Theft in the Information Age
Technology, Crime and Claims-Making

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Abstract

This paper examines the construction of claims in an effort to mobilize state activity and criminal sanction to control a newly problematised form of behaviour, the sharing of musical files over the world wide web. With documents from Canada, the United States and other countries a process of redefinition of technologies, practices and multiple other elements such as benefits, harm, competition, etc. is identified and analysed. The conclusion shows that the problem and its solutions, especially those involving recourse to the criminal justice system, stem from this process rather than from objectively identifiable facts, conditions or situations.

Keywords: file sharing, criminalisation, law, constructivism, internet, World Wide Web, popular music, piracy, compact disk

Introduction

The purpose of this article is not to explore or analyse copyright laws, precedents or new developments in national or international jurisprudence. Commentary on copyright law has developed into a full-fledged industry and the reader who is interested in the topic can easily find hundreds of papers and books dedicated to it. Instead I propose a brief sociological examination of a process of great interest to criminologists, the creation of a crime — here, out of a broadly engaged in activity often referred to as "file sharing." I will keep with this expression, which seems to me rather neutral, yet with underlining right away that *naming* things is an important facet of the topic at hand: if I called it "pirating" or, more prosaically, "stealing," one might reasonably expect an entirely different type of article. Yet to others the use of "file sharing" to describe such a detestable practice will perhaps amount to excusing, if not encouraging, crime. I should then make it very clear that I will try as best I can to avoid the normative, ethical questions that often tend to obscure criminological inquiry, and that the words I use are simply those which I deem to prejudge the issue the least. Put simply, I do not care wether sharing copyrighted music over the internet is *right* or *wrong*, I consider this to be a separate question, and one I will not touch upon here.

My assumption that its being right or wrong is not an objective characteristic of the activity already reveals the theoretical perspective this paper adopts. We are in the midst of a renewal of a rather aged paradigm in criminology (perhaps it is *criminology* that is merely a paradigm of this age old way of thinking), where it is often argued that "a theft is a theft is a theft" and since any and every culture has always condemned theft, its illegality is a defining element of the act of stealing. Yet there is something of a tautology in this claim, hidden in the definition of theft: as it happens, this is how we call "taking something in a way forbidden by law," just like murder is "killing illegally." By contrast, adopting a constructivist approach in

criminology involves refocusing on the definitions and on what is I think a more interesting set of questions such as: "which acts are actually defined as 'thefts' and made illegal?" "Who made this illegal, and for what purpose," and "how was it achieved?" And in this particular case, "how does file sharing become *theft*?"

There are nowadays two particularly interesting sites where one can study the construction of criminal acts, their inscription in positive law and their actual repression by the police or other government or private agencies. One has to do with the lightning-fast development of reproductive technologies — especially cloning — and other biomedical modern miracles, and the other with the equally rapid transformation of information technologies. The latter has the overwhelming advantage of being much closer to everyday life, as it touches a significant proportion of the populations of industrialised nations. One specific instance of evolving information technologies is the re-invention of the personal computer as a music-processing appliance. This has taken place over a very short period of time, which only makes it easier to describe and analyse.

Simply put, over the years the music industry has created a system of production-line entertainment, and is now confronted with new technologies better adapted to the exchange, "ownership" and enjoyment of cultural or entertainment products that have been transformed into consumable goods. Because these technologies require no additional purchase on the part of the users and entirely circumvent the industry's traditional distribution of its products, they *appear* — in fact the numbers can be read any number of ways — to threaten profitability. The industry has counterattacked on two fronts in an effort to protect both its current business model against radical change and its profit level against evaporation. On one hand, it is trying to defeat copy and exchange technology by protecting its products against it through more technology, and on the other it has successfully lobbied for changes in the judicial system to criminalize file sharing and related activities. So far neither strategy shows any promise in slowing the apparently inexorable expansion file sharing. But success or failure is not important for our purposes, and we will concentrate on the criminalization aspect of this story. We will touch on technology only to the extent that its security shortcomings are the primary reason for a turn towards penal law (or at least towards spectacularly more onerous civil remedies).

Ordinarily, criminal law moves slowly and tends to follow, rather than lead, moral panics and spectacular incidents; it is rarely at the vanguard of social transformation. In this case, it would seem that, at least in the US and to a somewhat lesser degree in Europe, the law has grossly outpaced the widespread opinion that file sharing and copyright infringement by individuals is a relatively innocuous activity. In Durkeim's words, here criminal law attempts to transform the collective conscience instead of representing it — which should either fail, or show that the crime-as-recognizable-object paradigm is false. It is hard to see how, outside of horrific events or obvious similarity between the evaluated behaviour and an existing crime, a social group could spontaneously perceive a behaviour as worthy of the full, maximal deterrent power of the state. Now imagine that this power is to be directed against an activity most members of the group engage in everyday. What is more, the intense and "compact" political process needed to create new crimes from scratch and in a short period of time is not

so well accounted for in consensual approaches, which seem far better suited to historical trends.

In fact there are many other areas where a discrepancy between what is a crime in public opinion and what is a crime in the law is apparent. Possession of marijuana is an example, and pressures to decriminalize it in Canada and in many other parts of the world are becoming stronger. The pressure towards decriminalization is founded on two basic principles, first, that marijuana users form a sizable portion of the population, and that it would be either wrong to target so many citizens with the penal system or unjust to punish a few unfortunate ones. Second, that when marijuana use is evaluated within the modern criminal ethical foundation of harm done to others (instead of sin, or evil, etc.), it is immediately obvious that since the activity does not harm others, there is no basis to consider it a crime. These are, in essence, the same arguments made by those who oppose the criminalization of file sharing. Why, then, is the criminal status of both activities evolving in opposite directions?

The objective crime perspective would force us to evaluate the true morality of all sides in order to decide who is closer to the true nature of file sharing (or possession of marijuana). It seems far more useful to account for what is happening through a perspective such as Spector and Kitsuse's (2001 [1977]) construction and appropriation of "social problems" through "claims-making." It is helpful to understand the conceptual, rhetorical and political battlefield I describe below as a site, or social field where different actors make claims and counter-claims in pursuit of what they see as their benefits (we will see that "benefits" and "costs," at least in this case, are no more objective than morality). As we will see, the most important category these claims fall in is that of authority and expertise regarding the subject at hand. A very close second is that of incurred harm or damage.

This paper is organised as follows: first, we have a look at the basic elements of the situation, the actors involved and the objects and technologies at the heart of the "problematisation" of file sharing. Second, we have a look at the claims made by different parties such as consumers, consumer associations, technology vendors and recording industry representatives regarding the legality and the consequences of file sharing. The information in this section is garnered from documents produced by the actors and from consumer surveys. The third section explains how the industrial actors have evolved from technological fixes to demands that the legal system be modified to afford them better protection. I then conclude and attempt to provide an account of the incrimination process at work.

