

THE GREAT PINK ELEPHANT

The traditional view of peer-to-peer music sharing has been one of illegality. Namely, that peer-to-peer file sharers are nothing more than pirates, infringing copyrights and stealing revenue¹. Furthermore, the entire online arena is nothing more than a traditional black market. There is another point of view, however. This view takes the traditional free rider problem rational and uses it to explain the loss of revenue by the RIAA (recording industry of America).

I. TRADITIONAL VIEW A. The RIAA's Case.

From 2000 to 2001 the number of cd units shipped dropped from 942.5 to 881.9 a change of 6.41%². CD units shipped continued to decline in 2002 going from 881.9 in 2001 to just 803.3 in 2002 a drop of 8.9%.³ As a result from 2000 to 2001 there was a 2.3% loss in sales of cds (13,214.5 to 12,909.4) and this trend continued in 2002 further dropping CD sales to 12,044 a loss of 6.7% from 2001.⁴ The RIAA claims that this loss is primarily a result of piracy. In 2001 there were 121,939 counterfeit / pirate CDs while in 2002 the number jumped to 246,452 an increase of 102.1%.⁵ There were 2,795,693 counterfeit/Pirate CD-Rs in 2001 and this

¹ <http://www.riaa.com/issues/music/default.asp>

² The Recording Industry of Association of America's 2002 Yearend Anti-Piracy Statistics
see supplement page 2

³ The Recording Industry of Association of America's 2002 Yearend Statistics
see supplement page 1

⁴ The Recording Industry of Association of America's 2002 Yearend Statistics
see supplement page 1

⁵ The Recording Industry of Association of America's 2002 Yearend Anti-Piracy Statistics
see supplement page 2

number jumped to 5,298,368 an 89.5% change^{6 2}. The RIAA believes that these statistics are a clear indication of the harm created by piracy. Furthermore the RIAA is claiming a loss of 4 billion dollars do to piracy: “Global piracy on the physical side costs the recording industry over \$4 billion* a year. That doesn't even include losses on-line. While the physical piracy problem is not new, our markets continued to expand. Now that consumer purchasing is threatened as well, the impact of all piracy is greater.”⁷

1. Piracy destroys property rights.

a. Property Rights defined

Private property is defined as: an individual’s rights to the use of the resources he owns are exclusive and voluntarily transferable.⁸ Thus, a property right is a right of exclusion; it gives the owner the right to deny any and all persons the use of his/her property. A property right is also tradable; i.e. they can be bought, sold, or exchanged for other property rights.⁹ Any voluntary process, i.e. any process the individual freely agrees to, must at least provide a level of utility that is at least as high as their utility if they refuse to trade the right.¹⁰ The online music-sharing scheme clearly violates this scheme because there is no compensation; the individual has a higher utility holding on to the property than sharing it.

⁶ The Recording Industry of Association of America’s 2002 Yearend Anti- Piracy Statistics
see supplement page 2

⁷ www.azoz.com/music/features/0008.html

⁸ **Coase, Ronald H.**, “The Problem of Social Cost,” *Journal of Law and Economics*, October 1960, 3, 1-44

⁹ **Zvike Neeman.**, “The Property Rights and Efficiency of Voluntary Bargaining under Asymmetric Information”, *The Review of Economic Studies*, Vol. 66, No. 3 (Jul., 1999), 680, 679-691

¹⁰ 680 *id*

i) Peer-to-peer violates the exclusive use of the owner.

Peer-to-peer music sharing interferes with the exclusive use of the resources because other individuals are using the owner's resources and do not have the owner's explicit permission to do so. Let us assume you have a lawn mower, a piece of private property. As such you have the exclusive use of that item; i.e. only you can use it. Let us further assume your neighbor comes along and uses your lawnmower whenever he wants without your permission. He has violated your private property rights. Music sharing works the same way. The owner of the music is the individual who has created the work--the copyright owner.¹¹ He has the exclusive right to grant a license to reproduce, distribute, perform, or display the copyrighted work and to obtain a royalty for granting the right.¹² When an individual downloads music he violates these rights.

ii) Music downloading also violates the right of voluntary transferability.

As previously stated private property is voluntarily transferable. This means that it is up to the owner of the property to decide when, how, and if he wants to transfer his property. Using our previous example you have the right to sell or lend your lawnmower to whomever you choose. Let us again assume that your annoying neighbor comes along and instead of using it himself he lends it to another annoying neighbor; your property has been involuntarily transferred to another individual. This right of voluntarily transferability is also built into the copyright scheme. The owner of the copyright has the exclusive right to either transfer the entire

¹¹ copyright protection attaches to the stated subject matter when an original work of authorship is fixed in any tangible medium of expression.

