

*Alternative Copyright Systems: The Problems with a  
Compulsory License*

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<b>I.</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>II.</b>	<b>HOW DO SUCH SYSTEMS WORK—THE CONCEPT.....</b>	<b>3</b>
	A. RESTITUTION VERSUS REPLACEMENT.....	4
	B. THE USE OF MP3S IS NOT EXOGENOUS T O THE COMPULSORY LICENSE.....	6
<b>III.</b>	<b>THEORETICAL BENEFITS OF A COMPULSORY LICENSING SYSTEM.....</b>	<b>7</b>
	A. THE IMPERFECTION OF THE COPYRIGHT SYSTEM.....	7
	B. COMPULSORY LICENSE CAN LEADS TO EFFICIENT CONSUMPTION, BUT ONLY AT A ZERO PRICE.....	10
<b>IV.</b>	<b>REAL WORLD DIFFICULTIES.....</b>	<b>11</b>
<b>V.</b>	<b>HOW MIGHT A COMPULSORY LICENSE WORK?.....</b>	<b>14</b>
	A. DETERMINING THE AMOUNT OF REVENUE TO RAISE.....	15
	B. USING MP3 DOWNLOADS AS A PROXY FOR THE MARKET.....	17
	C. WHO PAYS THE TAX?.....	18
	D. WHO GETS THE REVENUE.....	19
<b>VI.</b>	<b>COMPARISON TO BLANKET LICENSES.....</b>	<b>21</b>
	A. ARE PERFORMING RIGHTS EFFICIENTLY PRICED?.....	22
	B. PERFORMING RIGHTS ARE AN ANCILLARY MARKET.....	24
	C. UNLIKE PERFORMING RIGHTS, NO SAFETY VALVE.....	25
<b>VII.</b>	<b>CONCLUSIONS.....</b>	<b>26</b>

## I. Introduction

The advent of massive unauthorized copying by individuals using peer-to-peer systems and MP3 files, besides generating an enormous amount of press (think Napster), has brought the affected copyright industries to the brink of declaring war against many of their customers. This has taken the form of a zealous attempt by copyright owners to shut down and limit peer-to-peer file sharing, with the record industry at the forefront but the movie industry waiting in the wings. First Napster was shut down. Then Napster's progeny were brought to court, although the RIAA is for the moment stymied in its attempt to have the courts shut down these latter firms.<sup>1</sup> Simultaneously, the record industry has been covertly putting on peer-to-peer networks 'spoof' files that look like popular MP3 files but contain no music, in order to hinder downloaders. The industry has also threatened (obliquely, to be sure) to start engaging in activities that would prevent computers from being able to download MP3 files, although it is unclear exactly how this would be done.

Finally, the industry is in the process of the most draconian action of all: suing users for copyright damages. It already has sued and settled with a small number of users, some of whom have set up web site to help them pay for their settlements. Now the RIAA is threatening to bring thousands of lawsuits against individuals who have made files available to others. The record industry appears willing to engage in this activity because it believes that it is on the brink of financial ruin.

For many analysts, the behavior of the copyright industries appears misguided. In this view, the current corporate entities that are trying to enforce current copyright laws are seen as antiquated behemoths unable to move with the times. Critics have suggested that the current set of institutions, including copyright law and the firms that largely

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<sup>1</sup> After its victory in the Napster case, the industry hit a roadblock in its attempt to shut down Napster progeny Grokster, Streamcast and Kazaa. A judge has ruled that that those non-centralized file sharing systems were little different than VCRs and thus were not liable for the infringing behavior of their customers.

administer the business associated with copyright, do not effectively address the interests of creators or users.<sup>2</sup>

Partly as a backlash to the behavior of the copyright owners, many academics in the copyright and Internet communities have argued that an alternative to the current copyright regime is in order. The proposals that have been offered are often subsumed under the rubric of a ‘compulsory license’. Proponents of this suggestion generally emphasize several of its positive characteristics—it appears to have relatively low administrative costs, it decriminalizes behavior that has become widespread, it might lead to greater production, and it offers to artists a potentially large payday, thus providing continued or increased incentive for artistic creation. Economists, if they were to write on the subject, would also mention that such a system would allow consumption to reach a level that is more efficient than traditional copyright. Reading some of these articles, one can get the impression that artistic nirvana is right around the corner, if only we have the courage to scrap the current system.

Although I will discuss a compulsory licensing system in more detail below, the basic idea is that a pool of money would be generated in a secondary market (presumably related to MP3s) and transferred to copyright owners. We are talking here about taxes on ancillary products, such as blank CDs, CD writers, ISPs, stereo equipment, and so forth. Although some commentators see a compulsory license as a supplement to the current copyright system, it is also viewed, particularly by its more passionate advocates, as a complete replacement of traditional copyright, at least for recorded music.

Although such a system does offer some theoretical advantages, I argue below that the defects of such a system have not been sufficiently examined. Although the current

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<sup>2</sup> There are numerous academic authors who believe the current system should be changed include. See W.W. Fisher, *Promises to Keep: Technology, Law, and the Future of Entertainment*, draft 2003; Raymond Ku “The Creative Destruction of Copyright: Napster and the New Economics of Digital Technology,” 69 U. Chi. L. Rev. 263 (2002); Lawrence Lessig, *The Future of Ideas*, Vintage Books, 2001, New York; Mark S. Nadel “Questioning The Economic Justification For (And Thus Constitutionality Of) Copyright Law’s Prohibition Against Unauthorized Copying: §106” draft, Nov 11, 2002; Neil Weinstock Netanel “Impose a Noncommercial Use Levy to Allow Free P2P File-Swapping and Remixing” working paper, November 2002. An overview of the parties and the ideas involved in this debate can be found at the web site Grammy.com: [http://www.grammy.com/features/2003/0725\\_complicenses.html](http://www.grammy.com/features/2003/0725_complicenses.html).

system is obviously imperfect, as any system must be, it is unlikely that a compulsory license would meet even the modest goals of a net positive impact, to say nothing of the claims of virtual perfection that have been attributed to it.