1. The brave new world: technologies and profits

The ability to make copies of copyrighted works of music, which is the basis for file sharing, is far from new and probably began with player pianos. In the electronics era the birth of audio magnetic tape, especially in the cassette format, is what brought cheap and easy copying to the masses. File-sharing has key aspects that make it profoundly different from its predecessors. This may be a proper time to establish some of the vocabulary commonly used to describe the phenomenon: file sharing, content duplication (also called "ripping"), counterfeiting, piracy. "Piracy" used to be reserved for the black market entrepreneurs producing and reselling sizable numbers of illegitimate copies of software, music, books, films,

and other products including t-shirts with designer logos used without permission and counterfeit Rolexes. Somewhat less bloodthirsty than his mythical namesakes yet often linked by the authorities to more violent forms of organised crime, the modern-day pirate is defined mostly by the massive profits he makes with other people's creativity, reputation or their clients' brand loyalty. Today, US music industry representatives tend to identify any form of use of their product they have not specifically authorized as "piracy". The use of this label in public discourse is part, of course, of their claim-making activities.

"Counterfeiting" refers more clearly to activities involving the entire reproduction of audio CDs (or, to a much lesser extent, cassettes), including packaging, for purposes of resale in lieu of the original product. Counterfeiters range from small outfits copying CDs with personal computers to the large-scale schemes that involve deceiving CD manufacturing plants into pressing truckloads of counterfeit disks for massive redistribution. Chinese authorities claimed to have destroyed 42 *million* of these across the country on 14 August 2003, in order to show the world it is cracking down on the practice (in one ceremony wood chippers were used to pulverize 26 million disks).

"Content duplication" or "ripping" is simply making a copy of an audio CD, sometimes as a "clone," which to a CD player looks and plays like the original, sometimes involving a transformation to another format — mostly, MP3. MP3 conversion makes audio files much smaller and easier to re-copy, transfer and stock on any media (hard drives, writable CDs, memory cards, etc.). The reduction of the original file is done essentially through an application of psychoacoustics, which dictates that much of the information in an ordinary music file is not actually processed by the human brain — and therefore can be discarded (in fact loss of quality is indeed incurred, but given the fact that most users listen to their music on portable, car and other "low-fi" devices, the difference is negligible). Content duplication assumes that the music itself remains virtually the same throughout the copy process but, in contrast with counterfeiting, the physical medium used to hold it does not resemble the original commercial product and could not reasonably be expected to pass for it. There are many reasons to duplicate content, and three more prominent ones: first, to make sure the content can be played on different kinds of hardware (or simply in different locations), for instance on portable MP3 players. Second, a copy is useful to protect the purchase from loss caused by damage, theft, or intensive use. Third, one can share copies with multiple others at the same time, all the while keeping the original product in his or her possession. All these uses have been attacked by the recording industry, but it is, by far, the last one which is deemed the most dangerous.

"File sharing" involves the transmission of *content* (rather than the physical delivery of a support medium of any kind), usually over the internet. While sharing began with website operators offering files for download free of charge, it soon transformed into the use of centrally based indexes, with the actual files stored on each participant's own computer — thus multiplying the available archival space at no cost and making legal action more difficult. Today *peer to peer* (P2P) networks have done away altogether with any form of centralized structure, simply by using (ostensibly free — more on this later) software that allows users to connect directly with one another. With the advent of MP3 compression technology and high speed internet connections, one can obtain hours worth of music within a few minutes. That

said, file sharing stands in contrast to piracy and counterfeiting on three aspects. First, it involves massive numbers of individuals, each making very few copies of each file, which is the opposite of ordinary piracy. Second, it does not involve subsequent resale (it is functionally impossible to exchange payments on P2P networks, and trading or bartering files is not required). Third, and perhaps consequently, both the law and, as far as surveys can be trusted, public opinion, are far more ambivalent about it.

It is easy to see how this is different from analog copies and cassettes, and why the industry is concerned (not that the industry wasn't also concerned — needlessly — when cassettes first hit the market). Once a store-bought audio CD is turned into a collection of MP3s of adequate quality, it can be copied *ad infinitum*, and contrary to audio cassettes, down generations of copies of copies without any further loss (in theory; in fact many users resample MP3s to make them smaller, or just through incompetence, and further degrade the quality of the file). This makes exponential distribution possible, where each new "owner" of the file can in turn pass it on to countless new owners, etc. Further, this copying can be done at extreme speeds: the slowest form of copying, when the end-user burns a CD with his computer hardware, runs at easily 40 times faster than the duration of the music being copied (potentially far faster, depending on file format). Copying on hard drives or memory cards is faster yet. Finally, the actual distribution no longer involves mailing a tape cassette to a correspondent, but offering a computer file to millions of other ordinary internet users. Each user, whose computer nowadays probably came with a CD writing drive as basic equipment, can then chose to make his own (MP3/"mid-fi" quality) copy of the original album.

To say that industry representatives are in a panic is not an overstatement. They have adopted technologies (digital audio; MP3 compression comes from the motion picture distribution industry) that have greatly reduced their production and distribution costs, but at the same time, which have proven to have a major "flaw" that cannot quickly or simply be repaired, since any substantial change to the software would mean that the new product would be incompatible with existing hardware and thus unsalable. At the same time, it does seem that prophecies of industrial decimation are grossly exaggerated, and that if music profits have been diminishing lately, there are far better explanations for it than file sharing constituting unfair competition. For one thing, according to data gathered by music giant EMI (2003: 20), the wide majority of file sharers either already own (15%) or intend to buy (60%) the music they download. Is it possible that downloaders are merely *sampling* the music before buying it? And if, after having sampled it, they find it not worthy of purchase, are the lowered sales to be interpreted in the same way?

2. Competing constructions of ownership

In most of the music industry's literature copyright protection is articulated around a rather conventional conception of human action under a capitalist–liberal economic system: without financial incentive the actors (producers, distributors, creators, interpreters) would quickly reach their zero-level of activity. In other words, it is presented as a question where *values* merge with *interests*. According to this discourse the intention and the will to create art and exercise free speech would be neutralized by the knowledge that economic incentives are

absent. More concretely, it seeks to establish that the present structure, quantity, nature and mode of distribution of these incentives are the only ones to be adequate or even possible, and that their modification would be equivalent to their disappearance, which would inevitably induce zero-level activity in the actors, and therefore the utter destruction of an entire form of human endeavour and not simply a sector of the economy. In other words, "music would disappear": "copyright [...] gives talented people the incentive to create great works, and entrepreneurs the economic reasons to invest in them" (IFPI, 2003a). The Motion Picture Association of America (MPAA), on a website specifically designed to counter copyright violation (www.respectcopyrights.org) holds the same discourse:

> When people copy movies, whether on VHS tapes, DVDs, online or anywhere else, they are taking something from the artists who made those works. This just discourages the creative expression that we enjoy so much. Respecting copyrights is the way to ensure that we will be able to enjoy new, well-made films and other forms of entertainment for years to come (MPAA, 2003).