Stanley M. Besen; Leo J. Raskind., "An Introduction to the Law and Economics of Intellectual Property," *The Journal of Economic Perspectives*, Vol. 5, No. 1 (Winter 1991) 11, 3-27

¹² *Id.* 14

copyright or grant a license for reproduction of the good¹³. Downloading music violates this right because the copyright owner has not consented towards the transfer of his property and has no control over the dissemination of his property.

2. The loss of property rights translates to a loss of incentive.

Exclusive use and voluntary transferability are necessary for investment because they create stability. By assuring these two rights an investor has a sense of stability; he knows which rules apply and what the outcome of those rules will be. If similar products can be cloned or private copying by individuals is widespread the rules of the game change and stability is lost¹⁴.

a. The Coase Theorem

The prevailing sentiment before the Coase Theorem was that the inefficiency of non-market goods are a given. The prevailing theory, Pareto-efficiency¹⁵, required competitive markets to reach an efficient outcome and since there are no competitive markets for non-market goods then inefficiency is inherent in the system¹⁶. An example of this is your noisy neighbors. Since, your piece of mind is a non-market good, the inefficiency, you being kept awake, is inherent in the system. Furthermore, you simply cannot walk over and shot your neighbors or take any other unilateral action because it would cause harm and thus violate Pareto-efficiency.

Coase believed that complete competitive markets were not necessary to reach efficiency; if the market outcome is inefficient people will simply negotiate their way towards an efficient

¹³ *id*

¹⁴ *id* 5

¹⁵ "Pareto-optimality," whereby a proposed plan is efficient only if gains to one group can be made without burdening or being opposed by anyone.

6 Hastings W.-N.W. J. Env. L. & Pol'y 117

¹⁶ **Joseph Farrell**, "Information and the Coase Theorem", *The Journal of Economic Perspectives*, Vol. 1, No. 2 (Autumn, 1987), 113, 113-129

result.¹⁷ That is if nothing obstructs efficient bargaining then people will negotiate until they reach Pareto-efficiency.¹⁸ As a result of this presumption all goods are market goods and as such have a market value, i.e. everything is tradable.¹⁹ This system places a heavy burden on information, co-ordination, and negotiation and as such there must be strong property rights; there must be certainty in the system.

For example:

You are investor A

There are 10x

And x grows by a factor of 2 every year for 3 years.

Let us assume that demand also grows by a factor of 2 every year and the initial demand is equal to initial supply.

This system guarantees that in the first year 10x will be sold, in the 2nd year 20x will be sold, and in the 3rd year 40x will be sold. As a result the investor will know how to allocate his resources and when he will reap a return on his investment.

If, however, copies can easily be made, i.e. there are no or weak property rights, this certainty is gone and the following is likely to occur:

- 1) the amount of x can no longer be calculated because it is no longer in the hands of the producer but in the hands of various individuals and furthermore the motivation of these individuals is different than the producer; i.e. not all of them seek to maximize profit.

¹⁷ *id*

¹⁸ *id*

¹⁹ 114 *id*

- 2) Since x , the supply in the system, is variable so is demand. Since demand is correlated to supply and thus determines price one will be unable to determine the optimal price of the system.

This situation is what is commonly called a black market.

b. Black Market defined

In a traditional black market scenario any change in supply will divert supply to or from the official market, with a corresponding shift in demand.²⁰; black market demand is directly correlated to black market supply. For example:

A needs $10x$

There is $15x$ in our system.

Y = the amount in the official system

$15 - Y$ = amount in black market

Thus every unit lost in the official market is one unit gained in the black market.

Assuming that the black market costs less than the official market and A has no inhibitions towards black market goods A will purchase $10x$ from the black market as long as $10x$ is available. For every unit under $10x$ available in the black market A will have to purchase that in the regular market.

This provides a further disincentive for creation of new works, because there is no benefit for the individual. An individual can only benefit if there is a defined compensation scheme and since the black market lacks this, the individual cannot and does not benefit from it.

²⁰ page 219
The Theory of Black Market Prices Emre Gonesay
Economica, New Series, Vol. 33 No. 130; 219 - 225,

B. Why peer-to-peer file sharing will never work

The Internet creates an asymmetric information market and as such creates a free-rider problem, which makes compensation for the music industry impossible.

