

Collision Course: Progress v Exploitation
Emerging Intellectual Property Conflicts in the Digital Age

Clarence Wigfall

Copyright © 2010 by Clarence M. Wigfall, Jr.

“I've seen things you people wouldn't believe. Attack ships on fire off the shoulder of Orion. I've watched C-beams glitter in the dark near the Tannhauser Gate. All those moments will be lost in time, like tears in the rain. Time to die.” Roy Batty – Blade Runner

In the 1982 Warner Bros. film, Blade Runner, massively powerful corporations use manmade Replicants to do off planet work in conditions that are unsuitable or undesirable for naturally occurring humans. Replicants are biologically based on human cells and DNA but do not have the same rights as naturally born humans. If they return to Earth they are legally hunted and killed by paid assassins called Blade Runners. Replicants had become so sophisticated that only highly skilled operators using specialized tests and equipment could determine that they were not naturally occurring humans. So similar are these Replicants to natural born humans that some Replicants in the film did not know that they were not naturally occurring humans.

The film does not directly reveal the legal details concerning ownership of Replicants and the technology that produced them but it is clear that the developers and producers of Replicants were protected by various forms of intellectual property laws that today include copyrights, patents, trademarks and trade secrets. In the projected future world depicted in the film these laws mandated very strict controls on how Replicants could be used, who could use them and chillingly, how the Replicants themselves could be controlled even though it was accepted that they were sentient and displayed free will and intelligence equal or superior to naturally occurring humans.

The changes in copyright, patent, trademark and trade secret law necessary to encompass the replication of humans for the sole purpose of slave labor with no

hope of freedom fits the pattern described by Fisher when he wrote, “The history of each of these doctrines (like the histories of most areas of the law) is involuted and idiosyncratic, but one overall trend is common to all: expansion. With rare exceptions, the set of entitlements created by each of the doctrines has grown steadily and dramatically from the eighteenth century to the present.”

The dramatization of a world in which this kind of legal framework exists may seem farfetched until we look at the tremendous changes in technology over which these laws have presided over the past two hundred and twenty years. Especially as the pace of technological change since the middle of the Twentieth Century has accelerated at an ever increasing rate there has been an intensifying battle over the meaning and scope of the field of intellectual property law. This paper will discuss the nature of this battle and the need for comprehensive review of the laws as they exist and as they shape their role in today’s rapidly evolving technology landscape, leading to an increasingly challenging technology future, in the context of the most current discussion including scholarly papers, traditional news sources and respected Internet commentary.

Biological Patents

In her bestselling book on the origins of the first immortal human cell line, HeLa, derived from cervical cancer cells growing from Henrietta Lacks’ body, author Rebecca Skloot provides several examples of law and ethics attempting to keep pace with rapid advances in biological technology caused by the culture of these cells and their development into an immortal human cell line. Examples include John Moore whose UCLA surgeon received millions to develop a cell line from cells obtained

from Moore during medical procedures whose value in 1983 was an estimated \$3billion (pg 338). In part, Moore contended that the cells were his converted property and sued and lost and was not then legally able to sell his own cells. In 1980 biological organisms were first recognized as patentable when a patent was denied for oil consuming bacteria but was granted after a U. S. Supreme Court ruling.

In its decision the court wrote,

The question before us in this case is a narrow one of statutory interpretation requiring us to construe 35 U.S.C. 101, which provides:

“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”

Specifically, we must determine whether respondent’s micro-organism constitutes a “manufacture” or “composition of matter” within the meaning of the statute. 5_ [447 U.S. 303, 308] ... Here, by contrast, the patentee has produced a new bacterium with markedly different characteristics from any found in nature and one having the potential for significant utility. His discovery is not nature’s handiwork, but his own; accordingly it is patentable subject matter under 101.”

Yet, In the MOORE, Plaintiff and Appellant, v. The REGENTS OF THE UNIVERSITY OF CALIFORNIA et al... case, a 54 page decision including concurrences and dissents a

key paragraph identifies one of the major areas that the decision hinged on when it the court wrote,

There are three reasons why it is inappropriate to impose liability for conversion based upon the allegations of Moore's complaint. First, a fair balancing of the relevant policy considerations counsels against extending the tort. Second, problems in this area are better suited to legislative resolution. Third, the tort of conversion is not necessary to protect patients' rights. For these reasons, we conclude that the use of excised human cells in medical research does not amount to a conversion (pg 18).