The Canadian Recording Industry Association (CRIA) says that

> Fewer artists get the chance to make their mark, and the labels are less likely to take a risk with more experimental music or niche genres. Consumers of 'free music' may get a short-term benefit, but at the long-term cost of hurting the artists they most admire, and new talent (CRIA, 2003).

This culture-protection argument is an important aspect of the recording industry lobby in seeking changes to copyright acts and other legislation, one that many politicians are sensitive to, especially in Canada, where internal Francophone–Anglophone and external Canadian–US differentiations are acutely felt.

It's not difficult to imagine how the pro-sharing groups attempt to counter this argument. 1) artists can work outside of this structure, and there are already many experiments where artists have used the web to promote and sell their creations in various forms and formats (for instance, www.azoz.com, www.dmusic.com, www.mp3.com; for a basic explanation of the principle, see www.eff.org/share/legal.php) with some limited success; 2) the recording companies are already being challenged by artists for disproportionate profits and compensation at the executive level and failure to pay appropriate royalties (USA Today, 16.09.2002; Cave, 2002), and therefore the claim that industrial associations speak for the artists whose music they distribute is questionable; 3) in Canada, as well as in the US, levies are already being raised on various support media — in other words, consumers have already been paying royalties on digital audio tapes (DATs), recordable CDs and cassettes whether or not they use them to hold copyrighted content (in the US there is no levy on blank CDs, only on DATs, video and audio cassettes).

This paper does not aim at identifying problems and solutions, and leaves the ethics and the law to those more versed in those fields. Instead I propose an exploration of the discourses organized around the issue and the claims made by the principal actors, with emphasis on the use of crime and criminal law as tools of governance.

a. Fair use: "usership" and ownership in practice

"Fair use," as it is called in the US, or the approximately equivalent "fair dealing" in Canada, is often invoked in an attempt to legitimize various consumer uses and abuses of commercially distributed music. Of course most "fair use" exceptions to copyright law were devised long before anyone had ever heard of the internet, MP3s and CD burners. They are relatively unclear provisions allowing for reasonable quoting or sampling of works, included in copyright acts. The Canadian Copyright Act includes, in addition to "fair dealing" exceptions, a section explicitly excluding private copying of any type of work. But in this discourse the "fair use" banner also includes some jurisprudence about home recording: first, the "Betamax" case, in which judges found that home taping of broadcast television was acceptable since most users recorded programmes not for archiving but for time-shifting (the ability to watch a show at a time other than that scheduled by the broadcasting network). Since file sharing is precisely about archiving and exchanging and not at all about time-shifting, the relevance of the Betamax ruling is minimal, but it is an important part of the mythology of fair use and the conceptualization of the relationships between entertainment industries and its consumers. Second, the 1992 US Audio Home Recording Act, which crippled digital recording devices, especially Digital Audio Tape (DAT), in exchange for giving the consumer a limited right of duplication — but since this law refers to a practically extinct format and does not include computers, needless to say, it is grossly outdated. Third, the "Diamond Rio" case, where judges found that it is acceptable to convert CD music to a different file format for use in a portable device. Finally, in April 2003 a federal court judge in Los Angeles declared that the software used by file sharers to find free music on the internet is legal. But fair use is not simply law, precedents or even practices. It is, for file sharing advocates, a way to articulate the reality of a virtual product — the information contained on a CD. Fair use crystalizes highly complex, abstract notions of "intellectual property" and philosophical stances about what is the nature of music, art and the enjoyment thereof, into a manageable narrative.

At any rate, the list of precedents is about to be made much longer, as hundreds of cases filed by music industry representatives are now pending. Yet surveys have shown that the great majority of those who download music on the internet (35 to 60 million individuals in the US) simply do not think that copyright law is that important, or that it should apply to them as individual users (Madden and Lenhart, 2003).

In short, to the extent that "fair use" is understood by file sharers and file sharing advocates as what one may reasonably expect to be allowed to do with purchased music, it is being radically redefined by technological advances and, more importantly, by *actual use*. As a popular concept, rather than simply as law, fair use lays at the abstract limit between owning a physical object such as a disk and its protective case, and merely being *allowed to* listen to the copyrighted music it contains. That purchasing a CD only transfers ownership of the disk, and *not at all* of its content is a fundamental nuance in law but one that is probably lost on most consumers — in part because of the relatively high cost of the item, about 20 times more than a blank CD. Now that consumers have a reference point for the actual cost of the physical products, they may simply assume that the premium they pay for commercial music CDs means they own the content as well.

In the same way, under copyright law digital files — be they music, video, software or written materials — legally downloaded on the internet are also only "licenced" to consumers, and not *sold*; in other words the consumer never owns anything, which is generally contrary to his or her experience of commercial exchange. The consumer merely acquires the sometimes temporary, sometimes otherwise limited, right to use the file in the manner prescribed by the seller/copyright owner. Yet, as evidenced by any visit to file-sharing web sites (for instance, www.zeropaid.com) the consumer expects to have the right to use the material in the same way he or she would other physical goods: lending them, giving them, reselling them, using them anywhere and in any way possible, etc. This incompatibility of the rules with consumer expectations has delayed the industry's efforts to integrate electronic music distribution into its business model. According to its founder and CEO, one of the pioneers of "legitimate" paying music downloading websites, *Supertracks*, failed because consumers did not understand, or would not tolerate, the limitations imposed on their purchases (Jennings, 2000). Newer systems, such as the intensively marketed Apple ITunes Music Store (ITMS; www.apple.com/itunes), give their consumers more flexibility, but for 0,99USD per track. Users have probably not yet realized that any file they mistakenly erase or lose because of hardware problems, theft, fire, etc., is uninsurable and *will have to be purchased again*. In the end, the model of music "ownership" presented by ITMS is yet a different variation on the theme of "virtual" property.

Advocates of file sharing tend to present "fair use" as a "right" that must be recognized (or at least exercised clandestinely). Internet communities have been formed around the concept of a *right* to share music (among many others, www.zeropaid.com, www.p2pnet.net/). To articulate a claim or desire in terms of *rights* is a very modern thing to do, especially when the case one is trying to make is particularly weak. There is in fact no universal definition of what "fair use" consists of and the balance between copyright owners's and consumers' desires is contingent on politics and economics, not on natural law. More to the point, in concrete terms research has shown that the public in general is entirely oblivious, one way or the other, to matters of copyright infringement (Pew, 2003). What is far more immediately real to the average user are the tools available, technological capabilities, purchasing power, ownership and collection. And, to put it mildly, the signals are mixed about what is allowed and what is forbidden, what is easy and what is difficult, what is right and what is wrong.