1. The Problem of Asymmetry

As previously stated in our definition of property rights any voluntary bargaining procedure that involves a reallocation of property rights must guarantee property rights holders a level of utility that is at least as high as their utility when they refuse to trade their right.²¹ Thus, the people who are harmed by the use of the property right must be able to compensate the individual for the loss of his property right. For example:

A restaurant has the right to BBQ pigs. The individuals who live around that restaurant are Jewish and do not like the smell of barbequing pig. In order for the restaurant owner to stop barbequing pigs the neighbors must compensate him for his lost property right. This requires the neighbors to allocate a compensation scheme, which in turn requires each neighbor to know the harm of his fellow neighbor or at the very least be able to relate towards this. In this example the mere fact that everyone is Jewish tends to alleviate this problem, but what if the neighborhood is mixed.

We shall use the same facts as our previous example except now the neighborhood is mixed; i.e. there are both Jews and Non-Jews. At this point we have a problem; we have lost the commonality of an aversion towards pork. The Non-Jews will either not care about the smell of barbequing pig and thus refuse to contribute or they will agree that they do not like the smell of barbequing pig and would like it to go away, but they will argue that their aversion towards it is not as strong as the aversion of their Jewish neighbors and as such they should pay less. What we

²¹ **Zvike Neeman.**, "The Property Rights and Efficiency of Voluntary Bargaining under Asymmetric Information", *The Review of Economic Studies*, Vol. 66, No. 3 (Jul., 1999), 680, 679-691

have here is an asymmetrical information problem under which the degrees of aversion are not known and thus each person has an incentive to understate his aversion so that he can pay less and “free-ride” off of his neighbor.²²

2. The creation of a free-rider problem

The free-rider hypothesis states: except under certain specifiable conditions the provision of public goods either will not occur at all or will be suboptimal. The group will provide either no public good at all or less than it would provide if it were a single individual making an economic decision on how to act under the same circumstances.²³ The following example illustrates the problem:

A and B share a yard. Let us assume that the public good is a mowed lawn. There are four possible scenarios:

- 1) B mows the Lawn
- 2) Both A and B mow the Law
- 3) A mows the Lawn
- 4) The lawn is not mowed

This is in order of greatest benefit for A; i.e. A would most favor situation 1 and least favor situation 4. The free rider problem is scenario 4 and would play out as follows:

A and B are supposed to be mowing the Lawn. A does not show up, so B decides to start early. A shows up and instead of mowing the lawn decides to take a nap on the hammock. A is free ridding off of B. Now let us suppose C, B’s son, shows up and

²²*id*

²³ *id* 927

B gives him the lawn mower. Now A and B are both free riding off of C. As the lawn mower is passed down to more and more people the likelihood of the lawn getting mowed becomes less and less because there will be less and less of a relationship between the people; once again we have an asymmetry problem.

3. Revisiting the Asymmetry problem; the problem of expansion.

As previously stated when our neighborhood expands, the tendency to understate one's aversion leads to an inability to compensate.²⁴ This occurs because as the number of residents increases, the risk to a single resident decreases. Each resident is faced with the following tradeoff: either state your true aversion and pay for it or lie and pay less. But, if you lie you increase the risk that as a whole the community will not obtain the public good.²⁵ As the numbers increase the cost of an individual reporting his true aversion remains stagnant, but the probability that he/she will be caught diminishes, as a result the individuals in the community have a greater incentive to understate their aversion.

4. Application to peer-to-peer music sharing.

In order for a system to be viable the utility of the property right holder when he trades his property right must be at least as high as his utility if he decides to hold on to his property right²⁶. Thus, the online system must compensate the holder of the property right, the copyright holder. Furthermore, any just system of compensation must allow those individuals who benefit the most to pay the greatest compensate towards the owners of the

²⁴ **Maliath, G.J. and Postlewaite, A. (1990)** "Asymmetric Information Bargaining Problems with many Individuals", *Review of Economic Studies*, 57, 351 – 367

²⁵ **Zvike Neeman.**, "The Property Rights and Efficiency of Voluntary Bargaining under Asymmetric Information", *The Review of Economic Studies*, Vol. 66, No. 3 (Jul., 1999), 680, 679-691

²⁶ *id*

property rights. This, however, requires symmetric information. The Internet is the utmost asymmetric system; no one knows who the other person is and there is no relation between the individuals. As a result a free-rider problem is created because each individual has no qualms against using another; i.e. each individual believes that someone other than them should be paying for it. Finally, as the size of our system grows the tendency to understate one's aversion leads to an inability to compensate²⁷. The Internet is growing every minute and thus the level of aversion also increases.