As part of the reasoning for this decision the court wrote,

As in *Brown*, the theory of liability that Moore urges us to endorse threatens to destroy the economic incentive to conduct important medical research. If the use of cells in research is a conversion, then with every cell sample a researcher purchases a ticket in a litigation lottery. Because liability for conversion is predicated on a continuing ownership interest, "companies are unlikely to invest heavily in developing, manufacturing, or marketing a product when uncertainty about clear title exists." (OTA Rep., *supra*, at p. 27.) [FN41] In our view, borrowing again from *Brown*, "[i]t is not unreasonable to conclude in these circumstances that the imposition of a harsher test for liability would not further the public interest in the development and availability of these important products." (*Brown v. Superior Court*, *supra*, 44 Cal.3d at p. 1065, 245 Cal.Rptr. 412, 751 P.2d 470.) [FN42] (pg 21)

While this point of economic disincentive is an important one that we will discuss later this decision was not without vigorous dissent. Justice Mosk wrote strongly in favor of personal ownership of products of a person's own body and included this comment about the competency of the court to evaluate and comment on the scientific concepts used as a basis for the decision,

My respect for this court as an institution compels me to make one last point:

I dissociate myself completely from the amateur biology lecture that the majority impose on us throughout their opinion. (Maj. opn., ante, fns. 2, 29, 30, 33 and 35, and text at pp. 157-158 of 271 Cal.Rptr., at pp. 490-491 of 793 P.2d.) For several reasons, the inclusion of most of that material in an opinion of this court is improper... (pg 52) much of the material that the majority rely on in this regard is highly technical scientific jargon by and for specialists in the field of contemporary molecular biology. (See, e.g., articles cited in maj. opn., 30, 2d par., & fn. 35, 2d par.) As far as I know, no member of this court is trained as a molecular biologist, or even as a physician; without expert testimony in the record, therefore, the majority are not competent to explain these arcane points of medical science any more than a doctor would be competent to explain esoteric questions of the law of negotiable instruments or federal income taxation, or the rule against perpetuities. [FN28] In attempting to expound this science the majority run two serious risks. First, because they have no background in molecular biology the majority may simply misunderstand what they are reading, much as a layman might misunderstand a highly technical article in a professional

legal journal. Indeed, I suggest the majority have already fallen into this very trap, since some of their explanations appear either mistaken, confused, or incomplete (e.g., maj. opn., ante, fn. 29) (pg 53).

These court decisions, although in different venues, set a pattern that has prevailed through our time period. First, biologically manipulated organisms or their components are patentable and once patented exist as the property of the patent holder who now controls their use and price. Second, people do not have the right of control of their own bodily components once extracted, removed or disconnected from themselves during medical procedures and these may be used for research or commercial purposes by those who retain possession of them and manipulate them. These general concepts create conditions under which the intellectual property questions raised by Blade Runner become less fictional drama and more realistic concern. Cells and other living biological materials can be kept in a suspended state for extended periods of time in ultra cold freezers and later thawed for use in the future.

Parts of these concepts are not without their opponents. Pollack reports in the November 1st, 2010, New York Times that the U.S. Justice Department submitted a friend of the court brief asserting that genes should not be patented because they are just products of nature. Reporting a comment that reflects the California Supreme Court's concern for the protection of economic incentives Pollack writes, "One patent lawyer characterized the new position as dumb. The Biotechnology Industry Organization warned that such a policy, if carried out, would "undermine U.S. global leadership and investment in the life sciences." "

Ruthless Corporate Response v Ruthless Techno Advance

No area of intellectual property concern has gained more public attention than the music industry's collision with the consumer's discovery of the technological ability to easily and freely distribute and share music converted into digital formats through the Internet. Previous to the Internet consumers and even performers generally had a simplistic view of intellectual property laws concerning the music industry. Performers were glamorous and all they had to do was perform a song that became a big hit to get rich. Reality was vastly different, however. Few performers got rich even with hit songs because few performers understood anything of substance about the legal workings of the music business. In fact, the performers who became financially successful were the rarity. Some, like Paul McCartney whose father-in-law was an experienced attorney had excellent and trustworthy legal backing. Others, like Mick Jagger had business education. Others were simply smart and fortunate enough to learn quickly. Most, however, faded away into financial obscurity when their hits dried up even when money was still flowing in from various legal rights attached to that music.

The modern music industry is a massive tangle of obscure, to the uninitiated, but critical legal aspects that must be attended to in detail by anyone who wants lasting and sound financial success. The record label was the central force in the industry model that prevailed prior to the movement of music through the Internet.

