

George Wardle

---

**From:** John Cranfield *SG(2)(a)*  
**Sent:** Tuesday, 6 April 2010 1:01 p.m.  
**To:** trademarks  
**Subject:** Updated Proposal for Simon Power  
**Attachments:** Updated Proposal for Simon Power.doc; Updated Proposal for Simon Power.pdf

Dear Mr. Simon Power,

My name is John Silas Cranfield. Thank you for the response regarding my Internet piracy proposal. I have recently updated the document that I first sent you and have made it much more concise and clear. Here is the updated version of the document. My hope is that the basic fundamentals described in this document will be considered for future development of the ACTA.

Thank you again for getting back to me. Please let me know if I can be of any assistance.

Sincerely,  
John Silas Cranfield

*SG(2)(a)*

RELEASED UNDER THE  
OFFICIAL INFORMATION ACT



# 1. Illegal Downloading/File-Sharing Flaw: Defining True Reproduction In The Digital Environment

*United States copyright law, contained in Title 17 of the United States Code, provides that a copyright holder has the exclusive right to Reproduce a Copyrighted Work.*

## SUMMARY

This document is meant to point out a fundamental flaw in the current perception of Internet piracy and copyright infringement (illegal downloading/file-sharing). The current plight of the music and movie industries does not lie with the issue of “illegal downloading” or “file-sharing” per se, the real problem is the **unauthorized reproduction** of copyright protected digital media files by unregulated operating systems and digital media players (Ex. Mac OS, Windows OS, iTunes media player, Windows media player, YouTube, QuickTime, Mac OSX "preview"). **\*The Internet provides a computer with access to data. \*A computer provides a digital media player with access to files. \*A digital media player provides the user with access to content (music and movies).** No substantial progress will be made in the fight against Internet piracy until this simple truth is realized and appropriate measures are implemented into law.

To make this point clear, it is important to fully understand the terms used in copyright law and subsequent discussions. A series of important terms and definitions (some familiar, some not) that will be referenced within the body of this document are located in the index section below.

## BODY:

Copyright is secured automatically when the work is created, and a work is “created” when it is **fixed** in a **copy** or **phonorecord** for the first time. Copyright protects “original works of authorship” that are fixed in a **tangible form** of expression.

The current legislative focus seems to be on regulating the acquisition or “downloading” of illegal **data** and not on controlling and regulating “true” reproduction (digital media players and duplication software). True “reproduction”, in the words of copyright law, does not occur until (1) the appropriate data is downloaded from the Internet to the users computer hard drive, (2) the operating system converts the raw binary data into a visual file or “icon”, and (3) a digital media player (audible reproduction) and/or a CD/DVD burning software (physical duplication) converts the **computer file** into a **digital media file** format (Ex. AIFF/WAV/MP3) and perceivably

reproduces the song or movie. Most often, steps 2 and 3 are setup to take place automatically, when in fact they are completely separate instances and should be treated as such.

Legislative focus needs to be placed on the point of **tangible reproduction** because an “illegal download” or a “shared file” is neither **tangible** nor a perceivable **reproduction**. A **downloaded file** is, by its very definition, **intangible**. The case of Viacom vs. YouTube is one of the few instances where the legal focus has been brought to the point of actual or “true” reproduction. **Regulating and registering the operating systems, media players and duplication software (within “complex machines” i.e. desktop/laptop computers) that are responsible for true reproduction is the only way to ensure the protection of copyrighted digital media files.**

Technically, a download is completed when data has been written to the users computer hard disk. A “**download**” does not include the processing (translation) and reproduction of this binary data (or file), by the operating system, into a perceivable **file icon**.

#### **Definition of ‘phonorecord’:**

- Material objects embodying (concrete and perceptible) fixations of sounds, such as cassette tapes, CDs, or LPs but excluding motion picture soundtracks.

#### **Definition of ‘copy’**

- Copies are material objects from which a work can be read or visually perceived either directly or with the aid of **A machine OR device**, such as books, manuscripts, sheet music, film, videotape, or microfilm.

**\*\*\*A machine OR device\*\*\***

A hard disk drive containing “illegally downloaded” **data** cannot be classified as a **phonorecord**, because the hard drive only contains magnetic representations of binary digits and is not a “concrete and perceptible fixation of sound”, and thus, cannot be a violation of copyright law.