II. THE COUNTER ARGUMENT.

A. The RIAA numbers do not add up to a 4 billion dollar loss.

Even if we take the piracy numbers as they are for 2001 and add Counterfeit/Pirate CDs (121,939)²⁸ with Counterfeit/ Pirate CD-Rs (2,795,693)²⁹ and multiple these by the average cost of a cd (\$14.23)³⁰ you only get \$41,517,903 for 1991 and using a similar calculation you come up with 78,902,789 for 2002. Maybe we should look at different numbers.

1. The CD single numbers do not correlate to the RIAA's 4 billion dollar loss.

If we assume what people download from the internet is equivalent to CD singles and even if we use the highest grossing year for CD singles 1997 at 272.7³¹ million it would still take around 20 years for this number to equal 4 billion. So where does this number come from?

2. The RIAA is using the misleading factor of total units shipped as opposed to total units sold.

²⁷ *id*

²⁸ *see supplement page 2*

²⁹ *see supplement page 2*

³⁰ *see supplement page 4*

³¹ *see supplement page 1*

When the RIAA calculated its numbers it used the misleading figure of total units shipped as opposed to total units sold. Why is this distinction important? The answer is because nothing has been sold, only shipped, and there is good likelihood that some of this stuff will come back. So let us look at total retail units.

If one looks at the total retail units, one sees a different picture. The RIAA claims a number of 859.6³² million for the total number of units shipped in 2002. But, only 675.7 million were sold³³. So there is a 183.9 million-unit difference between the two numbers. What accounts for this difference? The answer is there is no answer and no real way of discerning one. The impact of this difference, however, is highly important.

To understand the importance of the distinction between units sold and units shipped the following calculations must be undertaken:

- 1) The total units shipped in 2002 (859.6) is subtracted by the total retail units in 2002 (675.7) to get the total units unaccounted for (183.9)³⁴
- 2) 183.9 (total units unaccounted for) is then multiplied by the average retail price for 2002 (17.09) to arrive at the total retail value (3,142.9)³⁵
- 3) Repeat this process for the preceding years³⁶:

* starting at step 2

1998: 273.9 * 14.31= 3,919.5

1999: 290.9 * 15.00= 4363.9

2000: 290.6 * 16.11= 4,681.63

2001: 235.4 * 16.90= 3,142.9

³² see supplement page 5

³³ see supplement page 6

³⁴ see supplement page 7

³⁵ see supplement page 8

³⁶ see supplement page 8

4) Add these five numbers (3,919.5; 4363.9; 4681.6; 3,978.3; 3,142.9) = 20,086.2 million

Divided this 20 billion by 5 to arrive at 4 billion or the exact number alleged by the RIAA to be due to piracy.

2. The loss in revenue is a result of a free rider problem.

In 1999 the music industry released 38900 new releases but in 2000 and 2001 they cut that number by 12,000 releasing only 27,000 in each year.³⁷ The explanation for this loss is not piracy but free ridding.

To better understand the free rider problem one must view the music industry and peer-to-peer music downloaders as two firms. Basic economics tells us that if you cut output, i.e. diminish supply, and demand remains constant, then price will increase. This leaves our two hypothetical firms, A and B, with four options:

- 1) A or B unilaterally cuts output
- 2) Neither cuts output and the status quo remains.
- 3) Both cut output and both enjoy a reciprocal price gain
- 4) One cuts output while the other does not

These are listed in terms of profitability for companies A and B; 1 is the least profitable while 4 is the most profitable. A can unilaterally cut output but it knows that if it does this the increase in profit will be very small, because B will maintain its output. A or B is much better off waiting for the other to cut output and leave its own output unchanged; i.e. free ride off of the increased price. If both A and B think this way then scenario 2 occurs, neither slashes output, and no

³⁷ <http://www.azoz.com/music/features/0008.html>
see supplement page 3

public good is created, i.e. price is not increased. Online music sharing is the personification of this problem.

Before we address the similarities of the two systems a key difference must be addressed. The interesting component of the music downloading scenario is that there are two, mutually exclusive public goods. The music industry believes that the public good is higher prices while the individual downloaders believe that it is lower prices. As a result the music industry will slash output, as it has done, while individual downloaders will increase output, as they have done. The result will be less revenue for the music industry because if a company reduces its output while its competitor's supply remains stagnant profits for the first company will decline due to reduced sales.³⁸ This is precisely what the previous numbers showed-- a cut in the number of new releases by the music industry and a correlating loss in revenue. The music industry thus blames its lost revenue on music downloaders because they have illegally increased supply and not allowed the music industry to increase their revenue. The downloaders reply that if the music industry had not cut its supply it would not have suffered any harm and thus the harm that has been inflicted is do to the greed of the music industry and not piracy by music downloaders.

a. The Creation of a public good

The advent of the Internet has turned music into a “public good”.