For instance, companies that distribute file sharing software tools present a wholly and explicitly ambivalent discourse, in part as legal protection, in part as a warning to users, and in part as a wink to them. KaZaA, for instance, explains that "in order for everyone to benefit from the collaboration, users need to share appropriate files in accordance with the end user license agreement" (www.kazaa.com/us/help/guide_sharing.htm). Everyone of KaZaA's users, without a doubt, understands this to be false. Clearly, KaZaA would not exist without copyrighted files being shared without permission. The story of Napster, where it all started, is interesting. Napster did not die instantly, but it was progressively forced to close access to copyrighted files, causing its user base to lose interest. At the end, its users had practically nothing to share, and migrated to the newer P2P networks such as KaZaA, where copyrighted music was available. As an ironic footnote, remember that I have said that KaZaA's basic software package is free: in fact that is not entirely true. It is free in the sense that it does not require

an exchange of money, but users are forced to view advertisements on the KaZaA desktop (alternatively, they may buy a premium, ad-free version). Now hackers of course quickly wrote a fully functional version of KaZaA without the ads, called "KaZaA Lite." KaZaA's response: it is suing some of the distributors of KaZaA Lite for *copyright infringement*.

Other conflicting messages come from another link in the file sharing process, the Internet Service Provider (ISP). Take for instance major internet service provider Verizon and its justification of the cost of high-speed connections to its clients:

> Can't wait to hear your favorite artist's latest tunes? Forget about loading up in the car and making a trip down to the music store. Just get online with DSL and download your favorite MP3s in a flash. Download your favorite songs. View music videos online. Take advantage of the music section of DSL Live!
>
> And with the Verizon Online Special Edition MP3.com Music Platform, you get access to over one million songs, the ability to create custom play lists, store and manage all your MP3s, and more (Verizon 2003).

Of course Verizon, like other players in the increasingly concentrated internet portal/connection industry, is selling a paying (subscription and purchase) music service to its clients. But to do this, they must present the internet and fast connections as modern, must-have tools for music enjoyment. Music is sold as a "soundtrack for your life" (dixit Apple) an omnipresent wallpaper that must be served by central computers to local ones, and made portable in the form of huge libraries or at least in easily renewed and quickly swapped playlists. The latest Apple IPod 40GB portable player can store 10 000 tracks, or about 20 days of non-stop music (though its battery only lasts 8 hours) — which on the Music Store would cost some 10 000USD. Clearly, the incentives to procure at least some of this music for free are, understandably, quite powerful.

In brief, the file sharer's world is structured and, to use ethnomethodological vocabulary, made "accountable" by law, by technology and by advertizing. The file sharer lives in a narrative of rights and of musical consumerism which he or she enacts daily through practical use.

b. Compromised profitability

The US music industry has seen diminishing sales for the last few years, both in number of units sold and in net income (RIAA numbers are -4,1% for 2000–2001 and -8,2% for 2001–2002; RIAA 2003). Still, these numbers are not entirely informative and the relationship between file sharing (and large scale piracy) to sales is not as simple as it would seem. In fact many other factors should be considered before singling out file sharing as a significant cause of the sales decline. For example, during the same period the quantity of new music released yearly diminished noticeably (RIAA figures show 31% fall through the 1990s), while the retail price of audio CDs increased — incidentally, major music industry players Vivendi and Warner were recently sanctioned for price fixing by the US Federal Trade Commission (FTC, 2003). Further, a large portion of the drop in overall sales may also be due to the quick disappearance of the audio cassette as a musical medium, as the hardware necessary to play it is becoming harder to find in electronic retail stores (cassettes also happen to cost twice as much as a audio CDs to produce). It seems reasonable to suspect that such factors may have affected sales,

but industry representatives never analyse these effects. Rather, the RIAA invariably releases news about falling sales together with news about increases in counterfeit CD seizures and increases in "on-line theft" (for example, RIAA, 2002).

In other countries the situation is often different. In France, for instance, while in the same situation in terms of CD copying, with recordable CD media sales up 44% in 2002, music producers have seen a 10% *rise* in their income (UFC, 2003). The Australian Recording Industry Association (ARIA) has admitted that falling sales may not be related to file sharing (Sidney Morning Herald, 28.01.03). According to ARIA the reasons for lower profitability include economic conditions and competition from mobile phones and from computer and console games (XBox, GameCube, Playstation and computer games typically sell for 60 to 80$) in the teenage consumer pool.

As already mentioned, the question of the "real" effects of file sharing on the industry is of no interest to me. What is important is the claim being made and how it is supported. By and large the discourse of the industry in general is that file sharing has unquestionably attacked their profit margins and is threatening the viability of an entire economic sector. Here the word "unquestionably" is meant literally: the mere conceptual proximity of the figures offered in argument is taken as proof of a causal relationship. One of the more blatant examples comes from the Québec (Canada) *Association du disque et de l'industrie du spectacle québécois* (ADISQ). Despite the fact that sales of music by ADISQ members has been steadily *increasing* (ADISQ, 2003), in its literature the Association blames downloading for compromising sales and to support an argument for levies to be imposed on ISPs as facilitators:

> In order to curb the spread of unpaid music the ADISQ will do everything in its power to ensure that internet service providers contribute financially to the production of Canadian content, to which they greatly facilitate free access. As an indication, the following figures are quite significant (*très éloquents*): 1 billion music files available; 100 million users of software such as KaZaA, downloading 2,6 billion files every month (ADISQ, 2003a, my translation).

In all logic these figures are missing a crucial element if they are to form an argument: there is no explanatory, causal link present between the measured variables. Other than through their spectacular size, they mean absolutely nothing; they are essentially rhetorical, they are at the same time « *très éloquents* » and empty. We have already seen the extent to which this war is a war of statistics, and usually grossly manipulated statistics. Yet whether the numbers are accurate or not, their meaning is always a constructed one — but where no trace of construction remains: no explanations, no causal analyses, no breakdown of the figures, just relatively large numbers placed in a rhetorical structure. In the same vein, on the CRIA website there are very precise statistics on many aspects of file sharing technology and economic losses, but only a one line paragraph claiming that a "significant proportion" of said losses are due to file sharing. In other words, all-important precision breaks down at the core of the subject at hand, where CRIA happens to be intensively lobbying governments for new laws, new levies and stronger enforcement.

Nowhere in the world has this war been more savagely fought than in the United States, without a doubt because of the enormous power of the industry in that country and a favourable legal context. And due to the US industry's international dominance, both its

predicaments and its tactics tend to have political, legal and social effects throughout the world. The RIAA commonly offers a figure of 4,2 billion USD for the losses caused by file sharing in the US alone. Unsurprisingly, this number is entirely fictitious, as most other statistics quoted (from all sides) in this matter. BMG Germany also explained to a well-known Web magazine (*The Register*, 2003) that "half" the disks in use were copies — simply based on the raw number of writable media units sold compared to the number of commercial audio CDs sold, assuming that each individual writable CD is transformed into a music CD by the user. EMI calls file sharing "online digital piracy" and also measures its spectacular growth by the global sales of writable CD media and CD burner ownership (EMI, 2003: 5; in fact almost 50% of blank CDs are used by enterprises for data backup purposes). At the very least, the simple fact is that there is no way to know with any reasonable degree of certainty what users do with their writable CDs, just like there is no way to account correctly for industry losses, let alone to attribute them to a specific cause. The numbers are simply part of the discourse of theft and computable monetary value that industry representatives use to speak to investors about their economic performance and to governments about law.

c. Thieves and pirates: "educating the public"

Legally speaking, file sharing falls under copyright laws and since the mid-1980s violations of copyright in the US and in Canada are punishable by criminal penalties of fines and imprisonment (they are "felonies" in the US and "indictable offences" in Canada; for more detail see Penney, 2004). So far this has obviously failed to deter most file sharers. As we have already mentioned, most people do not consider copying music a crime. Changing this subjective opinion has been an important target of the industry, who has made intensive efforts to "educate" the public on two main aspects: first, assuming that average citizens are unaware of the content of their laws, it has ventured to inform them that file sharing is in fact illegal, and criminal, and that there are statutes and punishments that apply to it. Most of the industry's prestige literature on the subject makes of point of listing the various punishments allowed by the statutes. Actual prosecutions may be thought of as pedagogic examples.

