel, 1983, pp. 16-17).

Internet Radio: In 1995, a new (performance) right was granted to music copyright holders to collect royalties for play on Internet radio (a right that did not exist for terrestrial radio). It gave record labels an opportunity to vent their hostility toward new digital technologies. Faced with the obligation to negotiate rates, or submit them to arbitration and adjudication, the labels demanded extremely high levels of compensation that were certain to render webcasting economic unviable and constrain its impact on the incumbent business model or eliminate it altogether.

As shown in Exhibit VI-3, the record labels demands were about 40 times what the webcasters said they could pay. The Library of Congress set a rate that was one-eighth of what the record labels demanded and about seven times what the webcasters said they could pay. When the Copyright Arbitration Royalty Panel set the rate at twice the Library of Congress recommendation, the virtual majority of webcasters declared that they would be forced out of business and even though Congress intervened twice, their ranks were decimated by the new royalties.

EXHIBIT VI-3: MECHANICAL LICENSE COST AT VARIOUS PROPOSED RATES
(Estimated Annual Fee for 10,000 listener House at 15 songs/hour)



Source: Deutsch, 32.

> In 2007, the Copyright Royalty Board (CRB) set higher statutory rates for non-interactive webcasts. Many commentators complained that the CRB's decision made no sense, and many webcasters claimed the rates would put them out of business – especially since for many, the royalties for the sound recording performance rights alone would exceed their revenues. (Pals, 2011, p. 6,

2. Entitlements and "Make Whole" Policy

The aggressive rent seeking exhibited in this century-long effort to raise royalty rates to extremely high levels reflects an underlying belief that the copyright holder is entitled to a share of the value of product, rather than the recovery of the cost of creating and producing it. A senior official of the RIAA made the point explicitly:

> The third practical issue arises from the digital business models where revenue is driven by hardware sales and ad sales from high site traffic and not necessarily from content, per se. How should the value of all the performances of the musical works be measured if revenue is difficult to apportion or if the provision of content is not directly tied to revenue, yet the music content plainly adds "value" to the digital business and the overall user experience?
>
> Who would want to own an Apple iPad or iPhone if it could not be used to access and enjoy creative content, at least in part? Even taking into account Apple's excellent products, can it be argued that consumers' desire for content, particularly music, drove sales of Apple's products? Whatever Apple's payments to creators of content have been, it is safe to say the revenues reaped by Apple from the sales of its hardware far outstrip the compensation flowing to content creators.
>
> The YouTube service is another example: at the time it applied for an ASCAP license, media reports indicated that its revenues were low, and some reports claimed the service was "losing money." There was obvious "value" in a service that Google purchased for a reported $1.65 billion, but that value did not flow back to the creators and owners of music, which had made and continue to make YouTube so popular. The ASCAP members whose works were popular and performed on YouTube's service in its early years became essentially compulsory investors, with no ability to enjoy a reasonable pro rata share of the value received by YouTube's founders. (McGivern, pp. 641-642)

Rent seeking through value based pricing rests on market power. In a competitive market, the rents would not be extracted. A lumber company cannot charge a builder ten times as much for joists if they are used in a $2 million McMansion than if they are used in a $200,000 bungalow. The competitive market will drive the price down to the cost of producing joists, which includes a normal profit. High quality joists might command a higher price, but that price would include only a normal profit constrained by competition. The lumber company would make more if the McMansion uses more joists, but the price charged would be set by supply-side competition.

Thus, the labels have a world view that defines the ability to extract rents from consumers as an essential part of their right and demands revenue replacement whenever a new technology disrupts the marketplace. They believe they are entitled to a share of the value of the product, regardless of the cost of production. Their market power gives them the ability to extract supra normal profits by demanding high royalties, raising consumer prices and restricting output. This approach to pricing imposes a tax on innovation, collected from the users and, ultimately the public.

The entitlement that the copyright holders claim has frequently been expressed in policy as a "make whole" approach to royalties. When a new medium shifts distribution to a new product or service, the copyright holders lament their apparent revenue losses and demand that they be made whole. Policy makers are dissuaded from considering how costs have been affected or the impact of rent collection on innovation.

Dicola and Sag note that the "make whole" argument is a recurring theme the stretches back at least three-quarters of a century to the early battles over radio use of music:

> The initial demand from ASCAP to the radio stations was phrased in terms of lost revenue. ASCAP's position was that radio owed them annual fees approximately equal to the difference between yearly sheet music sales before radio and yearly sheet music sales after radio's emergence. This would become a recurring theme for copyright owners in content–technology disputes that is still used in the present day. When the radio stations resisted, ASCAP launched a series of lawsuits analogous to the earlier lawsuits against the hotels, restaurants, and cabarets. (Dicola and Sag, 2012, p. 132).