Even if we believe the music industry and agree that the general public is free riding off of them a new problem is created because in order for there to be a free rider problem there must be

³⁸ *id* 927

a public good.³⁹ Thus, if the music industry truly believes that file sharers are “free ridding” then a public good exists. If music is a public good then it belongs to everybody and as such favors an open market akin to file sharing. Even if the music industry does not acquiesce to this fact, a strong argument can be made as to why music is a public good.

A public good is defined as: “any good such that, if any person X_i in a group of $X_1, \dots X_i \dots X_n$ consumes it, it cannot feasibly be withheld from others in that group.”⁴⁰ For example:

A, B, C own a house.

A decides to mow the lawn.

$X_i = A$

The group ($X_1 \dots X_n$) consists of three people (X_3): A, B, C

The public good is a mowed lawn.

A’s enjoyment of the benefit, e.g. running through it, does not prevent either B and/or C from doing the same or enjoying it in another matter.

Let us apply this to peer-to-peer music sharing:

A owns a CD and shares it with B and C

$X_i = A$

The group ($X_1 \dots X_n$) consists of three people (X_3): A, B, C

The public good is happiness derived from listening to the CD.

³⁹ 927 **Gerald Marwell; Ruth E. Ames**, “Experiments on the Provision of Public Goods. II. Provision Points, Stakes, Experience, and the Free-Rider Problem,” *The American Journal of Sociology*, Vol. 85, No. 4 (Jan., 1980), 926 – 937

⁴⁰ *id* 927

By A listening to the CD it prevents neither B nor C from listening to it.

Prior to the Internet music was not a public good, or more precisely the fiction of music not being a public good could be sustained. Prior to the Internet the consumption of the good, i.e. A buying a CD, allowed that good, the CD, to be withheld from B and C. Even if A gave the CD to B or C, he no longer possessed it and thus it was feasibly withheld from him. The Internet, however, changed this. The consumption of the good by A no longer prevents B or C from enjoying it because A can simply share it online. When A shares it in this manner he still possesses the copy and at the same time B and C have a copy of it. Thus, the Internet no longer makes it feasible to withhold music, and as such music has become a public good.

2. The transcendence of property rights.

The basic assumption of the music industry and the reason for an emphasis on property rights is that if an individual consumes a good no one else may consume it or at the very least its value will diminish. If the value is infinite or no loss occurs then there can be no feasible objection towards an alternative scheme. In our black market example a problem occurred only because as supply in the black market increased demand in the legal market decreased. Furthermore, the supply in the black market was connected to the supply in the legal market; i.e. a gain in one market was a loss in another. If this situation is transcended, however, then the problems associated with it are transcended as well.

b. Music file sharing is not a traditional black market because there is no direct correlation between supply in the official market and the black market.

The notion that music is a public good, as previously explained, transcends the rationale for a strict property rights scheme because the consumption of the good no longer restricts it from other consumers. Using our previous black market example:

A needs $10x$.

Y = the amount in the official system

Z = amount in black market

Notice the difference between this system and the previous one:

- 1) Z , the amount in the black market, is no longer a product of Y . Recalling our last example the amount in the black market was represented by $Y-1$.
- 2) There is no longer a finite number of x in our system.

What these two differences indicate is that there is no longer a fixed supply; i.e. there can be an infinite number of x in our system. This occurs because there no longer is a correlation between the black market and the official market in terms of supply; a gain in one is not a loss in the other. In our previous example the good could not exist in both the legal market and the black market; the consumption of the good in one market would prevent its distribution to the other. The Internet transcends this problem because it allows the good to exist in both markets. The good exists in the legal market in the form of a CD or in some digital form, but a digital copy also exists on the Internet. While the transcendence of the supply problem is important, it is irrelevant without a similar transcendence in the demand problem; the increase of supply in a black market must not have a correlating decrease in demand on a legal market.