Just because a system could exist and survive, that does not mean that it is efficient from an economic perspective. It is the purpose of this essay to examine the probable efficiency characteristics of such a system so that a better understanding of the alternatives can be gained.

## **II. How Do Such Systems Work—the Concept**

It is important to note the compulsion aspect of the ‘compulsory license’ refers to an action compelling the behavior of the copyright owner, not the user of the work. A compulsory licensing scheme is one where the government requires that copyright owners make their works available to users, usually at a fixed price.

One well-known compulsory license is for songs on records. Once a song has been included on a (phono)record that has been made available to the public, then anyone else wishing to record that song can do so as long as they pay the composer of the song the deemed compulsory license fee. Let me illustrate how this works with an historical example. Suppose Jimmy Webb writes a song called MacArthur Park. He can sell the song to the highest paying performer (the now deceased actor Richard Harris, say). If the song appears likely to be a hit, the price might be very high. Once the Richard Harris recording of the song is distributed to the public, however, the compulsory license kicks in. Any other performers who wish to sing about cakes melting in the rain can now also record MacArthur Park, if they pay the compulsory license, which is set by fiat to approximately one half of one cent per minute, per record distributed.<sup>3</sup> Once the compulsory license kicks in, the composer is compelled to allow additional users to record his song at the regulated price.

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<sup>3</sup> There are some other notification requirements that I ignore here. Also, the price is actually the higher of two and three quarter cents per copy or one half of one cent per minute.

This is to be contrasted with a different compulsory license, one that compels the copyright owners of distant programs to allow cable operators to retransmit ‘distant’ television signals to their viewers without having to negotiate with the copyright owner. Instead, cable operators pay a small percentage of their revenues, specified by statute, into a pool (several pools, actually) and this money is then disbursed among copyright owners with oversight by the Copyright Arbitration Royalty Panel (CARP), a government entity. The CARP arbitrates when the recipients cannot agree on the distribution, as they almost certainly will not, at least not until the CARP has ruled at least once.

Although not a compulsory license per se, another analogy that is often brought up is the blanket license offered by performing rights societies (ASCAP and BMI) to radio and television broadcasters. Mildly simplified, radio and television stations pay the performing rights societies a percentage of their revenues which the performing rights societies distribute among their members. The blanket license grants broadcasters copyright clearance for the music they broadcast. The rates paid to these organizations are set by semi-government organizations (the Courts or a board such as CARP).

Since the blanket license seems to ‘work,’ it is often held out favorably as a demonstration that such a system can work to replace the record industry’s traditional revenue sources. I explain below that there are important differences between these cases, however, and I suggest that the suggested new licensing system is more likely to fail a cost/benefits test than is the case for the traditional blanket license.

### ***A. Restitution versus Replacement***

There are at least two possible types of compulsory license that one might imagine. In one system the compulsory license would entirely *replace* the current market-based copyright system, at least for digital products. For those industries for which it would be used, such a system would eliminate copyright as we currently know it. Adherents of copyright replacement argue that the current copyright system provides few financial incentives for artists to create products anyway, and that alternative forms of payment (such as concerts) are the true current drivers of incentives to create. In their view, the

digital world provides vast new opportunities to improve on a poorly functioning copyright system.

The choice doesn't need to be this stark, however. It is possible to allow the current market-based copyright regime to operate as best it can while using a compulsory license as a form of restitution for losses in the market due to unauthorized copying activity. This has been the more common usage of compulsory licenses historically.

Take the case of the compulsory license of distant broadcast signals in cable retransmission. The television broadcast market is one that generates most of its revenues from local viewers in a regular marketplace. By almost anyone's calculations distant signals carriage on cable systems is a minor component of this market. To limit the costs of having thousands of cable operators negotiate for relatively minor rights in distant signals, the compulsory license is created.

Similarly for the compulsory license in records, the transactions surrounding the first recording allows the market to determine the value; again, it is only the later, presumably less valuable recordings, that can take advantage of the compulsory license.

If a compulsory license on copying records worked as an add-on to traditional copyright, the license would provide immunity from copyright violations to private individuals engaging in MP3 downloads but it also would provide revenues to the copyright owners through a tax on ancillary products. Further, the current copyright system would continue to exist in its present form, providing copyright protection against the many forms of copying other than file sharing. Such a proposal has recently been put forward by Neil Netanel. I refer to this as a *quid pro quo* system, where copyright owners forgo revenues from peer-to-peer file sharers in return for payments based upon taxes on ancillary products.

A somewhat different alternative, one that hasn't to my knowledge been proposed, is to put in place a tax-and-subsidy system to recompense copyright owners without any change in the rights or obligations of the users with regard to the legality or illegality of their MP3 downloading activities. The 1992 Audio Home Recording Act's provision for a tax on digital audio tape (DAT) can be thought of as this type of system, as can the

current Canadian tax on blank CDs which is accumulated in a pool and used to pay copyright owners even though MP3 uploading would still remain a copyright violation.<sup>4</sup> This can be thought of as a *status quo* with restitution.

***B. The use of MP3s is not exogenous to the compulsory license.***

In the latter two systems above, a tax and distribution scheme is set up to compensate copyright owners for losses brought about by MP3 downloads. There is an important difference between them, however. The status quo system does not provide users with any new rights in terms of making copies (or put another way, it doesn't abrogate the traditional rights of the copyright owners). The quid pro quo system, on the other hand, essentially creates new rights to the traders of MP3 files who are no longer in violation of copyright. The proponents of compulsory licenses clearly favor the quid pro quo system. Yet, in this latter world, we might expect a change in behavior on the part of MP3 downloaders that might weaken the case for a quid pro quo system.

Under the current copyright regime, there is a potential cost to the MP3 traders if they are discovered violating copyright. The recent activities of the RIAA mentioned in the introductory section of this paper are examples of activities meant to increase these costs. Not only is there the moral conundrum involved with knowingly violating the law, but MP3 downloaders must bear the risk of being charged with copyright infringement.