Second, the industry has also claimed that file sharing is *harmful*: it financially harms not only multinational conglomerates but also the artists and the technicians. Within this particular discourse, while very successful artists and record executives may not feel the pinch, it is pointed out that the shortfall in revenue for the producers weakens their incentives to invest in new, unproven talent or in any music less likely to attract wide public attention.

At the core of both educational strategies is the argument that file sharers and the public at large are simply *factually and morally wrong* when they estimate that copyright infringements are not serious acts. In order to inform the public of those facts, the MPAA for instance has recently been running "average Joe" movie craftspeople adverts in theatres, where a set painter, a grip, a make-up artist and a stunt man each explain how their livelihood is endangered by illegal movie downloading. More can be seen on the MPAA's "RespectCopyrights.Org" website. The Canadian Value for Music Coalition, an interest group representing record companies in Canada, has launched a comparable "KeepMusicComing.com" website, where visitors (the language used seems to presume they are teenagers) are told that

> when you buy music in Canada, your cash helps support a Music Creation Network where more than 40 000 people work hard at producing the music you love. This includes artists, writers, musicians, producers, engineers, retailers that sell music, music publishers [...] new artists get a chance to be heard [...] (Canadian Value of Music Coalition, 2003).

The need to erase the apparent distinction between file sharing and theft also explains why laws in the US bear titles such as the 1997 "No Electronic Theft Act" or the currently debated "Artist's Rights and Theft Prevention Act." Yet, of course, file sharing enthusiasts note that copying information doesn't make it disappear: it has no bearing on others' enjoyment or ownership of the same information — as economists say, information, be it in written, musical or motion picture form, is "non-rivalrous." This does not resemble our everyday individual experience of theft in any way, which is one more reason why we must be educated and reformed (on the need for a "total" government/private enterprise education programme, see Tang, 1997). File sharers also underline that 1) the exact loss incurred by the victim of copying is nearly impossible to ascertain, in part because 2) the deprivation argument assumes that those who acquire a non-licenced copy of a work would, had this illegitimate alternative been unavailable, have actually purchased the music. At the same time, the absence of concrete, physical objects not mean that the concept of property has disappeared from public discourse as it applies to intellectual property. We have seen, for instance, that for-profit counterfeiting is clearly out of tune with conventional moral judgement. On this aspect at least, members of the public do not appear as uneducated, amoral profiteers. Simply, copying information and making it freely available for further copy falls significantly short of the conventional definition of theft in the physical word; it is "virtual theft."

Because of this distinction, it is likely that "educating the public" will entail far more than informing customers that laws exist against file sharing. It will involve a reorganization of the boundaries of what legal experts refer to as *mala prohibita* and *mala in se*. Violating copyright must become a crime in itself, and not simply a statutory offence, i.e. something that is punishable only because rules prohibit it. This is important because the average file sharer assumes that the statutes were written under pressure from the industry they are meant to protect: he or she must now be shown that there are objective, universal moral standards behind the statutes. Tang (1997: 204) says that "'Joe Citizen Users' need to be instilled with a sense of *noblesse oblig*e with respect to intellectual property rights as much as they will need to be convinced that intellectual property laws are implemented for the benefit of society."

Accordingly, the educational drive is aimed at those most likely to regard virtual theft as less than theft, and it is gaining support from institutions who may be liable for the actions of their customers, namely universities:

> 'Universities have a collection of millions of students who are making the transition from adolescence to adulthood, and part of what we do is give people an appreciation for ethics and morals,' said Graham Spanier, president of Penn State University (quoted in Evangelista, 2003).

In Canada, CRIA has used KaZaA's Instant Messaging function in an effort to educate the file sharers as to the dangers of their behaviour. The message invites users to visit CRIA's website to be further educated with a page titled, "The 'Free Music' Myth" and the "ten biggest myths

about 'free music'" (CRIA, 2003). The page contains the conventional explanations that paying for music helps companies invest in the talent that music consumers enjoy, that the price of CDs covers not just the actual physical CD but the countless people who helped bring it to the world, etc. Interestingly, CRIA has begun to depart from its image as being less authoritarian than the RIAA and is now also threatening its consumer base with lawsuits or criminal action — though this strategy may fail in Canada, where actual, direct financial loss must be provable for Crown attorneys to engage in prosecutions. What is more, CRIA has also lobbied for a drastic expansion and augmentation of the royalties Canadian consumers of writable media have been paying (the proposal from the Canadian Private Copying Collective [CPCC, 2003], had levies going up 300% and apply to flashcards and the internal memory of portable digital audio players — this was rejected by the Copyright Board, who imposed much lesser increases). Suing or threatening to sue individuals who burn CDs for their own use seems to create important contradictions. As of April 2004, CRIA's test suit against 29 file sharers known by their KaZaA nicknames has failed, the presiding judge ruling that internet users' privacy was to be protected. The judge also added that under the existing laws copying files through the internet was permitted as "personal use," and no more harmful than having photocopiers on library premises. This probably means that CRIA's efforts to have copyright law amended in Canada will redouble.

3. Technological and legal remedies

The internet is particularly well adapted to the free flow of information — that was its primary function. It is now being redesigned in order to allow for the commercialization of this information (Litman, 2002). The vast majority of files available on the internet are free — they are the web pages browsed by millions, with their components, which exist precisely to be downloaded and watched, read, listened to at leisure. Copyright applies to those as well, but is entirely without consequence to the average user. The creation of a sub-category of restricted files, which must be paid for and come with usage limitations impacting ordinary practice, involves the construction of new rules and the transformation of the medium. The music business, in this case, is not adapting to the reality where it wants to function; it is trying to adapt that reality to its already existing structure in order to stop the use of the medium for free distribution and harness its power for commercial exploitation (online sales and commercial, paid downloads). Now there are many different tools that can help this restructuring, one being marketing, or education, as we have just seen. But criminal law has the clear advantage of implying that the full strength of the state's enforcement resources will be mobilized. Despite the fact that overuse of criminalisation tends to create its own problems — for one, the progressive alienation of the general public from the law (Brodeur and Ouellet, 2003), this gives the impression that a quick and decisive response has been applied to a problem.

