

## **A New Weapon Against Piracy:**

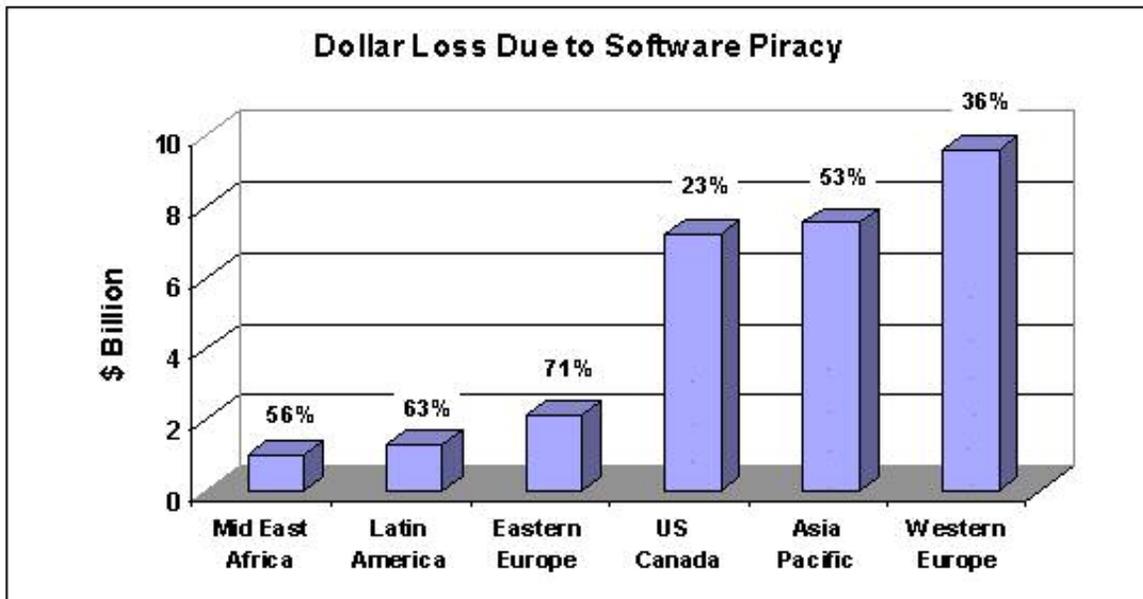
### *Patent Protection as an Alternative Strategy for Enforcement of Digital Rights*

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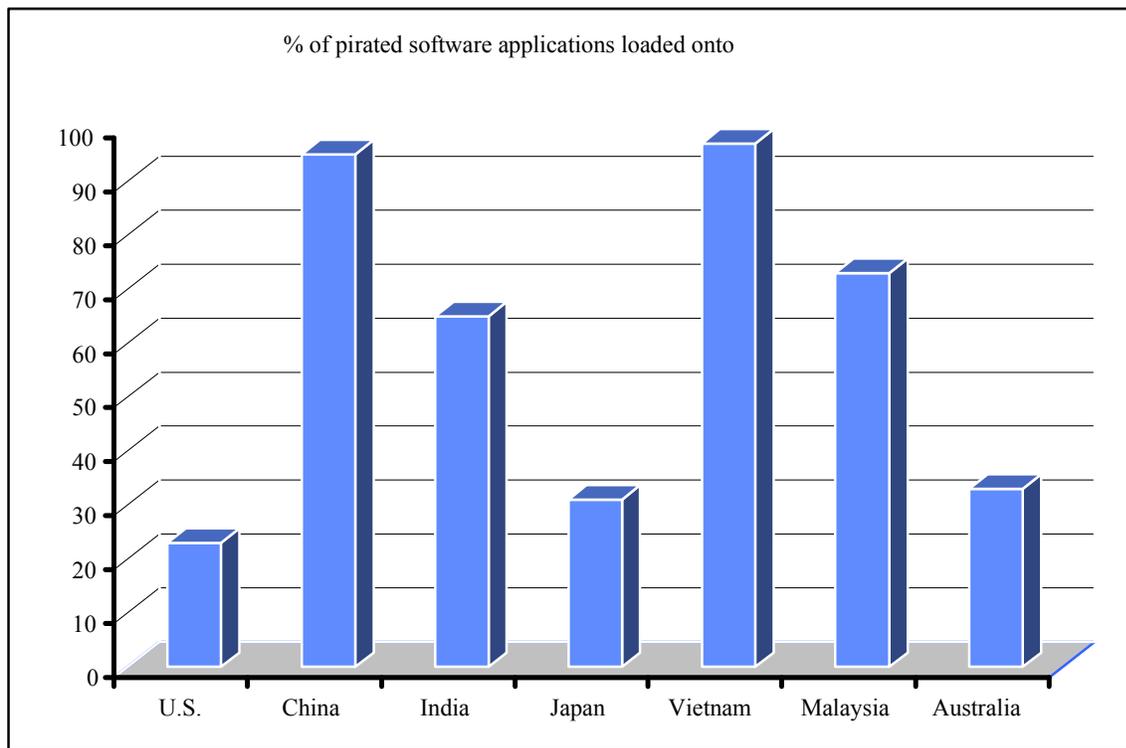
#### **Introduction:**

