

On the Proposal to Initiate a Blanket Levy System for Internet Service Providers to Enshrine Creators' "Rights to Remuneration"

A report on the social-technical dimensions of digital music

Prepared for the Songwriters' Association of Canada

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Introduction

This report covers several topics related to the current challenges regarding the remuneration of creators of artistic works that are made available in digital formats for mass distribution over the Internet. The purpose of this report is to provide an account of social behaviours around media and digital technologies that bypasses the (erroneous) conventional wisdom that suggests that the rights of creators are necessarily in opposition to those of consumers. As this report will demonstrate, when contemporary technologies are viewed in a non-deterministic manner, their potential to enhance the business of media distribution (and by extension, to provide remuneration to creators), while currently underutilized, is greater than that of preexisting analog technologies.

This brief report also summarizes the reasons why the current proposal by the Songwriters' Association of Canada (SAC) for a blanket levy and licensing system for Internet Service Providers that allow filesharing to take place on their networks is one with great promise. While the terms of reference for this report are too limited to permit a thorough comparison of this proposal to other models being currently discussed among Internet and legal scholars (notably Gillespie 2007; Fisher 2004; deBeer 2005), the concluding remarks should provide general support for the proposal as thus far developed.

Technological Determinism versus the Social Construction of Technology

Too often when we discuss and debate technology, our arguments fetishize the artifact or gizmo that has been recently introduced into our social milieu, and we overestimate the power of innovative objects to influence human behaviour. This is a fallacious viewpoint known as technological determinism. Philosophers of technology as venerable as Martin Heidegger (1977) and Herbert Marcuse (1964) [to, greater or lesser extent, arguably] espoused variations on this view in their view of modern technologies as structuring features in Western social life. Examples such as mass transportation systems, airplanes, and early warning missile detection systems are frequently cited using this perspective as technologies which prescribe very narrow pathways for human behaviour – once we've boarded a modern airliner, for example, we have absolutely no power to influence its course, apart from very extreme measures such as hijacking the aircraft.

Of course, we can point out many examples of technological developments in history where artifacts have been developed and discarded, supplanted by different technologies that have met with wider reception in a marketplace, or which solve a particular problem more efficiently for a certain group of users. Pinch and Bijker's (1984) famous example of the competing designs for the bicycle in France demonstrates the power of users of technology to influence its design. In the end, bicycles designed for racing (with a very large front wheel and a very small rear wheel) were less useful for

the general populace than bicycles designed for greater safety (rear and front wheels approximately the same size).

Contemporary popular discourse about digital formats and network design is too often framed in deterministic ways. Legal experts and creators' rights associations advocate for the prohibition of open file formats, for the prohibition of communicating about circumvention techniques, and for the use of content filtering or traffic shaping on data networks in order to curb behaviours that they view as harmful. In too many cases to date where rights holders have pursued such campaigns, a technological lock (either on the network or on the digital file itself) is considered the panacea to the problem of the mass exchange of digital copies of music and video without remuneration for creators or other rights holders. Technology is too often proposed as both the problem and the solution.

In the following sections of this report, I will point out how a social constructivist perspective (such as that espoused by constructivists like Pinch and Bijker, above), permits us to think about a number of *social* solutions to the problem of distribution and piracy.

Network Design and Intellectual Property Rights Enforcement

To address the question of how the movement of files might be tracked on the Internet, we can begin by talking about the relationship of encryption to efficacy in IP (Internet Protocol) based networks. Peer to peer file sharing encompasses a broad range of activities that can in one very crucial sense be distributed along a continuum of private and public. Some private networks encrypt machine identities, IP addresses, as well as file names so as to protect the privacy of the network's users. But the encryption methods used to secure these networks degrade their performance critically, which has discouraged adoption of highly encrypted file sharing protocols.

On the other hand, the more public a network is, the more efficiently it can run, as processor activity can be diverted away from encryption activities and toward the more efficient movement of data.

To illustrate the private end of this spectrum we need look no further than the venerable Usenet networks. Here, file sharing can occur completely anonymously, and in a completely encrypted fashion. However, the lack of speed of these networks make Usenet impractical for the sharing of large files such as copied DVDs or computer games. Typically, such files are shared over such networks by breaking them apart into a number of much smaller files, which the individual downloading the file will then have to reassemble using a file utility such as WinRAR, or something similar.

However, networks can be (and some are) designed for the express purpose of making

user file sharing behaviour fully public – which has the net effect of making the networks easier to use overall. This sort of design is consistent with the underlying structure of the Internet, which is a protocol designed for open information exchange (Rowland 2006, pp.361-362). Networks that are built using open code tend to be adopted by users who have an “open source” attitude about filesharing – and sharing personal information. Open code and open networks underlie what many view as a radically accessible public sphere (Lessig 2004).

This “open source” social behaviour, extremely prevalent in many Web 2.0 application environments (such as Facebook, Last.fm, or Myspace), can be easily exploited for commercial purposes. For example, in some commercial music recommendation services, such as Last.fm, users of the service voluntarily give up data about their listening habits in exchange for access to a library of users and their music collections. Such data is entirely suitable for mining by commercial enterprises (Hébert 2007a).

But quite apart from a future world in which data mining would become the *de facto* standard for determining remuneration for creators and performers, we are faced with an ever-escalating war of code between ISP efforts (under pressure from recording rights associations) to suppress filesharing activity and developers of file sharing software to circumvent such filtering protocols. Just this month, BitTorrent developers announced that they would be developing an extension to allow popular BitTorrent clients to bypass Comcast’s filtering protocols implemented in the summer of 2007 (“BitTorrent Developers Introduce Comcast Busting Encryption”, 2008). One can only expect that battles over how content is distributed over the web will continue without there ever being seamless control over torrent sharing activity. In short, there is no technological solution that will stop illegal filesharing over the web, save taking the web down altogether.