Loren recounts the "make whole" approach in the 1976 and 1995 amendments to the legal treatment of copyright in music:

> Responding to arguments by record labels that revenues from record sales were going to be significantly damaged by new methods for digital delivery of music, Congress enacted the Digital Performance Right in Sound Recordings Act of 1995 (DPRSRA). This Act added the right "to perform the copyrighted work publicly by means of a digital audio transmission" to those rights enjoyed by sound recording copyright owners.
>
> While the DPRSRA appeared to be adding a public performance right for sound recording copyright owners, the limitations placed on that right were aimed at granting copyright owners in sound recordings a mechanism for controlling digital exploitations that were perceived to pose a serious threat to the sales of CDs. At the time, the concern was for new business models offering "audio–on-demand" and "pay-per-listen" services that allowed a level of interactivity between a subscriber and the service, permitting the subscriber to "order-up" certain songs or albums that would then be broadcast for that subscriber's listening pleasure. The record companies feared that if consumers could obtain their music through such services they would be less likely to purchase CDs. (Loren, 2003, p. 687).

The entitlement and "make whole" view of copyright intersect in the effort to charge for every use, many of which had been uncompensated in the past, and some of which were made possible by the new technology:

> As the impact of the Internet has become more apparent, valuable asset approaches have become ever more pervasive, with firms in the cultural industries attempting to institute a pay-per-use model that maximizes the value of content by eliminating uncompensated uses of materials that they own or control. In addition to eliminating uncompensated uses, industry players have sought to develop additional revenue streams from uses for which compensation is already being paid….
>
> Payment of performance royalties for these previews represent an attempt by music publishers to develop alternate digital era revenue streams to compensate for losses of revenue in other areas…
>
> The assertion of an entitlement to these new revenue streams is based on a theory that activities such as playing previews and downloading content involve a public performance that deserves additional compensation beyond any royalties or fees already paid for such material…
>
> The search for new alternative sources of revenues is not limited to composers and publishers. In 2008, the recording industry lobbied Congress to pass a bill that would entitle it to receive royalties from radio stations, stating that — "broadcasting music without payment is akin to piracy." (Arewa, 2010, pp. 354-355, Bland, 2010).

Even the principle of "feels like free" on the radio, which had been settled for three quarters of a century is now redefined by the record labels as "piracy." Some authors argue that since the functionality of radio as a "feels like free" distribution medium had been diminished by the growth of superior, digital "feels like free" media, radio no longer delivered value to the copyright holders and should, therefore, be required to pay. Not surprisingly, the argument skips over two important corollary implications since it can be argued that:

- the new dominant "feels like free" media should not pay and
- the record labels whose functionality had been slashed dramatically by the new technology should reduce their share of the value chain just as dramatically (Johannes, 2011)

D. EXERCISING EXCESSIVE CONTROL OVER CONTENT

Taxing innovation harms the emerging economy, but the second goal of labels in seeking to stifle the new technology does equal if not greater harm. In the music space, the copyright holders' strategy furthers their desire to maintain control over the music value chain. (Altman, et al., 2008, Arewa, 2010, Bland, 2010, Deutsch, 2010, Tschmuck, 2009, Helman, 2009, Hentoff, 2006, Regner, 2009,) While many authors have noted the record label desire to maintain control, Bland links it directly to the entitlement approach, even using Apple as an example:

> In fact, according to David Israelite, president and CEO of the National Music Publishers Association ("NMPA"), the group has begun lobbying Congress to pass legislation that would require anyone who sells a download to pay a performance fee. These groups are not simply asking for a bigger slice of the licensing "pie," so to speak. They are demanding a bigger pie…
>
> Further analysis of these issues reveals statutory provisions that conflict with practical realities and the underlying purpose of copyright law. And because this battle takes place in the context of the music industry, it implicates a complex web of competing interests. At its core, though, this demand reflects a battle for control by industry groups that refuse to acknowledge or leverage the potential of digital retailers like iTunes. (Bland, 2010, p. 160)

Just as the entitlement view essentially seeks to expand the reward of copyright to a larger slice of a larger pie, the control view seeks to expand the control of the copyright holder with a radical break from past practices.

> Most importantly, these shifts, particularly the anti-circumvention provisions of the DMCA, are placing exclusive control of the code that will accompany content in the hands of the content-owners, thus " privatizing a large chunk of the public law of copyright."' Where previously the legal balancing of public and private interests was subject to political scrutiny and accountability, private commercial entities are increasingly capable of setting their own terms of use. The new digital rights management may make copyright owners' rights absolute. Historically, copyright has granted "conditional" rights, subject to such doctrines as fair use and the first sale doctrine. Although anti-copying protections need not lead to rigid limitations on use of and access to copyrighted works, content owners have many incentives to define the contours of use to their advantage. In this context, we should consider a more active role for law and government and ask "if copyright is limited in the

> protections that it gives, why shouldn't code be limited as well - limited, that is, by law?" (Fagin, 2002, p. 489).