Last year, \$80 billion worth of commercial packaged software was installed worldwide, and yet only \$51 billion was paid for. This left software companies suffering from a 36% global piracy rate. North America, which despite having one of the lowest instances of piracy at 23%, nonetheless totaled losses of more than \$7.2 billion in 2003 (Figure 1). Likewise, the international music industry is victim to over 130 different “peer-to-peer” (P2P) programs. Apart from enabling consumers to download 5 billion copyrighted music files in 2002 for free, P2P programs also encouraged swapping files of video games, TV shows, and movies. For example, about three million TV shows are downloaded each day from KaZaa, one of the most popular P2P programs. Piracy, both offline and online, has severely damaged the financial performance of entertainment industries, and with the latest waves of Internet and broadband technologies, the risk of massive revenue losses is even higher. As the MPAA (Motion Picture Association of America) stated, “the digital world is far more dangerous than the analog world...the 1,000<sup>th</sup> copy of a digitized movie or television program is as pure as the original.” Time, cost and expense are no longer barriers to piracy and one can now create high quality digital reproductions without many real consequences. The RIAA (Recording Industry Association of America) has recently sought to bring some large scale music pirates to court but with the rise of new P2P programs there are no longer any centralized servers that the RIAA can pursue. As the entertainment industries face the potentially limitless infringement enabled by a digital world, copyright law has failed to keep pace. Currently, copyright law still provides only partial protection to owners of creative content and billions in losses continue to trickle through holes in global enforcement. In countries like China and Vietnam, software piracy has reached rates as high as 92% (Figure 2). Meanwhile, production costs for digital media have continued to climb exponentially. This is especially true in the interactive gaming industry, an industry which is exceptionally prone to software piracy. There, a next generation title may cost up to \$10 million or more to produce and similarly, a new movie production may cost as much as \$300 million;

while entertainment companies position themselves to expand their digital television, media and gaming offerings the production costs and risks will inevitably get higher. Thus, the entertainment industries are ever more in need of an extra layer protection above and beyond what a copyright can offer. One option these industries should pursue is the use of offensive and defensive patents. Patents are a worthwhile strategy because they could assist the copyright owners in controlling the technology that enables digital reproduction and potential copyright infringement.



(Figure 1)



(Figure 2)

This article's first two sections will discuss why strategic patent protection should be adopted as an alternative to a strategy that relies solely on copyrights. The first section will consider the failings of the existing copyright legal regime. The second section will consider how patent protection can alleviate these failings and enhance digital rights. This article will conclude by considering the future relationship between the entertainment industries and patent protection.

### **The Existing Copyright Legal Regime and Its Failings:**

Currently, several principal international treaties provide copyright protection under an “umbrella” system in which a copyrighted work released in any member country has copyright protection in all member countries. For example, the Berne Convention for the Protection of Literary and Artistic Works allows creators the right to authorize or prohibit reproduction, public communication, or adaptation of their works. Likewise, the Universal Copyright Convention also protects copyright proprietors against unauthorized reproduction. The more recent Digital Millennium Copyright Act (DMCA) of 1998 not only criminalizes copyright infringement, but