Furthermore, a hard disk drive containing “illegally downloaded” **data** cannot be classified as a **copy** either, because the **data** cannot be communicated with the aid of **A (single) machine OR device**, and thus, cannot be a violation of copyright law.

**\*The term “computer” technically only refers to the computer itself -- not the monitor, keyboard, and mouse. In turn, a desktop (or laptop) computer cannot technically be classified as a single “machine” or “device”, because it is a combination of many machines and devices. Also, a computer does not have one dedicated or “particular purpose”; they can be used for many different “applications”.**

**\*Clearly defining desktop and laptop computer systems as complex machines and devices is crucial. As complex machines and devices they must be treated with more respect and scrutiny than say an iPod or a DVD player. Although a laptop computer can perform the same basic functions as both of these dedicated playback systems, a laptop computer cannot be classified**

with them. By nature complex desktop and laptop computers have countless applications and fall far from the title of “A” single machine “OR” device.

Computers do not store permanent phonorecords or copies they only permanently store data. When a computer is turned off or shut down, all that exists on the hard drive is “raw” **data and computer files**, which is unperceivable to the end user without the operating systems help. When the computer is turned back on the operating system must first be loaded, after which the raw data can be re-processed and re-displayed to the end user with the use of icons. The phonorecords and copies that a computer provides access to only exist only within temporary RAM (random access memory) storage. These temporary phonorecords and copies are not permanent fixations of sound.

Upon completion of an “illegal download”, arbitrary **data** has been transmitted through the Internet infrastructure and written to a local hard disk.

Q: Has the user violated any copyright law? (The automatic translation of this data into a visual icon has not yet occurred)

A: No, a perceivable and tangible reproduction of the copyrighted work has not yet occurred.

Q: Are the stored magnetic values representing 1’s and 0’s (binary digits) on the hard drive in the form of a **digital audio file**?

A: No, they are in the form of a **computer file**, a digital media application such as iTunes or Toast is needed to convert the computer file into a **digital audio file**.

Q: Does the process of downloading magnetic representations of binary digits (**familiar symbols or designs**) to your local hard disk constitute the creation of a **fixed phonorecord** and in turn violate copyright law?

A: No, Copyright only protects “original works of authorship” that are fixed in a **tangible form** of expression. Since the current state of the “download” is merely arbitrary information that has been stored on a hard drive, and has not yet been processed into a perceivable file icon, nor has it been fixed in a material object embodying (concrete and perceptible) fixations of sounds, a violation of copyright has not occurred.

Q: Is the process of downloading binary data over the Internet illegal?

A: No

There is not A (single) **machine OR device** capable of directly **reading or perceiving** magnetic information (1’s and 0’s/”on” or “off”) from a hard drive into **precisely identifiable** fixations of sound and/or audible reproductions.

Example: iTunes 8 can currently read, write and convert between MP3, AIFF, WAV, MPEG-4, AAC and Apple Lossless. (**Not raw and unprocessed magnetic binary data**)

The digital audio file does not exist (is not “reproduced”) until the magnetic information on the hard disk is translated by an operating system and displayed visually on a computer display, this form is still not a “concrete and perceptible fixation of sound” because it is merely a visually translation/reproduction of the data stored on the hard disk. Once a visual reproduction of the audio file has been created and displayed, the data from the hard drive can then be processed and reproduced into a **tangible form** (phonorecord/copy) with the use of a digital media player (audible reproduction) or disc burning software (physical duplication).

The automatic processing of downloaded data into a visual icon is most cases generically thought of as part of the “download” when in fact they are two entirely separate operations. The two operations are absolutely separate being that a download involves information being **written** to the hard drive, the processing of icons involves information being **read** from the hard drive. This is a very important distinction that needs to be realized.

If a hard drive cannot legally be classified as a **phonorecord** or a **copy**, how can any act of **downloading** or “**buffering**” be considered illegal? Since only true **phonorecords** and **copies** are protected by copyright law.

Have we been barking up the wrong tree this whole time? Is “Illegal Downloading” or “File-Sharing” even the problem? Shouldn’t the spotlight be placed back where it belongs, on the companies that make and distribute the hardware and software that enables and facilitates actual copyright infringement? Ultimately, ISPs deliver data to computers, what is done with this data after the download is completely up to the computer/user. With an “illegal download” rate of 95% (IFPI report) it is easy to see that, without proper representation of copyright holders at the point of true reproduction, there is no hope or future for the creators and sellers of digital media.