The industry is attempting to transform what is (wrongly or rightly) perceived as a business and technology problem into a social problem for which, as both primary victims and as primary users of digital music technology, they are claiming *expert* status. It is defining itself as the final authority on the identification and on the eradication of the problem, lobbying

governments both as victims and as experts on the tools of its victimisation, which is typically a powerful combination.

Among the other already mentioned competing explanations for the decline in audio CD sales, file sharing is probably the most tangible and easily identifiable one, which means that it constitutes a clear and obvious focal point for claims-making activities on the part of industry representatives. Unlike consumer tastes, habits, the future developments of technology, competition from unrelated forms of entertainment or the vagaries of the economy, file sharing can be precisely circumscribed, only targets marginal (if not illegal) forms of business, such as P2P software distributors, and it presents a number flanks that can be attacked.

As should be obvious by now the legal aspect of this question is inextricably bound to its technological one. What is perhaps less obvious is that, as we will see, the usual understanding that technology forces the law to adapt is wrong, in the sense that the main drive behind legal changes have their source not in the concrete and practical characteristics of the technology, but in the way in which they can be formulated by empowered speakers. In other words, it is a mistake to concentrate on the technology as a source for either claims-making or law-making. In this story, the technology is only a blank slate onto which meanings are applied.

a. Techno-fixes

Modern audio technology is increasingly MP3-friendly. From the home and portable CD players to car audio (Mazda even made a special "MP3" edition of its popular *Protégé* sedan, specially equipped with an MP3-compatible, high-power audio system), to DVD players, all are likely to be MP3 enabled. Virtually all PCs today come with CD writers and the ability to compile huge MP3 libraries and organize them on CDs, portable hard drives or flash memory media. Four years ago the average desktop computer's internal hard drive had a 6 gigabyte capacity; today, Dell recommends a 400 gigabyte unit on its mid-range *Dimension* series. In the midst of this evolution the recording industry has elected to use a variety of technological weapons to curtail the amount of CD "ripping" that the average user can engage in (the proficient user is usually not affected).

The first category of weapons are various attempts to make CDs impossible to copy. While this may be illegal in Canada (could artists who publish on copy-protected CDs collect a share of the levy on blank CD media?), there is nothing at all in the statutes that specifically has to do with it, and no judicial precedent to date. Yet a sizable proportion of CDs sold in Canada, as is the case in the US and in Europe, include one form or another of copy-protection. Sony's is called "Key2audio" and makes use of the fact that CD-ROM drives, unlike audio players, attempt to read all data tracks before establishing the disk's content and making it available to the system. By adding a garbled file at the end of the disk, Key2audio locks the drive and makes it impossible to access the rest of the contents. Users quickly found out that this scheme can be defeated simply by masking the area where the garbled security file is written, at the edge of the disk, with an ordinary felt tip marker. BMG's "Cactus Data Shield" operates much in the same way, except the security file happens to be a highly compressed, low-quality version of the music, which is actually played by the computer but unsuitable for copy. It can be defeated the same way (current CD-ripping programs, such as

Feurio, CloneCD and Exact Audio Copy can also defeat Cactus Data Shield). The latest copy protection comes in the form of SunnComm's "MediaMax," which automatically installs, without users' permission, software that prevents the disc from being played in a computer. This is so easy to defeat (one simply needs to turn off the "autorun" function in their CD-ROM drive's properties, or hold the "shift" key while inserting the disk) that it leads directly to a separate, new legal hurdle that we will touch on in the next section: in the US, *defeating the protection* in itself is illegal, therefore the protection scheme need not actually be secure in any way. Most countries are under pressure by the World Intellectual Property Organization (WIPO) to enact equivalent legislation.

Besides its false promise of security, copy protection has created an important backlash among consumers, who expect CDs to be playable on their computers. BMG has recently agreed to replace some of its audio CDs when large numbers of British consumers brought back "defective" CDs to retail stores. Copy protection also often prevents CDs from playing properly, or at all, on car audio systems, on many DVD/CD players, and on some portable CD players. In France a consumer protection agency (*Union Fédérale des Consommateurs*, UFC, 2003) is now suing major distributors EMI, Warner and Universal as well as retail chains for selling crippled CDs on the basis that they no longer meet consumers' reasonable expectations, including playing the disk on the hardware of their choice and making copies for private use.

Most of the industry's problems with consumer groups comes from the fact that copy protection technology is overly simplistic or "dumb:" it cannot differentiate between copy and mass copy, between reasonable use and piracy. It simply cripples the product and limits the usability legitimately expected by the purchaser. In its worst guise, such as Macrovision's SafeAudio, the actual musical data on the CD is purposefully corrupted, to a level which most CD players can overcome with the ordinary read correction that makes scratched CDs useable. Pickier CD-ROM drives identify the disk as "unreadable" (there are, as always, remedies for that as well). This form of copy protection is likely to shorten the CD's useable life, as normal wear and tear is added to the built-in errors.

All forms of copy protection also grossly exaggerate another, already problematic characteristic of digital information: the obsolescence of the media supporting it. This issue is already giving headaches to most librarians and archivists. The University of Montreal, where I work, still has databases and other useful archives on 5½" floppies — but not a single 5½" drive to read them on; practically speaking, this information has now disappeared, likely forever. This will happen to CDs in the short term, as the DVD standard replaces them altogether, for economic reasons. Current DVDs will be short lived also: the next standard, which will be read with shorter frequency "blue" laser, will require different media and its backward-compatibility may be limited. Any information that cannot be copied to the next media will have to be purchased again.

Besides creating a new claims-making group around the issue, the "reasonable consumer" and his protection agencies and spokespersons, this state of affairs does nothing to encourage purchase and collection of commercial CDs. In fact, it heavily *encourages* file sharing and downloading, as a way to defeat media obsolescence and lowered quality. It also defeats the artificial hurdles to private reproduction, as the less computer-savvy users, who

still want MP3s for their portable devices, will be forced to download from those who still manage to crack protection schemes. It is quite possible that the consequences will be entirely perverse, and that the better the protection, the more downloading, as fewer and fewer users will figure out how to rip CDs to their portables and will give up on the CDs. So far the music companies have attempted to close that door by corrupting the P2P networks with "garbage" files, which pose as MP3s but in fact contain no music (one such file, posing as one of Madonna's latest opus, instead had the artist herself yelling at the user, "what the fuck do you think you're doing?"). File sharers have been counting this as one more hassle on the way to free music, along with the "spyware" (programs that secretly report user statistics to the software publishers for subsequent sale), "adware" (automated advertising), and viruses which seem to come with the new territory.