One can predict that if these costs to MP3 users disappear there will be a larger usage of MP3 files and a greater impact on the sale of CDs. How much that might be is difficult to say since it is unclear how much of a restraint these costs are currently imposing on the behavior of users. But it is important not to predicate the amount of revenues necessary to be generated by a quid pro quo system based on the amount of MP3 downloading that occurs before the system is in place.

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<sup>4</sup> The 1992 Act also required that manufacturers of DAT machines restrict the machine from being able to make copies of copies. The DAT technology never was very successful in the US whereas CD burners have become extremely common.

### **III. Theoretical Benefits of a Compulsory Licensing system**

The current evidence is beginning to demonstrate quite conclusively that file trading is damaging the record industry.<sup>5</sup> Yet most MP3 traders are normal, law abiding citizens. Many are students. The typical MP3 trader appears to consider MP3 downloads to be a perfectly acceptable form of behavior. And the number of downloaders is very large, constituting an important percentage of the population.<sup>6</sup> It is so large that copyright supporters risk labeling a large portion of their fellow citizens as thieves, and one might imagine it rending the fabric of the country just as the drug enforcements efforts have. That, at least, is the more nightmarish scenario that has been suggested.

Under these circumstances, society could well decide that the costs of trying to reduce unauthorized MP3 downloading under the current copyright regime is too great—in particular, greater than the costs of switching to some form of compulsory license. This is particularly true given the well-known imperfections in the copyright system, which I summarize below.

#### ***A. The Imperfection of the Copyright System***

Intellectual products, such as stories and music, are not in and of themselves physical commodities. Instead, these products generally must be put into some physical representation -- records, tapes, books, etc. -- before they can be enjoyed. Without some form of intellectual property right, such as copyright, the creator of an intellectual product would not have control over the reproduction and sale of his creation. Without some form of copyright, anyone could sell copies of it, and any producer of reproductions who did not pay the creator could undercut the price that was charged by producers who

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<sup>5</sup> For evidence on the impact of MP3 downloads on the sales revenues in the recording industry through 2002 see Stan Liebowitz, “Will MP3 downloads Annihilate the Record Industry? The Evidence so Far” in *Advances in the Study of Entrepreneurship, Innovation, and Economic Growth*, edited by Gary Libecap, JAI Press, 2003.

<sup>6</sup> Estimates suggest that 40 million Americans have downloaded at least one copyrighted work. See Study: “Downloads to save music biz” By Jane Weaver, MSNBC, August 12, 2002.

did pay the creator. This state of affairs would be expected to eliminate from the market any producers who paid the creator, leaving no revenue for the creator of the intellectual property.

Since it is unreasonable to expect creators, or artists, to expend effort (full-time or professional effort) producing artistic works without the expectation of concomitant payment (anymore than we would expect home builders to build homes, or janitors to clean floors), economic analysis predicts that without copyright (and patent) laws, the production of intellectual products would be far below levels that would be considered socially desirable.<sup>7</sup>

Even with the existence of intellectual property protection, the quantity of intellectual products created and consumed will be less than the ideal level. This is the unavoidable underproduction and underconsumption of intellectual properties that results from intellectual products being ‘non-rival’ goods (sometimes called public goods).<sup>8</sup> Non-rivalry means that once a work is produced it does not get used up. A physical manifestation of the work can be used up, but not the work itself.

To start, there is a problem in the consumption of an intellectual product. There is no cost to society (other than the cost of a reproduction) in letting an individual consume a unit of a nonrivalrous good, since there is no diminution in the possible consumption choices of anyone else.<sup>9</sup> *Therefore, an economic requirement for efficient consumption of a nonrivalrous good is that any consumers who would like to consume it (e.g., a particular song) be allowed to consume the good as long as they are willing to pay the reproduction*

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<sup>7</sup> It has sometimes been argued, by economists and others that copyright is not needed at all. This argument often boils down to nothing more than a claim that the optimal duration of the copyright is less than the time advantage that one gets from being first.

<sup>8</sup> I used to use the term public goods but there are at least two definitions in the profession, one that contains only the nonrivalrous consumption assumption and one that also includes ‘nonexcludability’ (the inability to prevent users from consuming the good). The difficulty with the latter definition is that nonexcludability is a function of the law and the amount of resources devoted to excluding nonpayers, the subject of this paper. The two attributes are not necessarily related and I have always thought it was counterproductive to treat non-excludability as an inherent attribute of intellectual products, since it is not.

<sup>9</sup> I am ignoring here any costs involved with reproduction or distribution. If these costs were included the text would need to be modified to state that all users with values greater than the reproduction and distribution costs should be allowed access to the products.

*cost*. Note that the only single markup over the reproduction costs that could achieve this requirement would be a markup of zero (above the costs of the reproduction).<sup>10</sup> A markup of zero, of course, would then provide no revenues to the creators (as opposed to the producers of reproductions) of intellectual products. With no revenues, many creators would abandon the creation of nonrivalrous goods, which almost everyone agrees is not an efficient solution.

This is the economic paradox of nonrivalrous good pricing. Unfortunately, there is no practical mechanism that will produce the ideal amount of a nonrivalrous good.<sup>11</sup> Charging a positive price will generate revenues, allowing for the production of nonrivalrous works, but the consumption would then be inefficient since some individuals with a positive value for the product will not purchase it.

There is a further inefficiency involved with nonrivalrous goods. Nonrivalrous goods would be expected to be produced at less than the ideal level. In an ideal world, every product that has a value to consumers that surpasses its cost of production will be produced. For any single intellectual work, even a monopoly seller of that work will not be capable of appropriating the full potential value of that title since some consumers will pay less than their reservation price (their maximum value of the product) while other consumers will be priced out of the market. Thus, some intellectual products will not be produced, even where the potential value is greater than the cost of production. Only a perfect price discriminator would be able to appropriate sufficient revenues to guarantee the efficient production of works.<sup>12</sup> This inefficiency is not restricted to nonrivalrous goods, however. Every potential product has the possibility of not being produced due to

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<sup>10</sup> I am assuming that only one price can prevail in the market and that consumers have *different* valuations for the product, with these valuations arrayed down to zero. Any positive price then excludes some potential users. If multiple prices are allowed, however, then charging each consumer just slightly below what he is willing to pay can achieve optimal results. This is known as perfectly discriminating monopoly.