Since the Betamax precedent was recently not allowed as a defense in the RIAA v. Usenet.com case, it would seem that the impenetrable wall surrounding the hardware manufacturers, and more importantly the computer software companies, has finally been broken down. Shouldn’t we get back to where the RIAA rightly started out with the Diamond Rio Case? Apple, Microsoft and others are getting rich off the illegal reproduction, duplication, and exploitation of all copyrighted digital media (especially music and movies), while the artists and producers responsible for the creation of these works are left high and dry.

Here is a link to an interesting document from the U.S. Copyright Office that deals with very similar subjects.

<http://regulations.justia.com/view/125757/>

#### **INDEX:**

##### **Definition of ‘phonorecord’:**

- Material objects embodying (concrete and perceptible) fixations of sounds, such as cassette tapes, CDs, or LPs but excluding motion picture soundtracks.

##### **Definition of ‘copy’**

- Copies are material objects from which a work can be read or visually perceived either directly or with the aid of A machine OR device, such as books, manuscripts, sheet music, film, videotape, or microfilm.

\*\*\*A machine OR device\*\*\*

A **Download** is:

- The transfer of **data** from the memory of one computer to that of another.
- The transfer of **data** from a usually large computer to the memory of another device (as a smaller computer)
- The transfer of electrical signals (which are then converted into magnetic values that represent binary digits) from one hard drive to another local hard drive over the Internet.

A **File** is:

- At the lowest level, many modern operating systems consider files simply as a one-dimensional sequence of bytes. At a higher level, where the content of the file is being considered, these binary digits may represent integer values, text characters, image pixels, audio or anything else. **It is up to the program using the file to understand the meaning and internal layout of information in the file and present it to a user as more meaningful information (such as text, images, sounds, or executable application programs).**
- A **computer file** is a block of arbitrary information, or resource for storing information, which is available to a computer program and is usually based on some kind of durable storage.

**Definition of 'intangible'**

- not tangible; incapable of being perceived by the sense of touch, as incorporeal or immaterial things; impalpable.
- not definite or clear to the mind, existing only in connection with something else.

An **Icon**:

- May represent a file, folder, application or device on a computer operating system. In modern usage today, the icon can represent anything that the users want it to: any macro command or process, mood signaling, or any other indicator. User friendliness also demands error-free operation, where the icons are distinct from each other, self-explanatory, and easily visible under all possible user setups.
- May also be found on the desktop, toolbars and in the menus of computer application software such as Microsoft Office Word. Icons are made more user-friendly by being very distinct from every other icon. Each icon set may also have unifying features that show that similar icons are related to

each other. Virtually every major modern computer operating system has the ability to use an icon-based graphical user interface (GUI) to display information to end-users.

- On computer displays, a computer icon (or simply an icon) is a small pictogram. Icons have been used to supplement the normal alphanumerics of the computer. Modern computers now can handle bitmapped graphics on the display terminal, so the icons are widely used to assist users.

#### Definition of 'reproduce'

- to make or produce a copy of; to make or produce again
- to produce or exhibit again
- to bring back into existence again; re-create
- make a copy or equivalent of; "reproduce the painting"

#### Data is:

- Information in a form suitable for storing on a **hard disk** and processing by a **computer**.
- Information in numerical (binary) form that can be digitally transmitted or processed.

#### A Bit is:

- Short for **BI**nary digi**T**
- the smallest unit of information on a machine. A single bit can hold only one of two values: 0 or 1. **More meaningful information is obtained by combining consecutive bits into larger units. For example, a byte is composed of 8 consecutive bits.** They may be interpreted also as logical values, either "true" or "false"; or two settings of a flag or switch, either "on" or "off".

#### RAM (random-access memory) is:

- the **temporary** memory in the computer system and is used to store the data or information for the short span of time while processing is being carried out. The word RAM is often associated with volatile types of memory (such as DRAM memory modules), where the information is lost after the computers power is switched off.

#### A Device is:

- Any piece of equipment made for a **particular purpose**, especially a mechanical or electrical one.  
Example: (dishwasher, garbage disposal, computer display, hard disk drive)
- A contrivance or an invention serving a **particular purpose**, especially a **machine** used to perform one or more **relatively simple tasks**.