The more widespread, popular and independent the alternative sampling and distribution platforms, the less control the labels have over artists and the flow of content. As these independent alternatives grow, the artists and new entrants gain bargaining power, reducing the leverage of the labels. The labels still have the incentive and ability to distort and slow this growth with their control of contracted content. Shrinking the size and flexibility of the alternatives weakens the platforms for freelance artists to develop their music and reach their audiences, particularly in the mass market sampling function. Maximizing control was the unique motivation of the record labels:

> The file-sharing phenomenon shined a spotlight on the divergence of interests between the creators of music and their ultimate representatives in copyright debates, the recording industry. The economic interests of creators are focused on maximizing revenues from their works. Record companies, in contrast, are not content with their share in the revenue pie, rather are interested in maximizing their control over the exploitation of such works, in order to secure the dominant position they currently hold in the market…
>
> The label's eye, however, is not focused solely, or even predominantly, on the market of revenue. Rather, the recording industry's main concern lies in maintaining its position in what can be termed the market of control, meaning a monopoly over the artists' work on the one hand and securing the position of the main supplier of music to the market on the other. The business of the recording industry is similarly two functioned: contracting and managing of artists, and providing authorizations and setting prices for basically any exploitation of musical works. The source of the label's economic interests does not lie as much in maximizing the revenues from these transactions, as it lies in preserving its position as the only body which can conduct them. (Hellman, 2009, pp. 1…8)

As Dicola and Sag point out, the weeding out of alternative distribution models was identified as a likely outcome of high royalty rates that was supported by the agents of the labels:

> Webcasters complained that the decision "threaten[ed] to silence many, and perhaps most, webcasters." However SoundExchange embraced this result, saying that it saw merit "in culling some of the many thousands of Web stations that sprang to life during the wide-open first years of broadband." It is interesting to note here that it was SoundExchange making the decision as to whether the market should be in an era of experimentation or consolidation. SoundExchange represents the interests of record labels and recording artists; it does not represent the interests of musicians and composers generally, and certainly not the broader public interest. (Dicola and Sag, 2012, p. 161)

Fisher notes that with the announcement of the rate, one-third of the webcasters exited the market and an industry expert witness argued that it would be in the industry's interest to set rates high enough to eliminate two-thirds of all webcasters (Fisher, 2004, pp. 110, 161).

The overwhelming interest in copyright holders controlling the flow of content, even at the expense of artists was evident in opposition from the collective licensing organizations to the creation of a performance right in the 1976 amendments to the Copyright Act:

> When sound recordings were first added to the Copyright Act as a category of protectable works in 1971, Congress limited the rights granted to these new copyright owners in

> significant ways. For purposes of this Article, the most important limitation was that sound recording copyright owners were not granted a right to control the public performance of their works. As the 1976 Act was nearing passage, the initial draft of the Senate bill sought to change that by including a full public performance right for sound recording copyright owners with a compulsory licensing system similar to that for mechanical reproductions of musical works. Opposition from broadcasters, performing rights societies, and music publishers helped to defeat these provisions. In the end, the 1976 Act did not include a public performance right for sound recordings.
>
> Broadcaster opposition was understandable: they did not desire to pay new royalties for activities that they had been engaged in for decades. However, it is worth pausing to consider why the performing right societies and music publishers opposed granting sound recording copyright owners a public performance right. The claim of the performing rights societies and the music publishers was that if such a right were recognized, they stood to lose substantial revenue. They argued that the total revenues that radio stations and others that engage in public performances would be willing to pay would remain the same, leaving the performing rights societies "to battle the recording industry over the slice of the pie that each obtains." (Loren, 2003, p. 687).

E. THE REPEATED FAILURE OF NEGOTIATIONS FOR REASONABLE ACCESS TO CONTENT

Given the powerful incentives for rent seeking and control of distribution, the century-long failure of negotiations to deliver access to content on fair, reasonable, and efficient terms, should come as no surprise. A century of failure of negotiations, which has been highlighted by the post-DMCA rate setting mess, in addition to the century-long failure of voluntary efforts to control abuse within the sector (e.g. payola, Krasilovsky, and Shemel, 2003,) make it clear that music copyright owners interests are too strong to allow compromise with different business models they cannot control or accommodate fundamental changes in distribution approaches:

> Another lesson that emerges from webcasting is that arbitration may be the worst forum in which to resolve conflicts between established rights owners and the champions of new technology. It is clear that the adversarial nature of the arbitration favored the powerful and experienced recording industry over the initially disorganized and inexperienced webcasters. (Dicola and Sag, 2012, p. 168)