<sup>11</sup> The only way to imagine these products being produced at this ideal level is with the imaginary cases of 'perfectly discriminating monopoly' or a perfectly omniscient government intervening in the market.

<sup>12</sup> Do not confuse the claim that markets do not produce the ideal output with the claim that markets do not produce the efficient output. The efficient output is not the ideal output if the ideal output cannot be achieved, as Harold Demsetz reminded us several decades ago in his classic article *Information and Efficiency, Another View*.

a lack of appropriation—in other words, there are some markets that do not exist, but would exist in an ideal world.

These potential production-based imperfections have greater resonance in the case of nonrivalrous goods because the markets for any particular type of nonrivalrous good—books, movies, and so forth—consist of individual, non-homogeneous titles, each of which is essentially a separate market. Thus the generic market, books say, exists, but we might not get all the titles produced that we would like to have produced. This appears to be different than the case where some market doesn't exist at all, even though it really is not different.

These market inefficiencies are sometimes taken as the intellectual stepping stones on the path to suggesting that some mechanism other than traditional copyright be considered.

### ***B. Compulsory License Can Lead to Efficient Consumption, but only at a Zero Price***

Since the cost of the creation of the intellectual product, the music in the case of records, is a fixed cost, and unlimited copies can be made from this one original, the opportunity cost to society in allowing any individual to consume the product is merely the cost of making (and delivering) the copy. This means that society gains each time a potential consumer having a value (willingness-to-pay) for the product that is greater than the cost of copying is allowed to consume the product (the creation surplus, in the terminology of economics).

As explained above, under a copyright regime, successful projects must have prices that deter some consumers from generating surplus because the creator must receive some payment. Consumption, therefore, will be below the ideal level.

It has been at times suggested, therefore, that alternatives to copyright, such as government grants or prizes, be used. This logic also argues for a copyright term, if copyright is the chosen paradigm, that is only long enough to allow the creator to receive

sufficient payment to voluntarily provide the work so as to minimize the time during which consumption remains below the ideal level.

These consumption inefficiencies in the copyright system can provide ammunition to those arguing for changes. If only we were willing to forgo providing any system of payment to the creators of works, they suggest, we could then be guaranteed that consumption of these works would be efficient.

Yet few appear willing to argue that copyright owners should not be compensated at all for their efforts. The more thoughtful arguments propose that a tax be placed on some ancillary product, such as blank CDs, or CD burners, or perhaps high fidelity sound equipment. The proceeds from this tax would then be used to pay the copyright owner for their efforts.

This, of course, reduces consumption in the ancillary market that has the tax. This, of course, introduces its own inefficiency. Not all blank CDs, for example, are used to copy MP3 files. Not all CD burners are used to burn MP3 files. Even ignoring the fact that the tax may fall on the wrong individuals, by reducing the uses of blank CDs or burners (through the higher prices induced by the tax) a new market distortion is created in these markets. If we lower the price of the copyrighted work to its marginal cost, but make up the revenues by imposing taxes in another market, we are merely shifting the inefficiency from the market for the copyrighted work to a related market.

Even if the performers making CDs were to be paid through general taxes, as opposed to taxes on ancillary products, there would still be the general inefficiencies involved with the tax system. Therefore, even if a compulsory license eliminates an inefficiency in its home market, that is hardly grounds for its use since it creates inefficiencies in other markets.

#### **IV. Real World Difficulties**

It is impossible to determine the proper size and direction of markets in any way other than by the examination of freely functioning markets. Although the difficulty of emulating markets has historically been grossly underestimated, whether we are talking

about centralized economic planners or just the more prosaic regulatory bodies that abound even in market-based economies, history has revealed that outside observers cannot divine the characteristics of a market from alternative sources of information.

Markets arrive at results that are often very difficult to predict in advance. Often, with enough effort, economists can come to understand why market outcomes take the particular form that they do. A few simple examples can be used to illustrate cases where economic theory would even have a difficult time predicting whether the price is positive or negative (who pays whom), to say nothing of how much should be paid.

Begin with a case that is often misunderstood—payola. Payola is the pejorative term used when record companies pay radio stations to play particular songs. How would an outside analyst determine the proper payment for the use of the records? Typically, in the economy, firms pay for their use of inputs. Radio uses music as its main input. Yet radio stations do not pay for the CDs that they play. Quite the opposite—there is a history of record producers paying radio stations in order to play their records. Further, radio is a substitute for listening to recorded music, and the recorded music industry would almost certainly benefit if radio could be restricted or eliminated.<sup>13</sup> Although payola is a practice that governments have tried to ban, it is in fact indicative of competition between record companies.

Similarly, many companies pay television and movie studios for product placement, as BMW has recently done to have its automobiles and motorcycles featured in James Bond movies. M&M Mars is thought to have made one of the great marketing gaffes of all time when it refused to allow the makers of ET to use its product and instead Reese's Peanut

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<sup>13</sup> Record sales fell by about half from 1920 to 1925 which is the same period during which radio became popular. This tends to refute the common misconception that payola—record companies paying to get airplay—reveals the positive impact of radio to record sales. Instead payola should be thought of as indicative of competition between companies within the record industry. Imagine, for example, that there was no radio. The only way to listen to music in automobiles would be to listen to prerecorded music, which would certainly increase record sales. See “Off the Record” by David Morton, Rutgers University Press, 2000, page 26 for additional evidence on the impact of radio. For a history of Payola See Ronald Coase “Payola in Radio and Television Broadcasting,” *Journal of Law and Economics*, October 1979, 269-328.

Butter Cups enjoyed the benefits of global publicity from having an extraterrestrial enjoying its products.