#### A Machine is:

- A **device** consisting of fixed and moving parts that modifies mechanical energy and transmits it in a more useful form.

- A **simple device**, such as a lever, a pulley, or an inclined plane that alters the magnitude or direction, or both, of an applied force; a simple machine.

- A system or **device** for doing work, as an automobile or a jackhammer, together with its power source and auxiliary equipment.

- A system or **device**, such as a **computer**, that performs or assists in the performance of a human task:

A **Complex Machine** is:

- a combination of simple machines.

- a system in which simple machines all work together, parts of a complex machine that have just one function are called subsystems and often contain a simple machine.

- an apparatus consisting of interrelated parts with separate functions, used in the performance of some kind of work: *a sewing machine*.

Ex. of **complex machines** can be as simple as scissors, or as complicated as a laptop

A **Computer** is:

- a programmable **machine** that can execute a programmed list of instructions and respond to new instructions that it is given. Today, however, the term is most often used to refer to the desktop and laptop computers that most people use. When referring to a desktop model,

\*The term "computer" technically only refers to the computer itself -- not the monitor, keyboard, and mouse. In turn, a desktop (or laptop) computer cannot technically be classified as A single "machine" OR "device", because it is a combination of many machines and devices. Desktop computer systems and laptop computers are more accurately defined as complex machines or complex devices.

\*Clearly defining desktop and laptop computer systems as complex machines and devices is crucial. As complex machines and devices they must be treated with more respect and scrutiny than say an iPod or a DVD player. Although a laptop computer can perform the same basic functions as both of these dedicated playback systems, a laptop computer cannot be classified with them. By nature complex desktop and laptop computers have countless applications and fall far from the title of "A" single machine "OR" device.

Definition of 'Tangible':

- capable of being perceived especially by the sense of touch: **palpable**

- substantially real: **material**

- capable of being **precisely identified** or realized by the mind <her grief was *tangible*>

- capable of being appraised at an actual or approximate value <*tangible* assets>. The fixation need not be directly perceptible so long as it may be communicated with the aid of A machine **OR** device.

**\*There are several categories of material that are generally not eligible for federal copyright protection. These include among others:**

-Works that have not been fixed in a tangible form of expression (for example, choreographic works that have not been notated or recorded, or improvisational speeches or performances that have not been written or recorded)

-Titles, names, short phrases, and slogans; **\*familiar symbols or designs; mere variations of typographic ornamentation, numbers, lettering, or coloring; mere listings of ingredients or contents**

-Ideas, procedures, methods, systems, processes, concepts, principles, discoveries, or devices, as distinguished from a description, explanation, or illustration

-**\*Works consisting entirely of information that is common property and containing no original authorship (for example: standard calendars, height and weight charts, tape measures and rulers, and lists or tables taken from public documents or other common sources)**

iTunes (digital media player) is:

- a proprietary digital media player application, used for playing and organizing digital music and video files. The program is also an interface to manage the contents on Apple's popular iPod and other digital media players such as the iPhone and iPad.

## 2. Digital Media Copyright Protection & Authorization Plan

*United States copyright law, contained in Title 17 of the United States Code, provides that a copyright holder has the exclusive right to Reproduce a Copyrighted Work.*

### SUMMARY

- *Restore and Protect* the rights of all entertainment professionals.
- *Secure the Digital Entertainment Marketplace* by Strictly Regulating ALL Operating Systems and Digital Media Players.
- *Regulate Playback, Distribution, Duplication and Exploitation* of ALL copyrighted media files.

This document is meant to outline an alternative way to combat Internet piracy (illegal downloading/file-sharing) with a system that would preserve net neutrality while allowing for a fair and legal online distribution infrastructure for all copyrighted digital media. The rapid advancement of computers and Internet technology has given great power to billions of people, and fueled the creation of countless pieces of amazing software. So far this power has been knowingly misused by consumers to the detriment of not only the recording and movie industries of the world, but has also contributed, in some way, to the current economic crisis. "Free" music and movies (i.e. "Pirated"/"Unauthorized") have become very lucrative commodities for computer manufacturers and Internet Service Providers as well as an added bonus for the consumers/users that choose to exploit the current weakness in the Internet/personal-computer infrastructure.