Richard Schulenberg's book, *Legal Aspects of the Music Industry*, gives clear indication of the complexity of legal issues present in every commercial music composition that is and was produced and distributed through that industry. The

book bills itself as “the Definitive guide to Contracts Commonly Used in the Music Industry.” It is organized into 17 chapters that take up 470 pages even though it only touches on most of the contracts and areas of law that Mr. Schulenberg considers the most important to discuss and contains over 300 sample contract provisions. Subjects that the public thinks are simple and straightforward turn out to be anything but simple and straightforward. The last chapter, Chapter 17, is entitled Copyright. It is divided into 19 sections or subheadings taking 35 pages to touch on basic but important issues including sections 106 , 107, 109 – 112, 114 and 115 of the Copyright Act, The Audio Home Recording Act, Sampling and Fairness of Music Licensing. The rest of the chapters cover areas that most people never think about because they are not aware that they exist.

Chapter 4, Master Purchase, for example, covers Incorporation by reference, lease of masters and, of course, Master Purchase Agreements among other areas. Chapter 7, Video, starts by asking a simple question, “What is video?” and proceeds to take 9 densely worded pages to give an indication of the use and contractual considerations when video is associated with music. Comparing video to Frankenstein’s monster he continues, ...”was it something to be sold... or something to sell with? In fact, it turned out to be both. This refusal to fall into a single category is reflected in the contract provisions that deal with the recovery of costs in connection with the taping of videos... A look at some of these provisions is in order, even though more recent agreements rarely go into such detail. Video provisions are now contained routinely within artist recording agreements and, accordingly, must be read and reviewed in that context. ...” It is only after this complete section that

the question, “What is Video?” is actually asked and the next 81/2 pages help the reader to begin to appreciate the complexity of the answer.

After decades as an entertainment attorney and holding positions such as Head of the Legal Department of Paramount Pictures Music Division and head of CBS Records West Coast Business Affairs Mr. Schulenberg helps the reader to understand that there is much more to the legal aspects of the music industry than most attorneys are aware of because they do not specialize in the industry.

This massive and complex body of legal detail did serve well for those who understood how to make it work in their best interests. First, the record labels, then the producers, managers, agents and others who learned how to use these legal provisions to create a profitable niche for themselves within the industry. Standard digital audio formats and increased Internet speed and bandwidth brought changes that the record labels could not control. While Apple Computer created iTunes and used Digital Rights Management (DRM) in an attempt to prevent music that was sold on iTunes from being played by unauthorized persons or on unauthorized players, meaning those who had not paid for the music, companies like Napster appeared and introduced peer-to-peer models that allowed music to be shared and distributed through the Internet without anyone having to pay to download a song. While Napster was eventually forced by the courts to shut down its free peer-to-peer model Apple and other online music retailers were forced by the public to discard DRM in favor for open formats that can be played by anyone on any digital playback device. Consumers continued to buy music at the same time that consumers continued to find ways to share music for free. As sales through

traditional brick and mortar retail sales plummeted even the giant record labels were facing failure and began consolidating themselves into fewer and fewer companies in an effort to survive. The labels realized that they needed a better way to stop the losses that they believed were the root of their problem.

The Recording Industry Association of America (RIAA) was the designated entity appointed to find a way to stop the loss of sales through file sharing. The method was simple, lawsuits were initiated against individuals who were accused of stealing music by sharing files with others. These lawsuits gained power because they became widely reported in the news and since the RIAA was backed by the major labels and were suing average individuals many people simply accepted defeat. Others fought but even one big win could have a chilling effect because such wins were even more widely covered by the news media.

Jammie Thomas-Rasset is an example of someone who fought the RIAA and lost. Thus far she has been defeated in court three times. Masnick reports that in the first loss the RIAA was awarded \$220,000 for the alleged downloading by Thomas-Rasset of 24 songs. A mistrial was declared and the second trial resulted in a \$1.92 Million verdict for the same 24 songs. The judge in this case reduced the award from \$80,000 per song to \$2,250 per song. Thomas-Rasset was still not satisfied and went back to court where the last award was \$1.5 Million for the 24 songs. Masnick believes that the award will again be reduced by the judge and Thomas-Rasset will again appeal.

Since there is no physical property how is it determined who the RIAA will sue and how does one know that there was a theft? Under the traditional music

industry model there might be a warehouse full of albums or CDs that could be collected as evidence that these were either stolen or counterfeit. In 2006 Robertson wrote an article about file sharing lawsuits in an attempt to make the process understandable to those ordinary people who were wondering if they were next. He makes several important points in his discussion. Artists are not involved in the suits nor are their interests directly served since in these suits the Plaintiff is a record label that is a member of RIAA. Even though RIAA characterizes file sharing as theft, there is no crime as would be expected if a person were accused of stealing physical media, these are civil suits. A disadvantage for the defendant is that the burden of proof is much lower than in a criminal case. Robertson further states that “RIAA has no ability to show, and has done no investigation to prove that anyone downloaded anything at all.”