Enters the second type of response from the industry: making its products available as downloadable files from "legitimate" internet distributors. As a general rule these files are immediately playable on portable devices. This solution requires that the files be both available for paid downloading but impossible to share with others, through technology called "digital rights management" or DRM. It is not necessary to go in much detail on this subject, but suffice it to say that in essence, DRM is a way to link a file to a particular set of hardware — the set can be wider (arbitrarily fixed numbers of PCs, portables, and "burns" to CD — typically, 3 to 5 of each) or narrower (tied to one single hard drive and encrypted for compatibility to a specific software content player and for a limited time) depending on the particular vendor. This is the technology used by the major internet music distributors such as the ITunes Music Store, the "new" Napster 2.0, MyMP3, MusicNet, Pressplay, Puretracks or Real Networks' Rhapsody. This is accomplished by tagging each file with extra data identifying it and describing its allowed uses; this data can be file metadata (attached data that is not part of the music or actual content of the file) or "watermarked" into the content itself (a watermark is an invisible/inaudible code buried inside the mass of data forming the musical content of the file). Microsoft, makers of the most widely used operating system offer a "Media Center Edition" version of their Windows XP which claims enhanced end-user functionality but in fact aims at making handling non-authorized files impossible or at least very difficult. CDs and DVDs made by users will only play on specifically authorized hardware, excluding most currently owned DVD players. Eventually, DRM could be used to secure per-view or per-listening charges for video or music stored on one's computer. This would report the user's habits and, tied in with advertising, would lead to individually targeted and continuously updated "suggestion lists" and "reminders" being served on personal computers, which would become entertainment vending machines personalized according to behavioural analysis of their owners.

In brief, the less authoritarian approach to securing content and protecting copyright, such as the flexible ITMS internet distribution scheme, which allows users to carry the music on portable devices and burn limited numbers of CDs, seems to be clearly more successful than the all-out attack on users' everyday practices. For now, users seem to judge that paying ITMS 0,99USD per song is reasonable (comparable websites in Canada charge 0,99CAD per song, which amounts to a 30% discount. With this type of math it will be hard to convince the users that the price of songs reflects something like their actual production value). Time will

tell, as ITMS's success may be due in part to extremely intense marketing and the brand loyalty of Apple customers, and it is still too early to judge if this model is viable for the other 97% of computer users. Early numbers for the Windows version of ITMS, launched with a tie-in with Coca-Cola which offered a free download with a bottle of Coke, have been lackluster. At any rate, this strategy brings the "reasonable consumer" back on board: music is again a commodity, it can be selected, chosen, bought, and it is meeting customers' expectations; commercial competition is back, and file sharing is "stealing" again.

Yet, on the whole the industry does not seem prepared to abandon the distribution of CDs in the short or medium term. Further, it also has to insure that payed downloading schemes replace free P2P file sharing, otherwise they are unlikely to remain viable much longer, ITMS's current success notwithstanding. To do this, it has turned to legislators and courts.

b. Legal responses

First, no matter how quickly or how easily it can be defeated, and most importantly, no matter for what purpose, in the US the Digital Millennium Copyright Act of 1998 (DMCA) forbids any circumvention of copy protection, regardless of the effort involved or the subsequent use of the file being accessed. It simply makes *any* tampering with the normal operation of the software criminal. For instance, courts have lately deemed that a program (DeCSS) that allowed users of the Linux operating system to play their own store-bought DVDs on their own computers, because the software had to break standard DVD encoding in order to permit it (by contrast, the Swedish case against the actual creator of DeCSS has failed, however). In February 2004 another software maker who published a package meant to make copies of DVDs was ordered by a US court to discontinue its product because it interfered with DVD encoding. No proof that the program was actually used to make illicit copies was required. The DMCA makes it a *felony* to actively circumvent copy protection schemes, even if the owner of the protected CD has a right to copy it for his own personal use. While other court decisions (RIAA v. Diamond Multimedia) have clearly allowed CD owners to transfer the content of audio CDs to other media (flash cards, other CDs, DVDs, hard drives, etc), acquiring the actual ability to do so may again be a felony if the audio CD happens to be copy protected, no matter how feeble the copy-protection used. In other words, legally the user it placed in a situation where he or she may have to *commit a felony in order to do something that is permitted by the law*.

The DMCA approach is so far unique to the US, but since it is a national response to the World Intellectual Property Organization (WIPO; www.wipo.org) and its 1996 WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty (WCT and WPPT; see WIPO, 2003), its impact could be global, as industry lobbies in other countries will offer it as (political, not legal) precedent. For now only the US, Japan and 37 other very minor states have ratified the treaty, but this is bound to change. In Canada, strong pressure from the music industry has come to bear on the Canadian Heritage Committee, which is conducting hearings on the need to update copyright laws. The Society of Composers, Authors and Music Publishers of Canada (SOCAN, 2002: 10) has asked that a "right of making available" be recognized (as

having always existed) and that circumventing it be considered an infringement of copyright under penal law.

The US legislation is a good example of maximal interpretation of content protection as well as the interface between law and technology. Not content with existing provisions in the DMCA, US lawmakers have tabled and passed multiple additional bills in federal and state legislatures to further criminalize file sharing. One such bill, the US Congress *Author, Consumer and Computer Owner Protection and Security Act* of 2003, would impose a maximum five year prison sentence or a fine of 250 000USD for each song downloaded on a P2P network. The bill also provides additional funding to law enforcement agencies to investigate copyright infringements. KaZaA alone consistently being used by 4 to 6 million people at any given hour of any day, it is hard to imagine how the justice system could absorb this many new criminals. The object of the law is clearly communicative: it aims at deterrence through intimidation (as an extreme form of "education"), but could not realistically be enforced. A few examples might be made, which will make the likelihood of indictment akin to that of being hit by lightning.

Criminologically speaking, effective criminalization is a political, legal, and also an enforcement matter. In Canada, investigating copyright infringements is under federal, RCMP responsibility. So far the RCMP has made it clear that monitoring the activities of copyright violators, unless they are linked to organized crime, is to be left to copyright holders. Mobilizing the agency to apply the law to private individuals sharing files on line, even if the "right of making available" was eventually explicitly added to the Copyright Act, will prove difficult, if not impossible. Barring a radical reorganisation of available resources, the result can only be one where an infinitesimally small numbers of infringers are actually caught — which in the case of marijuana possession has been an argument for *decriminalization*. In short, in Canada at least, criminalization of file sharing is bound to at best remain *de jure*, and at least to become a textbook example of a pyrrhic victory.

One avenue being used intensively in the US and in Canada is that of the civil suit. In the US the RIAA has launched almost 1 500 civil suits against file sharers. Usually this ends with the respondent signing an agreement where he or she agrees to destroy the files and pay between three and twelve thousand dollars — usually, marginally less than it would cost to defend oneself in court. CRIA has filed and lost 29 test cases in Canada. Companies have also been sued, with little success. In April 2003 a Los Angeles court found that the typical software used for swapping files (specifically, in this case, Streamcast Networks' Morpheus and Grokster) was legal. The judge found that whether individuals use the software to swap copyrighted files or not is not its producers' responsibility. Meanwhile, P2P networks and other modes of file exchange are flourishing: a very partial list would include Aimster/Madster, Audiogalaxy, Block, Blubster, Espra, FastTrack, Freenet, Gnutella, Grokster, Groove, iMesh, KaZaA, LimeWire, MojoNation, Morpheus, MusicCity, OnShare, OpenNap, Piolet, Publius, Shareaza, Snarfzilla, SongSpy, WinMX. To this must be added the multitude of websites that can be searched by special free MP3-scanning software, members-only small-scale file exchange communities, and most instant message services (ICQ, MSN) that allow for file sharing within small groups. Given this, the industry's push for criminal action is understandable.