iTunes media player, Windows media player, and Quick Time media player etc. as well as Mac, Windows and Linux Operating Systems willfully allow their users unauthorized access to copyright protected media. These programs and others like them willfully afford anyone with a computer and an Internet connection the power of unlimited and unauthorized reproduction, duplication, and distribution of copyrighted digital media files. **\*ISPs provide computers with access to data. \*Computers provide digital media players with access to files. \*Digital media players provide users with access to content (music and movies).**

## DESCRIPTION

(The remainder of this document focuses primarily on digital audio files, but the basic principles outlined can be applied to all other copyrighted digital media)

When you purchase an album from iTunes, what are they really selling you? Are they selling you the “exclusive right to reproduce a copyrighted work”? No, they are only selling you the opportunity to download the data needed to eventually reproduce the file...on to your local hard disc, “legally”. They cannot sell you the “exclusive right to reproduce” the works because they’ve chosen not to protect the copyright owners rights, even though the technology to do so exists. The question of legality of digital media needs to be focused more on the point of “true reproduction”, which only exists in operating systems, media players and duplication software.

iTunes media player grants access to all digital audio files, whether the user has authorization to exploit the works or not. In this respect, the parallels between iTunes MP and YouTube are hard to ignore. Fundamentally, the only difference between iTunes MP and YouTube is where the source data is stored. True reproduction does not occur within the confines of the Internet infrastructure. True reproduction only occurs within the computer whether it be from a streaming website like YouTube or from a host application such as iTunes media player. In both cases, users are granted access to copyright protected material without authorization from the copyright holder. How or where the user acquires the data needed for eventual reproduction is unimportant.

One of the most revolutionary and exciting new technologies is a system of waveform recognition (fingerprinting) that is just now being incorporated into YouTube by a company called Audible Magic. Audible Magic has made it possible for copyright holders to regulate the unauthorized use of their music by YouTube users. When a file is uploaded, Audible Magic scans the file for unauthorized audio content. When unauthorized audio content is detected, Audible Magic's software deactivates the audio and the video is played back without any sound.

A similar system exists in a free iPhone App called Shazam. “Shazam” records an audio sample of a song that is playing (in a bar or supermarket for example) and automatically, within seconds, compares this sample with all known or “published” sound recordings available in the online music marketplace. Each audio file has a uniquely identifiable waveform or “fingerprint”. After this scanning process, the software tells you what the song is called, who the artist is, and where it is currently available to be purchased online.

**\*This waveform recognition technology will be the basis of a new system that will solve most, if not all of the piracy problems facing the recording and movie industries of today.**

What is needed is an international “Central Online Media Database” (like Audible Magic) that tracks and archives every single digital media file (DMF) purchase. All operating systems and digital media players must be reprogrammed and updated with strict authorization limitations and security features based on Fair Use. When data is initially downloaded and displayed as a file within the operating system, a checkpoint must be setup to establish whether or not the user has authorization to reproduce/exploit the file (DMF). This initial checkpoint would cover the first step of “unauthorized (visual) reproduction” of a copyrighted digital media file by the operating system. Copyright holders have the right to know where and how their works are being exploited, and to what extent. This could be possible with the integration of an expanded waveform recognition system, like the one Audible Magic has created, into all operating systems, digital media players, and duplication software.

The second step of “unauthorized (audible/physical) reproduction” by digital media players and duplication softwares could be handled in the following way. Before the release of an album, the artist would register their works with the ‘Digital Media Copyright Protection Database’. After being released these works will eventually be “leaked”. If a user downloads these file “illegally” and does not have the corresponding authorization codes, the files will not be displayed by the operating system and subsequently be unavailable for reproduction by a media player or CD burning software. This process could be repeated for every digital media release including movies and books. Eventually after the system is up and running smoothly the process could shift towards being retroactive. Albums and other media that were not previously protected could be registered with the database and eventually each digital media file could be appropriately compensated and accounted for.

After all digital media has been registered with the database and the retroactive process has begun it could go something like this...Imagine one day, after a routine update of your iTunes software, you open up iTunes, but instead of automatically opening as usual, you are asked to input your iTunes login information. Having a unique user ID/account linked to the consumer’s DMF library and authorization codes is critical. After which, your library is automatically scanned (“Audible Magic” “Shazam” style waveform recognition) and you are informed that you currently have 1278 songs and 24 movies files in your iTunes library that are in potential violation of Digital Media Copyright Protection Law. These unauthorized files will receive a “red-light” status. All previously purchased “legal” files will receive a Digital Media Authorization Code (DMAC), a “green-light” status and will be cleared for reproduction within the guidelines of Fair Use.