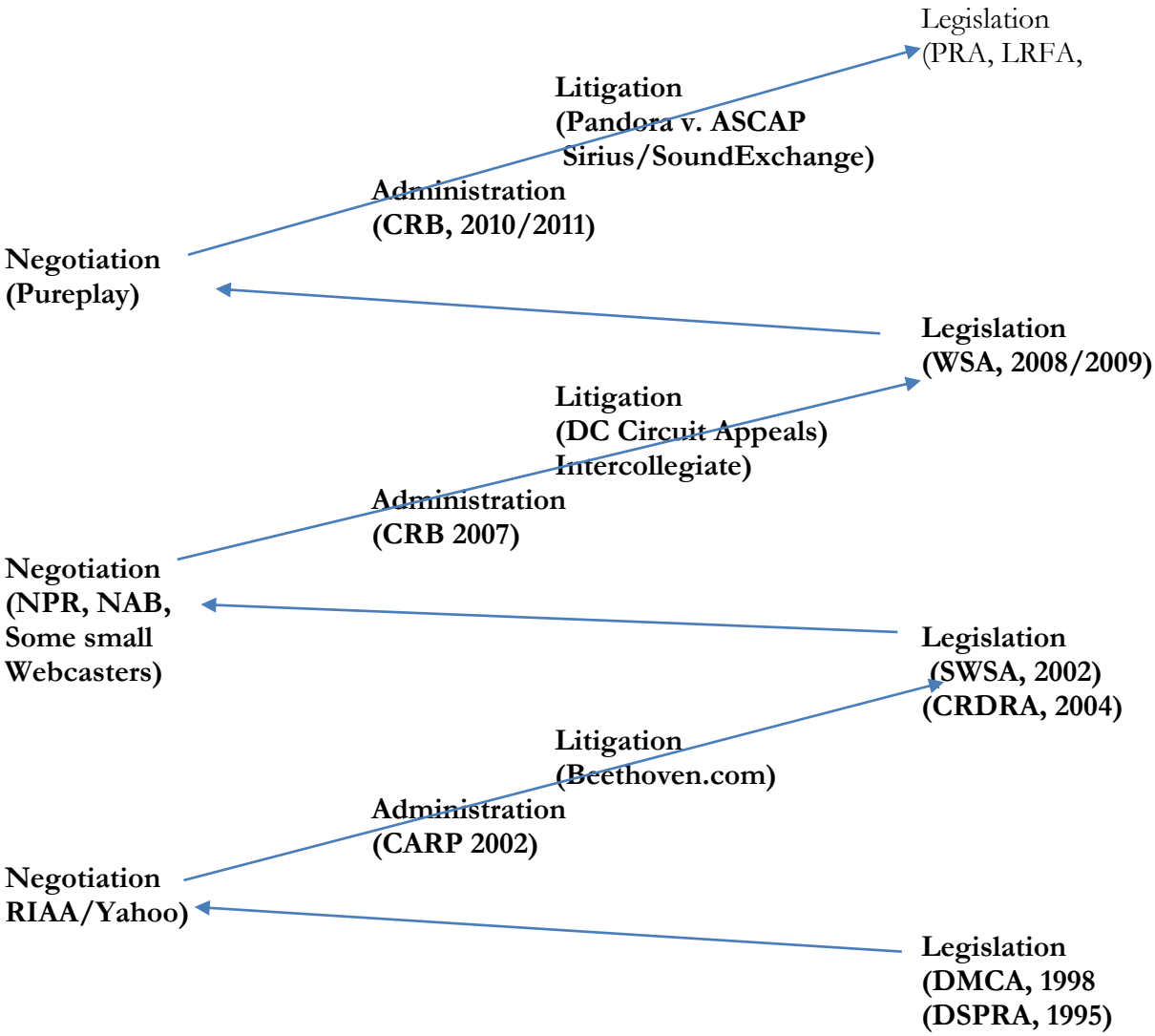
Since the commercialization of the Internet in 1995, the evolution of music copyright has followed a familiar pattern, but with greater frequency and intensity than it has historically (see Exhibit VI-4). Legislation triggers a round of negotiation that generally fails to resolve key issues, which are then presented to an administrative body for arbitration.

Dicola and Sag (2012) refer to this as the "agree-or-arbitrate" approach. Given the underlying statute that does not provide a sufficiently strong basis for deciding key issues, litigation follows and the matter ends up back in the lap of Congress, which sets the stage for a repetition of the process, when the new legislation fails to confront key issues decisively:

> The major hurdle for non-interactive services since the passing of the DMCA, has been the negotiation of royalty fees under the statutory licensing fee set by the Copyright Royalty Board. Such fee increases have brought services to the brink of financial ruin. For example, in 2007 the Copyright Royalty Board increased the fee to play music on webcasts from eight

cents per song to nineteen cents per song. The increase left non-interactive services paying fees that in certain cases amounted to massive percentages of their projected annual revenue. (Arista, 2010, p. 24)

EXHIBIT VI-4: THE CYCLE OF FAILURE IN RATE SETTING FOR WEBCASTING OF MUSIC



Sources: Duvall, 2008; Pals, 2011; Villasenor, 2012; Dicola and Sag, 2012.