A search is conducted on a peer-to-peer (P2P) network for a particular name that can be an artist or song. The interesting point that Robertson makes is that any file with that name, it could be the name of a file that is a report written about a song, for example, can be used in court because a screenshot is taken of the file name and user name but the file is not downloaded or played or opened in court.

When a suit is then brought as the result of this investigation Robertson writes that hundreds of John Does are sued. They are sued in a court that could have jurisdiction over the Internet Service Provider (ISP) that provides the IP address for the John Does now involved. Many of them may not be in the same state but since they don't know that they are being sued they cannot contest this stage. By the time each John Doe is served notice there is already a ruling against him. John Doe now

has a few days to answer but since there is not enough information it is usually not possible to answer. If the attorney does find the court and necessary information if it is filed in another state the attorney will probably need to find another attorney in that state to respond. This scenario usually means that there is no timely response and the defendant loses. A request is made for immediate discovery which is usually granted and now a subpoena is issued for John Does records from the ISP. Now, if there was file sharing the RIAA has all the records. John is now sent a settlement letter that is an offer of a contract. This contract is an agreement for RIAA not to sue and for John Doe to pay \$3,750. Even if John takes this contract the artist or other injured parties can also still sue John. In light of the news that Thomas-Rasset, for example, has been hit with a \$1.5million dollar judgment owed to the RIAA many decide that it is easier to settle.

This effort did not come without its own costs. In July, 2010, Silverberg reports that Jennifer Pariser, senior vice-president of legal affairs and litigation at the RIAA, stated about the lawsuits, “We think it’s run its course...” This article gives a brief confirmation of the litigation process described in much deeper detail by Robertson and goes on to cite an 2008 IRS report that showed that “the RIAA spent \$17 million in legal costs” but only “recouped \$391,348 in what is called ‘anti-piracy restitution.’ “ Pariser is quoted as saying that the legal costs cover more than just the anti-piracy efforts and the money recouped is only from individuals. RIAA had, in fact, already begun going after companies that engaged in activities that “induced or encouraged file sharing piracy (Kravets).

In May, 2010, David Kravets reported in Wired.com that Limewire, a peer-to-peer file sharing service was found liable for copyright infringement in a U.S. District Court. LimeWire, according to the Kravets article “claims 50 million unique monthly users” with “hundreds of thousands” of software downloads daily. The Kravets article continues with this important point,

“LimeWire is one of the largest remaining commercial peer-to-peer services,” Mitch Bainwol, the RIAA’s chairman, said in a statement. “Unlike other P2P services that negotiated licenses, imposed filters or otherwise chose to discontinue their illegal conduct following the Supreme Court’s decision in the Grokster case, LimeWire instead thumbed its nose at the law and creators.”

Judge Kimba Wood of the United States District Court Southern District of New York, in a 59 page decision notes that all parties moved for summary judgment on several points. She granted summary judgment in favor of the plaintiffs in the following areas: inducement of copyright infringement, common law copyright infringement and unfair competition (pgs 3, 58).

The fact remains, however, that the traditional music industry made up of an array of major labels continues to struggle for its existence with labels continuing to declare bankruptcy and be absorbed into other labels or have their assets dispersed to the highest bidder. The march of technology overturned the then existing business model of the music industry without mercy and the industry responded in kind toward consumers of music who were making use of these new technologies in an unsanctioned and unlawful way.

The music industry is not alone in its concern about loss of control of intellectual property that once was completely under its domain. Technology continues to mature and Bob Pisano, President and Interim CEO of the Motion Picture Association of America, Inc. issued a statement entitled, A way to combat theft. Clearly, Mr. Pisano is concerned about the increasing ease of distributing video/film productions across the Internet.

The technology that forced the music industry to resort to harsh legal measures against its own consumers is now sufficiently developed that the Movie Industry finds itself threatened by the same issues of unauthorized, that is, unpaid distribution of the industry's products. A brief look at the differences between audio files and video files will help to clarify why movies, which are transmitted digitally through the Internet as digital video files, are facing the same catastrophic consumer practices that destroyed traditional music models but in a later timeframe.