Yet in the US the DMCA approach has caused much controversy since 1998 and another claims-making group, civil rights organizations, have banded together to oppose it. Recent cases where companies attempted to destroy their competition in unlikely markets for copyright law — computer printers (the Lexmark case) and garage door openers (Chamberlain v. Skylink case) — have shown that the overly broad language of the Act threatens to stifle innovation in a great number of fields. Nevertheless, Canadian music industry lobby groups are now pressing for increased criminal copyright protection. The Department of Canadian Heritage sees the problem of giving legal protection to copy protection technologies as a problem of balance between the interests of the copyright holders and those of the public — because so far, as we've seen, copy protection technology is incapable of distinguishing between copying that infringes copyright and that which does not (Canada, 2003). This is unlikely to remain the case much longer and "smart" copy protection, just around the corner, will be presented as *guaranteeing* consumer rights while only defeating true "pirating." This technology will for instance differentiate between back-up copies and distribution copies, allowing only the former as a legitimate practice for reasonable consumers, and branding the latter as piracy and theft. Only "illegitimate" distributors would attempt to defy such circumvention protection, which will greatly help the moral argument for outright criminalisation of all attempts to defeat copy protection schemes. Should this be granted, alongside with the "right of making available," *two* more crimes would be created around file sharing.

4. Conclusion: the production of crime as a claims-making activity

Clearly, the few facts presented by all sides of the debate are grossly incomplete, often inaccurate and never linked by even the most basic theory — as they are assumed to be entirely self-explanatory. Opinions on whether file sharing harms artists, businesses or working people, or whether overly broad copyright protection violates individual rights or stifle innovation are mere deductions based on rationalities specific to consumer groups, civil rights groups, file sharers, industry representatives or politicians. Yet these rationalities, as well as their resulting competing discourses of ownership, harm, "rights," good, bad, wrong and right, do connect with one tangible reality: that of everyday practices around the use of musical information (purchasing, enjoying, "ripping," up/downloading, etc.; creating, producing, distributing, promoting, selling, etc.). Yet instead of seeing technology as structuring these practices, it is more helpful to understand how incompatible practices attempt to redefine the technology. Each set of claims made by each of the main groups involved has its own representation of technology and the way it is being (mis)used. In this paper, I have focussed on the recording industry's claims and representations of technology, since my main interest was its campaign for criminalisation of file sharing.

As we have seen, in this discourse technology is a double-edged sword that may be used to cause *harm* to the industry, the artists and ultimately to society as a whole, therefore worthy of the mobilization of the criminal justice system. The goal is not eradication, but governance of this technology, to insure that only benefits are produced. The projected ideal is a reinforcement of mass consumption by an educated public, sensitized to the damage done

by file sharing and to the rationale of investing in future music through existing distribution structures.

We have looked mostly at the music industry's battle against file sharing, but the MPAA's problems — and its solutions — have been the same. So far movies have been somewhat protected by their large file size, which makes sharing more difficult. In other words, the movie industry is in the situation the music industry was in less than five years ago. In a rational world it may seem strange that it has elected to tackle the imminent explosion of the problem with the tactics that have already failed the RIAA. The MPAA's new "respectcopyrights.org" website shows not the faintest inkling that alternative strategies should be considered. Instead, the MPAA enjoins visitors to respect copyrights because they make movies possible, because they protect jobs, because it is criminal not to respect them — precisely the things that consumers have shown little concern for as far as music is concerned. For instance, one practice that has caused concern for the industry right now is the copying of rented DVDs; but MPAA members have chosen not to benefit from the experience of the RIAA members with regards to file sharing and media duplication, and will attempt to counter it with the same strategy, they have called for and, in the US, obtained the criminalization of all DVD copying.

But "claims-making" world is not "rational world." In claims-making world actors are not analytical, but semantic machines. They are producers of meaning. In order to represent diminishing profits as caused by the social problem of file sharing rather than as a business, economic, technological, cultural, marketing or any other kind of issue, the language of harm has been mobilized: harm to a sector of the economy, harm to artists, and harm to culture as a whole. It is a discourse about values rather than interest, and threatened values demand legal action: they are the consequence of a social problem (Spector and Kitsuse, 2001: 95). Adapting to inequity is immoral and thus incompatible with the claims being made, and would involve explicitly or implicitly abandoning the claims.

Criminological implications of this process are fundamentally important to understanding the construction of new crimes. Here new criminal law is being introduced and adopted not under public pressure, after scholarly analysis or after a new phenomenon has been found to threaten the public, but almost solely under pressure from commercial interests. In the US the No Electronic Theft Act (NET), the Digital Millennium Copyright Act (DMCA), the multiple extensions to copyright law and countless state-level statutes have been the result of intense but isolated lobbying by the main industry actors or their representative associations. Though far from an unprecedented occurrence, this case does present some interesting specific aspects.

First, penal law is being used to protect a technology of control. In fact, many technological weapons ostensibly used to protect the copyright holder have far broader uses. We have seen the example of DRM schemes, which can report usage statistics and behavioural information in order to maximize marketing efficiency and commercial revenue. This technology is capable of microscopic, file-by-file and minute-by-minute surveillance and control of entertainment (and other) uses of computers as well as many other devices (potentially, *all* networked computer-equipped devices, including ovens, refrigerators and cars). Of course under this regime the internet would become a closed space where only encrypted

information would flow, decipherable only by paying license holders and under strict conditions.

Second, the act being criminalized is one which a majority of the population is oblivious to, and which the majority of those who know and understand it happen to be the "criminals."

Third, the sheer numbers of individuals who engage in the criminalized behaviour essentially guarantees unjust, random enforcement. To legitimize this, criminalisation is presented as a form of education, a way to sensitize the public to the harm being done.

Fourth, the complexity required of the laws written to protect protection technology is such that it practically guarantees either overreach of the law or its accelerated obsolescence. As we have seen, the US DMCA has erred in the first manner. It will be interesting to follow developments in Canada and elsewhere. At any rate, the complexity also makes it impossible to understand for most citizens who are supposed to be "educated" by it, as well as for many professional jurists (MacKaay, 2002, says the DMCA is "blissfully unreadable").

Lastly, if I may engage in a bit of futurology, though the drive towards more law is opposed by competing claims-making groups, it is now unlikely that any of these groups can affect a redefinition of the problem away from criminal solutions. Newer technologies will be presented as responding to the concerns of consumer groups. Rights groups will be checked by the language of theft, piracy, unfair competition on the global market and the need for WIPO ratification. File sharers will be marginalised as bad consumers and bad citizens or simply as unruly teenagers.

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