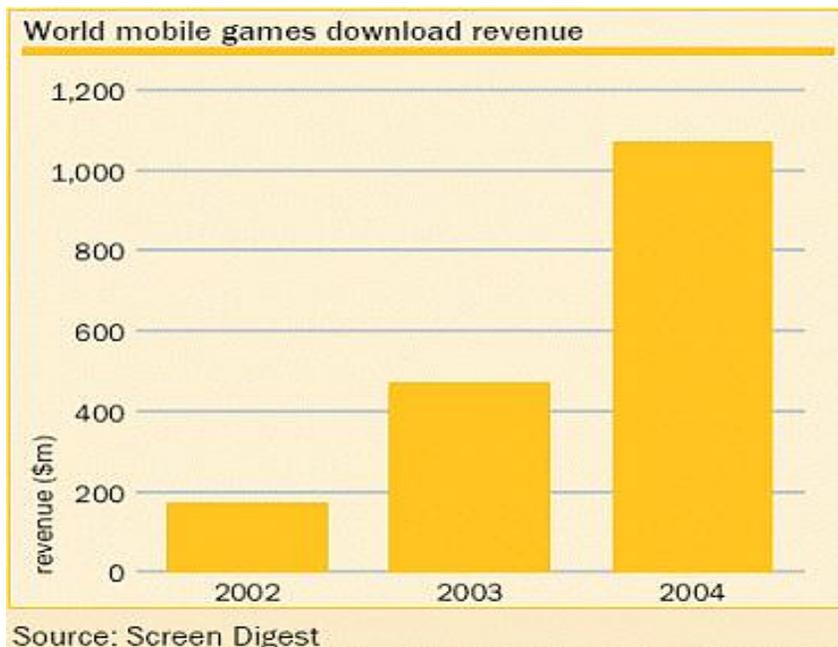
also criminalizes production and distribution of technology that can be used to circumvent any measures taken to protect the copyright, such as circumvention of encryption. However, these international and U.S. laws have exceptions that act to depreciate their effectiveness

For example, U.S. courts have fashioned a “fair use exception,” which allows copyrighted works to be legally reproduced for certain purposes, such as archiving and educational use, without the consent of the copyright owner. Another susceptibility is that copyright owners have a protected interest in end products and exact coding, but there is no protection for the ideas behind the products themselves. This means that products such as computer games can be reverse engineered; in other words, pirates can decipher the copyrighted computer code of interactive games in order to create their own versions. The case *Atari Games Corp. v. Nintendo of America Inc.* served to validate both of these exceptions by applying the “fair use” doctrine to the software and the video game industries. There, the court ruled that “reverse engineering object code to discern the unprotectable ideas in a computer program is a fair use.” While these legally valid exceptions create a global vulnerability and establish ever-widening gaps in copyright protection, other emerging legal doctrines surrounding new technologies have further complicated the enforcement of copyrights and are establishing new avenues for reproducing and distributing pirated works.

In the landmark case *Sony Corp. v. Universal Studios Inc.*, the U.S. Supreme Court held that copying devices, such as the Betamax video recorder, do not themselves violate copyrights as long as the technology is capable of “non-infringing use.” Since that ruling, companies have developed many of the core technologies that enable mass pirating in the digital age. Equipment such as CD burners, DVD burners, and digital television capture all fit within this exception and are key start and end points that allow pirated media to be distributed. A recent Circuit Court decision in *Metro-Goldwyn-Mayer Studios Inc (MGM) v. Grokster Ltd* sought to apply the “non-infringing use” exception to P2P networks. While this case is currently under review by the Supreme Court, many fear this ruling will be affirmed. Even if it is not, P2P networks may be beyond government control. Many are capable of operating completely independent from the companies that created them.

P2P networks are just a glimpse of a much larger problem the digital age will present to the entertainment industries on the horizon. The Internet, coupled with the modern ease of digitally reproducing files without adequate rights management, is creating a popular, low cost