A very high quality mp3 audio file created at a high bit rate of 192kbps (kilobits per second) will be converted into approximately a 6MB file for a 4 ½ minute song. Many audio files are created to operate at only 128kbps, which makes the file smaller and requires even less bandwidth to play, if streamed from the Internet. Bandwidth, storage and playback devices have long been able to reliably handle these files. A high quality video file has radically different requirements. First, there are many competing file types and formats. With the advent and gaining popularity of High Definition (HD) video it will be useful to discuss two common HD formats. The native editing format for Apple Computer's Final Cut Studio editing

software is called Pro res 4-2-2. It is this author's experience that when capturing or editing Pro res 4-2-2 file size is about 1GB (Gigabyte) per minute. 1 GB is the equivalent of 1,000 MB. In this format a 4 ½ minute video file will be approximately 4,500 MB compared to 6 MB for the same length high quality audio file. The video file in this format is the equivalent of 750 audio files. These video files can require playback capacity as high as 220 Mbits/s (megabits per second) or higher, compared to 192 kbps. This requires a playback capacity that is over a thousand times faster than the audio files. Pro res is a production format to maintain as high quality as possible and the Internet still has difficulty streaming these files.

However, they can, after editing is completed be converted to the H.264 distribution format. H.264 can be encoded at various bitrates from 4,000 kbps or lower into the hundreds of kbps. A two hour movie can be squeezed into as small as 800 MB and still retain good quality. These specification ranges are now well within the capacity of DSL or higher Internet carriers, most commonly used computers and many playback devices such as the Ipad and can be distributed through the Internet. This is where both the opportunity and the problem intensifies for Motion picture producers.

A typical Internet user can now transfer, rip or download a movie and watch it with good quality, and, even worse, share it easily. Addressing this situation Mr. Pisano addresses the threat of what he terms rogue websites that facilitate movie file sharing when he writes, "Rogue websites threaten the heart of our industry and the livelihoods of the people who give it life. These sites do not represent a problem that lies on the far horizon. They are here now, and they are here in volume."

MPAA, rather than legally attacking consumers as the RIAA did is taking a different approach to a legal solution, seeking legislation to criminalize file sharing websites. He describes current efforts this way,

Recognizing the magnitude of this threat, the House and Senate Judiciary Committees are working on legislation to help address these rogue websites. We look forward to working with them in the new Congress.

In the Senate, Patrick Leahy (D-Vt.), chairman of the Senate Judiciary Committee, and Sen. Orrin Hatch (R-Utah), a leading committee member, have introduced legislation to provide the Department of Justice new tools to crack down on these illicit operations, both directly, and through action aimed at organizations that help enable the distribution of their illegal goods by providing financial services or advertising revenue.

Part of the MPAA argument to engage Congress in creating new laws is that rogue sites and file sharing hurt the economy. Pisano cites statistics from another industry association, “According to a study by the International Intellectual Property Alliance, in 2007 more than 11.7 million people were employed by copyright industries in the U.S. This amounted to 8.51 percent of the U.S. workforce. In other words, in 2007 these industries added \$1.52 trillion to the economy, or 11.05 percent of the GDP.” The MPAA has learned an important lesson from the RIAA. Rather than become the villain by legally attacking consumers directly this approach will have the U.S. Justice Department file criminal cases against companies that meet the legal criteria for illegal file sharing.

Creative Sampling or Sampling Creative

Not everyone believes that copyrights should be treated primarily as property rights. Tanya Evans writes,

Although traditional property law remedies seek in most circumstances to enjoin behavior antithetical to a property owner's interests, intellectual property owners should, in theory, receive remedies only substantial enough to offer protection while maintaining the delicate balance private interest and public good of encouraging further innovation. But in recent years, courts have interpreted copyright law in ways more consistent with a property-rule (I can exclude anyone for any reason) than a liability-based rule (you can use as long as you pay). This shift is referred to as the "proPERTIZATION" of intellectual property (22).

Evans argues for the recognition of the use of samples as an accepted tool in a musician's bag. She recognizes that the copyright views sampling as stealing to gain advantage from another's work. The artist, Public Enemy is cited as the artist who opened up the use of samples as a sophisticated musical tool or instrument, often using hundreds of samples to create a sound that was made up of samples but entirely different from any of the samples used. The antipathy of copyright holders resulted in enough legal pressure to ensure that clearances became an essential part of the process rather than an often forgotten after thought. For an artist like Public Enemy to continue producing music like their 1988 album, 'It Takes a Nation of Millions to Hold us Back,' the cost of these clearances would be insurmountable (16).