What has just happened is iTunes has compared all the unique “fingerprints” of your digital media files against all published DMFs in the “Central Online Media Database” and has separated your authorized/purchased files from your unauthorized/illegal files. Once this initial scanning and authorization/de-authorization process has occurred, all your account information will be saved and updated in iTunes as well as in your newly created online account (“MyTunes.com”, just an idea). The amount of copies issued, duplication capabilities, and duration of “authorized reproduction” will be at the discretion of the artist and/or label. This system would operate much like the authorization process currently in place by the “Waves”, “Digidesign” and “Celemony” software companies. These companies require authorization codes to be constantly present during the use of their software. This relatively new system has essentially made it impossible for consumers to use pirated versions of their software.

Once a Digital Media Protection System is in place all “Old” DMFs (digital archives of previously purchased CDs) or previously downloaded “File Share Media” will eventually become potential sales. These “Old” files will simply be “red-lighted” or deactivated, since there is no record of purchase, and will no longer be available for reproduction. At any point the user will be able to select a red-lighted (unauthorized) file, and be automatically directed to iTunes/LaLa/Rhapsody/Napster, or any other approved or “legal” online music store to purchase the corresponding authorization codes (DMACs) for those files. Once the user has obtained the DMACs for this previously downloaded media, those files will be “green lighted” instantly and be available for reproduction without the need of repeat downloading, although the option to download “fresh files” will be available.

All approved online music stores will integrate a universal authorization code system, and contribute all future and past records of purchased digital media files to the “Central Online Media Database”. These records of purchase will be linked to the unique fingerprint of the purchased DMF. All new versions of iTunes and Windows Media Player etc., under penalty of strict new Digital Media

Copyright Protection Laws, will be updated with this Digital Media Copyright Protection And Authorization System. Eventually after time and planned obsolescence has done its job, all (operational) computers will have implemented this system through mandatory software updates (iTunes already does this), and this current trend of rampant unchecked copyright infringement, due to unregulated and unauthorized reproduction of copyrighted digital media files, will be a thing of the past. In the future a consumer's entire music library will be able to be stored on one very small and portable device, accessible anywhere at anytime through the integration of "thumb drive" technology and mobile access to "Digital Media Authorization Codes", very close to the way mobile online banking works.

In regard to working professionals in the field of audio and movie production, "in-production" files will not be affected by this system. Upon importing "in-production" files will be scanned, just like all other files, and compared with all published DMF fingerprints currently available on the market, when they are cleared and approved as being unique and "unpublished" works under production by the artist and/or label, they will be authorized for reproduction without limitation (playback and duplication, i.e. CDs/DVDs). Upon the date of these previously "in-production" files being published, the "legal" digital media player will inform the professional that the files have been published and are now available for purchase. If the artist/label wishes to provide any consumer with an authorization that is free of charge, that will be made possible by each person having a unique user ID/ account (like Myspace). The artist will have the power to grant free authorization codes to whom ever they want.

The user will not need to be continuously connected to the Internet to enjoy listening to their music or watching their movies. When iTunes is opened and an Internet connection is not detected, the user will be able to access all previously "green-lighted" files in their library. All imported files (CD or otherwise) will be automatically "red-lighted" if an Internet connection is not detected. Once the user connects to their online account "MyTunes.com", these imported files will be scanned and appropriately accessed. This verification process is vital for ensuring and protecting the rights of the artist and label. If the imported file is not a "published" and "copyrighted" work available for purchase in the online marketplace, it will be deemed an original "independent" or "in-production" work and will be "green-lighted" for playback and duplication on all formats. If/and when that recording is "published" and becomes available online, the preauthorized file will be rescanned and "reassessed" once the user signs in to their online account. The Digital Media Protection And Authorization System would scan the users library each time they sign into their online account.