How would any third-party entity know whether the producers of James Bond movies should pay for their use of cars, or whether they should get paid by the automobile companies for having the vehicles appear in the film? There is no simple economic test other than a market test. Automobiles are costly to produce. Automobiles are an input in James Bond movies. The producers pay for actors, cameras, microphones, and most other inputs. Cars turn out to be different only because automobile manufacturers believe that the publicity associated with the movie will generate sufficient additional sales that they would benefit from giving the automobiles to the studio. Should this belief change, then once again movie studios would need to pay for automobiles. In a movie where the automobile was represented as being unreliable, movie studios will need to pay for the automobiles they use and are likely to use fictitious vehicles to escape the wrath of the automobile company so characterized.

The point here is to demonstrate the difficulty of determining the most rudimentary aspect of pricing—whether a product receives a positive or negative price. Obviously, if the sign of the price is difficult for an analyst to determine, the magnitude of the price is even more difficult still.

Since copyright is the subject of this essay, it is useful to examine the workings of some copyright markets. For example, should authors be paid for their work, or should they pay publishers to publish their work? Academic authors often pay journals to have their work published (the submission fee is nominally to pay, in part, the outside ‘referees’ for their time and effort although referees almost always receive less than the submission fee). Academics are willing to pay to be published because their reputations and incomes are expected to increase when their articles are published.

Similarly, many individuals would like to be published authors. It is gratifying to have a book to show to friends and neighbors. There has always been a ‘vanity’ press for individuals who pay publishers to print their books.

If one restricted one's attention to only these vanity and academic markets one might think that it was the norm for authors to pay publishers, that fame was the main purpose in writing. Yet we know that the bulk of the book market (measured in revenues) consists of works where authors are paid some very large sums (both up-front and in royalties) to produce books even though the authors often become quite famous.

If we did not have the market to point the way, how would an observer or agency know to charge negative prices to one set of authors and positive prices to another?

Similarly, it might be (and has been) argued that CD sales serve mainly as a useful device for artists to increase concert revenues or endorsement revenue. It could be the case that this was the market solution. How would a government entity know the sign or size of the correct price for payments to recording artists?

Admittedly, the direction of payment is often not as difficult to predict as in the examples I have chosen. Nevertheless, even in markets where the direction of the payments is not difficult to determine, the amounts clearly are difficult. I cannot overemphasize how difficult it is to emulate the results that come from market transactions.

## **V. How might a Compulsory License Work?**

The overriding determination that must be made in a compulsory license system is determining the amount of revenue (the royalty) to be raised. The two secondary decisions that must be made are: (1) how is the money going to be raised—in other words, who is going to be taxed and (2) how is the money going to be distributed. For expositional convenience, we can assume that there is a 'Compulsory License Board' (CLB) whose task is to set rates and determine payouts.

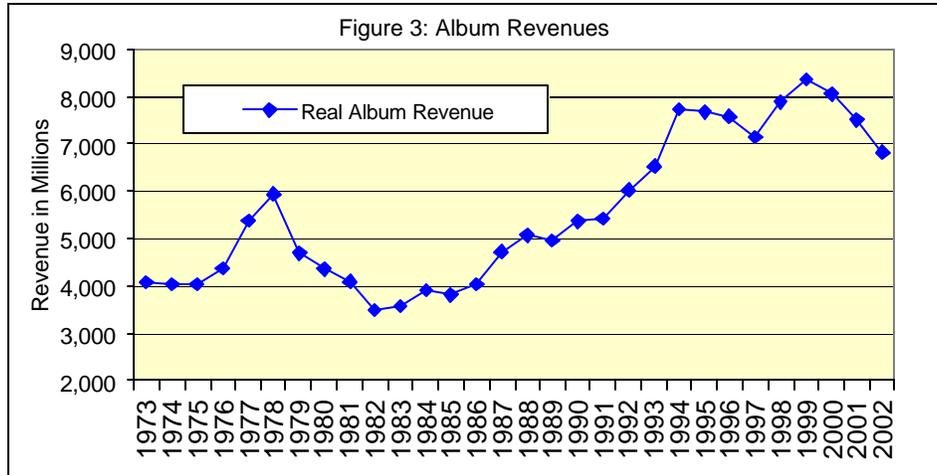
Boards like the CLB usually determine amounts by having competing experts (often economists) testify about the conditions in the marketplace. These experts usually work for competing parties (e.g., performing rights societies and broadcasters) who are the payers and the payees of the various copyright royalty rates. The competing parties in this instance are likely to be the artists and record industry versus the retailers and producers of ancillary equipment that will bear the burden of the tax.

## ***A. Determining the Amount of Revenue to Raise***

The most difficult issue, in my opinion, is determining the amount of revenue to be raised, which we can refer to as the ‘quantum’. Although there are many arguments that can be made about how one might make such a determination—arguments based on ideas such as fairness, cultural value, and national identity, a primary goal is often thought to be to mimic markets since markets are thought to provide efficient solutions that maximize economic values. Boards such as a CLB usually state that they try to emulate markets, although this is not necessarily the exclusive criterion.

If we charge the CLB with the goal of mimicking the market, it will become increasingly more difficult for the CLB to choose the quantum as time goes on since market values will recede into the past. Initially, the market values will be well known since we have been in a period where the market was the mechanism generating values. If, for example, the current system were to be scrapped today, the CLB would have a fairly good idea of what the quantum should be if it wanted to match the revenues of record companies or performers. Both of these statistics are available from the current market participants. If it is thought that current numbers are below what they would have been without the untoward influence of MP3 downloading, the numbers could be adjusted to take this into account. Determining the quantum in this case is relatively easy.

As we move further away from the period when values were generated in markets, it will become increasingly difficult to divine what the market movements would have been. And markets do move. The figure below, for example, gives inflation adjusted revenues in the market for full length audio recordings since 1973. Note the 50% increase from 1975 to 1978, followed by a 45% drop from 1978 to 1982. Based on a history of CLB-like entities, it is very unlikely that such dramatic changes would be countenanced, approved, or understood. Demographics were largely unchanged. Income did not change by a very large amount. Prices of substitute products did not suddenly rise. Thus, the usual explanatory variables that experts look at would not have predicted an increase.