Yet, Chris Richardson reported on November 16, 2010, on CSMonitor.com that Greg Gillis, also known as Girl Talk released his fifth album, 'All Day' on the previous Monday. As with Gillis' other albums, 'All Day' is made entirely from samples that are not authorized and not paid for. Richardson writes that Gillis believes that "copyright law stifles creativity and insists fair use laws protect his sampling practices."

Gillis releases his albums as free downloads with an option to pay whatever you want to if you want to. Like the ironically named Public Enemy, Gillis named his label Illegal Art. His previous album, 'Feed the Animals' was one of the top listed albums of 2008. The new album is reported by Richardson to contain 373 samples, sometimes coming at the rate of a sample a second.

Where are the lawsuits for this kind of infringement? As noted earlier, the RIAA has won million dollar judgments against defendants for simply downloading a few songs yet Girl Talk produces 5 albums, at least two of them attracting international attention and still no word of legal action. Stewart Baker writing on Volokh.com takes the potential for litigation to its logical extreme when he writes, "Infringement is everywhere, too; every e-mail you forward puts you at risk of liability, since even noncommercial copying is now prohibited. Meanwhile the cost of liability has become staggering and often divorced from the harm suffered by the alleged victim."

Whose Interests Served?

Interestingly, while this paper's focus has been on digitized content capable of being distributed via the Internet it is in the traditional field of book publishing that

another Frankenstein, Replicant aspect arises. There have existed famous authors who wanted certain of their works to die rather than live on indefinitely. What happens to this work if the author dies with instructions to destroy the work after his death?

As in the case of human body tissues and fluids these works can and have been perpetuated in ways that are counter to the author's wishes. Jennifer Hartman, writing on the Toronto Estate Law Blog points out that after 30 years, Dmitri Nabokov decided to publish the unfinished last novel written by his deceased father, Vladimir Nabokov, rather than destroy it as his father had directed. Like Henrietta Lacks HeLa cells, 'The Original of Laura' is now loose in the wild and can never be recalled.

An even more intriguing legal problem involves the major portion of the body of work written by Franz Kafka. Elif Batuman reports in the New York Times that not only were Kafka's wishes to have the unpublished work destroyed not followed but that litigation continues to this day concerning ownership of the copyrights, manuscripts and papers as well as funds that accrued as a result of past sales of Kafka's work. While this case could be represented as a case of property lacking a clear chain of title it could also be said that this is an example of a body of intellectual property that would be better served if recognized as a legal person rather than simply property. Clearly this is a person who needs a guardian to look after the person's best interests rather than simply multiple parties vying for control.

In a more positive and successful way, from the apparent point of view of another deceased author, Mark Twain, this is also the case. Mark Twain directed that his autobiography be published 100 years after his death along with other instructions. Hirtle et al. helps us to understand what happened while using language that suggests that the works now have a life of their own:

Mark Twain may have died in 1910, but his copyrights live on. The Mark Twain Papers & Project at the Bancroft Library at the University of California, Berkeley, has been collecting copies of Twain's correspondence, which they have been editing and publishing in scholarly volumes. In 2001, with the permission of the Mark Twain Foundation, which owns all of the copyrights in Mark Twain's writings, they offered for sale a microfilm edition of all of the letters in their possession that had not yet been published in letterpress. There is no evidence that anyone bought a set—but by merely offering it for sale, the project extended the copyright in the letters until 2048, or almost 140 years after Twain's death.

In the National Law Journal Sheri Qualters helps us to understand why no one bought the microfilm set when she reports that the price was \$50,000.00. The sale offered was strictly a legal maneuver to establish that the work was "widely available" by 2002, thus extending the copyright until December 31, 2047. The emphasis here is on preserving the integrity of the work and honoring the wishes of the author rather than solely on who will get the money and control access.

A look at the original intent of U.S. copyright can be instructive in relation to the foregoing discussion. As Hirtle et al. state,

The basis for copyright in the United States is found in Article I, Section 8 of the U.S. Constitution, which authorizes Congress to enact laws “To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” (The phrase “Science and useful Arts” should be read broadly; to the authors of the Constitution, “science” meant all learning and “useful arts” included all the inventions and practical devices now protected by patents.) The underlying purpose of copyright in the United States is therefore to encourage progress and the development of knowledge (pg 2).

Fisher states about the original 1790 Copyright Act that the term of copyright was 14 years and could be renewed by a living author for another 14 years. Yet, in the case of the Mark Twain autobiography and certain other papers and manuscripts in the collection we have evidence of copyright remaining in force for 147 years. We also see the focus of copyright narrowing to reflect property rights to maintain control of usage of intellectual works and to control the flow of money generated by those works.