Format Design and Copyright Enforcement

A similar conclusion is inevitably drawn on the question of format design. DRM (Digital Rights Management) systems are all crackable (Gillespie 2007). To embrace DRM is to embrace a model in which content controllers are engaged in a perpetual war with hackers willing to break codes and disseminate their findings. Such is the case for all products that are currently pirated online, including games and software.

Music and film formats are vulnerable to an additional problem related to DRM: that of the “analog hole” (“Analog hole”, 2003). All music must eventually be encoded so that human ears can hear it, and this involves conversion into an analog signal, which can easily be re-captured and digitized by individuals using inexpensive audio equipment. This has been addressed by the RIAA in the past, leading to absurd propositions of litigation against consumers who copy VHS movies onto DVD-Rs (“Broadcast Flag”, 2003). Modern common law courts in North America simply could not agree with such

absurd propositions, and could not in any case catch every offender. Moreover, any garbage dumps containing discarded CD burners, tape recorders, or even the stray stereo-pair RCA cable would have to be sealed in concrete forever to prevent future criminal digital-to-analog conversions.

The Piracy Industry

The biggest pirates will still pirate in a DRM-dominated world, as they can always marshal more resources to facilitate their activities. These criminal organizations can always find a covert way of getting around ISP monitoring as well - whether through encryption, making use of filter-busting software (as described earlier in this report) or offshoring their services. The changes required to ensure a perfect world of enforceable DRM include international unity on copyright policy, universal standards of enforcement and punishment, universal technical (network and access) standards, control over open source software development, and a complete redesign of the way in which computers communicate over the Internet. In short, again, achieving this would be impossible without tearing down the web entirely and starting over again.

The people who would be most inconvenienced by a world in which DRM prevailed and in which closed network designs dominates (to the extent that these are actually possible) would be individuals trying to back up files or convert them from one format to another, who, while inconvenienced by escalating DRM wars and content monitoring, would still, with effort, be able to bypass any DRM system via the analog hole.

Levies, Licenses and Royalty Collection

A blanket license and levy system for ISPs is one of the best options facing regulators and the Internet industry. The logic of this model – either a statutory or voluntary collective license, which presumes users will share files - could be very cheaply extended to search data - which is the best data available on internet use and file sharing habits. Such data can be easily monetized, as has been evidences in the search marketing industry. Many developers leverage Google's Application Programming Index [API] or the Facebook API to achieve accurate data mining applications, which can be easily exploited for commercial purposes (marketing, online advertising, and general market intelligence). The confidence in such systems of data aggregation can be easily understood when one considers the level of investment that has occurred in this sphere (CBS' purchase of Last.fm, News Corp.'s purchase of Myspace, Google's purchase of the data-rich Youtube, and so on).

Last.fm recently introduced royalty collection agreements with all major collections societies in the industrialized world ("Artist Royalty Program: What it's all About", 2008). This is surely a sign of things to come. Combined with the amount of capital and advertising revenue currently pouring into these social media sites, this development

points to a growing momentum of confidence in the reliability and precision of user-volunteered music listening and video viewing data among those who have been working in the music industry (whether in broadcasting, publishing, or in marketing) during this transition to an Internet-based model of distribution.

And while there are a number of companies who have already capitalized on the desire for precise market intelligence on online media consumption habits (such as BigChampagne.com), the growth of social media and data aggregation tools on the web has made acquiring such data much less expensive, such that independent music labels are now able to monitor global market performance of their products and bands almost effortlessly. Put concisely, the financial barriers to entry - once locked into complex, costly mechanisms for tracking record sales or radio rotation - are now trivial, and in some cases, free to obtain. And with the user-driven structure of social media sites and aggregators, privacy is not an issue at all - most data is given up voluntarily, as there are built in social rewards for participating fully in such systems (Baym 2007).

Conclusions: DRM and Content Filtering: Anti-enterprise, Anti-art

It would be prudent to point out that new models of creativity are evolving along with the widespread availability of tools that allow creators to remix the works of others freely (Jenkins 2006). To stifle this activity threatens to stifle not only emergent business models such as I have outlined above, but to stifle the creativity and potential transformation of media arts practice. Indeed, as some scholars have argued, the RIAA's onslaught against DRM-free music and music sharing over the Internet in general is at least partly motivated not because their copyright privileges have been infringed in cherry picked cases, but because the opening up of music production and distribution to many more individuals via digital technology and open networks directly threatens their market dominance (Hébert 2007b, McLeod 2005).

We also need to start thinking about the nature of media and creativity in designing systems of remuneration for those who earn their living (or try to) from them. William Fisher (2004) describes the problem succinctly using the terms "nonrivalrous" (enjoyment of the product by one person does not interfere with the enjoyment by any other person) and "nonexcludable" (once the product has been made available to one person it is impossible or difficult to prevent others from also accessing it) [pp.200-202]. With the advent of IP networks and modern household computing capacity, music and video have become both nonrivalrous and nonexcludable, in the same way that ships can all utilize the services of a lighthouse without paying the owner of the lighthouse directly for that use.

The current proposal advanced by SAC would ensure that that lighthouse owner gets paid, and it is one of the only sensible ways in which it can be technically accomplished in an era in which nonrivalrous, nonexcludable units of tradable media (music and

video) are ubiquitous and are the norm.

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