Of course, since these changes essentially cancelled one another out it might be argued that little harm would have been done if the CLB showed excess inertia and kept the revenues constant. A more fundamental change in the market, however, took place from 1983 until the mid 1990s, when real revenues in the market more than doubled, far outpacing population and income. Would a typical CLB have the wisdom to be able to mimic this increase? I doubt it.

I suggested in my 2003 paper (see footnote 5) that this increase in revenues was caused by the emergence of portable devices to play recorded music. Even if a Compulsory License Board had grasped the importance of portable devices, how would it have known to double the revenues and not increase them by, say, 40%, or 250%? These very prosaic difficulties are at the heart of the mispricing that is rampant in non-market economies.

It is unreasonable to expect even a highly skilled CLB dominated by unbiased market experts to correctly mimic the workings of a market. The reality is that the CLB will have to wade through reams of testimony that is often far from unbiased and is often outside the realm of the expertise of the members of the CLB (who are often lawyers or industry types). Although I will not discuss in detail the actual performance of Boards in this paper, there are numerous instances of decisions indicating that these Boards, for whatever reason, have reached decisions that are inconsistent with basic economic principles. For example, I think it would be agreed by virtually all knowledgeable commentators that it would be an error in economic logic for the CLB to set the quantum

to grow with the overall inflation rate, holding the real quantum constant. This would be a particularly egregious error if the *inflation adjusted* market for related copyrighted goods was growing at the time. Yet there have been such decisions in the case of blanket licenses. In a similar vein, the compulsory license for mechanical rights remained constant from 1909 until 1976. Is it even remotely possible that the value of such a right would have remained constant in nominal terms for 77 years if it were market determined? Of course not.

If the compulsory license system was one of restitution instead of replacement, one might argue that these problems would not be as severe as implied in the preceding paragraphs. If part of the market continued to function as a market, might not the market signals be used to provide the type of details I have argued that a CLB would have difficulty inferring? There is some truth to this claim, but as conditions changed in the CD market, for example, it would be difficult to know whether the then current CD purchasers represented the typical market anymore. For example, some audiophiles claim that MP3 compression lowers the quality of the sound relative to CDs, making audiophiles less likely to participate in MP3 downloads. If the market for CDs became dominated by audiophiles, who are well-known for spending large sums on esoteric audio equipment, the market price for CDs might rise dramatically. This would hardly be indicative of an overall increase in demand, however. Thus, the problems discussed in this section would still exist, even though they might be mitigated to some extent.

### ***B. Using MP3 downloads as a proxy for the market***

It might be (and has been) suggested that the number of MP3 downloads should be used to determine changes in the quantum set by the CLB. After all, wouldn't MP3 downloads bear the same relationship to revenues as did the quantity of records sold? Although there might be such a relationship, there also might not be. Even if there were, we do not know whether we can get accurate statistics on total MP3 downloads.

Further, the market that is supposedly to be mimicked by a compulsory license is based on the sales of *domestic* record sellers. What would be the analogous measurement for MP3 downloads? Would it be the total number of MP3 downloads by Americans, even if

the MP3 files come from computers in foreign countries? Would it be the total number of files downloaded from computers in the US even though many downloaders might be in other countries? Would it only be American downloads from US based computers? It isn't clear.

There are other problems as well with using MP3 downloads as a proxy for record sales. Not every download is actually a download. Many downloads are unsuccessful or aborted for one reason or another. More importantly, not every download would have been a sale.

Finally, and most importantly, the measured number of downloads can be manipulated at relatively low cost. What is to keep record companies, or other organizations that represent large numbers of recording artists, from using banks of computers to download songs? What is to keep them from running contests to convince private individuals to download more songs than they otherwise would? It would be relatively inexpensive to manipulate MP3 download figures. Additionally, as we shall see below, individual creators have incentives to inflate their downloads, also skewing measured downloads.

### ***C. Who Pays the Tax?***

There are several issues with the placement of the tax (tariff). First, one needs to determine which ancillary market to tax. Second, one needs to determine the proper rate to charge.

As a general statement, it is correct to say that taxes distort markets. As a matter of simple fairness, however, it is appropriate that the inevitable losses from a tax be borne as much as possible by those who benefit from MP3 downloading, and not by individuals having no association with MP3 download activity. It is difficult to make a serious case that MP3 downloading is of sufficiently important national concern that we all should be willing to chip in to support it. This would rule out using general tax revenues.

With this as a backdrop, the choices available are not terribly appealing. Blank CDs or CD-writers, although likely to be used by MP3 downloaders, are also heavily used by individuals interested in storing computer data. There is no compelling logic to having other computer users subsidize MP3 downloaders. Unfortunately, I cannot gauge how

serious a problem this would be since I do not have data indicating what percentage of blank CDs are used for non-music related purposes.

The purchase of audio equipment, on the other hand, is more directly related to listening to recorded music than is the case for CDs and CD writers. For this reason, one might argue that a tax on audio equipment would more precisely target music listeners, which is the group that seems to benefit from MP3 downloads and thus the group that should pay the tax. There are still variations within this group, however. Some individuals are more interested in watching DVDs than listening to music, yet both require similar equipment.

There is a more serious problem in the case where the CD market continues to exist. A tax on audio equipment would be paid not only by MP3 downloaders but also by those who purchase CDs and do not download MP3s. Although the continued existence of part of the CD market was a mitigating factor in terms of determining the quantum of the tariff, here it works to increase the distortion caused by a tax.

#### ***D. Who Gets the Revenue***

Once a quantum of money is generated, how would a Compulsory License Board determine how the money is to be divided among the copyright owners?