One can argue that a similar process had taken place in the run up to the 1909 Copyright Act. For over a decade, at least from the formation of the Music Publishers Association in 1895, there was an intense period of private negotiation, litigation and lobbying motivated by the fact that "various threats to their [music publishers] main revenue source, sales of sheet music, had emerged – particularly the player piano and the phonograph." (Dicola and Sag, 2012, p. 126). Exactly a year after music publishers suffered a key defeat in the Supreme Court, Congress passed the 1909 Copyright Act, which made piano rolls "infringing copies of compositions. But the piano roll companies would get the benefits of compulsory license," (Dicola and Sag, 2012, p. 127) which was "Copyright's First Compulsory License." (Abrams, 2010).

F. COLLECTIVE LICENSES, ANTITRUST AND OTHER FORMS OF OVERSIGHT

ASCAP was incorporated in 1914 as a collective undertaking to exploit the new rights conferred by the 1909 Copyright Act. This was the same year that the Federal Trade Act was passed and within less than a decade (1922), the Federal Trade Commission was investigating ASCAP followed quickly by an investigation by the Department of Justice (1924). A decade later (1934) the DOJ brought a case brought a case, which was held in abeyance after going to trial. The DOJ filed another case in late 1940, which was settled in 1941. The consent decree has been updated and expanded several times and remains in force. The music industry has been under consent decrees for almost three quarters of a century, with amendments and additional actions undertaken in 1948, 1950, 1960, 1964, 1994, 2001, and 2011. This is in addition to the broader price fixing cases brought against the individual labels in 2000 by the FTC and the States in 2002 and various Payola scandals that involved the Congressional hearing and legislation as well as federal and state courts (1970s, 2000s). (Krasilovsky et al., 2007, pp. 380-385).

The tension between the monopoly privilege and the preference for competitive markets was repeatedly triggered by the piracy panics, in the sense that the effort to either restrict the choice of music users or charge them very burdensome royalty rates, attracted the interest of the antitrust authorities. The amendments to the consent decrees were driven by dissatisfaction with the consent decrees, primarily the rate setting, which were expressed in the failure of negotiations and a long string of private law suits. The long history of the tension between the monopoly privilege of copyright and antitrust epitomizes a fundamental tension in twentieth century economic policy:

> The intersection of intellectual property and antitrust presents one of the great ironies in the law. Antitrust law presumes that the advantages of monopoly are outweighed by the dangers inherent in concentration of market power. Yet the law of intellectual property, especially copyright law, seems to presume the opposite. A monopoly is good –even one extended and protected by the state for many decades, as is copyright. In those cases where this natural tension between seemingly opposite forces ceases to exist, the danger of monopolistic malfeasance increases. Where these forces coalesce, as when a copyright owner also accomplishes unfettered market power, the results can be disastrous for consumers of products subject to intellectual property rights. (Hillman, 1998, p. 733).

> With this important victory under its belt ASCAP proceeded to fulfill its charter by bringing scores of infringement suits against those who failed to heed its warnings. ASCP won all of those cases, but it also learned the first economic reality of copyright enforcement: infringement suits frequently do not pay their own way. (Sobel 1983, p. 3).

Although antitrust has played an important role in seeking to discipline the market power of the record labels and their collective institutions, it has been largely reactive and addressed only parts of the underlying market failure:

> There are, of course, antitrust considerations when collective licenses are enacted… Indeed, government will likely have a role to play in establishing the framework for any new collective licensing arrangement advanced by a critical mass of stakeholders. It is also safe to say that any collective license that is non-voluntary would likely implicate sections 114 and 115 of the U.S. Copyright Cost, which would inherently necessitate active government participation. (Hunter, pp. 51-52)

While antitrust authorities acted against price fixing in the 1990s, it was clearly a reactive process that was, at best, partially effective. Moreover, the second anti-consumer strategy that imposed even greater harm than price fixing, the refusal to sell singles, was never the target of antitrust authority, although some authors argue it could and should have been.

Wach's claim for antitrust action against the bundling of songs into albums as an illegal tying arrangement may be colorable, but it also underscored the tortuous task that such an approach takes. It underscores the fact that antitrust is not the solution to some of the most important abuses in the music space.

Another legal approach to the control of copyright holder market power that Wachs and others point to is the concept of copyright misuse[42], which is "an equitable defense to a copyright infringement suit [rather than] an affirmative complaint in itself." (Phelan 1984, p. 359). The problem is that copyright abuse is a reactive defense against infringement whose legal path is even more tortuous. Therefore, it is not likely to provide much certainty for gaining access to content for users, especially in the dynamic digital space, where entrants are small and speed is of the essence:

> Under the misuse doctrine, if a copyright owner is engaged in misuse, they may not enforce their copyrights until the misuse is purged. The existence of the doctrine, and the real threat of its application, provides some measure of deterrence against abusive licensing practices, although the misuse doctrine alone is probably not sufficient. (Loren, 2003, p. 720)

G. MORALITY PANICS

No discussion of the piracy panics that seize copyright holders with the arrival of each new technology is complete without mention of the sense of a "morality panic" the copyright holders seek to foster. Their sense of entitlement, discussed above, is buttressed by the claim that that the social values they express are fundamentally important for the very survival of music as a core component of culture. Moral decay is one of the most prominent themes of the piracy panics.