The Introduction to Copyright & Cultural Institutions opens by stating, “The development of new digital technologies has led to fundamental changes in the ways that copyright works are created, accessed, and distributed... The increased use of digital technologies also raises many logistical issues, including those related to copyright. Institutions are aware that digitization raises the possibility of copyright infringement...”

Digital technologies have brought about a collision of conflicting interests. The first as stated in the Constitution, “To promote the Progress of Science and useful Arts...” and the second as developed through actual practice and history, to maintain control of valuable assets and monies generated. Yet, do these interests have to reside in conflict? Artists such as Public Enemy and Girl Talk demonstrate the creative use of previously copyrighted materials to create new works that are entirely separate and arguably non-competing with the original work. Nabokov and Kafka help us to appreciate that intellectual property can have life of its own outside of the wishes of the author and original rights holder or owner which can accrue without real consequence to the original rights holder since that person is now deceased.

Evans also introduces the Semiconductor Chip Protection Act, which act allows and encourages reverse engineering, that is the copying and deconstruction of an existing intellectual property to learn its advances and use them to create new advances in the technology (pg 56). And while companies like MicroSoft spend millions of dollars and risk lives to stop counterfeit software producers others are enforcing the rights inherent in open or free software.

Ashley Vance provides insight into the risks involved in suppressing counterfeit software in a New York Times report:

The police reached the house undetected, barreled in and found rooms crammed with about 50 machines used to copy CDs and make counterfeit versions of software like Microsoft Office and Xbox video games. They arrested three men on the spot, who were later released while the

authorities investigate the case. “The entire operation was very complicated and risky,” says a person close to the investigation, who demanded anonymity out of fear for his life.

The raid added to a body of evidence confirming La Familia’s expansion into counterfeit software as a low-risk, high-profit complement to drugs, bribery and kidnapping.

The Open Source or Free Software arena offers a stark contrast in approach. The general rule is that the use of the software is free but if revisions are made in the code those revisions must be posted and added to the library of code and made available for the free use of everyone else. The library of code is thus constantly improving and increasing. Vance, writing this time about Free Software enforcement records this observation, “The problem that Mr. Hemel and others have stumbled upon is that some companies, even some technology savvy ones, may be violating the rather easy-to-follow requirements associated with free software licenses. Typically, these include making tweaked versions of a free software product available to the public, or simply giving credit to the original developers.” The article goes on to name major technology companies including Dell Computer, Cisco Systems, Samsung, Best Buy and Verizon Communications and infringers. Although it is possible that companies do not give the proper credit or make their additions to the free code available to the public out of ignorance, the reality is still the same, when they do this they are open to very expensive legal consequences. How do those who confront these companies approach these situations? Vance reports, “Lawsuits are typically settled out of court. For example, after Cisco was

sued over the software included in its home routers; it agreed to make the software code available, tapped a point person to be responsible for open-source issues and paid an undisclosed amount to settle the case.

Representatives of companies dealing with these complaints say it's a far more amicable engagement than one would find in the proprietary software world, where hard-charging lawyers come seeking serious payback for what they view as violations of intellectual property rules."

The aura of fear and aggression that dominates interactions concerning intellectual property disputes makes many companies very uncomfortable even when dealing with Free Software issues. Vance quotes one attorney, "Many companies using free software fear that open-source supporters will become more aggressive and pursue large payments over possible violations. "The thing that terrifies companies is the thought of shipping millions of TVs or phones and then having someone figure out that you didn't follow the licensing requirements," says Mark F. Radcliffe, a lawyer at DLA Piper, who handles a variety of cases tied to open-source software. "It could be very costly." What is the attitude behind those who patrol open source software use? Vance quotes the volunteer watchman, "Mr. Hemel says companies should make sure they know the ins and outs of everything they sell. "If we all play by the rules, we can make some really good stuff," he says. "

Isn't the work together to make really good stuff the spirit behind the intent of intellectual property protection as expressed in the Constitution? The practical value expressed in this original intent becomes more apparent as the digital production and distribution of intellectual property becomes the norm and as other

fields continue to make advancements that far outstrip any expectation that existed in years past. In light of the convergence of intellectual property uses across disciplines including computing, robotics, biology, physics and digital data a refocus on the use of intellectual property rights law and management to cooperatively open up access to intellectual assets to “To promote the Progress of Science and useful Arts...” may be the only protection between society and the actual creation of Replicant technologies that degrade the meaning of being human for the financial benefit of a few and technologies that elevate humanity to a level of freedom and discovery from which the full potential of human existence can emerge for all.