1) The X-efficiency construct

X-efficiency was created by Leibenstein to supercede the limitations of neo-classical thought. Leibenstein wanted to portray a more complex man; one whose economic choices were influenced by his personality and not just simply by utility maximization.⁴¹ The axiom of selective rational asserts that individuals choose the extent to which they deviate from maximizing behavior, with the degree of deviation determined by the personality of the individual and the economic context.⁴² Thus, an individual's economic choices are not just simply a factor of utility maximization but that his personality also plays a role. Leibenstein defined personality in terms of: b) a taste for responsiveness to opportunities and constraints w/ in certain standard of behavior and c) a simultaneous taste for 'irresponsible' or 'unconstrained' behavior.⁴³ Our personality then is in essence a Hobsonian dilemma between security and freedom; on one hand we want security and stability but on the other hand we want to be unrestrained and free. We are in essence a self-regulating machine; our social side tempers our wealth maximization behavior.⁴⁴ As such the problem of peer-to-peer music sharing will be self regulating if all parties follow a social agreed upon system of justice; i.e. there are no free-riders.

⁴¹ The view behind this paper is that although Neoclassical micro theory works some of the time, there are areas of experience to which it is not applicable. As a consequence it is desirable to develop models, which are more general than the neoclassical framework, which fit economic realities, and into which the neoclassical framework fits as a special case.

Leibenstein, Harvey, "On the Basic Proposition of X-Efficiency Theory," *American Economic Review Proceedings*, May 1978, 68, 328-34.

⁴² **Leibenstein, Harvey**, "X-Efficiency: From Concept to Theory," *Challenge*, September/October 1979, 22, 13 – 22.

⁴³ **Leibenstein, Harvey**, "A Branch of Economics is Missing: Micro-Micro Theory," *Journal of Economic Literature*, June 1979, 17, 477-502.

⁴⁴ An individual's attentiveness to opportunities for gains and to constraints that can impose losses depends on his personality and on the economic context. That is, there is selective rationality rather than maximizing (or minimizing) behavior.

II. THE SOLUTION

The solution to our dilemma, like most solutions, must be somewhere in the middle of the two radical positions. That is, it cannot totally abandon property rights regardless of what theoretically may or may not happen because property rights are the bases of our ongoing system. On the other hand, it must find a way of disseminating information that is far more flexible than the current system, if it fails to do so a non-market force entity will spring forth, i.e. a black market will form. Thus, we must come up with a system that not only adheres to property rights but is also flexible enough for the individual to opt out of the current scheme or choose another scheme by which to distribute his work. This reliance on individuals solves the two major dilemmas previously stated previously, asymmetric information and the free rider problem, because both of these problems are based on group dynamics and if one simply takes the group component out of the equation then the problem solves itself.

A. The Creative Commons license

The Creative Commons license solves this dilemma because not only is it individualistic and thus flexible but it also exists within the pre-existing realm of copyright law and thus protects property rights.

A creative commons license is a license, which allows writers, artists, and other rights holders to give away their work without having their intellectual property claimed and resold.⁴⁵ There are four main flavors of a creative commons license:

Leibenstein, Harvey, "On the Basic Proposition of X-Efficiency Theory," *American Economic Review Proceedings*, May 1978, 68, 328-34.

⁴⁵ <http://wired.com/wired/archive/11.11/start.html?pg=1>

The first is an Attribution license; you let others copy, distribute, display, and perform your copyrighted work—and derivative work based on it—but only if they give you credit.⁴⁶

The second is a noncommercial license; you let others copy, distribute, display, and perform your copyrighted work—and derivative work based on it—but only for noncommercial purposes.⁴⁷

The third is a no derivative works license; you let others copy, distribute, display, and perform only verbatim copies of your work, not derivative works based on it.⁴⁸

Finally, there is the share alike license; you allow others to distribute derivative works only under a license identical to the license that governs your work.

1. How the process works

The first thing one must do is visit creativecommons.org, a website dedicated towards the distribution and granting of creative commons licenses. Once an individual visits the website they fill out a questionnaire, which assigns to them one of the four licenses explained previously. The license is then expressed in three ways⁴⁹:

1. commons deed. This is a simple, plain language explanation of the license, complete with the relevant icons.
2. Legal code: This is exactly what it states, the fine print that protects your license.
3. Digital Code: This is a machine-readable translation of the license that helps search engines and other applications identify your work by the terms of use.

⁴⁶ <http://creativecommons.org/learn/licenses>

⁴⁷ *id*

⁴⁸ *id*

⁴⁹ *id*

Finally, an individual simply pastes the digital code into their HTML code, creating a button telling the world that the work is covered by a creative commons license.