Current programs that can be used as models for the creation of this new Universal Digital Media Copyright Protection System:

- AUDIBLE MAGIC (waveform recognition "fingerprinting" and central database referencing)
- iTunes (online purchasing of digital media files)
- iTunes "Genius" (media library scanning and storage)
- "Shazam" iPhone App (waveform recognition "fingerprinting" and central database referencing)
- Myspace (unique user IDs, login prior to accessing content)
- Digidesign, Waves and Celemony plug-in authorization processes (substantial protection for digitally distributed goods and intellectual property)

### 3. POINT-OF-SALE=POINT-OF-PLAY

Artists and producers sell their intellectual property and copyrighted content, these products can be looked at in direct correlation to the money they will produce for the copyright holder. So if the distribution of the artist and producers content (money) is not treated with the same respect as the average persons checking account balance we have a serious problem. When Internet banking became popular, did money become free? No, because each person has access codes and login passwords so their money is protected from being transferred and withdrawn without their consent. A similar system of authorization and user ID's needs to be adopted in the entertainment industries in cooperation with the personal computers that are responsible for granting access to these copyrighted works (money).

Every time a person presses play on an "illegally downloaded" music/movie file, they are asking a question. These days, it goes a little something like this.

(User) Hey computer, can I please listen to this song/watch this movie for free?

(Computer) Absolutely, I could care less. Do whatever you want.

This has been the conversation between user and computer for the past decade or so. Notice how the copyright holder is left completely out of the loop.

What this conversation SHOULD sound like is this.

(User) Hey computer, may I please listen to this song/watch this movie for free?

(Computer) Ummm, Hold on let me check with the person who made it....hmm, Sorry, he said no. I guess he wants to be compensated for his hard work or something (shrug)

(User) Oh, well...what about this song/movie?

(Computer) That one? Lemme check for ya...ooow, yeah apparently those guys wanna be paid too. They said that it was really hard and expensive to make that record. So, yeah...Weird huh?

(User) Well, I guess that kinda makes sense...

(Computer) But if you wanna buy that song I can set you up...we can take care of that right now, it'll only take a second....

(User) Ummm, maybe later....ok, well how 'dout THIS song?

(Computer) Lemme check for ya...Oh, that one is good to go. Apparently she's an "indie" artist that's trying to make a name for herself. So, she said she doesn't mind, she's more interested in the exposure she might gain from offering her content for free.

The point of sale needs to be placed at the point of "true" reproduction, not on the sale of data needed for eventual reproduction on the User/Computer's terms.

## 4. Fictitious Example of ‘The United States Department of Complex Computer Machines and Devices’

UNITED STATES DEPARTMENT OF PERSONAL COMPUTERS

Mission Statement:

The United States DPC will effectively and efficiently serve the public by:

1. Registering personal computers to identify and authorize use and titling computers to establish ownership interest.
2. Promote and advance Internet Safety, Security and Satisfaction through the licensing of operators, their personal computers and regulating certain computer related businesses.
3. Establishing true identity to ensure the validity of licensed operators and Internet users.
4. Securing and protecting personal information.

Vision:

Our vision is to always evolve as an organization; to employ new innovative measures and strategies that improve customer service, enhance the security of the Internet infrastructure, foster staff development and satisfaction, streamline agency procedures, and promote clear and timely communication. We will improve the safety of those utilizing the Internet infrastructure through our licensing, monitoring and intervention practices. We will assist The United States in meeting its federally mandated Copyright and Intellectual Property standards. We will protect US consumers and businesses against fraud and unfair business practices. We will ensure the integrity and privacy of our records.

The development of such an institution is vital to ensuring a Safe and Fair future for the Internet.

## 5. VIN = IP

Automobiles are very helpful and very harmful inventions, depending on who is operating them. This is why they must be registered with a central database. The same goes for personal computers. They are very helpful and very harmful inventions, depending on who is operating them. An automobile has many uses, both legal and illegal. A personal computer has many uses, both legal and illegal. The similarities between automobiles and personal computers are extensive, as are the similarities between the Interstate Highway System and the Internet. How do we navigate our way through the "information superhighway"? We use personal computers as vehicles to take us to many different destinations, and to transport desirable goods (both legal and illegal) back to our homes.

The preliminary groundwork has been laid, and seemingly instantaneous International transportation between computers is now possible. Now the name of the game must switch to the licensing and registration of the operators and computers that make use of the infrastructure, that way the people who exploit the Internet and engage in illegal activity can be held accountable. Automobile transportation systems are the perfect model for what needs to happen with regard to securing the Internet infrastructure.

-When you purchase a car, the first step is always registration. The same should go for Personal Computers.

-The first automobiles were built in the late 1800's but the DMV was not established until 1917.