One possibility is that a single copyright collective would be formed, covering all copyright owners, and that the collective would be charged with distributing the revenues. Even if this were to be the case, however, the collective would still have to decide how the revenues were distributed among its members, and it would face the same decisions that I am going to ascribe to the CLB in the following paragraphs. Further, when there are different parties involved in the creation of a product (musicians, composers, recording companies), it is likely that there will be multiple groups striving to get larger shares of the royalty payments, and the Board would have to set or approve any division that occurs. In the case of retransmission compulsory license, for example, the Copyright Arbitration Review Panel (CARP) determines the relative amounts received by the Sports claimants, the creators of local programming (news and information), Hollywood producers, and others. In other words, the Board determines the revenues

going to different genres and it is not impossible that something like that could happen if the recording industry were put under the auspices of such a Board.

Regardless of how the various parties are aligned, how would revenues likely be distributed? The suggestion that has most often been made is to use data on MP3 downloads as a basis for rewarding creators. If methodologies could be created to measure downloads, this view holds, we could award the dollars based upon these measurements.

The comparison is often made to the performing rights societies (ASCAP and BMI) who sell blanket licenses to broadcasters and use the proceeds to pay their members based upon estimates of how frequently a composer's music is played on radio or television. In fact, the distribution systems are more complex than this, often taking the length of the music and the type of music into account when determining their distributions. Nevertheless, the frequency of play clearly is a factor. There are difficulties in emulating this system in the case of MP3s, however.

One fly in this ointment is that MP3 downloads are amenable to manipulation, as I have mentioned when discussing the determination of the quantum. It is possible for an individual artist to pay someone to download massive numbers of files in order to increase that artist's share of the distributed revenues.

One might suggest that such manipulation can be prevented by some form of authentication of the users that could discover instances of the same users downloading millions of files. But how would the CLB discover cases of massive fraudulent downloading? Perhaps there could be some system that only allows one downloaded instance of a song for each IP address, but I presume creative coders could find ways to fool such a system. Might the Board be forced to engage in the same type of behavior that the RIAA is now engaged in—trying to prevent 'unauthorized' downloading? This would be ironic, since it is largely that behavior which has created the pretext for creating a compulsory licensing system to begin with.

Gaming the system in this manner is not a problem under current compulsory or blanket license systems. The products upon which these licenses are placed are purchased in the

market (for example, in the case of performing rights, broadcasters buy television programs, and in the case of mechanical rights, individuals buy records) and it would be a money-losing proposition for copyright owners to try to inflate the measured use of their creations by purchasing large numbers of records or paying television stations to play programs containing their music.<sup>14</sup>

A second problem in using download statistics is that downloads may not match up well with purchases. Bands could convince their fans to download songs for the sake of downloading. It is likely easier to get young fans with much time but little money, to spend some time downloading songs to help out their favorite band than it might be to get them to buy more CDs.

Finally, it is not clear that we can measure downloads very well. Although I have seen estimates on some web sites, I am not sure how accurate they are. In some instances, statistics are for the number of sites that make songs made available to others. This is apparently easier to measure than downloads (the BigChampagne web site which purports to measured peer-to-peer activity uses a measure of potential uploads). But downloads are not the same thing as songs available.

## **VI. Comparison to Blanket Licenses**

When the argument for compulsory licenses is put forward, analogies are frequently made to the blanket license sold by the performing rights associations ASCAP and BMI. The thinking appears to be that the performing rights markets seem to be functioning well, so there is no reason to believe that a similar regime for the recording industry might not also work well. The purchase of a blanket license allows the purchaser to use the entire repertoire of the association for a yearly fee that is usually related to the revenues of the firm purchasing the license. The prices of the blanket license (royalty rates) are not market determined but instead are controlled by Rate Courts and the CARP.

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<sup>14</sup> Payola exists, on the other hand, to try to shape which songs are 'hits' and to increase record sales, not to increase airtime per se to generate additional performing rights payment..

There are three problems with the suggestion that the performing rights markets is an exemplar to be followed by the record industry. First, it isn't clear how close the royalty rates that have been chosen by the Rate Courts and CARP are to the 'correct' rate. Second, the performing rights markets tend to be small offshoots of larger markets, so any inefficiency would tend to be relatively small relative to the market as a whole. Third, there are often front-end market arrangements that would serve to limit the damage done by inefficient performing rights royalties which are not available in the case of a replacement for the record industry. I will take each of these points in turn.

### ***A. Are Performing Rights Efficiently Priced?***

Economists are trained to examine markets to see whether the correct quantity of output is being produced. If the output isn't just right, there will result a loss and inefficiency which economists melodiously refer to as a 'deadweight loss'. To others, this focus on quantity produced may seem little more than a compulsively anal obsession, but in reality if the economy is going to function at a high level and not waste resources, it is of great importance that markets produce the correct output. Again, non-economists might think that problems might arise only if too little is produced, but economics clearly demonstrates that producing too much of a product is just as bad as producing too little (since the resources used to produce the surplus product are not put to their best use).

Price normally is an important determinant of the quantity sold. The law of demand states that as prices increase, the quantity that is sold will fall. It is this linkage between price (which is under the control of the CLB) and quantity that influences economic efficiency.

The question is whether we can take the history of blanket license rates as a harbinger that a compulsory license will work well as a replacement for the record industry. Before we can, however, we need to know how well the blanket license works. Are performing rights efficiently priced? The answer is that we have no idea.<sup>15</sup>

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<sup>15</sup> For a fuller treatment of this issue see my paper "Mission Impossible: Determining the Value of Copyright" in Copyright: Administrative Institutions in Ysolde Gendreau (ed.) Copyright Administrative Institutions: Conference Organized by the Centre de recherche en droit public (CRDP) of the Faculty of

There are several markets where blanket licenses are used. In the case of television and radio, the two largest markets, the blanket license purchased by the broadcaster confers only the right *by the composer* to broadcast the music. Ironically, the performing right does not confer any permissions by the performer of the music.