John Phillip Sousa's screed against the first technology to revolutionize the distribution of recorded music "the Menace of Mechanical Music" embodies the central claims and dire predictions that have been repeated over the course of a century.

> SWEEPING across the country with the speed of a transient fashion in slang or Panama hats, political war cries or popular novels, comes now the mechanical device to sing for us a song or play for us a piano, in substitute for human skill, intelligence, and soul.

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[42] Sullivan and Grimes, 2000, pp. 885-886:The rationale for a copyright misuse defense tracks that for patent misuse and is based on the economic rationale for copyright itself. The copyright grant, like the patent grant, is limited in scope. The statute draws lines because it is intended to encourage sufficient innovation without offering gratuitously excessive constraints not needed to stimulate that innovation. Any constraint beyond the bounds of the statutory grant is, in this sense, excessive and unnecessary. Because in a competitive environment there will always be incentive to press for excessive protection, the misuse doctrine is needed to deter such efforts.

While the exact dimensions of the copyright misuse defense will be known only after considerably more cases are decided, its consequences should be considered by anyone who is trying to use his or her copyright to go beyond the protection of the copyright laws. The penalty for copyright misuse – unenforceability of the copyright in court until the misuse has been purged and its effects no longer exist – is tantamount to losing the copyright. http://digital-law-online.info/lpdi1.0/treatise15.html

> On a matter upon which I feel so deeply, and which I consider so far-reaching, I am quite willing to be reckoned an alarmist, admittedly swayed in part by personal interest, as well as by the impending harm to American musical art. I foresee a marked deterioration in American music and musical taste, an interruption in the musical development of the country, and a host of other injuries to music in its artistic manifestations, by virtue – or rather by vice – of the multiplication of the various music-reproducing machines. When I add to this that I myself and every other popular composer are victims of a serious infringement on our clear moral rights in our own work, I but offer a second reason why the facts and conditions should be made clear to everyone, alike in the interest of musical art and of fair play.
>
> It cannot be denied that the owners and inventors have shown wonderful aggressiveness and ingenuity in developing and exploiting these remarkable devices. Their mechanism has been steadily and marvelously improved, and they have come into very extensive use…
>
> And now, in this the twentieth century, come these talking and playing machines, and offer again to reduce the expression of music to a mathematical system of megaphones, wheels, cogs, disks, cylinders, and all manner of revolving things, which are as like real art as the marble statue of Eve is like her beautiful, living, breathing daughters.
>
> It is the living, breathing example alone that is valuable to the student and can set into motion his creative and performing abilities. The ingenuity of a phonograph's mechanism may incite the inventive genius to its improvement, but I could not imagine that a performance by it would ever inspire embryotic Mendelssohns, Beethovens, Mozarts, and Wagners to the acquirement of technical skill, or to the grasp of human possibilities in the art.
>
> And what is the result? The child becomes indifferent to practice, for when music can be heard in the homes without the labor of study and close application, and without the slow process of acquiring a technic, it will be simply a question of time when the amateur disappears entirely, and with him a host of vocal and instrumental teachers, who will be without field or calling…
>
> When a mother can turn on the phonograph with the same ease that she applies to the electric light, will she croon her baby to slumber with sweet lullabys, or will the infant be put to sleep by machinery?
>
> The host of mechanical reproducing machines, in their mad desire to supply music for all occasions, are offering to supplant the illustrator in the class room, the dance orchestra, the home and public singers and players, and so on. Evidently they believe no field too large for their incursions, no claim too extravagant. But the further they can justify those claims, the more noxious the whole system becomes. (Sousa, 1906).

The repeated battles over rights to air music on the radio and the royalties rates spreading over the course of two decades, had the same moral tone:

> This situation resembles that of the 1920s, when radio represented a completely new form of music distribution. At the time the phonographic corporations failed in their fight against the radio stations, which they fought by suing for copyright violation and engaging in public campaign against the airplay of allegedly youth corrupting Jazz music. (Tschmuck, 2004, p. 248.)

Youth are a particular target for moral panics:

> "The problematization of youth can be seen to partake of a longstanding popular association of youth with 'crime' and 'delinquency.' Historically, youth have been the subject of successive waves of social anxiety or moral panics, which focus on the threat that young people supposedly represent to morality, body and property."
>
> It is not coincidental that the vast majority of the Recording Industry Association of America's (RIAA) 35,000 lawsuits have been filed against young people. (Patry, 2009, p. 135).

The digital age version of the morality panic involves claims about values that transcend the music sector. Weird Al Yanovich's parody may overstate the claims – "Don't Download This Song: You'll start out stealing songs, then you're robbing liquor stores, and selling crack, and running over school kids with your car."[43] However, Patry's compilation of Jack Valenti's numerous hyperbolic descriptions of the impact of the Internet and file sharing suggests it may actually understate the extent of the moral panic message that copyright holders sought to deliver.