channel for unauthorized copying and distribution. Moreover, new channels through portable cell phones and wireless connections are adding to the problem. As the markets for these channels grow, the difficulties of copyright enforcement will inevitably grow with them. Today, 1/3 of U.S. households log on to high-speed Internet, with 14 million users also running wireless networks at home. This technology has spurred the development of the downloadable game market, which currently has \$100 million in annual revenues and is expected to increase to \$800 million by 2007. Yet, the inability to legally protect this downloadable content with copyright has allowed imitation software to usurp profits from those companies that have made significant investments in this industry. Thus, the downloadable gaming marketplace has been dubbed “a moving target” by some of the industry’s major players. Likewise, cell phone gaming has recently become a billion dollar industry (Figure 3). And it is also increasingly rife with reverse engineering and piracy problems. These interactive gaming distribution channels are exceptionally vulnerable to piracy because simple “hacks” allow mobile and downloadable games to be copied easily and then transferred between individuals over their phones or the Internet. In this way, these emerging industries suffer from many of the same problems that other more established entertainment industries have suffered since digital reproduction devices became available and affordable.



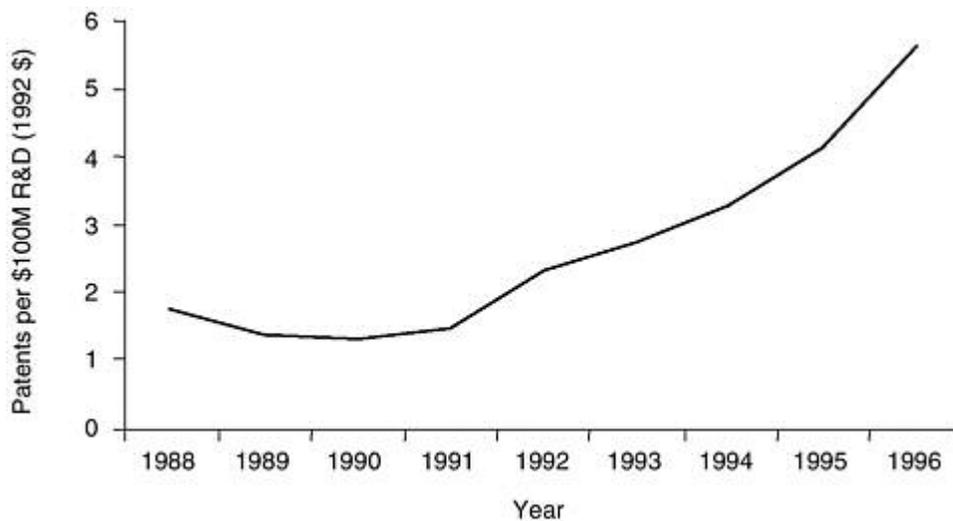
(Figure 3)

We're embarking on an age of complex relationships between consumers and the entertainment industries. Inadequate protection of these new business models would significantly limit each company's ability to flex its competitive muscles and make the investments that are necessary to continue to grow. The existing copyright legal regime, however, is designed to protect expression, not function. Thus, copyrights do not protect against the inappropriate use of new technologies and their respective roles in emerging business models. Similarly, the increasingly developed interactive gaming industry is also at risk. Yet, there is a solution to this problem. While copyrights do not cover function, that topic does fall under the purview of patent law.

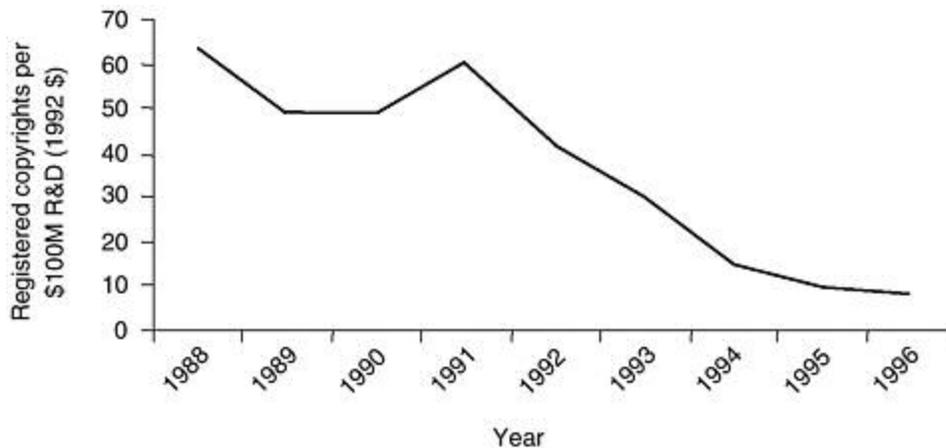
### **The Benefits and Security of Strategic Patent Protection:**