How would we know if the tariff rates were set too high or too low? Perhaps we would know that the rate was too high if composers were willing to pay broadcasters to include their music in a television or radio broadcast. Yet, the rate could be higher than the optimal rate without being so high that it entirely eliminated the payment normally going to the composer of music used in broadcasts. And, of course, the rate could be too low with no obvious way to make such a determination. If one peruses the economic arguments that have been put before various Copyright Tribunals, one finds no clear method to tell whether rates are too high or too low.

A major saving grace of most performing rights tariffs is that they are linked to the overall size of the market. The performing right tariff rate for radio, for example, is a percentage of advertising revenues. Therefore the royalty payments will change as the industry grows or declines. This assures some modest linkage between them and is likely to keep the royalty payments from getting too far out of line.<sup>16</sup>

If the current record industry paradigm is replaced with a compulsory license, however, it will be impossible to tie royalty payments to some industry measure since there will be no market measures to be found. There will be no restriction on the possibility that the royalty payments might become much too high or much too low.

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Law of the Universite de Montreal, 11 & 12 October 2001, (Cowansville, PQ: Les Editions Yvon Blais Inc.) 2002, pp. 77-100.

<sup>16</sup> Although the same linkage had existed in the television performing right tariff, in most countries and most time periods, that linkage was broken in the US when the Southern District Court of New York instituted a rule that tied royalty payments to a combination of changes in the inflation rate and the number of broadcasters, a decision that threatens break any linkage between economic value and royalty payments.

## ***B. Performing Rights are an Ancillary Market***

In the case of blanket licenses, the tariffs make up a very a small component of the total market. In the case of television broadcasting, the performing rights tariff is only in the range of 1-2% of the total revenue of broadcasters. In the case of radio, it is in the vicinity of 3%. For sound recordings, the compulsory license only covers additional performances of the song after the initial performance, and the original performance is likely the far more important market. Similarly, for the case of a compulsory license for cable retransmission of distant signals, the major market is the broadcast television market and the compulsory license is a very small component. If the tariff rates were set incorrectly in any of these markets, it would not have too large an impact on the overall market due to the very small impact that the tariff has on the overall market.

Why is this important? In these cases, the potential harm from replacing a market price with a regulated price is small because these tariffs are small. In fact, it is informative to examine the reasons why the royalty rates were not allowed to be set in markets in the first place. In many of these cases it was thought that transactions costs would be so large relative to the value of the rights as to tend to cause market breakdown. Imagine the difficulties that individual composers would encounter trying to track down each use of their song in a television or radio broadcast relative to the value of the right in a single program. Imagine the costs of trying to negotiate rates in each instance, or of broadcasters trying to track down all the composers to secure the required rights. The value of the rights is too small to justify all these costs. In this case it appears to be far better for everyone involved to have something like a blanket license.

In principle, you could have market negotiations between ASCAP/BMI and broadcasters to set the blanket tariff rate, but a concern that the performing rights societies would wield monopoly power over broadcasters (perhaps somewhat unfounded since the broadcasters have been able to organize into a single bargaining unit of their own) led to the requirement that either party could appeal to the appropriate regulatory body to have the rates set.

Compare this to suggested compulsory license for MP3s. MP3s substitute for the purchase of a record, and the suggestion has been for a compulsory licensing system to replace the market. Not 1% of the market, not 3% of the market, but the entire market. In this case, the compulsory license is on the primary product being sold. In this case, any mistake will be far more serious.

### ***C. Unlike Performing Rights, No Safety Valve***

There is one other important difference that makes a mistake in a blanket or compulsory license royalty rate less likely to cause serious damage than might otherwise be the case. These markets often have a separate but related market that can compensate, to some extent, for errors in the royalty rate.

The television blanket license, for example, is a back-end payment that is made in addition to front-end payments that are most often paid to composers when their compositions are commissioned for a television program. If the royalty rate is too high, the front-end payment might very well be reduced since higher royalty rates would make composers more willing to accept lower front-end payments and would reduce the willingness to pay the up-front fee by broadcasters. Similarly, if the royalty rate were too low, broadcasters would need to pay higher front-end payments if they wished to achieve the same quality of music embedded in their programs. The front-end allows gross mistakes to be at least somewhat ameliorated. There are other complexities having to do with risk sharing that would require a particular front-end back-end balance for true efficiency, but I will largely ignore that issue at this time.

A compulsory license that provided the revenues for the entire recording industry enterprise, besides being far larger than just the payments to the composers, has no clear ‘front-end’ that might be used to compensate for an error in the royalty rate. If a mistake is made in this market, which as we have seen, is very likely, there is no safety valve to ameliorate the problem.

## VII. Conclusions

The current difficulty enforcing copyright in the face of MP3 downloads is roiling the social covenant between creators and users and threatening to overturn current institutional arrangements. Academic writers have proposed various arrangements to assuage these difficulties. The most popular of these suggestions has been to replace the current system with a form of compulsory license.

From a distance a compulsory license has some very attractive features. One needs to examine such a system in detail, however, to truly gauge the likelihood that its adoption might lead to an improvement. That has been my task in this paper.

A compulsory license system throws out the markers, the lighthouses if you will, that can help guide the prices in these markets. A compulsory license regime requires that prices and revenues be set in some arbitrary manner. Setting prices and revenues are the very questions that any economic system answers by its choice of rules. The evidence of the last century has led almost all commentators to agree that markets are superior at allowing consumers to determine which goods producers produce, how much is produced, and at providing incentives for quality improvements, compared to command and control methods.

There are good reasons to believe that mispricing the compulsory license will be a more serious problem for the record industry than it might have been for other markets that have adopted some form of compulsory license. And there would be no safety value in the record industry compulsory license to limit damage.

Before we throw out the baby with the bathwater, we need to investigate more carefully the arguments that are used to support a movement away from the unfettered market and toward some alternative, such as a compulsory license. We also need to consider other proposals, such as enhanced copy protection, known as digital rights management. Finally, we should not be so quick to abandon the current market. It is not yet clear how onerous enhanced enforcement of current copyright laws will turn out to be, or whether such enforcement can feasibly protect the industry. Only as a very last resort should we replace the current market system with a compulsory license.