References

Batuman E., 2010. Kafka's Last Trial. New York Times. September 22, 2010.
http://www.nytimes.com/2010/09/26/magazine/26kafka-t.html?_r=1&hp=&pagewanted=all

Evans T., 2010. Sampling, looping, and mashing...oh my!. Widener Law School Legal Studies Research Paper Series no. 10-26. November 2010.

Fisher III W. 1999. The Growth of intellectual property: a history of the ownership of ideas in the United States. Berkman Center for Internet and Society at Harvard University. 1999. <http://cyber.law.harvard.edu/property99/history.html>

Hartman J., 2010. The Jury is out on laura. Toronto Estate Law Blog. December 14, 2009. <http://estatelaw.hullandhull.com/admin/trackback/168924>

Hirtle P., Hudson E., Kenyon A., 2009. Copyrights and Cultural Institutions. Cornell University Press, Ithaca. 2009

David Kravets 2010. LimeWire Crushed in RIAA Infringement Lawsuit wired.com. May 12, 2010. <http://www.wired.com/threatlevel/2010/05/limewire-crushed/>

Masnack M. 2010. Jammie Thomas Verdict: this time it's \$1.5 million for sharing 24 songs. Techdirt.com November 4, 2010.

Pollack A. 2010, Gene Patent Ruling Raises Questions for Industry. New York Times. November 1, 2010.

http://www.nytimes.com/2010/11/02/health/02gene.html?_r=1

Pisano B. 2010. A way to combat online theft. The Hill.com. November 16, 2010. <http://thehill.com/opinion/op-ed/129535-a-way-to-combat-online-theft>

Qualters S., 2010. A creative approach to preserving copyright for Twain autobiography. National Law Journal. November 19, 2010.

Robertson G. 2006. The RIAA vs. John Doe, a layperson's guide to filesharing lawsuits. Digitalmusic.weblogsinc.com. 2006/08/07.

<http://digitalmusic.weblogsinc.com/2006/08/07/the-riaa-vs-john-doe-a-laypersons-guide-to-filesharing-lawsui/>

Silverberg D. 2010. RIAA on suing file-sharers, appealing Tenenbaum ruling special. Digital Journal Reports.com. July, 19, 2010.

Skloot R., 2010. The Immortal Life of Henrietta Lacks. Thorndike Press. Detroit – New York – San Francisco – New Haven – Waterville – London. 2010

Supreme Court of California, In Bank. John MOORE, Plaintiff and Appellant, v. The REGENTS OF THE UNIVERSITY OF CALIFORNIA et al., Defendants and Respondents. No. S006987. July 9, 1990. Rehearing Denied Aug. 30, 1990. UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK ARISTA RECORDS LLC; ATLANTIC RECORDING CORPORATION; BMG MUSIC; CAPITOL RECORDS, INC; ELEKTRA ENTERTAINMENT GROUP INC; INTERSCOPE RECORDS; LAFACE RECORDS LLC; MOTOWN RECORD COMPANY, L.P.; PRIORITY RECORDS LLC; SONY BMG MUSIC ENTERTAINMENT; UMG RECORDINGS, INC; VIRGIN RECORDS AMERICA, INC.; and WARNER BROS. RECORDS INC., Plaintiffs, -against- LIME GROUP LLC; LIME WIRE LLC; MARK GORTON; GREG BILDSON; and M.J.G. LIME WIRE FAMILY LIMITED PARTNERSHIP, Defendants. 06 CV 5936 (KMW) OPINION & ORDER KIMBA M. WOOD, U.S.D.J.

U. S. Supreme Court. DIAMOND v. CHAKRABARTY, 447 U.S. 303 (1980) 447 U.S. 303 DIAMOND, COMMISSIONER OF PATENTS AND TRADEMARKS v. CHAKRABARTY. CERTIORARI TO THE UNITED STATES COURT OF CUSTOMS AND PATENT APPEALS. No. 79-136. Argued March 17, 1980. Decided June 16, 1980. <http://caselaw.lp.findlaw.com/cgi-bin/getcase.pl?court=us&vol=447&invol=303>

Vance A. 2010, Chasing Pirates: Inside Microsoft's War Room. New York Times. November 6, 2010.

http://www.nytimes.com/2010/11/07/technology/07piracy.html?_r=1&hp

Vance A. 2010. The Defenders of Free Software. New York Times. September 25, 2010.

http://www.nytimes.com/2010/09/26/business/26ping.html?_r=2&ref=technolog

y