> "[W]ithin the glittering potential of the Internet lies the darker forms of thieves, who armed with magic new technology, are capable of breaking-and-entering conventional barriers to steal copyrighted material born by the Internet by just about anybody with a working computer." Later in reaction to the advent of peer-to-peer networks, Mr. Valenti sought to tie such networks to the dissemination of child pornography, asserting that peer-to-peer file sharing made available "the most throat choking child porn, on a scale so squalid it will shake the very core of your being." Two years after the events of September 11, 2001, Mr. Valenti linked copyright infringement to terrorists, testifying before congress that trafficking in counterfeit and pirated goods "accounts for much of the money the international terrorist network depends on to feed its operations. (Patry, 2009, pp. 136, 137).

One might dismiss the morality panic as a mere distraction, but there is an important point to be recognized as framing matters, not only as part of the political process, but also in defining fundamental values:

> [C]ontent owners' discussions of piracy typically reveal a sleight of hand whereby all unauthorized uses are equated with piracy. The tendency to equate unauthorized uses with piracy has become a foundational argument for many who advocate broader copyright protection. Such perspectives are problematic from a legal perspective in that they expand the range of control of content owners beyond those traditionally encompassed within copyright law, and often ignore existing balancing mechanisms such as fair use. Further, the portrayal of unauthorized uses as constituting piracy reflects an ideology of cultural production that is significantly at odds with the reality of cultural production, but which nonetheless has a significant impact on people's perceptions of cultural production. Finally, in seeking greater control over content in the aftermath of the crash of the recording industry, other industry segments may have learned the wrong lessons from events in the digital music space. (Arewa, 2010, p. 463)

The transformation of the production process inevitably involves fundamental changes in norms and values. Many authors have argued that the new set of norms that copyright holders find so troubling have strong historical roots and can support better outcomes from the point of view of promoting progress (Lessig, 2008, Benkler, 2005). Arguably, the century of production of music

[43] Cited in Lessig, 2004, p. 286.

under the influence of the second industrial revolution is a relatively short period in the long history of music, in which success was achieved in some aspects of production, but not others.[44]

While the record labels frame the value question as the evils of piracy versus the sanctity of property, there are other ways to frame it that give the high ground to the emerging alternative. In taking an economic, structure/conduct/performance, view of copyright, I do not mean to suggest that the copyright holders have the moral high ground. I have sought to defeat their arguments on their own terms. The case for a folk/collaborative/dissemination view of performance in the music sector is at least as morally compelling as the industrial/profit/distribution view adopted by the copyright holders.[45] Recognizing the legitimacy of an alternative institutional structure provides another basis for arguing that recent policy debates and action with respect to copyright have headed in the wrong direction.[46]

H. CONCLUSION

The continuing stridency of the debate over copyright that the STEP laments reflects the fact that Congress has made a mess of copyright for digital media, particularly webcasting, by looking for compromise between entrenched incumbent interests, while making copyright holder whole, rather than worrying about the needs of new entrants or the emerging technology-driven

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[44] Arewa, 2010, pp. 435-36: The role of copyright law is increasingly contested in the context of these profound cultural and business transformations.[22] During the twentieth century, copyright significantly expanded in scope and duration, in part due to visions of copyright that reflected a strong propertization rhetoric. Such rhetoric was in the past supported by the practical business reality of significant cultural industry control over the creation and distribution of a significant share of creative content. The business and technological realities of the predigital era thus bolstered the effective operation of copyright and cultural industry business models. Although tension points existed in the past, particularly surrounding the introduction of new technologies of copying and distribution, technological, business, and cultural shifts in the digital era have upended predigital copyright balances and dominant business assumptions to an unprecedented degree.

[45] Arewa, 2010, pp. 473: Technological tools enable users and creators to manipulate content and disseminate it in both its original and transformed forms. Although the technological means and specific techniques used to create UGC [user generated content] are new, the use and manipulation of existing material is not. Rather, UGC reflects the types of uses that users have always made of existing material, as evident in folklore and other cultural arenas, albeit in different contexts with new technological tools. Current debates reflect to some degree a recurring pattern in which cultural arbiters attempt to define appropriate uses of culture. Given that a primary goal of copyright is to stimulate creation, the application of copyright and fair use in digital era contexts should be evaluated in light of those goals rather than operate as a prop for failing cultural industry business models…. The widespread nature of borrowing, collaboration, and sharing generally means that sequential innovation is a norm in the creation of many copyrightable works. In order to accommodate such activities, copyright law must better assess the value of all works, including those that clearly reflect sequential or cumulative innovation. Such sequential innovation means that it is often optimal to permit some type of sampling on the creation side, particularly since a lack of certainty may exist as to the value of the follow-on innovation. Similarly, on the distribution side, sampling is increasingly becoming a norm in purchasing decisions. Although music publishers now seek to be paid for iTunes pre-purchase sample previews, these previews facilitate purchasing decisions by users. The extension of the conceptions of rights in such contexts should be strongly questioned.