CONCLUSION

In our system of law there is great reverence for the past. While this continuity with the past is important it must not come at the cost of the future. The debate outlined in this paper is best understood in this context; the music industry clinging to the past while the online community rushes towards the future. The answer to this dilemma, I believe, must encompass both of these views. The creative commons license does exactly this. It creates a new niche in a pre-existing framework and thus satisfies both parties.

The Recording Industry Association of America's
2002 Yearend Statistics

1330 Connecticut Avenue, NW, Suite 300, Washington, D.C. 20036
 202-775-0101

Manufacturers' Unit Shipments and Dollar Value
 (In Millions, net after returns)

	1993	1994	1995	1996	1997	1998	1999	2000	% CHANGE 1999-2000	2001	% CHANGE 2000-2001	2002	% CHANGE 2001-2002
(Units Shipped)	495.4	662.1	722.9	778.9	753.1	847.0	938.9	942.5	0.4%	881.9	-6.4%	803.3	-8.9%
(Dollar Value)	6,511.4	8,464.5	9,377.4	9,934.7	9,915.1	11,416.0	12,816.3	13,214.5	3.1%	12,909.4	-2.3%	12,044.1	-6.7%
CD	7.8	9.3	21.5	43.2	66.7	56.0	55.9	34.2	-38.8%	17.3	-49.4%	4.5	-74.1%
CD Single	45.8	56.1	110.9	184.1	272.7	213.2	222.4	142.7	-35.8%	79.4	-44.4%	19.6	-75.4%
Cassette	339.5	345.4	272.6	225.3	172.6	158.5	123.6	76.0	-38.5%	45.0	-40.8%	31.1	-30.9%
	2,915.8	2,976.4	2,303.6	1,905.3	1,522.7	1,419.9	1,061.6	628.0	-41.0%	363.4	-41.9%	209.8	-42.3%
Cassette Single	85.6	81.1	70.7	59.9	42.2	26.4	14.2	1.3	-90.8%	-1.5	-215.4%	-0.5	-68.0%
	298.5	274.9	236.3	189.3	133.5	94.4	48.0	4.6	-90.4%	-5.3	-215.2%	-1.6	-70.3%
LP/EP	1.2	1.9	2.2	2.9	2.7	3.4	2.9	2.2	-24.1%	2.3	4.5%	1.7	-23.7%
	10.6	17.8	25.1	36.8	33.3	34.0	31.8	27.7	-12.9%	27.4	-1.1%	20.5	-25.2%
Vinyl Single	15.1	11.7	10.2	10.1	7.5	5.4	5.3	4.8	-9.4%	5.5	14.6%	4.4	-20.8%
	51.2	47.2	46.7	47.5	35.6	25.7	27.9	26.3	-5.7%	31.4	19.4%	24.9	-20.6%
Music Video	11.0	11.2	12.6	16.9	18.6	27.2	19.8	18.2	-8.1%	17.7	-2.7%	14.7	-17.2%
	213.3	231.1	220.3	236.1	323.9	508.0	376.7	281.9	-25.2%	329.2	16.8%	288.4	-12.4%
DVD Audio	-	-	-	-	-	-	-	-	N/A	0.3	N/A	0.4	63.8%
	-	-	-	-	-	-	-	-	N/A	6.0	N/A	8.5	41.3%
DVD Video*	-	-	-	-	-	0.5	2.5	3.3	32.0%	7.9	139.4%	10.7	34.8%
	-	-	-	-	-	12.2	66.3	80.3	21.1%	190.7	137.5%	236.3	23.9%
Total Units	955.6	1,122.7	1,112.7	1,137.2	1,063.4	1,123.9	1,160.6	1,074.2	-7.0%	988.5	-10.3%	859.7	-11.2%
Total Value	10,048.6	12,068.0	12,320.3	12,533.8	12,236.8	13,711.2	14,584.7	14,323.7	-1.8%	13,740.9	-4.1%	12,614.2	-8.2%
Total Retail Units					817.5	850.0	869.7	788.6	-9.3%	733.1	-7.0%	675.7	-7.8%
Total Retail Value					10,785.8	12,165.4	13,048.0	12,705.0	-2.6%	12,388.8	-2.5%	11,549.0	-6.8%

* While broken out for this chart, DVD Video Product is included in the Music Video totals

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The Recording Industry Association of America's
2002 Yearend Anti-Piracy Statistics
 1330 Connecticut Avenue, NW, Suite 300, Washington, DC 20036
 202-775-0101