Copyright law's shortcomings in protecting the entertainment industries' increasingly digital products create a strong need for strategic patent protection. Too often neglected for their higher costs and lengthy procedures, offensive and defensive patents offer an undeniable strategy to protect and control not only the digital products themselves, but also the new channels of distribution and resulting piracy that contribute to the problem. In a digital age driven by a ubiquitous, low-cost technology infrastructure, companies can't afford to rely solely on copyrights. The court in *Atari v. Nintendo* said as much when it noted, "[t]o protect processes or methods of operation, [a] creator must look to patent laws." This is because "author[s] cannot acquire patent-like protection by ... asserting copyright infringement against those who try to understand that ... process[] or method of operation." Copyrights only protect an expression or outward manifestation from duplication, not the functionality or idea behind that expression. For example, it's difficult to argue that P2P services are infringing copyrights because they merely serve as a conduit through which end users share files. Services like KaZaa do not carry out unauthorized copying themselves. Likewise, a programmer could reverse engineer a game, thereby not violating copyright law. However, if a patent covered the functionality in the game, then the programmer would violate patent rights. Moreover, if the entertainment industries' proprietary formats, methods of digital encoding and decoding, and distribution channel's methods were patented, an additional layer of defense to infringement would be created that copyrights alone could not provide.

Furthermore, a patent strategy has other key advantages over protection by copyright alone. For instance, patents allow for strategic licensing. In this manner, as stated in a University of Chicago Law Review article on the emerging role of patents, “patent protection enables software developers to share key technologies with partners, customers, and others (even competitors) without significantly diminishing the developer’s ability to prevent second comers from slavishly copying those aspects of a software program that are ... novel and innovative.” Many software developers have taken notice to the superiority of patent protection. IBM was granted 3248 U.S. patents in 2004, more than any other company the world, and many of them were software patents. This adds to the approximately 10,000 software patents the company currently holds. IBM has been a leader in establishing a software patent portfolio but many other companies have followed close behind. The software industry has invested increasingly more on patents instead of copyrights for each research and development dollar spent (Figures 4, 5). As the software industry moves toward patent protection, the interactive gaming industry and the entertainment industries as a whole should follow suit. Currently only patents, and not copyrights alone, can offer the stronger protection and security these industries need when faced with potential piracy and exposure to competitors.



(Figure 4)



(Figure 5)

This scenario illustrates how patents and copyrights complement each other to provide a better defense for creative works. Copyrights protect expression, and patents protect underlying functions. Both protections are needed for a truly complete shield to piracy and reverse engineering. Furthermore, the one-time strengths of copyrights are being eroded as courts allow new technologies to flourish which enable digital reproduction and piracy. This has encouraged companies and industries to move to patent protection and any company that fails to pursue this trend may be left wishing they had. In sum, patents are a worthwhile strategy because they assist copyright owners in controlling the technology that enables infringement while copyrights alone would leave a company vulnerable in this dawning digital age.

### **Looking to the Future:**

We stand on the cusp, a point where the burgeoning interactive gaming field and concurrent digital revolution will give entertainment industries a chance to make a decision: Will these industries secure their technology rights so that can mature and take their place along side other successful U.S. players such as the software industry, or will these industries sit a watch while companies from other countries claim the prize? There are already notable examples of companies that have done the latter rather than the former. The U.S. lags far behind other western countries in broadband Internet usage and adoption of digital television standards. The interactive gaming industry might be starting to follow this trend as well. Currently most of the profits seen from mobile gaming, an industry whose related technologies U.S. companies have been slow to adopt and protect, are seen overseas in Japan, China and Europe. The gaming

industry and the entertainment industries as a whole are coming of age in the digital world. In the post-digital world, the core assets of a company will no longer be a single product that retains copyright or a single idea, kept secret, that no one else can discover, but the technologies behind the products and ideas that make them possible. As companies look to the future, the best way to preserve these technologies is to patent them and to patent related technologies in an anticipatory manner. U.S. software companies came to this revelation over ten years ago, and this realization has helped them to preserve their place in the world of today and tomorrow. Without strategic patent protection, the companies pursuing digital entertainment may not be so successful.

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