[46] Arewa, 2010, pp. 473-474The legal responses to digital era infringements thus far have focused on giving content owners greater control rights to ameliorate the consequences of digital era losses. However, these digital era losses result from multiple factors, including a changing competitive business landscape, new technologies, and changing cultural norms. Modifications of copyright in the digital era must in the future better take account of this changing landscape and not assume that the cure for copyright owners' digital era problems rests in giving them greater legal control over content and wringing greater revenues from existing uses. Any digital era solutions should be based on empirically grounded assessments of relevant benefits and harms.

market structure. The resulting rights and rates reflect the political muscle of the existing interests, rather than a coherent policy framework to promote "the arts and sciences."

Although the purpose of this paper is to lay an empirical base for informing copyright policy in the digital age, not to recommend specific policies, the threat to progress in the digital music ecology is substantial and several near term policy recommendations are justified.

From a broad perspective the challenge for policy makers is to ensure that the extremely consumer and artist-friendly development of the music sector is secured and allowed to flower by reforming mass market licensing in a manner that supports the digital music ecology in two ways.

This section has demonstrated that the incumbents have the willingness (through an entitlement/"make whole" world view), the interest (through rent seeking and a strong desire to control the flow of music) and the ability (through concentrated contractual and monopoly copyright control of marquee content) to slow, distort and undermine the emerging digital ecology. Adding the abysmal performance of the pre-digital, CD-based music market and the dramatic improvement in performance of the emerging digital music ecology, proposal to strengthen copyright are clearly not justified.

If there is any tinkering to be done with respect to copyright, it should be in the one place where Congress fumbled badly and acted prematurely in response to the piracy panic of the record labels -- compulsory licensing. Overreacting to the cries of the labels, Congress expanded the copyrights of the record labels who immediately abused the new found monopoly power to put the Internet version of "feels like free" at risk.

Moreover, the efforts of the labels to remove digital content from the oversight of collective licensing that has been in place through consent decrees with the Department of Justice should be rejected. Over the course of three-quarters of a century the Department of Justice has repeatedly found it necessary to strengthen the consent decrees to improve user access to content when confronted with record label intransigence. Each modification was made necessary by the introduction of a new technology that the labels tried to stifle by collective opposition.

At a more specific level, the recommendation by the Department of Commerce that a performance right be created without specifying why that right is needed in the digital age and how the market power it conveys to the copyright holders will be constrained should be rejected. Weak-kneed caveats, that the implementation of the right should be balanced without careful analysis and recommendation for how that balancing will be accomplished are embarrassingly inadequate

> We reiterate the Administration's support for extending the right to cover broadcasting and urge that any reassessment of the appropriateness of the different rate setting standards for different types of digital music services take into account the impact on creators and rights holders as well as on different types of services. (DOC, 2013, p. 3).

This recommendation exhibits an unnecessarily narrow focus on private incentives in the one area where Commerce Green Paper made a concrete recommendation. It rests on an assumption that this paper shows is incorrect. Without an assessment of the need for and impact of this quest for higher compensation, the recommendation is questionable:

- First, the music sector has been immensely successful without the broadcast performance right, so the need has not been demonstrated.
- Second, given the important role that broadcasting plays in stimulating demand, one can even argue that if the granting of a performance right impedes that function, it will do more harm than good.
- Third, given the devastating impact that Congress' foray into "extending" the mechanical license had on competition in the webcasting space, driving thousands of webcasters out of business, this is an extremely dangerous proposal that is almost certain to produce more harm than good.

Given the historic pattern of abuse of market power in the music sector, granting rights first and worrying about abuse later will almost certainly be counterproductive. The Department of Commerce should withdraw its recommendation.

Second, immediate relief for digital feels-like-free distribution can be achieved. The authorities responsible for rate setting took the very imperfect framework built by Congress and made the worst of it by making three critical errors in setting royalty rates based on erroneous assumptions about the nature of feel like free in the digital age. They:

- failed to recognize the promotional and informational value of webcasting,
- continued to make piracy a central concern, in an area where it was technologically and economically irrelevant, and
- adopted an industrial policy for webcasting that reflected the scarcity based business model of the pre-digital oligopoly music market, rather than the abundance-based, opportunity-driven digital market.

These three errors are correctable within the context of the administrative process. Correcting these three fundamental errors would move webcasting rates much closer to the rate for terrestrial radio (zero), or satellite radio (a small percentage of revenue).

Congress can, and should, fix the underlying scheme by adopting a technology-neutral policy that promotes expanding access to digital distribution and restrains the potential for abuse of the monopoly privilege, but the rate setting authorities do not have to wait for congress to act; they have adequate authority to fix the problem based on a careful empirical evaluation of the development of the digital music ecology.

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