Counterfeit/Pirate Seizures	2001	2002	% change
Counterfeit/Pirate Cassettes	151,830	145,274	-4.3%
Counterfeit/Pirate CDs	121,939	246,452	102.1%
Counterfeit/Pirate CD-Rs	2,795,693	5,298,368	89.5%
Counterfeit/Pirate/Bootleg Labels	21,189,477	72,822	-99.7%
Bootleg Seizures	2001	2002	% change
Cassettes	0	18,279	#DIV/0!
CDs	16,795	1,863	-88.9%
CD-Rs	93,520	200,239	114.1%
Videos	6,698	13,356	99.4%

New Releases / Dollar per Release

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total Dollars (millions)	9024	10046.6	12068	12320.3	12533.8	12236.8	13723.4	14651	14404	13700
New Releases	18400	20300	36600	30200	30200	33700	33100	38900	27000	27000
Dollars per release (Note)	490,434.78	494,906.40	329,726.78	407,956.96	415,026.49	363,109.79	414,604.23	376,632.39	533,481.48	507,407.41

Year End Statistics -- Net after returns -- All data in millions except Avg. Unit Price												
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
CD Units	286.5	333.3	407.5	495.4	662.1	722.9	778.9	753.1	847	938.9	942.5	906.6
CD Dollars	3451.6	4337.7	5326.5	6511.4	8464.5	9377.4	9934.7	9915.1	11416	12816.3	13214.5	12900
Avg Unit Price	12.05	13.01	13.07	13.14	12.78	12.97	12.75	13.17	13.48	13.65	14.02	14.23
Cassette Units	442.2	360.1	366.4	339.5	345.4	272.6	225.3	172.6	158.5	123.6	76	45.6
Cassette Dollars	3472.4	3019.6	3116.3	2915.8	2976.4	2303.6	1905.3	1522.7	1419.9	1061.6	626	363
Avg Unit Price	7.85	8.39	8.51	8.59	8.62	8.45	8.46	8.82	8.96	8.59	8.24	7.96
Vinyl LP/EP Units	11.7	4.8	2.3	1.2	1.9	2.2	2.9	2.7	3.4	2.9	2.2	2.3
Vinyl LP/EP Dollars	86.5	29.4	13.5	10.6	17.8	25.1	36.8	33.3	34	31.8	27.7	27.4
Avg Unit Price	7.39	6.125	5.869	8.83	9.368	11.4090	12.689	12.333	10	10.965	12.590	11.913
Music Video	9.2	6.1	7.6	11	11.2	12.6	16.9	18.6	27.2	19.8	18.2	18.2

Units																			
Music Video Dollars	172.3	118.1	157.4	213.3	231.1	220.3	236.1	323.9	508	376.7	281.9	281.9							
AVG Unit Price	18.728	19.36	20.71	19.39	20.63392	17.4841	13.970	17.4139	18.6764	19.025	15.489	15.489							
DVD Units																			
DVD Dollars																			
AVG Unit Price																			
											24.4	26.52	24.33	24.05					
Total Dollars	7182.8	7504.8	8613.7	9651.1	11689.8	11926.4	12112.9	11795	13402.3	14312.92	14174.43	13596.35							

Manufacturer's Unit Shipments					
In Millions, net after returns..... Source:					
RIAA					
	1998	1999	2000	2001	2002
CD	847.0	938.9	942.5	881.9	803.3
Cassette	158.5	123.6	76.0	45.0	31.1
Music Video	27.2	19.8	18.2	17.7	14.7
Other	91.2	78.3	42.5	23.9	10.5
Total Units	1123.9	1160.6	1079.2	968.5	859.6

*Other is a composite of CD singles, cassette singles, LP/EPs and Vinyl Singles

** DVD Video entry is cut out

Source: RIAA -- All data in millions except Avg. Retail Unit Price

	1998	1999	2000	2001	2002
Total Units Shipped	1123.9	1160.6	1079.2	968.5	859.6
Total Retail Units	850	869.7	788.6	733.1	675.7
Total Retail Value	12165.4	13048.0	12705.0	12388.8	11549.0
Avg Retail Unit Price	14.31	15.00	16.11	16.90	17.09

Units Unaccounted For (Units Shipped minus Retail Units)

All data in millions except Avg. Retail Unit Price

	1998	1999	2000	2001	2002	Total
Total Units	273.9	290.9	290.6	235.4	183.9	1,274.7
Avg Retail Unit Price	14.31	15.00	16.11	16.90	17.09	
Total Retail Value	3,919.5	4,363.9	4,681.6	3,978.3	3,142.9	20,086.2
